# UNESCO DESIGNATIONS: WORLD HERITAGE SITES AND BIOSPHERE RESERVES

Editor GIANFRANCO TAMBURELLI

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## PREFACE

The relationship between international designations and the numerous national classifications of protected areas (PAs) are various, complex, often not really clarified by existing legal norms. This gives rise to a widely felt need for a deep multi-level investigation into the real distinction between the various concepts held and the practical implications of each designation, as well as for a comparative analysis of the diverse national and regional experiences and the identification of recommended models and best practices.

In particular, some 40 years after the signing of the Paris Convention on Cultural and Natural Heritage and the launching of the Man & Biosphere Programme, it seems appropriate to reflect on the two principal UNESCO designations of "World Heritage Site" (WHS) and "Biosphere Reserve" (BR), as well as on related national practices of implementation. The process of classification of natural sites as WHSs or BRs, in fact continues, and international cooperation is beginning to favour, among other things, a broader use - through a network of space science and space technology partners - of satellite-based and remote sensing technologies to monitor their conservation. Actions have also been undertaken to promote the inscription on the WH List of properties from under-represented regions and of under-represented categories of heritage, while the topicality of BRs and the functions of their World Network are under the attention of the international fora.

We must highlight the fact that scientific research is an important component of the governance of UNESCO sites and is an essential element of the very concept of a BR. Not surprisingly, the model law on BRs, developed within the ICC (International Coordinating Council of the MAB Programme), states: "development of interdisciplinary and innovative research tools for BRs is encouraged in order to improve tools for adaptive management of these territories. BRs participate in national and local environmental monitoring programmes. Long term scientific monitoring set up in BRs constitutes a tool for adaptive management".

For these reasons, and focusing in particular on the rich debate relating to UNESCO designations, which are under consideration in a number of European countries, the ISGI (Institute for International Legal Studies) working group on:

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*"Environmental Law and Sustainable Management of Natural Resources and Ecosystems"* decided in 2010 to organize an international workshop and to promote research on the theme: "PAs and UNESCO Designations".

The aims of this initiative were shared by the Italian Ministry for the Environment, Land and Sea (MELT), which co-financed the workshop, by the Italian National Commission for UNESCO, which gave its patronage, and by EUROPARC, which included a workshop on the theme in the programme of the 2010 Conference on: *Living Together. Biodiversity and Human Activities: A Challenge for the Future of PAs.* The CNR workshop was held in Rome on 28<sup>th</sup> September 2010: participants analyzed management and legal aspects of the two designations of World Heritage Sites (WHSs) and Biosphere Reserves (BRs); representatives from IUCN and the IUCN WCPA (World Commission on PA) Transboundary Conservation Specialist Group provided specific input on the relationship between IUCN PA Management Categories and UNESCO designations, as well as on transboundary WHSs and BRs.

The present volume constitutes a scientific contribution to the debate currently taking place within a wide range of institutions (UNESCO, IUCN, the European Union, etc..); it contains some of the reports presented at the Rome workshop and other contributions from the ISGI international network of experts.

In this regard, we would like to thank once more the Department on Nature Conservation of the MELT and the representatives from IUCN, as well as the many institutions and friends who supported the ISGI effort - those in Italy, from the University of Sassari and the Regional Agency for Parks (ARP) of the Lazio Region, and especially - those in other countries, from the National University of Cordoba, Argentina, the Joint Doctoral Programme in International Law, Nice Sophia- Antipolis and Milan- Bicocca, the University San Martín de Porres, Lima, the Academy of Sciences of the Czech Republic, the Rey Juan Carlos University, Madrid, the National Academy of Sciences of Ukraine.

The National Research Council of Italy (CNR) has longstanding and widely recognized experience and competences (research, training, high level consultancy) in the field of ecosystems and natural habitats management, including related legal and institutional issues.

In addition to the research carried out on numerous topics by several of its institutes, the CNR participates, among other things, in the activities of the International Union for Conservation of Nature (IUCN), the European Centre for Nature Conservation (ECNC) and the Federation of Nature and Natural Parks of Europe (EUROPARC), and has drawn up with the UNESCO BRESCE (United Nations Educational, Scientific and Cultural Organization - Regional Bureau for Science and Culture in Europe) a Memorandum of Understanding for *Strengthening Scientific Cooperation for Sustainable Development in Central - South - Eastern Europe and in the Mediterranean Countries*). It also designates experts for scientific committees and the boards of national and regional Italian parks.

The CNR intends to maintain these contacts, and to strengthen relations with all the main stakeholders (national and international, governmental and non-governmental, etc.) in the sector of environmental protection and sustainable management of PAs, and hopes, too, to make a significant contribution to the clear understanding and evaluation of the legal implications of each designation (whether national or international), as well as of the relationships between them and surrounding zones.

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#### INTRODUCTION

Over the past 40 years, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has developed, in order to implement its own statutory objectives, several scientific programmes and multilateral agreements to protect natural resources, ecosystem services, biodiversity - in its double meaning as biological and cultural diversity - and geological and geomorphologic features, as well as aesthetic values and natural landscapes of protected areas (PAs) and territories all around the world.

International classifications globally promoted by the Paris Organization - through instruments such as the World Heritage Convention, the Man and Biosphere Programme or the Geoparks Network - aimed, even if in different degrees, both at monitoring and preserving the great variety of natural resources of the planet, and at positively fostering PAs by identifying best practices and profitable formulas in the relationship between man and his environment from a sustainable perspective.

Since the UN Conference on Environment and Development of Rio de Janeiro in 1992, UNESCO has gradually polarized its action towards selected areas and traditional knowledge considered as a "driver" for the preservation and enhancement of ecosystems, focusing its investigation on the comparison of conservation measures undertaken by any one country and highlighting the connections between biological and cultural diversity in order to implement sustainable development policies and promote traditional production techniques.

After 2000, increased world attention on management aspects concerning conservation issues moved UNESCO to push Member States to elaborate policies on their natural terrestrial and marine environment. Many significant initiatives have already been implemented through the establishment of lists of sites of worldwide interest, such as the well-known "World Heritage List" (whose nomination process, as well as the standard application procedure, now requires *ad hoc* management plans, synthesising technical skills and planning tools). The sphere of action has been markedly enlarged to include new territories such as, for example, Geoparks, in partnership with the UNESCO Division of Ecology and Earth Sciences and the International Union of Geological Sciences (IUGS).

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Currently, within the diversified framework of the international classification of PAs at regional and world level (including major conventions on biodiversity, the Barcelona Convention, NATURA 2000 and so on) the networking of territories listed in the UNESCO supranational circuits - both on a regional and a global scale - and technical support provided by the main non-governmental environmental agencies, including the International Union for the Conservation of Nature and Natural Resources (IUCN), have paved the way for a functional review of experiences considered as successful, because able to connect local development processes with ecosystem conservation tools, and to combine the need to preserve natural assets through local and sustainable uses.

This complex system gave emphasis to management and governance models, regulatory and conservation solutions, research projects, training and educational initiatives in a wide range of areas identified on each continent and in each bio-geographical region, and it developed an intense debate with representatives of specialized agencies and nations on areas addressed as conservation and development laboratories. This trend was recently confirmed by the "*Satoyama Initiative*", launched by the Japanese Ministry for the Environment and the UN University Institute of Advanced Studies during the 10<sup>th</sup> Conference of Parties of the Convention on Biological Diversity, held last October 2010 in Nagoya.

The overall impact tools promoted by the "UNESCO System", in close connection with the main multi-lateral treaties and crosscutting issues of global environmental agenda, aim to increase the awareness of the international community in a move towards more responsible policies and a rational management of the resources of the planet, as well as towards the rediscovery of local traditional knowledge and the enhancement of bilateral cooperation agreements.

Within the "UNESCO System" Italy plays a major role, as it has more World Heritage Sites (WHS) than any other country in the world. Among its 47 sites, three have been inscribed for natural criteria (Aeolian Islands, Dolomites and Monte San Giorgio) and they are directly followed by the Ministry for Environment, as are the national parks (Portovenere, Cinque Terre and the Islands of Palmaria, Tino and Tinetto, and Cilento and Vallo di Diano) selected for cultural criteria. In the framework of the Global Network of Biosphere Reserves, 8 territories have been so far recognized (Collemeluccio-Montedimezzo, Circeo, Miramare, Cilento and Vallo di Diano, Somma-Vesuvio and Miglio d'Oro, Valle del Ticino, Tuscany Islands, Selva Pisana) including both national and local Pas.

Following the last Global Geoparks Network Bureau - held in Greece in October 2010 during the 9<sup>th</sup> European Geoparks Conference - the number of Italian<u>s</u> Geoparks increased to 7 sites and currently include Madonie Geopark, Beigua Regional Park, Sardinia Geo-Mining Park, Adamello-Brenta Park, Rocca di Cerere Cultural Park, Technology and Archaeological Park of Metalliferous Hills of Grosseto and National Park of Cilento and Vallo di Diano (this last already recognized as a Biosphere Reserve and World Heritage Site).

Of course, the differences between WHSs, Biosphere Reserves and Geoparks concern their nomination procedures as well the typology of development and their programme planning. The role played by the Parisian Organization in initiatives aimed at preserving and enhancing the natural heritage of its States Parties, remains central, and has world-wide recognition.

The Ministry of the Environment, in coordination with the Ministry for Foreign Affairs and the Italian National Commission for UNESCO, has looked upon these initiatives with growing interest during the past years, working to maintain the Aeolian Islands in the World Heritage List and to ease the way for the Dolomites to be included in 2009, updating the provisional national list according to requests coming both from PAs and local governments, reorganizing the National MAB Committee by introducing a new operational structure, as outlined in Ministerial Decree no. 51 of 12<sup>th</sup> June 2009 and then in Ministerial Decree no. 228 of 12<sup>th</sup> November 2011, and revitalizing its activities through direct support to seminars and technical meetings.

Among these, I must mention the seminar "UNESCO Designations and Protected Areas", held in Rome on 28<sup>th</sup> September 2010 thanks to the professional scientific organization of the Institute for International Legal Studies of the C.N.R., conclusions of which are partially reproduced in this volume. The Ministry has also assured its participation in major UNESCO events in the future.

During the 23<sup>rd</sup> Session of the MAB International Coordinating Council (ICC), which closed in Dresden on 1<sup>st</sup> July 2011, Italy introduced a paper reviewing the

activities carried out by central Administration and Italian Biosphere Reserves in consideration of the principles of the Seville Strategy and the targets of the Madrid Action Plan (MAP), as well as periodic reports and initiatives promoted by the Ministry to raise awareness of MAB activities for academics, experts and protected areas managers.

More particularly, the ICC approved the "*Dresden Declaration*", with an appeal to decision makers to use the solid experience gathered through MAB Reserves for three specific goals of the global environmental agenda (climate change, fight against poverty and halting the loss of biodiversity); it also furthered the debate on the evaluation of MAP results with a view to its 2013 deadline and its Global Network role, it partially revised MAB statutory documents (Statutes of the International Advisory Committee and ICC) and it rewarded several researchers, assigning the *Michel Batisse* prize for his case study on the Shouf Biosphere Reserve to the Lebanese Nizar Hanil who publicly thanked Italian Cooperation for its efforts in his country.

In Dresden - as in Paris during the 35<sup>th</sup> World Heritage Committee which closed 29<sup>th</sup> June 2010 - the classification process of natural sites continued, also for transnational nominations, and the leading role of such areas for socio-economic and eco-compatible development - recognized as UNESCO's contribution to the Rio+20 UN Conference on Sustainable Development scheduled for June 2012 - was underlined.

The synthesis of territorial administrative and governance policies developed between centre and the periphery, civil society participation mechanisms, the adoption of due measures to maintain the levels of protection required by UNESCO, a clear and comprehensive management system able to integrate natural values protection with the socio-economic needs of local communities, the sharing of global environmental policies at national, regional and local levels, together represent the added value, and the challenge, both of those areas already classified through UNESCO initiatives and for those territories belonging to the overall national system of Italian PAs which are aiming at international recognition.

#### RENATO GRIMALDI

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#### UNESCO DESIGNATIONS: AN OVERVIEW OF CURRENT ISSUES

#### by Gianfranco Tamburelli \*

SUMMARY: 1. UNESCO Designations. - 2. Global initiatives. - 3. Natural World Heritage. - 4. Biosphere Reserves. - 5. Transboundary World Heritage Sites and Biosphere Reserves. - 6. World Heritage Sites and Biosphere Reserves in Europe. - 7. Possible gaps or needs of updating of the WH Convention. - 8. Biosphere reserves after the '90s. - 9. Prospects for the UNESCO Designations.

#### 1. UNESCO Designations

Various classifications of protected areas (PAs) have been proposed and designations adopted, at the international, European and national levels, by international and national governmental and non-governmental bodies. Among the most widely known, that of "wetland of international importance" and the two UNESCO (United Nations Educational, Scientific and Cultural Organization)<sup>1</sup> designations of 'World Heritage Site' (WHS) and 'Biosphere Reserve' (BR), which have rather different implications and operate in various and evolving contexts.

WHSs are, in fact, mainly devoted to the conservation of natural ecosystems, while BRs have also an essential sustainable development aim. The management of WHSs takes sustainable development into account, attempting to ensure that the uses are compatible with the outstanding universal values for which the sites are inscribed on the WH List; BRs are proposed as learning laboratories for sustainable development.<sup>2</sup>

Both these designations were launched at the beginning of the '70s, and indeed the legal framework, as well as the political and cultural connotations, have changed considerably since then at international, as well as regional and national levels. On one hand, several other international and European governmental and non-governmental organizations (NGOs) deal today with biodiversity and in situ conservation (the

<sup>\*</sup> Team Leader Research Project on: "Environmental Law and Sustainable Management of Ecosystems and Natural Resources", Institute for International Legal Studies (ISGI) of the National Research Council of Italy (CNR). This Chapter largely corresponds to the article of the same Author on: *UNESCO - Global Protected Area Programmes - An Overview*, published in Environmental Policy and Law, April 2012, pp. 96-101.

<sup>&</sup>lt;sup>1</sup> The Constitution of the UNESCO provides that it will maintain, increase, and diffuse knowledge, by assuring the conservation and protection of the world's heritage, and recommending to the nations concerned the necessary international conventions" (Preamble, 5).

<sup>&</sup>lt;sup>2</sup> Cf. Decision 35C/31 adopted at the 35<sup>th</sup> session of the General Conference in 2009, requesting the Director General to promote the visibility and recognition of MAB and WNBR as platforms for sustainable development within UNESCO and the broader UN system.

International Union for Conservation of Nature and Natural Resources, IUCN, the European Union, the Council of Europe, the secretariats of various multilateral environmental agreements, etc.); on the other hand, all the States have developed regulations concerning various types of PAs.

These practices make it particularly interesting to consider some recent global initiatives and analyse the current issues and prospects of the two indicated designations, which find implementation (up to a certain extent) in numerous sites inscribed in the WH List (natural sites and mixed properties)<sup>3</sup> and in the BRs List.<sup>4</sup>

## 2. Global initiatives

At an international level, among the most recent and innovative manifestations, we might mention the *Satoyama Initiative*, and the *Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries* (UN REDD). The *Satoyama* Initiative was launched jointly by the Ministry of the Environment of Japan and the UN University Institute of Advanced Studies (UNU-IAS).<sup>5</sup> It is aimed at the conservation of Socio-Ecological Production Landscapes (SEPL), which are of course human-influenced natural environments. The Initiative applies the ecosystem approach and promotes the global recognition of the value of these landscapes.

The UN REDD was launched in September 2008 to assist developing countries prepare and implement national REDD strategies, and builds on the expertise of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). REDD+ includes the sustainable management of forests and the enhancement of forest carbon stocks, and also promotes cooperation between BRs and natural WHSs.

Several scientific programmes and activities related to natural resources, ecosystems services and biodiversity have been launched under the UNESCO umbrella: The *Biodiversity Initiative*; the *Hydrology for the Environment, Life, and Policy* (HELP), the *Geoparks*. The Biodiversity Initiative was launched in October 2010 in

<sup>&</sup>lt;sup>3</sup> Cf. http://whc.unesco.org/en/list.

<sup>&</sup>lt;sup>4</sup> Cf. http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/world-network-wnbr/wnbr/.

<sup>&</sup>lt;sup>5</sup> The International Partnership for the Initiative was launched at the 10<sup>th</sup> Meeting of the Conference of the Parties (COP 10) to the Convention on Biological Diversity (CBD) in October 2010.

order to address, in a holistic and integrated manner, all aspects relating to the conservation and sustainable and equitable use of biodiversity from the perspective of the UNESCO mandate and its relevant programmes and activities. It is aimed at identifying solutions to the problem of the loss of biodiversity and at understanding what this loss may mean for humanity. According to the 2011 session of the Executive Board (May 2011, Paris), it includes: protecting biodiversity through the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), in which UNESCO participates;<sup>6</sup> and ... promoting BRs as biodiversity laboratories on the ground and for assisting in making operational the notion of green societies.

HELP is a crosscutting and trans-disciplinary initiative.<sup>7</sup> It fosters a new approach to Integrated Water Resources Management (IWRM) through the creation of a collaborative framework for water law and policy experts, water resource managers, and water scientists. It has originated a global network comprising 91 basins in 67 countries.

The Global Network of National Geoparks is an international, non-governmental network, which provides a platform of cooperation among Geoparks, bringing together government agencies, scientists, and communities from countries all over the world. It operates according to UNESCO regulations and in close synergy with the WH Centre, the MAB (Man & Biosphere) WNBR (World Network of Biosphere Reserves), and NGOs active in geological heritage conservation.<sup>8</sup> Its mission is to influence, encourage and assist local societies throughout the world to ensure that any use of natural resources is equitable and sustainable, and to support the economic and cultural development of local communities through the enhancement of their heritage and identity.<sup>9</sup> Through cooperation with the global network partners, important geological

<sup>&</sup>lt;sup>6</sup> The UNESCO Executive Board noted the important developments related to biodiversity science and policy in the context of the 2010 International Year of Biodiversity (IYB), including the establishment of the IPBES. The Initiative focuses on the underlying drivers of biodiversity erosion and loss, and encompass actions aimed at the implementation of the UN system-wide Strategic Plan for Biodiversity.

<sup>&</sup>lt;sup>7</sup> Started in 1999, HELP is establishing a global network of basins to improve the links between hydrology and the needs of society, http://www.unesco.org/new/en/natural-sciences/environment/water/ihp/ihp-.

<sup>&</sup>lt;sup>8</sup> UNESCO has also established a partnership with the European Geoparks Network (EGN) and recommends the creation of similar regional networks, reflecting local conditions, elsewhere in the world.

<sup>&</sup>lt;sup>9</sup> Many important geological sites do not in fact fulfil the criteria for inscription on the WH List, cf. *Guidelines and Criteria for National Geoparks Seeking UNESCO's Assistance to Join the Global Geoparks Network.* 

sites gain worldwide recognition. The network further serves to develop models of best practice and set quality standards for territories that integrate the preservation of geological heritage into a strategy for regional sustainable economic development. UNESCO encourages all forms of cooperation among network members, especially in the fields of education, management, tourism, sustainable development, and regional planning.

## 3. Natural World Heritage

The 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage, entered into force on 17 December 1975, is one of the first truly global conventions; 188 States are Parties to it and the WH List currently includes 936 properties in 153 States Parties, which form part of the cultural and natural heritage having outstanding universal value.

The Convention has the merit of introducing the category of the natural WHS (some of which are indicated as being 'in danger'), and has favoured the elaboration of the notion of 'cultural landscape',<sup>10</sup> and the laying down of key strategic directions embodied in the "5 Cs" of *Credibility*, *Conservation*, *Capacity-building*, *Communication*, and *Communities*. Among other achievements of the international cooperation sector, we may also mention the setting up of the *Global Strategy for a Balanced*, *Representative and Credible WH List*, and the adoption of the WH Thematic Programmes, such as - in 2001 - that on *Sustainable Tourism*.<sup>11</sup>

<sup>&</sup>lt;sup>10</sup> Since 1992, significant interactions between people and the natural environment have been recognized as "cultural landscapes". *Cultural landscapes are those where human interaction with natural systems has, over a long period, formed a distinctive landscape. These interactions arise from, and cause, the development of cultural values,* cf. WH Series no. 26, *Cultural Landscapes,* 1 March 2010.

<sup>&</sup>lt;sup>11</sup> With millions of tourists visiting WH sites each year, tourism has become an important cross cutting issue and management concern at most WH sites. The WH Tourism Programme encourages sustainable tourism activities. It develops policies and processes for site management and for the States to address this increasingly important concern. It focuses on 7 activities: 1) Building the capacity of WH site management to deal with tourism; 2) Training local community members in environment and culture preservation and tourism related activities to receive tourism's benefits; 3) Aiding communities around the sites to market their products and use the WH sites as a lever for local economic social and cultural development; 4) Raising public awareness of WH Outstanding Universal Values and building pride and intercultural dialogue with local communities and visitors through conservation education; 5) Using tourism generated funds to supplement site conservation and protection costs; 6) Spreading the lessons learned to other sites and PAs; 7) Building increased awareness of the objectives of the 1972 WHC and other UNESCO conventions to the Tourism Programme activities and policies for local and national public tourism authorities, tourism industry officials and tourists.

WH designation has also proved to be a useful instrument for stimulating concrete action. Over the last four decades, significant efforts have been made to provide support for improving the state of conservation of WHSs, especially in post-conflict and postdisaster situations, the strengthening of capacities for the conservation and management of sites, and the expansion of the network of public and private partners to support conservation and management.

The WH Centre is implementing the key priorities adopted by the WH Committee and the General Assembly of States Parties to the UNESCO, pursuing the objectives of the Medium-Term Strategy for 2008-2013.<sup>12</sup> The aims of the measures undertaken are to *Develop a Global Partnership for Development*, particularly in respect of the least developed countries (LDC) and small island developing states (SIDS), in conformity with MDG (Millennium Development Goal) no. 8, and contribute to achieving MDG no. 1, *Eradicate Extreme Poverty and Hunger*, and MDG no. 7, *Ensure Environmental Sustainability*.

As concerns natural WH in Africa, particularly in post-conflict countries, the focus is on capacity building for improved conservation, by promoting, among other things, cooperation and sharing of best practices between African countries, development of transnational WH nominations, and activities linking heritage conservation to sustainable development.

It is worth noting that in all WH properties research is progressively focusing on the impact of climate change (several scientific reports and policy documents have already been produced), and some pilot projects for climate change adaptation at specific WHSs, and for adaptive forest management in the tropical rainforest heritage, have already been developed.

The value of the WH designation is finally reinforced by the provision regarding possible delisting of a site from the list. A site is delisted when all avenues for remedial action have been exhausted and the integrity and outstanding universal value of a site or property has been irreversibly compromised. This situation occurred twice: one natural

<sup>&</sup>lt;sup>12</sup> Namely Resolution 34 C/4, Strengthening the Contribution of Culture to Sustainable Development, Sustainably Protecting and Enhancing Cultural Heritage, Contributing to Disaster Preparedness and Mitigation and Support to Countries in Post Conflict Situations.

and one cultural site have been delisted.<sup>13</sup> In particular, the Dresden Elbe Valley (Germany) was removed from the List in 2009 as a result of the building of a four-lane bridge in the heart of the cultural landscape. The property failed to keep its outstanding universal value as inscribed. In 2010 the WH Committee also removed the *Galapagos Islands* (Ecuador) from the *List of World Heritage in Danger*.

The Convention is celebrating in 2012 its 40<sup>th</sup> anniversary<sup>14</sup> and the theme of the year is: *World Heritage and Sustainable Development - The Role of Local Communities*. In this regard, important needs concern the provision of policy orientations, programmes and guidelines for a sustainable use of heritage<sup>15</sup> (particularly on tourism management), and the promotion of a greater involvement of local and indigenous communities, youth and women in heritage protection.

World Heritage designation is recognised globally as a marker of excellence. Since its inception, however, there have been fundamental changes in the environment within which the *World Heritage Convention* operates, including the growth of global tourism, greater development pressures, increasing interest in and awareness of environmental issues, evolution in the practices and concepts of heritage and the emergence of competitor inventories of exceptional sites.

The Resolution on the *Future of the Convention* identified the following key priorities: the relationship between the Convention, conservation and sustainable development; the credibility of the public image of the Convention, awareness raising and community involvement in implementation; capacity building for States Parties, particularly developing countries; strategic management and the Global Strategy; the efficiency and transparency of decision-making of the statutory organs of the Convention; the working relationships with other relevant Conventions and UNESCO Programmes.<sup>16</sup>

<sup>&</sup>lt;sup>13</sup> The Arabian Oryx Sanctuary (Oman) site was removed from the List in 2007 as a result of the reduction in size of the sanctuary and plans to proceed with hydrocarbon prospection seen as destroying the outstanding universal value of the site.

<sup>&</sup>lt;sup>14</sup> In view of this anniversary, the WH Committee initiated (Quebec, 2008) a process of reflection on the future of the WH Convention (the *Future Process*).

<sup>&</sup>lt;sup>15</sup> As a part of the ongoing reflection on the "*Future of the World Heritage Convention*", the WH Committee at its 33<sup>rd</sup> session (Seville, 2009) took note of a "Draft Vision" for the implementation of the *Convention* and decided to forward it to the General Assembly of States Parties for further discussion. A noteworthy element of this draft vision is the articulation of WH as "...a positive contributor to sustainable development".

<sup>&</sup>lt;sup>16</sup> See Resolution no. 9, 17<sup>th</sup> session of the General Assembly of States Parties, https://whc.unesco.org/en/decisions/6448/.

#### 4. *Biosphere reserves*

In 1968 the UNESCO - Intergovernmental Conference of Experts "on the scientific basis for the rationale use and conservation of the resources of the biosphere" examined (in a pioneer way) ways of reconciling the conservation and use of natural resources, thereby *foreshadowing the present-day notion of sustainable development*. The UNESCO MAB Programme dates back to 1971. The Statutory Framework of the WNBR has been accepted by all UNESCO Member States and functions as the legal framework for the development of BRs.

BRs are areas of terrestrial, coastal or marine ecosystems, or a combination thereof. They should have the following goals and objectives: (*a*) to conserve natural and cultural diversity, giving special attention to fragmented habitats, threatened ecosystems, and fragile and vulnerable environments, both natural and cultural; (*b*) to serve as models of land management and approaches to sustainable development; (*c*) to serve as sites for research, monitoring, education and training; (*d*) to play a role in addressing emerging challenges in climate change, the provision of ecosystem services and urbanization as a principal driver of ecosystem-wide pressures (Seville Strategy, supplemented by Madrid Action Plan).

Designations must be approved by the MAB International Coordinating Committee (ICC),<sup>17</sup> based on defined criteria. BRs are organized into three interrelated zones: (*a*) a legally constituted core area or areas, devoted to long-term protection according to the conservation objectives of the site, and set aside for conserving biological diversity; <sup>18</sup> (*b*) a buffer zone or zones,<sup>19</sup> clearly identified and surrounding or contiguous to the core area or areas, where activities compatible with the conservation objectives of the core area may take place, similar to areas designated as buffers around

<sup>&</sup>lt;sup>17</sup> The ICC is composed of representatives of 34 States. The role of the Council is: *a*) to guide and supervise the MAB Programme; *b*) to review the progress made in the implementation of the Programme; *c*... to co-ordinate the international cooperation of Member States participating in the Programme; *e*) ... to consult with international non-governmental organizations on scientific or technical questions. De facto, the MAB Council also decides upon new BRs and takes note of recommendations on their periodic review reports.

<sup>&</sup>lt;sup>18</sup> Core areas comprised of legal terms, which may or may not pre-exist at the creation of BRs. Certain activities are expressly forbidden within these zones. They are listed through regulation when the zonation of the reserve is decided. This area is normally equivalent to IUCN category Ia or Ib (strict nature reserve or wilderness area).

<sup>&</sup>lt;sup>19</sup> Buffer zone means an area around a core PA that is managed to help maintain PA values, IUCN-WCPA, *Guidelines*, Dudley, 2008.

legally designated PAs; (*c*) a flexible outer transition area (or 'area of cooperation') where sustainable resource management practices are promoted and developed, and which may allow a variety of agricultural activities, settlements and other uses (Statutory Framework, Art. 4.5).<sup>20</sup>

The IUCN definition of PA does not cover all BR zones under the UNESCO MAB Programme. In the majority of cases the BR core area and parts of the buffer zone would fit into this,<sup>21</sup> particularly the core zones, which, according to MAB requirements, should be legally constituted areas or areas devoted to long-term protection.<sup>22</sup> In some cases, the BR core area meets WH criteria; in these cases, they can certainly serve as a complementary means to protect the integrity of a WH site, but there are other planning tools to do that.

Finally, as already observed, the BR concept has been inspired from the beginning by the concept of sustainable development. Now, the Plan of Action for the UNESCO Major *Programme II on Natural Sciences*<sup>23</sup> is asking for the development of *BRs as research and learning platforms for sustainable development, fostering green societies and addressing climate change ...* and for UNESCO-inscribed sites to be used for raising awareness and understanding of climate change and other earth system processes.<sup>24</sup>

#### 7. Possible gaps or needs of updating of the WH Convention

 $<sup>^{20}</sup>$  Activities that are forbidden or subject to prior authorization are defined according to regulations.

<sup>&</sup>lt;sup>21</sup> FRANCIONI, F., (ed.) with LENZERINI, F., *The 1972 World Heritage Convention. A Commentary*, Oxford Commentaries on International Law, 2008.

<sup>&</sup>lt;sup>22</sup> LAUSCHE, B., *Guidelines for Protected Areas Legislation* (Burhenne, F., Project Director), IUCN in collaboration with IUCN Environmental Law Centre, Environmental Policy and Law Paper no. 81, 2011, p. 14.

<sup>&</sup>lt;sup>23</sup> Resolution 35 C/5 The Plan of Action is structured around two biennial sectoral priorities and four main lines of action. In the context of biennal sectoral priority 2 (*sustainable management of freshwater*, *ocean and terrestrial resources*, *including renewable sources of energy*, *as well as disaster preparedness and mitigation*), main line of action 3 (*promoting the sustainable management and conservation of freshwater*, *terrestrial resources and biodiversity*), point 13 (*the use of participatory approaches for biodiversity conservation*, *climate change adaptation and mitigation promoted through the WNBR*), it is stated that UNESCO designated areas - BRs, Geoparks, HELP basins and WH sites will be privileged research and demonstration sites for promoting scientific knowledge and cutting-edge research at the interface of sustainable development, environmental integrity and the rational management of natural resources.

<sup>&</sup>lt;sup>24</sup> See *Plan of Action for Major Programme II*, Resolution adopted by the UNESCO General Conference on the report of the SC (Natural Science) Commission on 10 November 2011. The Plan includes seven main lines of action, with special emphasis on Africa, gender equality, youth, LDCs and SIDS, as well as the most vulnerable segments of society, including indigenous people.

As noted above, the WH Convention is celebrating its 40<sup>th</sup> anniversary, it has reached almost universal ratification, and the WH List is not far from the potential inscription of the 1000<sup>th</sup> property. The representativeness, balance and credibility of the WH List have been improved.

This general positive trend does not, however, conceal some problems and issues: in the first place, cultural and natural heritage protection should be strengthened, especially in Africa, in SIDS and LDC, in post-conflict or post-disaster situations; secondly, on one hand, the number of sites on the WH List is consistently increasing each year (by more than 20 sites) with no parallel increase in the resources of the WH Fund,<sup>25</sup> on the other hand, further action to promote under-represented regions and categories of heritage should be taken, through cooperation, for example, between States Parties in the preparation of transnational nominations (this would result in a direct contribution to dialogue between them).

Operational conservation projects should be supported in priority regions and countries, particularly for properties on the List of WH in Danger and in post-conflict and post-disaster situations, and for properties in Africa, in SIDS and in LDCs.

We may note, then, that the Convention does not contain some of the new principles of environmental law, in particular that of 'sustainable development'.<sup>26</sup> On this matter, the WH Committee stated in Brasilia, in 2010, that "it would be desirable to further consider, in the implementation of the Convention, policies and procedures that maintain the outstanding universal value of properties, *and also contribute to sustainable development*". In the framework of the reflection on the *Future of the Convention*, a revision of the "Operational Guidelines",<sup>27</sup> to integrate sustainable development, has been undertaken.

Considering guiding aims and objectives, as well as the praxis, we can however, recognize that action to promote WH conservation is already an important driver for

 $<sup>^{25}</sup>$  Cooperation with the African WH Fund must be further strengthened to achieve common objectives.

<sup>&</sup>lt;sup>26</sup> Under Article 5, the *Convention* urges States Parties to the *Convention* "to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes". Moreover, Article 4 recognizes that States Parties have "the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage".

 $<sup>^{27}</sup>$  The *Operational Guidelines* outline the main components of the WH process as follows: *a*) The context (purpose of the *Convention*, institutional framework, definition of OUV and standards for protection and management); *b*) Nominating properties; *c*) Monitoring properties; *d*) Support and International Assistance

sustainable development (and to face global environmental issues such as climate change).<sup>28</sup>

### 8. Biosphere reserves after the '90s

International cooperation within the MAB has certainly achieved important results in its 40 years of existence. In addition to the above mentioned Statutory Framework, we may recall the Seville Strategy, which opened a new era for BR management, and the Madrid Action Plan (2008-2013), which articulates the concept of BRs as learning laboratories for sustainable development, calls for the use of the ecosystem approach, and sets important targets for BR management and visibility. According to the Plan, all existing BRs must meet the criteria stipulated in the Seville Strategy by the end of 2013.

It is worth noting the MAB potential for attracting significant financial resources for the management of large areas around the world, and the numerous education activities ongoing in BRs in support of the UN Decade of Education for Sustainable Development (DESD).<sup>29</sup>

With regard to research, the Biodiversity Initiative promotes BRs as research and monitoring sites. The focus is, however, as it is in WHSs, on the impact of climate change.<sup>30</sup> The 23<sup>rd</sup> session of the ICC, held in Dresden<sup>31</sup> from 28<sup>th</sup> June to 1<sup>st</sup> July

<sup>&</sup>lt;sup>28</sup> At its 26<sup>th</sup> Session (Budapest, 2002), the WH Committee adopted the so-called Budapest Declaration, defining its four strategic objectives, the four "Cs", which are *Credibility, Conservation, Capacity-building* and *Communication*. The Declaration stresses the need to "ensure an appropriate and equitable balance between conservation, sustainability and development, so that WH properties can be protected through appropriate activities contributing to the social and economic development and the quality of life of our communities". In 2005, the notion of sustainable development was considered in the introductory part of the *Operational Guidelines*, which notes that: "The protection and conservation of the natural and cultural heritage are a significant contribution to sustainable development" (paragraph 6). In 2007, the WH Committee decided to add "Communities" to the previous four strategic objectives, "to enhance the role of communities in the implementation of the *WH Convention*" (Decision 31 COM 13B).

The Resolution adopted on the report of the CLT (Culture Sector) Commission on 10 November 2011, concerning the *Plan of Action for Major - Programme IV*, *Culture* is structured around two biennial sectoral priorities and includes six main lines of action. In the context of the biennial sectoral priority 1, it requires: ... (*iii*) the promotion of cultural and natural heritage conservation as a key vector of sustainable development, social cohesion, dialogue and peace in particular by working with States Parties to manage the impact of tourism, urbanization and climate change.

<sup>&</sup>lt;sup>29</sup> In December 2002, the UN General Assembly, through its Resolution 57/254, declared a *Decade of Education for Sustainable Development* (2005-2014) and designated UNESCO as the leading agency for its promotion.

<sup>&</sup>lt;sup>30</sup> In late February 2011, the 6<sup>th</sup> meeting of the South-East Asian Biosphere Reserve Network (SeaBRnet), held at Cibodas BR (Indonesia), focused on the overall topic "*Are climate change and other emerging challenges being met through successful achievements of biosphere reserve functions*?". The meeting highlighted the priorities of (*a*) knowledge exchange on BR functioning, climate change mitigation and related functions; (*b*) identification of available and potential additional tools needed to

2011,<sup>32</sup> thus endorsed a *Declaration on Biosphere Reserves and Climate Change*, which contains an appeal to decision makers to use the experience gathered through BRs<sup>33</sup> for three specific goals of the global environmental agenda: climate change, fight against poverty, and halting the loss of biodiversity. In particular, the Declaration recognizes that *BRs are an effective instrument for mitigating climate change, and serve as models for adaptation to the impacts of such change* (this applies particularly in the domains of sustainable land use, green economies, safeguarding ecosystem services, energy efficiency, and the use of renewable energy).<sup>34</sup>

In general, we must underline the contribution made by the BR experience to shaping what is today the essential principle of sustainable development. But the usefulness of the BR tool is under discussion. It is not only a problem of awareness in local or national communities about the work and merits of the WNBR. There are in fact very different point of views on the role of the BR in the multitude of programmes and classifications in existence.

According to one opinion,<sup>35</sup> although the MAB celebrated in 2011 its 40<sup>th</sup> anniversary, and has reached an age of maturity, it remains "a young and dynamic programme that constantly keeps pace with emerging environmental, scientific and societal issues".<sup>36</sup> On the contrary, there are reasons to think that, with the rise of new international and national categories, BRs have lost their distinctive character and,

<sup>33</sup> A new network of coastal and small island BRs, focusing on climate change and sustainable development, has been launched under the auspices of Spain and the Republic of Korea.

attain climate change mitigation and related BR functions; and (c) drafting of priorities for a potential regional monitoring system.

<sup>&</sup>lt;sup>31</sup> For the third time the MAB Council met in a location outside UNESCO Headquarters; the rotational venue of ICC sessions add to the visibility of the Programme in different countries and world regions.

<sup>&</sup>lt;sup>32</sup> SC-11/CONF.202/11 Dresden/Paris, 18 July 2011.

<sup>&</sup>lt;sup>34</sup> Member States should (1) place greater focus on the capacities of the MAB Programme and BRs for mitigating and adapting to the impacts of climate change, and for better integrating their contributions into national and international climate strategies and policies; while BRs should (10) draw up and implement management plans to adapt to a changing climate, based on a vulnerability analysis, taking into account the conservation and sustainable use of biological diversity and involving the local population.

<sup>&</sup>lt;sup>35</sup> Cf. CHUNG-IL CHOI, Chairperson of the 23<sup>rd</sup> Session of the MAB-ICC.

<sup>&</sup>lt;sup>36</sup> "The visionary and innovative spirit of the MAB Programme is the essence and the driving force that have kept it so relevant and lively after 40 years. By placing human beings at the centre of ecological issues, MAB constantly keeps pace with emerging environmental, scientific and societal issues", see the *Joint Statement* of the Chairpersons of the five intergovernmental / international scientific programmes ((International Basic Science Programme - IBSP, International Geoscience Programme - IGCP, IHP, MAB, Management of Social Transformations Programme - Most) and Intergovernmental Oceanographic Commission (IOC), to the UNESCO Director-General and the General Conference at its 36<sup>th</sup> session Paris, 1 November 2011.

particularly in developed countries, an innovative effort to enhance the potentialities of the concept may be necessary. This result could be reached by linking / modulating the concept in relation to the specificities of local / regional / national realities.

An assessment of the current value of the BR concept and experience cannot, however, leave aside some essential observations on the historical evolution of sector environmental law. From the early '90s PAs themselves have, in fact, been increasingly perceived as laboratories to test models of sustainable development, while maintaining, or permitting the achievement of, the fundamental aims of habitat and biodiversity conservation. The relationships between PAs and their surrounding areas have also been constantly changing, moving towards solutions that highlight the need for a broad common vision and shared objectives. This evolution of the concept of the PA and of the relationship of the PA with its surrounding areas, has in our opinion significantly reduced the differences between the role and vision of the PA, and the role and management approach of the BR.

The reason for the survival of the BR cannot be found in the fact that they help to attract additional funding from different sources. In our opinion, apart from the persisting difference between the legal scope of the PA<sup>37</sup> and that of BR, a justifying and distinguishing character is the fact that the BR can serve as a learning place "to explore and demonstrate" approaches to conservation and sustainable development.<sup>38</sup> If this is correct, more than *can*, they *must* serve as 'learning places' to explore and demonstrate approaches to conservation and sustainable development. Better still, the definition of BR should affirm that they "are" learning places … the UNESCO designation should be confirmed, or attributed, according to a set of criteria establishing this feature as fundamental.

Finally, the question of giving BRs legal recognition in national law deserves some reflection. It has been the subject of discussion within the MAB on several

<sup>&</sup>lt;sup>37</sup> The IUCN defines PAs as: "areas of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means". The CBD defines the PA as: a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives (Article 2). For a comment on both these definitions, see TAMBURELLI, G., *The Convention on Biological Diversity and the National and Regional Legal Systems of Protected Areas*, in "Legal Systems for the Management of Protected Areas in Italy and Ukraine", ed. by Tamburelli, G., Milan, 208, p. 1 ss.

<sup>&</sup>lt;sup>38</sup> According to the proposed model law on BRs (in SC-09/CONF.206/X), "competent authorities for the management of BRs endeavour to use them as sites for exploration and demonstration of conservation and sustainable development approaches at a local scale" (Article 7, *Models of sustainable development*).

occasions and the 2008 Madrid Action Plan, agreed at the 3<sup>rd</sup> World Congress of BRs, affirms that BRs would benefit from "an enhanced legal recognition where appropriate", and that "States be encouraged to include BRs in their own legislation" (Target 11, action 11.1). An analysis of the various examples of existing legal translations of the BR concept at national level was then carried out in the framework of the MAB ICC activities and a project of a model law was developed.<sup>39</sup>

The special status of BRs is now increasingly recognised within national legal frameworks and the 2011 Dresden Declaration has asked again for the adoption of *adequate legislative, administrative and institutional frameworks at national and/or local levels for BRs* (endowing such frameworks with appropriate competencies, and providing adequate funding and staff for the administration).

In our opinion, some recurrent issues certainly require a general and legally binding regulation (*e.g.* that of the admissibility of mining activities in BRs). In the drafting of an ad hoc normative act, the legislator might also take into account, as the proposed model law suggests, the possibility of considering BRs territories as privileged sites for the application of the principles of international environmental law (Preamble, 1).

## 9. Prospects for the UNESCO Designations

The process of classification of natural sites as WHSs or BRs continues, transnational nominations included. In particular, actions have been undertaken to promote the inscription on the WH List of properties in under-represented regions and of under-represented categories of heritage, in a move towards the establishment of a fully credible, balanced and representative WH List reflecting all cultures and civilizations. On the other hand, a number of developing countries and countries with economies in transition are contemplating the establishment of at least one BR to become part of the World Network.

International cooperation favours a broader use - through a network of space science and space technology partners - of satellite-based and remote sensing technologies to monitor the conservation status and pre- and post-disaster status of WH

<sup>&</sup>lt;sup>39</sup> This analysis permitted the identification of elements that promote the establishment of the BR concept at the national scale, see BONNIN, M., JARDIN, M., *Legal Interpretation of the Biosphere Reserve Concept in the Framework of National Legislations*, SC-09/CONF.207/INF.4, Paris, 24 April 2009.

sites and BRs. Satellite imaging has in fact become an important tool for management bodies, providing invaluable information about the development of sites, evolution of wildlife habitats, agricultural activity, and damage caused by environmental phenomena.<sup>40</sup>

International development cooperation has, in line with the Dresden Declaration, incorporated the idea of BRs and is supporting corresponding projects that link poverty eradication, biodiversity conservation and climate protection in developing countries or countries with economies in transition. Therefore, the leading role of WHSs and BRs for socio-economic and eco-compatible development will represent UNESCO's major contribution to the *Rio+20 UN Conference on Sustainable Development*, scheduled for June 2012.

Having analysed the historical value, the longstanding experience, and current issues related to the UNESCO designations of WHS and BR, we can observe that while the main conceptual need concerning the WHS is that of evaluating the extent of applicability of the sustainable development principle, with regard to the BR it is the reshaping of its role in respect to PAs and the evaluation of the usefulness of adopting an internationally binding act or imposing the adoption of a national ad hoc legislation that is of prime importance.

As far as the former instance is concerned, it must be highlighted that promoting natural WH conservation is equivalent to strengthening an important vector for sustainable development (as well as for dialogue and peace, and the management of environmental forces).<sup>41</sup> On the other hand, the contribution of WH properties to sustainable development is certainly growing; this trend should proceed in parallel with the strengthening of WH protection, especially in Africa, in post conflict or post-disaster situations, in SIDS, and in LDCs.

<sup>&</sup>lt;sup>40</sup> See: From Space to Place, An Image Atlas of World Heritage Sites on the "In Danger" List of UNESCO, 2011. The Atlas was produced by the United States Geological Survey (USGS) in cooperation with UNESCO. It presents detailed satellite photos of the 31 sites on the List of WH in Danger. UNESCO has established partnerships with leading space agencies including NASA (U.S.A.), the European Space Agency (ESA) and the Agencies of France and Germany and this allow to facilitate developing countries sharing of the benefits of space technology.

<sup>&</sup>lt;sup>41</sup> See Resolution adopted on the report of the CLT Commission at the 17<sup>th</sup> plenary meeting, on 10<sup>t</sup> November 2011, concerning the *Plan of Action for Major Programme IV*, *Culture*, biennial sectoral priority 2 (*advocating the inclusion of culture and intercultural dialogue in development policies to foster a culture of peace and non-violence*), main line of action 1 (*protecting and conserving cultural and natural heritage through the effective implementation of the 1972 Convention*), (2) contribution of WH properties to sustainable development enhanced.

With regard to the issue of identifying the modern role of BRs, it is a widespread opinion that the BR concept can be used as a framework to reinforce projects pursuing environmental sustainability and the enhancement of people's livelihoods.<sup>42</sup> BRs (and the WNBR) are thus promoted by UNESCO as platforms for sustainable development within the broader UN system.<sup>43</sup> More specifically, the Madrid Action Plan aims to raise BRs to become the principal internationally-designated areas dedicated to sustainable development in the 21<sup>st</sup> century.<sup>44</sup>

In our opinion, this trend renders opportune a change in the very denomination of BR, since this may generate some confusion and misunderstanding, given the meaning of the term "reserve" in the common language, as well as in numerous national legislations, or according to IUCN classifications, environmentalists, and practitioners. UNESCO already accepts the use in some countries of the term "biosphere park" and in some countries the term "biosphere region" is also under discussion. In this prospect, we would like to underline the fact that, according to the Dresden Declaration, BRs represent "model regions" in which sustainable forms of use and options for adaptation to changing ecological, economic and social conditions may be tested, involving all stakeholders; at policy level, Member States should further develop *BRs as "model regions" for sustainable development* (and disseminate good practices and experience gained as widely as possible).

<sup>&</sup>lt;sup>42</sup> Improving the performance and impact of the MAB Programme and the WNBR means fostering green societies and addressing climate change, cf. *Plan of Action for Major Programme II*, biennial sectoral priority 2, (*vi*), main line of action 6 (*enabling the application of ecological and earth sciences to sustainability, including through the MAB Programme and the IGCP*), (22) "BRs and natural WH sites integrated, in collaboration with UN-REDD, the clean development mechanism (CDM – Art. 12 of the Kyoto Protocol) and similar climate change mitigation and adaptation financing mechanisms", cit.

<sup>&</sup>lt;sup>43</sup> "We strongly believe that the ISP's (the Chairpersons of the five UNESCO intergovernmental and international scientific programmes, and the IOC, together referred to as ISPs) objectives of addressing the 21<sup>st</sup> century global challenges that our planet is facing - such as climate change, water management, maintenance of ecosystem services, and natural disasters risk reduction or urbanization can be fostered by acting collectively. In that regard, the WNBRs provides a unique set of learning sites for all of us to shape and to implement the sustainable development concept within our Organization and beyond, see the *Joint Statement* of the ISPs (IBSP, IGCP, IHP, MAB, Most and IOC), cit.

<sup>&</sup>lt;sup>44</sup> "Old" and new BRs should be integrated into sustainable development policies and plans (*e.g.* conservation and land use plans, strategies for biodiversity conservation and sustainable use, plans for PAs, etc.), and linked to other relevant planning instruments.

# IUCN PROTECTED AREA MANAGEMENT CATEGORIES AND UNESCO DESIGNATIONS - CHALLENGES AND OPPORTUNITIES ARISING FROM MULTIPLE DESIGNATIONS

#### Boris Erg\*

SUMMARY: 1. Introduction. - 2. IUCN system of protected area management categories. - 3. UNESCO designations. - 4. Biosphere Reserves. - 5. Multiple designations. - 6. Conclusion.

#### 1. Introduction.

Almost a century and a half ago the first modern protected area (PA) was established. Since then, PAs have been considered one of the major tools in nature conservation. They facilitate our efforts to conserve habitats and species, ensure the functioning of ecosystems and their delivery of goods and services, also setting a framework for safeguarding associated cultural values and traditional knowledge. PAs are key to understanding complex relationships between man and nature and preserving natural and semi-natural habitats and man-shaped landscapes alike. It is not only that PAs help set legal, administrative and operational frameworks for the conservation of biodiversity, if properly managed they also secure wise and controlled use of natural resources. Their role is particularly emphasized in the era of ever-changing climate. Being the places of preserved biodiversity and ecosystem functionality, they play an invaluable role in building ecosystem and community resilience. Therefore, it is essential to place PAs at the very heart of designing climate change adaptation strategies and policies. Man's efforts to protect particular places on earth have a long history. 1872, the year of the proclamation of the Yellowstone Public Park – the first modern PA, is widely regarded as a benchmark year and marks the beginning of a new era in nature conservation. The efforts to protect and safeguard natural resources can be traced far back into history. Be it for the purpose of cherishing its beliefs, or for religious reasons, or simply with the intention of setting some areas aside in order to allow resources to recuperate, throughout the centuries man has created strong bonds and has built a dynamic relationship with nature.

<sup>\*</sup> IUCN Programme Office for South-Eastern Europe, Belgrade, Serbia.



Graph 1: Growth in nationally designated Protected Areas from 1872 to 2008 Source: UNEP-WCMC 2009

Yet, the second half of the nineteenth century brought about a major change in nature conservation, introducing PAs as geographically defined areas with the particular purpose of protecting natural values. The designation of Yellowstone Public Park gave rise to the emergence of a number of similar PAs worldwide. In 1885, Canada granted protection to the hot springs in the Bow Valley of the Rocky Mountains, now part of the Banff National Park and in 1887 the first steps to protect the sacred summits of Tongariro, Ngauruhoe and Ruapehu in New Zealand were taken: the Tongariro National Park Act was passed in 1894 and the park was gazetted in 1907.<sup>45</sup> In the following decades the word spread and these early PAs paved the way for the establishment of many PAs around the world. Over 1,388 different terms are known to be used around the world to designate PAs, each of which is defined within respective national legislation with respect to its objectives and legal protection.<sup>46</sup>

Today, the world's network of PAs comprises over 120,000 PAs covering a total of about 21 million square kilometres of land and sea, an area more than twice the size of Canada. While the terrestrial PAs listed in the World Database on Protected Areas cover 12.2% of the Earth's land area, marine PAs currently cover 5.9% of the Earth's

<sup>&</sup>lt;sup>45</sup> BROWN, J., MITCHELL, N., BERESFORD, M. (eds.), *The Protected Landscape Approach: Linking Nature, Culture and Community*, IUCN, Gland, Switzerland and Cambridge, UK, 2005.

<sup>&</sup>lt;sup>46</sup> GREEN, M.J.B., PAINE, J.R., State of the World's Protected Areas at the End of the Twentieth Century, Paper presented at "Protected Areas in the 21<sup>st</sup> Century: From Islands to Networks" Albany, Australia, 24<sup>th</sup> - 29<sup>th</sup> November 1997.

territorial seas and only 0.5% of the extraterritorial seas.<sup>47</sup> It is certainly not enough if we want properly to conserve the world's biodiversity so the Aichi Biodiversity Targets has set a new global target: "By 2020, at least 17 % of terrestrial and inland water, and 10 % of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, must be conserved through effectively and equitably managed, ecologically representative and well-connected systems of PAs and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes".<sup>48</sup> However, one of the emerging problems stem from the fact that the recent rapid growth of PAs has not been accompanied by corresponding expansion in management effectiveness.<sup>49</sup> This remains one of the biggest challenges for conservation planners and practitioners in the future.

### 2. IUCN system of protected area management categories.

The rapid growth in the number of PAs globally has brought with it a specific challenge over years. Without a commonly agreed and acknowledged PA system, a great variety of national systems have emerged with different terms in use and different understanding of management objectives. This has laid the ground for confusion and prompted the development of an internationally recognized and agreed PA categorization system. The global efforts to clarify PA terminology commenced in London in 1933 at the International Conference for the Protection of Fauna and Flora. This first PA system recognized four main categories: *national park*; *strict nature reserve*; *fauna and flora reserve*; and *reserve with prohibition for hunting and collecting*. Several more attempts were made in the following decades with the aim of improving the PA categorization system. The overall objective was to bring about the necessary clarity and to help practitioners and decision makers alike in their efforts to designate and manage PAs. Finally, the then IUCN's Commission on National Parks and Protected Areas (CNPPA), later evolving into the World Commission on Protected Areas (WCPA), made a decision to develop a protected area categorization system. The

<sup>&</sup>lt;sup>47</sup> UNEP-WCMC, Coverage of Protected Areas, http://www.bipindicators.net/pacoverage.

<sup>&</sup>lt;sup>48</sup> Aichi Biodiversity Targets, http://www.cbd.int/sp/targets/.

<sup>&</sup>lt;sup>49</sup> DAVEY, A. G., *National System Planning for Protected Areas*, IUCN, Gland and Cambridge, UK, 1998.

work of the CNPPA resulted in a comprehensive system of ten categories grouped into three groups comprising both the categories set according to PA management objectives and international designations such as Biosphere Reserves (BRs) and World Heritage sites. However, limitations in the system soon became apparent. It did not contain a definition of a protected area; several terms were used to describe the entire suite of ten categories; a single PA could be in more than one category; and the system lacked a marine dimension.<sup>50</sup>

The new revision of PA categories system was made in 1994 with six main categories, apart from international designations (BR and WH sites). The 1994 revision clearly demonstrated the importance of management objectives dividing PAs into the six categories that we more or less recognize today. The six categories were as follows:<sup>51</sup>

- Ia Strict Nature Reserve (Protected area managed for science); Ib Wilderness Area (Protected area managed mainly for wilderness protection)
- II National Park (PA managed mainly for ecosystem protection and recreation)
- III Natural Monument (Protected area managed mainly for conservation of specific natural features)
- IV Habitat/Species Management Area (Protected area mainly for conservation through management intervention)
- V Protected Landscape/Seascape (Protected area managed mainly for landscape/seascape conservation and recreation)
- VI Managed Resource Protected Area (Protected area managed mainly for the sustainable use of natural ecosystems)

The 1994 IUCN WCPA PA guidelines also provided a definition for the protected area, describing it as "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means". The six proposed categories as well as the PA definition have helped practitioners across the globe to a clearer understanding and to transpose such an internationally recognized system into

<sup>&</sup>lt;sup>50</sup> DUDLEY, N. (ed.), *Guidelines for Applying Protected Area Management Categories*, Gland, Switzerland, IUCN, 2008.

<sup>&</sup>lt;sup>51</sup> IUCN, 1994, see LOCKE, H. AND DEARDEN, P., *Rethinking Protected Area Categories and the New Paradigm*, in: "Environmental Conservation" 32 (1): 1–10, Foundation for Environmental *Conservation*, 2005.

national PA systems. Apart from setting a global standard in the process of assigning management categories to protected areas, the 1994 system was important from the point of view of deepening understanding of the complex interplay between conservation and the use of natural resources.

After the publishing of the guidelines for protected area management in 1994<sup>52</sup> a research project was launched with the aim of assessing the use and performance of the 1994 system. The project results, known as *Speaking a Common Language*, were published in 2004 for the World Conservation Congress.<sup>53</sup> This project helped to bring the WCPA Categories Task Force into being and to initiate the review process that resulted in the new set of guidelines published in 2008. The revised guidelines from 2008, as a milestone global standard, are important in the process of planning, designating and managing PAs. They are an invaluable tool used in the ever growing and changing world of nature conservation. The guidelines are particularly intended to help in the processes of the planning of PAs and protected area systems and improving information management about PAs, and also to help regulate activities in PAs.<sup>54</sup> According to the 2008 guidelines a PA is defined as "*a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values"*.

The 2008 IUCN Guidelines for Applying Protected Area Management Categories defines six categories of PAs: strict nature reserve and wilderness area, national park, natural monument of feature, habitat/species management area, protected landscape, and protected area with sustainable use of natural resources. The following are the definitions of each of the six PA categories:

Strict nature reserves (category Ia) are strictly PAs set aside to protect biodiversity and also possibly geological/geomorphologic features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation

<sup>&</sup>lt;sup>52</sup> IUCN, *Guidelines for Protected Areas Management Categories*, CNNPA with the assistance of WCMC, IUCN, Gland, Switzerland and Cambridge, UK, 1994.

<sup>&</sup>lt;sup>53</sup> BISHOP, K., DUDLEY, N., PHILLIPS, A., STOLTON, S., Speaking a Common Language - The Uses and Performance of the IUCN System of Management Categories for Protected Areas, Cardiff University, IUCN and UNEP/WCMC, 2004.

<sup>&</sup>lt;sup>54</sup> DUDLEY, N. (ed.), Guidelines for Applying Protected Area Management Categories, cit., 2008.

values. Such PAs can serve as indispensable reference areas for scientific research and monitoring.

Wilderness areas (category Ib) are usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.

National parks (category II) are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.

Natural monuments or features (category III) are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small PAs and often have high visitor value.

Habitat / species management areas (category IV) aim to protect particular species or habitats and management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

Protected landscape/seascape (category V) is a PA where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

Protected areas with sustainable use of natural resources (category VI) are set to conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.

The 2008 PA categories system comprises the whole range of management objectives. It spans no-go and recreation areas, moderately managed and man-made

landscapes, as well as the areas where human activities occur in a more intense manner. What all the categories have in common is biodiversity conservation as the primary objective and the requirement for proper management. Therefore, the effectiveness of management of PAs should be seen as one of the cornerstones of their existence. A pre-requisite for an effective PA is a planning process that results in a Management Plan. This is the key to achieving management objectives: a properly thought through Management Plan process should ensure that the optimum outcomes are achieved.<sup>55</sup>

#### 3. UNESCO designations.

There are two main UNESCO-led global processes that have particular significance with respect to PAs. One is defined by the *Convention Concerning the Protection of the World Cultural and Natural Heritage*, that lays the ground for the designation of World Heritage sites, the other is the concept of Biosphere Reserves under the auspices of the UNESCO's *Man and the Biosphere Programme*.

World Heritage sites represent some of the most important natural and cultural places in the world recognized by the UNESCO World Heritage Convention. Sites proposed for inscription on the World Heritage List must be nominated by countries on the basis of the very principle of the *outstanding universal value* (OUV). For the purposes of the World Heritage Convention, the following are to be considered as "natural heritage":

- natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;
- geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals or plants of outstanding universal value from the point of view of science or conservation;
- natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

<sup>&</sup>lt;sup>55</sup> THOMAS, L. AND MIDDLETON, J., *Guidelines for Management Planning of Protected Areas*, IUCN Gland, Switzerland and Cambridge, UK, 2003.

Nominated World Heritage sites are assessed in order to evaluate whether or not a proposed OUV meets one or more criteria for natural properties (criteria vii-x), of which criterion ix (ecosystems) and criterion x (biodiversity) hold particular significance for PAs:

- Criterion *ix*: Properties proposed under this criterion should have sufficient size and contain the necessary elements to demonstrate the key aspects of processes that are essential for the long-term conservation of the ecosystems and the biological diversity they contain.
- Criterion *x*: Properties proposed under this criterion should contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

It is recognized by the Operational Guidelines for the implementation of the World Heritage Convention<sup>56</sup> that "no area is totally pristine and that all-natural areas are in a dynamic state, and to some extent involve contact with people. Human activities, including those of traditional societies and local communities, often occur in natural areas. These activities may be consistent with the outstanding universal value of the area where they are ecologically sustainable". Nevertheless, "a property must also meet the conditions of integrity and/or authenticity and must have an adequate protection and management system to ensure its safeguarding in order to be deemed of outstanding universal value (paragraph 78)".

<sup>&</sup>lt;sup>56</sup> Operational Guidelines for the Implementation of the World Heritage Convention http://whc.unesco.org/en/guidelines.



Graph 3: Occurrence of IUCN PA categories in WH sites; Source: Dudley 2008

When it comes to management, the Operational Guidelines clearly state that: "All properties inscribed on the World Heritage List must have adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding. This protection should include adequately delineated boundaries (paragraph 97)". Furthermore, paragraph 102 requires that "the boundaries of the nominated property may coincide with one or more existing or proposed protected areas, such as national parks or nature reserves, biosphere reserves or protected historic districts. While such established areas for protection may contain several management zones, only some of those zones may satisfy criteria for inscription". The above paragraphs create a strong relationship between PAs designated under the IUCN system of management categories, World Heritage sites, and Biosphere Reserves. Even though the Operational Guidelines do not say that a WH site has to be a "protected area", or refer to IUCN protected area categories, it could be inferred that areas not under any particular protection regime should be excluded from WH sites (e.g., OG paragraphs 97 and 102): so natural World Heritage sites are expected to be managed in ways that are equivalent to being in a PA, whether or not they are formally protected. This is the interpretation applied by IUCN in its advisory role.<sup>57</sup>

<sup>&</sup>lt;sup>57</sup> BADMAN, T. and DINGWALL, P. (eds.), World Heritage Nominations for Natural Properties: A resource manual for practitioners, Draft Report, June 2007.
#### 4. Biosphere Reserves

The Statutory Framework of the World Network of Biosphere Reserves defines BRs as areas of terrestrial and coastal/marine ecosystems or a combination thereof, which are internationally recognized within the framework of UNESCO's Programme on *Man and the Biosphere* (MAB).<sup>58</sup> They are being established on the premise of a balanced relationship between humans and the biosphere.

The origin of BRs goes back to the late '60s and the launching of the UNESCO MAB Programme in 1970. MAB's original aim was to establish PAs representing the main ecosystems of the planet in which genetic resources could be protected and research and monitoring could be carried out. These PAs are called "biosphere reserves" in reference to the MAB programme's name. The objective of the MAB programme is to promote innovative forms of planning and programming which should:

- involve all actors (local and national public organizations) involved in decisionmaking processes;
- consent the integration of the main environmental variables into the most important territorial dynamics;
- guarantee stronger coherence of departmental policies at the local level with the aim of achieving sustainable development of the areas in question.

Each BR is aimed at fulfilling three main functions and at demonstrating the possibility of reconciling conservation and sustainable development. The three main functions of BRs are:

- conservation to contribute to the conservation of landscapes, ecosystems, species and genetic variation;
- development to foster economic and human development which is socioculturally and ecologically sustainable;
- logistic support to support demonstration projects, environmental education and training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development.

<sup>&</sup>lt;sup>58</sup> The Statutory Framework of the World Network of Biosphere Reserves, http://www.sovereignty.net/p/land/mab-stat.htm.

In order to fulfil these three main functions, a specific zoning system has been introduced into the concept of Biosphere Reserves. It includes:

- a legally constituted core area or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives;
- a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place;
- an outer transition area where sustainable resource management practices are promoted and developed.

This zoning scheme is applied in many different ways in the real world to accommodate geographical conditions, socio-cultural settings, available legal protection measures and local constraints. This approach is applied to facilitate the integration of PAs into the wider landscape. Only the core area requires legal protection and hence can correspond to an existing PA such as a nature reserve or a national park. However, clear provisions have to be made for:

- mechanisms to manage human use and activities in the buffer zone or zones;
- a management policy or plan for the area as a biosphere reserve;
- a designated authority or mechanism to implement this policy or plan;
- programmes for research, monitoring, education and training.

IUCN Protected Area Management Category	Biosphere Reserve Zones			
	Core	Buffer	Transition	
I to IV	yes	no	no	
V	no	yes	perhaps	
VI	perhaps	yes	perhaps	
<i>Note:</i> yes = compatibility of management purposes; no = incompatibility of management				
purposes; perhaps = management purpose may be compatible				

Table 1: Relationship between IUCN Protected Area Management Categories and Biosphere Reserve zones; Source: Dudley, 2008 (from Bridgewater *et al.* 1996)<sup>59</sup>

New boost to the World Network of Biosphere Reserves was given by the Madrid Action Plan for Biosphere Reserves (2008-2013) which defines four main action areas, with 31 targets and 65 actions that are critical to achieving the vision and mission of the MAB Programme.<sup>60</sup>

Yet, BRs are not established under a binding MEA. While both Ramsar and World Heritage sites are designated under legally binding instruments, namely the Ramsar and the World Heritage Convention, respectively, the World Network of Biosphere Reserves is guided by soft instruments, namely the Statutory Framework and the Seville Strategy for Biosphere Reserves, adopted by the UNESCO Intergovernmental Coordinating Council of the MAB Programme in 1995.<sup>61</sup> In reality, this means that the given flexibility sometimes allows for innovation when it comes to management, while in other cases it makes the management of BRs difficult, leaving the management authority without legal power to enforce management objectives. As a result, some countries have enacted legislation specifically to establish and manage BRs. In many others, the core areas and buffer zones are designated (in full or in part) as PAs under national law. A number of BRs simultaneously encompass areas protected under the IUCN management categories system or some other internationally recognized designation (such as World Heritage or Ramsar sites).

#### 5. Multiple designations.

Taking all this into account one may assume that international designations such as World Heritage or Biosphere Reserve are usually given to those sites that are already designated as PAs according to national protected area systems. This is particularly the case when it comes to World Heritage sites where an effective management regime is a

<sup>&</sup>lt;sup>59</sup> BRIDGEWATER P., PHILLIPS A., GREEN M. and AMOS B., *Biosphere Reserves and the IUCN System of Protected Area Management Categories*, UNESCO, Paris, France, 1996.

<sup>&</sup>lt;sup>60</sup> UNESCO MAB, *Madrid Action Plan for Biosphere Reserves* (2008-2013), http://unesdoc.unesco.org/images/0016/001633/163301e.pdf.

<sup>&</sup>lt;sup>61</sup> PERSIC, A., ARICO, S., CALVO, G. and ISHWARAN, N., *Ecosystems and Human Well-being:* UNESCO Biosphere Reserves as Learning Laboratories for Sustainable Development, pp. 87-88. In: Secretariat of the CBD, Protected Areas in Today's World: Their Values and Benefits for the Welfare of the Planet, Montreal, Technical Series no. 36, i-vii, 2008.

requirement for World Heritage listing and in practice means that the vast majority of natural World Heritage sites are PAs. In the case of Biosphere Reserves, institutionalized protection is a prerogative for the core zone, implying that BRs are also to a certain extent PAs designated at a national level. Multiple designations, given to a site, stem from the fact that many places around the world contain values that go beyond national importance, thus gaining international and global recognition. However, this doesn't mean that the size and borders of various designations bestowed upon the same area are necessarily identical. On the contrary, they often differ as a result of the fact that: a) different designations are given over a certain period of time, and b) they follow different criteria and different frameworks. What does this mean in practice and what implications may it have for the management of a PA? Do PAs benefit from various designations? An interesting example is the Durmitor National Park in Montenegro that was designated a PA (IUCN category II) in 1952 with a territory of 39,000 ha.<sup>62</sup> Then in 1976, the Tara River Canyon Biosphere Reserve (total area 182,889 ha; core zone 19,300 ha) was proclaimed. Finally, 32,100 ha of the Durmitor National Park including the Tara River canyon were inscribed on the World Heritage List in 1980. Each of these designations had posed certain management requirements that had not necessarily been easy to deal with in practice. There are of course various examples, and a wide range of effects that UNESCO designation may have on a PA. Being a World Heritage site or a Biosphere Reserve may help a PA increases visibility and attractiveness and bring additional revenues to the management.<sup>63</sup> The Plitvice Lakes National Park in Croatia, a World Heritage site that was inscribed on the WH List in 1979 because of its exceptional beauty, annually receives around 1,000,000 tourists of whom a certain part visit the area because of its World Heritage logo.<sup>64</sup>

In terms of site management, each designation requires a proper management planning process in place. The Durban Action Plan (2003) outlines the importance of the effective management of PAs: "At present, managers of protected areas and other primary stakeholders often do not have sufficient knowledge, skills, capabilities and

<sup>&</sup>lt;sup>62</sup> Durmitor National Park, http://whc.unesco.org/en/list/100, http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?mode=all&code=yug+01.

<sup>&</sup>lt;sup>63</sup> Pressures on nature arising from increased tourism will not be discussed in this paper.

<sup>&</sup>lt;sup>64</sup> Plitvice Lakes National Park, http://np-plitvicka-jezera.hr/hrv/.

tools to face the challenges of global change. The skills now required to manage protected areas are more specialized and broader than in the past and will be even more demanding in future. It is therefore a priority to strengthen capacities at individual, institutional and societal levels". The same goes for UNESCO designations. Management Plans are normally required for natural sites that are being considered for inclusion on the World Heritage List.<sup>65</sup> The UNESCO Operational Guidelines (1999) specify the meaning of a management plan for World Heritage sites: "Sites should have a Management Plan. When a site does not have a Management Plan at the time when it is nominated for the consideration of the World Heritage Committee, the State Party concerned should indicate when such a plan will become available and how it proposes to mobilise the resources required for preparation and implementation of the plan. The State Party should also provide other documents (e.g. operational plans) which will guide the management of the site until such time when a Management Plan is *finalised*". In case of BRs, even though the Seville Strategy<sup>66</sup> recommends ensuring "that each biosphere reserve has an effective management policy or plan and an appropriate authority or mechanism to implement it" in order to "ensure better harmonization and interaction among the biosphere reserve zones", they often lack legal protection.<sup>67</sup>

In many countries PA management plans are mandatory by law. This creates a legal basis for management planning and helps improve management effectiveness. At the same time, PA management plans are usually confined to the borders of a PA, and even if they recognize and deal with international designations such as World Heritage or Biosphere Reserve, protected area authorities have little legal power to enforce management objectives outside of the borders of a protected area. Harmonized management is a tool that may help overcome complex management arrangements and bring to a more effective management. This approach has been outlined by the Programme of Work on Protected Areas (Goal 4.3.7): "*Explore establishment of a harmonized system and time schedule for reporting on sites designated under the* 

<sup>&</sup>lt;sup>65</sup> THOMAS, L. AND MIDDLETON, J., *Guidelines for Management Planning of Protected Areas*, cit., 2003.

<sup>&</sup>lt;sup>66</sup> UNESCO Biosphere Reserves: The Seville Strategy and the Statutory Framework of the World Network, UNESCO, Paris, 1996.

<sup>&</sup>lt;sup>67</sup> BIORET, F., CIBIEN, C. G., GENOT, J.-C. and LECOMTE, J., A Guide to Biosphere Reserve Management: A Methodology Applied to French Biosphere Reserves, MAB Digest 19, UNESCO, Paris, 1998.

Convention on Wetlands, the World Heritage Convention, and UNESCO MAB programme, and other regional systems, as appropriate, taking into account the ongoing work of UNEP-WCMC on harmonization of reporting and the IUCN protected area management category system for reporting purpose".<sup>68</sup>

# 6. Conclusion.

Protected areas are often recognized and designated both at national and international levels as a result of their exceptional values. Apart from designations according to the IUCN PA management categories system, one or more international designations, such as World Heritage or Biosphere Reserve, can be given to a PA or a series of sites. This has a manifold effect on the PA and therefore each new designation has to be carefully weighed before being put in place. If properly dealt with, multiple designations bring added value and give prominence to the area. International designations can help increase visibility, which in return can bring more revenues (e.g. tourism, local products, etc.). Tourism can be particularly boosted in the case of World Heritage sites, while Biosphere Reserves provide a wide range of opportunities for labelling and promotion of local products. Both UNESCO designations can have a positive effect on the visibility and financial management of the area in question. In addition, by promoting local products, culture and tradition, BRs allow for higher support and participation of local communities in area management. When it comes to management, it becomes more complex with each new designation. It is important to be able properly to identify and manage territorial transformation, particularly in connection with the use of high-value resources (natural and cultural). If there is no clear regulation by national law, PA managers often find it difficult to comply with multiplied management objectives without the legal power and resources to address them. It returns, this may lead to ineffective management coupled with a general feeling of dissatisfaction among major stakeholder groups. Thus, it is extremely important to assess the ability of current managerial structures to cope with any potential new

<sup>&</sup>lt;sup>68</sup> CBD *Programme of Work on Protected Areas*, http://www.cbd.int/protected/pow/learnmore/intro/?prog=p4.

designation and to weigh available resources correctly. Resources required for appropriate management should be planned and factored in with each new designation.

The IUCN protected area management categories system and UNESCO designations correspond well and complement each other. Multiple designations (a nationally and internationally designated area) bring both complexity and opportunities to management. There is a great deal of added values for a PA as a result of UNESCO designation, yet it may pose an unnecessary burden if the management authority lacks the capacities and resources to deal with it. In order to make future management effective, it is of the utmost importance to assess and evaluate the management effectiveness of the existing PA and its ability to cope with additional challenges when planning any additional designation.

# THE DEFINITION OF THE LISTS OF INTERNATIONALLY PROTECTED AREAS: COMPARISON BETWEEN WORLD AND REGIONAL LEVEL ACTS

#### Paolo Fois \*

SUMMARY: 1. Relationship between universalism and regionalism in the field of specially protected areas. The interest to be found in a comparison between diverse international acts in this field. - 2. Lists of specially protected areas: the requirements for inclusion in the lists. - 3. Relative procedural rules. - 4. Mechanisms aimed at ensuring the proper application of the special protection regime. -5. Suspension of such a regime. - 6. Relation on the affinities and differences subsisting between the acts under consideration. The Habitats Directive and its peculiarities.

# 1. Relationship between universalism and regionalism in the field of specially protected areas. The interest to be found in a comparison between diverse international acts in this field.

The reasons that led me to choose this title for my paper are essentially two. I have always found it particularly interesting, during my studies on international and European environmental law, to analyse the relationship that exists, in this particular field, between the norms and protective systems in vigour at world level on the one hand, and at regional level on the other. Compared with the relationship between universalism and regionalism that we see, in more general terms, in the field of international law, I have come to the conclusion that on the question of environment the picture is decidedly more homogeneous, free of those divergences and evident conflicts which characterized the state of international law through a large part of the last century. The fact that we see a certain homogeneity also when we compare world environmental law with the system of environmental laws of the European Union is particularly indicative. There is, in fact, a substantial degree of uniformity as far as principles and aims are concerned, while the differences are limited to the content, which is considerably more detailed in the dispositions of EU law, and to the fact that in this field the systems that guarantee respect of the norms within the EU and its member States are notably more efficacious.

There is a second reason that led me to write this article: the aim of establishing what kind of relationship exists between universalism and regionalism in the specific field of "Special Protected Areas", a reason arising from recent experiences in my own island. And it is this: frequently, especially during the last months, I have noted a

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widespread tendency, among the local administrators of Sardinia, to undertake initiatives aimed at obtaining *the inclusion of the same area in more than one list of special protected areas*, these lists being drawn up in conformity with international acts applying at world as well as regional level.

I could give many examples, but I will limit myself to the one regarding the area comprised in the 'Arcipelago di La Maddalena' National Park.

It has been announced that the procedure for adding this area, which is already on the list of "Sites of Community Interest", to the lists called for by the 1972 Paris Convention, on the Protection of the World Cultural and Natural Heritage, and by the 1995 Barcelona Protocol, on Specially Protected Areas of the Mediterranean and on Biological Diversity, has also been opened. Assuming that initiatives of this kind may have a positive outcome, it nevertheless appears justifiable to ask whether they might not give rise to problems on a strictly judicial level, arising essentially from the application of regimes that are, at least in part, different, and to the involvement of numerous organisms at international and European levels.

The reflections I am going to share are aimed at an in-depth analysis of this question, which doesn't seem so far to have been the object of careful consideration. In particular, I want to compare the principal acts which concern the definition of Specially Protected Areas lists, examining, in order: a) the requirements for inclusion in the list; b) the procedural norms; c) the criteria established for the management of the area, and the relative checks; d) the suspension of the special protection regime.

# 2. Lists of specially protected areas: the requirements for inclusion in the lists.

The question of requirements for inclusion in the list is regulated in detail in all the acts which I shall be taking into consideration, and which I would like to indicate here in chronological order.

*a*) The Ramsar Convention, 2<sup>nd</sup> February 1971, on Wetlands of International Importance;

*b*) the Paris Convention, 22<sup>nd</sup> November 1972, on the Protection of the World Cultural and Natural Heritage, which I have already mentioned;

*c*) the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean, Barcelona, 10<sup>th</sup> June 1995, also mentioned above;

*d*) the Council Directive 92/43/EEC of  $21^{st}$  May 1992, on the conservation of natural and semi-natural habitats and of flora and fauna.

These, in synthesis, are the principal dispositions regarding the aspect under consideration:

- the Ramsar Convention, Article 2: "Wetlands should be selected on account of their international significance in terms of ecology, botany, geology, hydrology";

- the Paris Convention, Article 11: The Committee shall decide on the inclusion in the "World Heritage List", of those properties constituting part of cultural heritage and natural heritage which it considers as having outstanding universal value in terms of such criteria as it shall have established;

- the Barcelona Protocol, Article 2: the list of Specially Protected Areas of Mediterranean importance is to include areas of importance for the conservation of the components of biological diversity in the Mediterranean, and in particular those: *a*) containing ecosystems specific to the Mediterranean or habitats of endangered species, *b*) which are of special interest at the scientific, aesthetic, cultural or educational levels

- Habitats Directive: in promoting the aims of the Directive, the maintenance of biodiversity in Europe, Annex III lays down a detailed series of criteria for the identification of sites of Community importance. These sites, states Article I of the Directive, may make a significant contribution to the coherence of Natura 2000.

# 3. Relative procedural rules.

Going on with the comparison between the acts I have indicated, it will be useful to consider the *procedural rules* established for inclusion in the lists. I will make a distinction, as far as possible, between the stages of proposal and decision.

- According to Article 2 of the Ramsar Convention, each Contracting Party shall designate "suitable wetlands" present in his territory, to be included in a List of Wetlands of International Importance. The Convention specifies that each Contracting Party shall designate at least one wetland to be included in the List at the moment of signing or ratifying the Convention. The Conference for the Conservation of Wetlands and Water Birds shall be competent to decide on all questions concerning the implementation of the Convention, and additions to and changes in the List (Article 6).

- The Paris Convention (1972) also states that it is the competence of each Contacting Party to submit to the World Heritage Committee "an inventory of property forming part of the cultural and natural heritage" which lies within his territory and which meets the requirements for inclusion in the List of World Heritage (Article 11, par. 1). The following paragraph states that the Committee shall establish, keep up to date and publish, the list of properties forming part of the cultural heritage and natural heritage, and specifies that the inclusion of a property in the World Heritage List requires the consent of the State concerned.

- The Barcelona Protocol establishes, at Article 9, that is the competence of the Contracting Party in whose jurisdiction a given area lies (or of two or more Parties if the area in question lies within their jurisdiction) to submit to the "National Focal Point" the proposal to add the site to the list of Specially Protected Areas of Mediterranean Importance. Once that body has ascertained the conformity of the proposal with the guide-lines laid down by the meeting of the Parties the latter will decide on the inclusion in the list of the area in question (Article 26 of the Protocol).

- In the Habitats Directive, the distinction between proposal and decision is made particularly clear: according to Article 4, "each Member State shall propose a list of sites indicating which natural habitats types specified in Annex I and which native species in Annex II are to be found in these sites". (Article 4, n. 1). This list is then submitted to the Commission. The following Article 5, regulates the case in which a given Member State has failed to furnish a proposal regarding a site in which one or more priority natural habitats types or one or more priority species are present, providing for the opening of a bilateral consultation procedure between the State and the Commission. It must be remembered that according to Article 5 the Commission can, on its own initiative, initiate a bilateral consultation procedure with a Member State when it becomes aware of the absence from a national list of a site in which one or more priority natural habitats types or one or more priority species are present and which it considers to be essential for the maintenance of that priority natural habitats type or for the survival of that priority species.

As far as the decision stage regarding the inclusion of a site among those of Community importance is concerned, this is referred to the Commission, on the basis of an opinion formed by a committee composed of representatives of the Member States and by a representative of the Commission, who presides. If the members of the group cannot reach an agreement, the final decision rests with the Council (Article 4).

# 4. Mechanisms aimed at ensuring the proper application of the special protection regime.

Regarding the mechanisms aimed at ensuring the correct application of the special protection regime, the most significant dispositions are the following:

- The Ramsar Convention: according to Article 2, the Contracting Parties are called on to formulate and define their programmes regarding the conservation of wetlands included in the list. There is also a general obligation of consultation between Parties, especially in the case of wetlands situated in the territory of two or more States. The Conference of the Parties, furthermore, is called upon to discuss the application of the Convention, and to formulate recommendations regarding the conservation, management and proper use of wetlands and of their flora and fauna (Article 4).

- Article 4 of the Paris Convention of 1972 establishes that it shall be primarily the duty of the State within whose territory properties of exceptional universal value are found to ensure their "identification, protection, conservation, presentation and transmission to future generations". It specifies, however, that, where appropriate, the State may benefit from international assistance and co-operation". Particularly worthy of note is the role attributed to the World Heritage Committee: on the request for international assistance formulated by a State Party, the Committee may decide to intervene for the protection, conservation, presentation or rehabilitation of property included either in the list of World Heritage Sites, or in the list of Endangered World Heritage Sites (Article 13).

- In the Barcelona Protocol of 1995, too, the accent is laid on the obligations incumbent on Contracting Parties relating to the adoption of protection measures which take into account the characteristics of each Specially Protected Area (Article 6). In collaboration with the "Regional Centre for Protected Areas "or with an international organization, the Contracting Party involved can define programmes for the "the establishment, conservation, planning and management of Specially Protected Areas" (Article 21).

- In accordance with Article 6 of the Habitats Directive, "Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans". The Member States shall also, according to Article 8, send to the Commission their estimates relating to the Community co-financing which they consider "necessary to allow them to meet their obligations pursuant to Article 6 (1)". These estimates have to be submitted to the views of the Commission, which will take into consideration those measures which, for reasons of particular public interest, may have an effect on the conservation of the site.

#### 5. Suspension of such a regime.

Concerning, finally, the suspension of the particular regime to be applied to property included in the various lists provided for in the acts under consideration here, the picture is completely homogeneous, when we consider the dispositions to be found in the three treaty acts. The Ramsar Convention, the Paris Convention, and the Barcelona Protocol all expressly attribute to the State in whose territory the property lies, the right to withdraw through the denunciation of the Conventions or the Protocol (Ramsar Convention, Article 11; Paris Convention, Article 35; Barcelona Protocol, Article 34).

In the Habitats Directive, on the other hand, no right of withdrawal is recognised to the member State, in conformity with a general principle of Community law (EU law, after the coming into force of the Treaty of Lisbon, 1<sup>st</sup> December 2009) according to which, following the definitive and unconditional transferral of given competences by the States to the European Union, the normative acts of the latter are binding on the Member States until the acts themselves are modified or abrogated in compliance with EU law.

The suspension of the particular regime provided for by the Directive can be effected, however, in compliance with Article 9, which states, "in the context of the periodic review carried out by the Commission, declassification may be considered when natural developments noted as a result of the surveillance called for in Article 11 warrant it. According to this latter article, it is the Member States who must guarantee the surveillance of the state of conservation of species and habitats.

# 6. Relation on the affinities and differences subsisting between the acts under consideration.

The differences between the treaty acts and the Habitats Directive, indicated in the preceding paragraph, form a useful starting point for the formulation of some conclusions based on the rough comparison we have made up to now.

*a*) Among the three treaty acts, there are clear affinities that can be noted in the diverse aspects we have taken into consideration. And these affinities are independent of the level (universal or regional) of the acts in question: the Ramsar Convention and the Paris Convention on the universal level and the Barcelona Protocol on the regional level. In particular: the proposal for inclusion in a given list is always formulated by the interested State, and, in any case, the consensus of the latter is required. The right of withdrawal of the State is always expressly provided for; the existence of the requirements necessary for the inclusion in a given list must in any case be evaluated by a third-party organism (the World Heritage Committee in the Paris Convention: The Conference of Parties in the Ramsar Convention and the Barcelona Protocol).

*b*) Remaining in the field of the three treaty acts, it is worth noting that the Barcelona Protocol differs from the others in limiting the discretionary power of the Contracting States and of the Conference of Parties regarding the inclusion or otherwise in the list of a determined area, establishing in Annex I the "common criteria" on which choices that are to be made in this regard must be based.

c) On the other hand, the differences between the three treaty acts and the Habitats Directive are significant. We have seen, above all, that the proposal of inclusion in the list can be formulated, not only by the Member State, but also by the Commission, even if only in "exceptional cases". We have here, evidently, a new element with respect to the picture that emerges from the examination of other international acts, even if, in the last analysis, the State may oppose the inclusion of a certain property among sites of Community importance, inasmuch as the decision of the Council in this matter, as stated by Article 5 of the Directive, must be unanimous.

Much more marked is the difference regarding the right to withdraw, which as we have noted is excluded in the Habitats Directive. This circumstance is particularly important, if we consider that the same property may be the object of a particular protection regime in two or more of the acts examined here: the fact that according to EU law a State shall no longer be permitted to suspend the special protection regime established for any given area clearly means that a denouncement in respect of the three treaty acts cannot in any case subtract the given property from the particular protection provided for in the Directive.

d) The principle affirmed in the Habitats Directive relating to the suspension of the special protection regime appears certainly more coherent with the aims pursued both by the Directive and by the treaty acts, aims which are encompassed in the principle that such protection must be ensured through the inclusion of a property in a particular list. On consideration, in fact, a system of this kind is drawn up with the intention of ensuring special protection to certain properties *in the interest not of the single State, but of the international community as a whole* (in the case, for example, of the Paris Convention ) *or of a "regional" community* (as in the Habitats Directive). The right recognised to the State of denouncing the agreement from which the special protection regime derives, would be ultimately in contrast with such an objective.

The greater coherence of the Habitats Directive on this point is, therefore, on principle to be considered positive. With one reservation: The Treaty on the European Union, as modified in Lisbon in December 2007, expressly established, at Article 50, that a Member State may withdraw from the Union, in the respect of certain procedural rules. The exercise of such a right will inevitably imply the failure to meet the obligations which fall upon a State from acts of secondary legislation, such as the Habitats Directive. The fact that such an event is highly unlikely to occur, in real terms draws the Habitats Directive much closer to the three treaty acts, which, during the many years of their application, have never registered any case of denouncement by contracting States.

# TRANSBOUNDARY CONSERVATION AND THE UNESCO WORLD HERITAGE CONVENTION

#### Maja Vasilijevic \*

SUMMARY: 1. Introduction. – 2. The increase in the number of transboundary conservation complexes. – 3. Framework for transboundary conservation initiatives. – 4. Management of Transboundary Protected Areas. – 5. Transboundary World Heritage Sites. – 5.1. Three pillars of Transboundary World Heritage Sites - European examples. – 5.2. Management of Transboundary World Heritage Sites. – 6. Future directions.

### 1. Introduction.

"We see protected areas (PAs) as providers of benefits beyond boundaries – beyond their boundaries on a map, beyond the boundaries of nation states, across societies, genders and generations."<sup>69</sup> This message was communicated to the world by more than 3,000 participants at the 5<sup>th</sup> World Parks Congress of the International Union for the Conservation of Nature\_(IUCN), held in Durban, South Africa, in 2003. The Congress, entitled *Benefits Beyond Boundaries*, recognised a global trend of PAs crossing administrative and national borders, that has been rising since the late 1980s. The meaning of PAs has started to shift rapidly to include social and economic objectives which incorporate the needs of local people, and to take account of regional as well as international PA planning systems.<sup>70</sup> This paradigm is evidently important for PAs that cross national boundaries.

Transboundary issues held central stage in Durban, followed by the development of what is considered the most comprehensive document on PAs, the *Programme of Work on Protected Areas* (PoWPA) of the *Convention on Biological Diversity* (CBD) adopted at the 7<sup>th</sup> Conference of the Parties to the CBD in 2004. The States Parties to the CBD were encouraged to collaborate in establishing Transboundary Protected Areas (TBPA), to set up new marine transboundary areas, to provide enabling policies as well

<sup>\*</sup> IUCN WCPA Transboundary Conservation Group.

<sup>&</sup>lt;sup>69</sup> IUCN, *The Durban Accord*, 5<sup>th</sup> IUCN World Parks Congress, Durban, South Africa, 12<sup>th</sup> -13<sup>th</sup> September 2003.

<sup>&</sup>lt;sup>70</sup> PHILLIPS, A., *Management Guidelines for IUCN Category V Protected Areas: Protected Landscapes/Seascapes.* IUCN Gland, Switzerland and Cambridge, 2002.

as a benevolent institutional and socio-economic environment for TBPAs and to develop guiding standards and frameworks for monitoring.<sup>71</sup>

The Convention Concerning the Protection of the World Cultural and Natural *Heritage*<sup>72</sup> (hereinafter referred to as: The World Heritage Convention) of the United Nations Educational, Scientific and Cultural Organization - UNESCO) has a strong interest in TBPAs. Moreover, the World Heritage (WH) Convention contributes to the goals and targets set in the CBD PoWPA. As the most globally adopted international instrument for the protection of the world's heritage, with 188 States Parties ratifying the WH Convention, it manages to reach out and promote the value of WH listing. However, TB WH listing has yet to attain its full potential, as TB WH Sites are only tentatively, but nonetheless firmly, entering the WH agenda.

This paper examines the relation between one of the most broadly used transboundary conservation practices, the TBPA, and TB WH Sites. It outlines their management implications, and suggests future directions.

# 2. The increase of transboundary conservation complexes.

In 2007, the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP) recorded 227<sup>73</sup> transboundary complexes<sup>74</sup> incorporating 3,043 individual PAs.<sup>75</sup> Looking at the global extent of transboundary complexes in relation to the global extent of PAs (in 2008 around 21,000,000 km<sup>2</sup>),<sup>76</sup> we see that transboundary areas cover more than 22% of all PAs (or 4,626,601.85 km<sup>2</sup>).<sup>77</sup> Over the last two decades, the number of transboundary complexes, including TBPAs in which a certain level of cooperation is operational and Internationally Adjoining Protected Areas (IAPA) in which cooperation still needs to be established, has

<sup>&</sup>lt;sup>71</sup> Convention on Biological Diversity, *Programme of Work on Protected Areas*, www.cbd.int., 2004.

<sup>&</sup>lt;sup>72</sup> Adopted at the UNESCO General Conference in 1972.

<sup>&</sup>lt;sup>73</sup> The full list can be downloaded at www.tbpa.net.

<sup>&</sup>lt;sup>74</sup> This refers to TBPAs which conform to IUCN definition (see paragraph 3) and Internationally Adjoining Protected Areas (IAPA) in which cooperation or formalization of co-management still needs to be developed.

<sup>&</sup>lt;sup>75</sup> UNEP WORLD CONSERVATION MONITORING CENTRE, *Global List of Transboundary Protected Areas*, www.tbpa.net, 2007.

<sup>&</sup>lt;sup>76</sup> UNEP WORLD CONSERVATION MONITORING CENTRE, *Coverage of Protected Areas*, www.unep-wcmc.org., 2010.

<sup>&</sup>lt;sup>77</sup> UNEP WORLD CONSERVATION MONITORING CENTRE, Global List of TBPAs, cit.

increased from 59 (in the1980s) to 227 (in 2007). Interestingly, the total number of PAs encompassed by IAPAs has increased as well, suggesting the importance of transboundary initiatives on the global agenda.<sup>78</sup> This rapid growth demonstrates that TBPAs are getting higher recognition every year from countries and PA managers, as an important model for the conservation of larger landscapes and in contributing to peace and regional stability.

### 3. Framework for transboundary conservation initiatives.

The IUCN World Commission on Protected Areas (WCPA) - Transboundary Conservation Specialist Group offers a framework for transboundary conservation and development initiatives by suggesting four key types of transboundary conservation practice.<sup>79</sup>

- 1. Transboundary Protected Areas
- 2. Parks for Peace
- 3. Transboundary Conservation and Development Areas
- 4. Transboundary Migratory Corridors.

Each of these transboundary conservation practice types supports specific objectives, such as the promotion of peace and social and economic development, or the encouragement of creation of biological migratory corridors. Although the objectives differ, all types of transboundary initiatives are dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, while being managed in a cooperative way. Additionally, IUCN suggests two more designations of transboundary conservation initiatives that can be superimposed on any combination of the above four types:<sup>80</sup>

A) A Transboundary World Heritage Site: *"where protected areas on either side of an international boundary fall collectively into the designation of the area as a World* 

<sup>&</sup>lt;sup>78</sup> MITTERMEIER, R.A., KORMOS, C.F., MITTERMEIER, C.G., ROBLES GIL, P., SANDWITH, T. AND BESANÇON, C., *Transboundary Conservation. A New Vision for Protected Areas*, CEMEX- Agrupación Sierra Madre-Conservation International, Mexico, 2005.

<sup>&</sup>lt;sup>79</sup> SANDWITH, T., LOCKWOOD, M. AND GURUNG, C., *Linking the Landscape*, in Lockwood, M., Worboys, G., and Kothari, A. (eds.), *Managing Protected Areas: A Global Guide*, Earthscan, 2006. Transboundary Conservation Specialist Group was then called the Transboundary PAs Task Force.

<sup>&</sup>lt;sup>80</sup> Ibidem.

Heritage Site. These initiatives are likely to be a small sub-set of Transboundary Protected Areas",

B) A Transboundary Biosphere Reserve (BR): "where areas on either side of an international boundary fall within a biosphere reserve. Transboundary conservation areas conform most closely to the concept of a biosphere reserve, provided they meet UNESCO's designation criteria".

A TB WH Site is an integral part of a TBPA, which, as defined by IUCN is: "an area of land and/or sea that straddles one or more borders between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limit of national sovereignty or jurisdiction, whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed co-operatively through legal or other effective means."<sup>81</sup>

Clearly a TBPA encompasses PAs located at the international and sub-national boundaries of States, while a TB WH Site includes only WH Sites located near the international boundaries of States. A TB WH Site must conform to the UNESCO ten designation criteria<sup>82</sup> for demonstrating the 'outstanding universal value' of the WH Sites. The outstanding universal value "*means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity.*"<sup>83</sup> Apart from the outstanding universal value, a future WH Site must demonstrate its integrity and functional protection and management system (see paragraph 5.2.).

World Heritage Sites can be a single or a serial property,<sup>84</sup> both of which can be located within national boundaries or between two or more countries (transnational/transboundary property) (see figure 1).<sup>85</sup> However, the participants of the

<sup>&</sup>lt;sup>81</sup> SANDWITH, T., SHINE, C., HAMILTON, L., SHEPPARD, D., *Transboundary Protected Areas for Peace and Co-operation*, IUCN, Gland, Switzerland and Cambridge, UK, 2001.

<sup>&</sup>lt;sup>82</sup> For the full set of criteria see: UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention*, World Heritage Centre, Paris, France, 2008. As of 2005, paragraph 77 of the Operational Guidelines sets the ten criteria (i-x) that were formerly divided into two separate lists of cultural (*i-vi*) and natural criteria (*vii-x*).

<sup>&</sup>lt;sup>83</sup> Ibidem.

<sup>&</sup>lt;sup>84</sup> *Ibidem.* A serial property consists of two or more component parts belonging to the same historico - cultural group, the same type of property which is characteristic of the geographical zone, or the same geological, geomorphologic formation, biogeographic province, or the ecosystem type.

<sup>&</sup>lt;sup>85</sup> IUCN PROGRAMME ON PROTECTED AREAS, Natural World Heritage Nominations. A Resource Manual for Practitioners, Gland, Switzerland, 2008.

UNESCO-IUCN workshop in 2008,<sup>86</sup> which attempted to simplify terminology, concluded that a serial WH Site that crosses an international border should be called 'transnational', while a single WH Site located in more than one country is to be called 'transboundary'.<sup>87</sup> According to this recommendation, a



Figure 1<sup>88</sup>: Single and serial World Heritage Sites

TB WH property must always be a single property, and not a serial one. The workshop participants also suggested that *"transnational could be used instead of transboundary*"

<sup>&</sup>lt;sup>86</sup> The workshop was organised by the German Federal Agency for Nature Conservation (BfN) in cooperation with the UNESCO World Heritage Centre and IUCN, 26-30<sup>th</sup> November 2008.

<sup>&</sup>lt;sup>87</sup> ENGELS, B., OHNESORGE, B. AND BURMESTER A., *Nominations and Management of Serial Natural World Heritage Properties. Present Situation, Challenges and Opportunities*, Proceedings of a workshop organised by the BfN in cooperation with the UNESCO World Heritage Centre and IUCN, November 26<sup>th</sup> - 30<sup>th</sup> 2008, Bundesamt für Naturschutz (BfN), Germany, 2008.

<sup>&</sup>lt;sup>88</sup> UNESCO - IUCN 2008 Workshop, see above.

*for single properties as well*<sup>",89</sup> Although the workshop attempted to differentiate between serial and single WH Sites that cross international boundaries, the workshop proceedings included the list of transnational serial WH properties<sup>90</sup> which noted WH Sites that are also marked as TB WH Sites on the WH List (*e.g.* Primaeval Beech Forests of the Carpathians, Caves of Aggtelek Karst and Slovak Karst, Kvarken Archipelago/High Coast).<sup>91</sup> The simplification of terminology at the above-mentioned workshop perhaps brought additional confusion and collision with IUCN guidelines, particularly as the IUCN's TBPA typology suggests the existence of a cluster of separated PAs that cross national borders,<sup>92</sup> making a case for potential transboundary serial sites.

## 4. Management of Transboundary Protected Areas.

"The idea to cross national borders by joint protected area programmes is one of the noblest and most convincing ones in current days."<sup>93</sup> One of the key specificities of management of TBPAs is that these areas need to be managed cooperatively, which poses a certain level of complexity over an area with multiple designations (such as WH and TBPA or even BR etc). Cooperation levels span from no cooperation, communication, consultation, collaboration and coordination of planning, to full cooperation.<sup>94</sup> The minimum level that is required for an area to be called TBPA is therefore communication, while the highest level, full cooperation, signifies joint management, existence of a joint committee, and joint integrated planning with joint decision-making and common goals. In all the levels of cooperation, some sharing of responsibility for a PA is programmed.

Coordinating cooperation over PAs that cross international boundaries can be extremely demanding as many barriers can stand in the way, such as non-equal

<sup>&</sup>lt;sup>89</sup> See ENGELS, B., OHNESORGE, B. AND BURMESTER A., Nominations and Management of Serial Natural WH Properties. Present Situation, Challenges and Opportunities, cit.

<sup>&</sup>lt;sup>90</sup> Ibidem.

<sup>&</sup>lt;sup>91</sup> UNESCO WH CENTRE, The World Heritage List, http://whc.unesco.org/en/list, 2010.

<sup>&</sup>lt;sup>92</sup> IUCN WCPA, *Global Transboundary Protected Area Network*, www.tbpa.net.

<sup>&</sup>lt;sup>93</sup> PLACHTER, H., *The World Heritage Convention of UNESCO - A Flagship of the Global Nature Conservation Strategy*, UNU Global Seminar Series, Inaugural Shimane-Yamaguchi Session, Yamaguchi, Japan, 2005.

<sup>&</sup>lt;sup>94</sup> See SANDWITH, T., SHINE, C., HAMILTON, L. and D. SHEPPARD, TBPAS for Peace and Cooperation, cit.

resources in PAs in adjacent countries, slow process of approval of management decisions and political indifference.<sup>95</sup>TBPAs normally conform to one of the IUCN PA Management Categories which adds to the complexity of site management. Differing management objectives in two cross-border PAs can cause difficulties in overall management and hamper effective cooperation.<sup>96</sup>

TBPAs need to be managed actively to ensure long-term conservation and social objectives, and the dynamic management of TBPAs encompasses unifying concepts and joint actions. For co-management<sup>97</sup> to be achieved, careful and often expensive and long-lasting planning precedes the actual co-management phase. The planning phase, including the identification of common values and vision, is one of the keys to success for the whole transboundary initiative. Parties need to help achieve biodiversity and community development goals. Community involvement at the start of the initiative is essential, and although important for any PA, in a transboundary context it is even more applicable when referring to communities that potentially experience unequal access to service in remote border areas. PA agencies need to establish cooperation with a number of other agencies and adjacent land managers to ensure integrated and coordinated processes and compatibility of activities outside PAs with PA objectives.<sup>98</sup> They should also be involved in capacity building activities among other sectoral agencies, obtaining and maintaining support from decision-makers and policy-makers, and negotiating cooperative agreements. Parties also need to ensure effective monitoring of the initiative, which can be achieved by assessing the effectiveness of joint activities, the level of implementation of any joint Management Plan, the extent that communities have benefited from the transboundary initiative etc.

Conservation cooperation across borders which sets common management objectives and conservation strategies is an important way of promoting peaceful dialogue, regional stability and economic development. Even though establishing and

<sup>&</sup>lt;sup>95</sup> SANDWITH, T. AND BESANÇON, C., *Making Peace: Protected Areas Contributing to Conflict Resolution*, in Stolton, S., Dudley, N. (eds.), *Arguments for Protection - Multiple Benefits for Conservation and Use*, Earthscan, 2010.

<sup>&</sup>lt;sup>96</sup> Ibidem.

<sup>&</sup>lt;sup>97</sup> Co-management is defined by IUCN as "a partnership in which government agencies, local communities and resource users, non-governmental organizations and other stakeholders negotiate, as appropriate to each context, the authority and responsibility for the management of a specific area or set of resources", IUCN, *Resolutions and Recommendations*, World Conservation Congress, Montreal, Canada, 13<sup>th</sup> -23<sup>rd</sup> October 1996, 1997.

<sup>&</sup>lt;sup>98</sup> JEFFERIES, B., ASEAN Transboundary Protected Area Guidelines. Merging Nature, People and Protected Area Management, Draft, 2009.

maintaining effective co-management across international boundaries is complex and sometimes criticised with the presumption that transboundary processes "superimpose *further layers of politics and raise important questions about power*"<sup>99</sup> it is evident that the number of TBPAs is steadily increasing thanks to numerous management advantages. To mention a few advantages of transboundary management: it offers dynamic problem solving and an increased pool of expertise, greater efficiency in financial and human resources, avoidance of duplication, harmonised management objectives and conservation strategies, unified management planning, as well as higher profiling of PAs which creates opportunities for donors.<sup>100</sup> Drawing attention to a well-functioning TBPA at the international level might lead to a future WH designation, if the site meets the UNESCO criteria.

Bearing in mind the differences between economies, political situations and governance regimes in countries with adjacent borders, the ideal of transboundary cooperation may seem remote and difficult to attain. However, not only may transboundary initiatives result in more effective management practice, but they may also foster security and peaceful cooperation.<sup>101</sup> In cases like the European Union where borders have lost their initial purpose of dividing countries and people, "opportunity for transboundary nature protection has never been greater than today."<sup>102</sup>

# 5. Transboundary World Heritage Sites.

Transboundary World Heritage Sites are indicated in the global WH List.<sup>103</sup> TB WH Site is not a separate category under the UNESCO Operational Guidelines for the Implementation of the World Heritage Convention (Operational Guidelines), but an indication that there is an international boundary involved between two WH Sites (or

<sup>&</sup>lt;sup>99</sup> WOLMER, W., *Transboundary Protected Area Governance: Tensions and Paradoxes*, Paper prepared for the workshop on TBPAs in the Governance Stream of the 5<sup>th</sup> IUCN World Parks Congress, Durban, South Africa, 12<sup>th</sup> -13<sup>th</sup> September 2003, 2003.

<sup>&</sup>lt;sup>100</sup> See MITTERMEIER, R.A., KORMOS, C.F., MITTERMEIER, C.G., ROBLES GIL, P., SANDWITH, T., BESANÇON, C., *Transboundary Conservation. A New Vision for PAs*, cit.; SANDWITH, T., SHINE, C., HAMILTON, L., SHEPPARD, D., *TBPAs for Peace and Co-operation*, cit. See also: HAMILTON. L.S., MACKAY, J.C., WORBOYS, G.L., JONES, R.A. AND MANSON, G.B., *Transborder Protected Area Cooperation*, IUCN/Australian Alps National Parks, 1996.

<sup>&</sup>lt;sup>101</sup> SANDWITH, T., BESANÇON, C., *Making Peace: PAs Contributing to Conflict Resolution*, in Stolton, S., and Dudley, N. (eds.), cit.

<sup>&</sup>lt;sup>102</sup> BRUNNER, R., Parks for Life: Transboundary Protected Areas in Europe. Final Report, IUCN (IUCN/WCPA Parks for Life Coordination Office), Ljubljana, Slovenia, 1996.

<sup>&</sup>lt;sup>103</sup> See http://whc.unesco.org/en/list.

one WH Sites which extends across an international border). According to IUCN, comanagement is an essential component of every TBPA, and consequently of TB WH Sites. Although there is no obligation for States Parties to the WH Convention to conform to this important element of the meaning of TBPA, IUCN, as the Advisory Body to the World Heritage Committee and evaluator of natural WH Sites, requires some form of cooperation to be in place before recommending WH listing.<sup>104</sup> In practice, some sites have in the past not been obliged to have prior established cooperation. Today, this practice is changing and TB WH Sites are not only properties sharing an international boundary, but also properties of outstanding universal value with a certain level of cooperative management in place. The levels of cooperation can vary from State to State.

Let us look at the transboundary statistical data of the WH Sites. Out of 936 WH properties on the WH List, 183 are natural properties and 28 are inscribed for their natural and cultural values (as mixed WH Sites). Only 15 of all IUCN-evaluated WH Sites are transboundary, bearing in mind that 2 of them fall completely under the criteria for cultural WH properties as cultural landscapes (Fertö/Neusiedlersee Cultural Landscape and Curonian Spit),<sup>105</sup> 1 is designated as a mixed site and a cultural landscape (Pyrénées-Mont Perdu), and 12 are natural properties (see table 1). 9 TB WH Sites are based in Europe.

We can conclude that there are not many TB WH Sites globally or in Europe, but it is indicative that the increase of TB WH Sites has come about particularly in the last decade, and it is a European phenomenon (Table 1). 6 out of 9 European TB WH Sites were added to the WH List in, or after, the year 2000, including 2 extensions to include a neighbouring country (High Coast/Kvarken Archipelago - extension from Sweden to Finland, and Monte San Giorgio - extension from Switzerland to Italy). Only 1 TB WH property outside Europe has been inscribed in the WH List since the year 2000 (the Uvs Nuur Basin shared by Mongolia and the Russian Federation). Some possible reasons for this increase of TB WH Sites in Europe are to be found in the fact that the majority of WH Sites globally are located in Europe, and that the commitment and dedication of States Parties might be stronger than in other parts of the world. Another explanation, as

<sup>&</sup>lt;sup>104</sup> BADMAN, T., personal communication, 2010.

 $<sup>^{105}</sup>$  Since 1992 significant interactions between people and the natural environment have been recognized as cultural landscapes - criteria (v).

noted by IUCN, is that a better promotion of the values and opportunities of TB WH Sites listing is needed for transboundary properties to fully reach their potential.

	Transboundary World Heritage	Country	Criteria <sup>107</sup>	Year of inscription
	Site			
1	Fertö / Neusiedlersee Cultural	Austria / Hungary	(v)	2001
	Landscape <sup>2</sup>			
2	Belovezhskaya Pushcha / Białowieża	Belarus / Poland	(vii)	
	Forest			1979, 1992 <sup>1</sup>
3	Waterton Glacier International Peace	Canada / USA	(vii), (ix)	1995
	Park			
4	Kluane / Wrangell-St Elias / Glacier	Canada / USA	(vii)-(x)	1979, 1992 <sup>1</sup> ,1994 <sup>1</sup>
	Bay / Tatshenshini-Alsek			
5	Talamanca Range-La Amistad	Costa Rica / Panama	(vii)-(x)	1983
	Reserves / La Amistad National Park			
6	Mount Nimba Strict Nature Reserve	Côte d'Ivoire / Guinea	(ix), (x)	1981, 1982 <sup>1</sup>
7	High Coast / Kvarken Archipelago	Finland / Sweden	(viii)	2000, 2006 <sup>1</sup>
8	Pyrénées - Mont Perdu <sup>2</sup>	France / Spain	(iii)-(v), (vii),	1997, 1999 <sup>1</sup>
			(viii)	
9	The Wadden Sea	Germany / The	(viii)-(x)	2009
		Netherlands		
10	Caves of Aggtelek Karst and Slovak	Hungary / Slovakia	(viii)	1995, 2000 <sup>1</sup>
	Karst			
11	Monte San Giorgio	Italy / Switzerland	(viii)	2003, 2010 <sup>1</sup>
12	Curonian Spit <sup>2</sup>	Lithuania / Russian	(v)	2000
		Federation		
13	Uvs Nuur Basin	Mongolia / Russian	(ix), (x)	2003
		Federation		
14	Primeval Beech Forests of the	Slovakia / Ukraine	(ix)	2007
	Carpathians			
15	Mosi-oa-Tunya / Victoria Falls	Zambia / Zimbabwe	(vii), (viii)	1989

Table 1<sup>106</sup>: Transboundary World Heritage Sites

<sup>1</sup> Extension

<sup>2</sup> Cultural landscape

<sup>&</sup>lt;sup>106</sup> Extracted from the World Heritage List, UNESCO website: http://whc.unesco.org/en/list.

 $<sup>^{107}</sup>$  The criteria that evaluate WH property were formerly presented as two separate sets of criteria - criteria (*i*) - (*vi*) for cultural heritage and (*i*) - (*iv*) for natural heritage. The 6<sup>th</sup> Extraordinary Session of the World Heritage Committee in 2004 decided to merge the ten criteria, UNESCO, *Decisions Adopted by the World Heritage Committee at its* 6<sup>th</sup> Extraordinary Session, Paris, 2003.

# 5.1. Three pillars of Transboundary World Heritage Sites - European examples

If we consult the Operational Guidelines (2008), we notice that major relevant pre-conditions for TB WH Sites nominations and management have been suggested by UNESCO. The WH Committee encourages:

- a) Joint nominations: "Wherever possible, transboundary nominations should be prepared and submitted by States Parties jointly.";
- b) Co-management: "It is highly recommended that the States Parties concerned establish a joint management of the whole of a transboundary property"; and
- c) Joint state of conservation reporting: "For transboundary properties it is recommended that reports be prepared jointly by or in close collaboration between the agencies concerned."<sup>108</sup>

Obviously, these three points are made on an advisory level and States Parties are not obliged to follow them. Differences in co-management, the preparation of joint nomination documents, shared reporting, as well as the extent of planned cooperation in joint nominations vary a great deal from case to case.

In Europe, 6 TB WH Sites were inscribed through joint nominations, 2 became transboundary by the extension of a primary WH Sites (see paragraph 5), and 1 site was inscribed on the WH List by joining two single properties (Belovezhskaya Pushcha/Białowieża Forest). Interestingly, in 1978, IUCN did not recommend the inclusion of the Polish Białowieża Forest on the WH List, but advised that the nomination be revised to include the Belarusian side.<sup>109</sup> The WH Committee reversed the recommendation at the 3<sup>rd</sup> Session in 1979 and added Białowieża to the WH List. After more than a decade, in 1992, the Belarusian part of this integral ecosystem was inscribed on the WH List, thus forming a single transboundary property with Białowieża.

The increase of joint nominations is a positive trend, but wider usage should be encouraged, as well as the development of technical and policy guidance on the benefits

<sup>&</sup>lt;sup>108</sup> See UNESCO, Operational Guidelines for the Implementation of the World Heritage Convention, cit.

<sup>&</sup>lt;sup>109</sup> IUCN Review, *World Heritage Nomination. Bialowieza National Park, Poland*, Morges, Switzerland, http://whc.unesco.org/archive/advisory\_body\_evaluation/33bis.pdf, 1978.

that these kinds of nominations provide.<sup>110</sup> Although the majority of European TB WH Sites nominations were made jointly by two relevant States Parties, levels of cooperation differ greatly. Transboundary cooperation is always a challenging and more demanding task than working within national borders. Some countries have found more effective ways of communication and progressive cooperation on a range of issues (such as Hungary and Austria in Fertö/Neusiedlersee Cultural Landscape, or Germany and The Netherlands in The Wadden Sea), while some confront transboundary management challenges with more effort (e.g. Lithuania and Russian Federation in Curonian Spit).

Co-management, nowadays recommended by the WH Committee for TB WH Sites, was not always a condition for getting a site with joint nomination inscribed on the WH List. For example, IUCN's evaluations of the nominations of the Caves of Aggtelek Karst and Slovak Karst and Fertö/Neusiedlersee Cultural Landscape do not elaborate on co-management aspects in the two sites, in contrast to the evaluation of The Wadden Sea. Nevertheless, all three sites are examples of good transboundary practice. Hungary and Slovakia signed the intergovernmental agreement in 1999 which set the basis for cooperation on projects, research, protection and monitoring of the site. A joint Hungarian–Austrian Committee<sup>111</sup> established a transboundary park in their countries, initiating multi-level cooperation. Finally, one of the most effective cooperative arrangements can be seen in The Wadden Sea, the property managed under the Trilateral Wadden Sea Cooperation (The Netherlands, Germany and Denmark, the last of which is not included in the WH Site) which provides it with one comprehensive protection, management and reporting scheme.

Consistency needs to be ensured in all future evaluations of properties nominated under the 'transboundary' umbrella and inscriptions of TB WH Sites on the WH List in that a certain level of cooperation must be operative before such inscription. Otherwise, the inscribed site is only a site with transboundary potential (in the full meaning of the word, as seen in the IUCN definition of TBPA above).

The latest transboundary addition to the WH List is Monte San Giorgio. The UNESCO WH Committee in 2010, following IUCN's recommendation, adopted a

<sup>&</sup>lt;sup>110</sup> IUCN, The World Heritage List: Future Priorities for a Credible and Complete List of Natural and Mixed Sites. A Strategy Paper Prepared by IUCN, 2004.

<sup>&</sup>lt;sup>111</sup> The Committee was later transformed into the Austrian-Hungarian National Park Commission.

decision to extend the existing WH Site in Switzerland to the Italian side.<sup>112</sup> Legally, the site is protected in both countries, while in terms of management, strong transboundary cooperation exists. Not only have the countries agreed to cooperate in the management of Monte San Giorgio, but efficient mechanisms have been agreed and declarations signed by all local municipalities in both countries. Furthermore, this WH Site benefits from a joint Management Plan. Monte San Giorgio WH Site is an excellent example of a site where transboundary conservation principles had already been observed before the site was listed as TB WH Site.

As well as co-management, joint reporting to the WH Committee can also become a complex activity. The WH Committee called for a joint report of Pyrénées/Mont Perdu shared by France and Spain at several WH Committee sessions (*e.g.* at the 28<sup>th</sup> Session in 2004, and at the 30<sup>th</sup> Session in 2006). In 2010, the joint report had still not been submitted.

Going back to the beginning of this paragraph, where we outlined transboundary related provisions in the Operational Guidelines (2008), there is an obvious step forward in trying to accommodate transboundary conservation principles and requirements for WH Site listing. However, there is a need for clear and in-depth guidelines on the development of nominations as well as for the management of TB WH Sites.<sup>113</sup> The IUCN WCPA Transboundary Conservation Specialist Group seeks to contribute in this aspect, specifically focusing on the development of guidelines on nominations and management of TB WH Sites.

# 5.2. Management of Transboundary World Heritage Sites

Much has been said about the management of TB WH Sites in the above paragraphs. Having a TB WH Site listing is often seen by PA managers as an advantage for securing a competitive edge over other PAs in securing funding from donor agencies.<sup>114</sup> But what does it really mean in current conditions and in terms of the

<sup>&</sup>lt;sup>112</sup> UNESCO, Report of the Decisions Adopted by the World Heritage Committee at its 34<sup>th</sup> Session (Brazil, 2010), 2010.

<sup>&</sup>lt;sup>113</sup> See IUCN, The WH List: Future Priorities for a Credible and Complete List of Natural and Mixed Sites, cit.

<sup>&</sup>lt;sup>114</sup> See SANDWITH, T., SHINE, C., HAMILTON, L. and D. SHEPPARD, *TBPAs For Peace and Co*operation, cit., see also FALL, J., *Designing Framework Conventions to Promote and Support Transboundary Protected Areas: Theory and Practice from the Carpathian Convention*, in Tamburelli, G.

Operational Guidelines for the Implementation of the World Heritage Convention? The management of TB WH Sites is largely identical to the management of any other natural WH Site, although one has to bear in mind the advice of the WH Committee relating to joint nominations, management and reporting. Some key elements of WH Site management and its relation to TB WH Sites are given below.

*a*) Legislative/regulatory protection

All WH Sites must have "adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding."<sup>115</sup> Clearly all TB WH Sites must be PAs with adequate regulatory protection. Different and/or conflicting laws may sometimes impede transboundary cooperation,<sup>116</sup> and the harmonization of different national laws may be one of the key elements for successful collaboration.

*b*) Management Plans/systems for a PA or for a TB WH Site are devised according to existing management plans or other management systems, and/or newly developed management plans for the WH Sites. However, specific WH issues need to be addressed in these plans, such as the preservation of the outstanding universal value, tourism management or monitoring requirements. Unequal implementation of Management Plans in adjacent countries sharing a WH Site can lead to unbalanced conservation action, along with incompatible policies and/or zoning systems.

a) Integrity

Integrity measures the wholeness and intactness of the natural and/or cultural heritage. Assessing the integrity means looking at whether, among other things, the site *"is of adequate size to ensure the complete representation of the features and processes which convey the property's significance."*<sup>117</sup> This is an opportunity for TB WH Sites as the *"ecological integrity - and a lot more besides - can be established with transboundary conservation initiatives"*<sup>118</sup> A TB WH Site is obviously a larger area than a single PA, which is highly relevant for species migration and maintenance, and

<sup>(</sup>ed.), Biodiversity Conservation and Protected Areas. The Italian and Ukrainian Legislation, Milan, 2007.

<sup>&</sup>lt;sup>115</sup> See UNESCO, Operational Guidelines for the Implementation of the WHC, cit.

<sup>&</sup>lt;sup>116</sup> HAMILTON. L.S., MACKAY, J.C., WORBOYS, G.L., JONES, R.A. AND MANSON, G.B. *Transborder Protected Area Cooperation*, IUCN/Australian Alps National Parks, 1996.

<sup>&</sup>lt;sup>117</sup> See UNESCO, Operational Guidelines for the Implementation of the WHC, cit.

<sup>&</sup>lt;sup>118</sup> See WOLMER, W., TBPA Governance: Tensions and Paradoxes, cit.

potentially for increasing resilience to adjust to climate change.<sup>119</sup> This is especially important for WH categories (ix) and (x) which are addressing long-term conservation of biodiversity.<sup>120</sup>

b) Co-management and management coordination

Management cooperation is encouraged by the WH Committee, but it is not obligatory. TB WH Sites are not only sites which incorporate an international boundary, but also those where a certain level of cooperation is in place. If there is no cooperation at the time of inscription or extension of a property to TB WH Site, we are looking at two (or more) single properties that happen to have an international border crossing the site. This is why IUCN requires cooperation to be in place before recommending TB WH Site listing (see example of Monte San Giorgio WH Site above).

Naturally, looking at a TB WH Site as a single unit with a common management scheme can pose a problem to the UNESCO WH Committee if one party performs conservation activities that negatively affect its part of the TB WH Site and may possibly lead to the destruction of the values for which the site was listed on the WH List. In such cases in non-transboundary WH Sites the WH Committee proposes 'Danger Listing',<sup>121</sup> but in TB WH Sites this decision is faced with the dilemma as to whether the whole TB WH Site should be inscribed on the List of World Heritage in Danger or not. 'Danger Listing' of the whole TB WH Site would diminish any positive efforts to safeguard the Outstanding Universal Value by the adjacent State Party, and in terms of transboundary cooperation might result in a weakening of collaboration with the neighbouring State Party.

c) Reporting

States Parties in TB WH Sites are advised to prepare joint state of conservation reports or to collaborate on their preparation as much as possible. It is important for TB WH Sites that this report elaborates on the levels and fields of cooperation between concerned agencies, indicates whether cooperation has improved or deteriorated, and serves as a monitoring tool for transboundary initiatives.

<sup>&</sup>lt;sup>119</sup> HAMILTON, L., How Can Biosphere Reserve Managers Address the Impacts of Climate Change and Global Warming on Biodiversity? An Overview of Some Global Efforts, unpublished article.

<sup>&</sup>lt;sup>120</sup> See IUCN, The WH List: Future Priorities for a Credible and Complete List of Natural and Mixed Sites. cit.

<sup>&</sup>lt;sup>121</sup> Inscription of WHS to the List of World Heritage in Danger.

#### 6. Future directions.

Each WH Site brings diverse challenges, such as unexpected plans for development projects that could negatively impact the outstanding universal value of a site, or the lack of a common vision and management system. In TB WH Sites these challenges require a coordinated effort and approach with a common vision and a unified management system in order to protect a site jointly and preserve the heritage values for which the site was placed on the WH List. Moreover, parties in TB WH Sites are engaged in a demanding mission to succeed in bilateral and/or multi-lateral cooperation. That is why properties with effective cooperation and successful TB WH Sites management deserve special applause and attention from the international community.

The WH Convention can bring benefits to a transboundary initiative by reinforcing it, formalizing it when required, and ensuring the maintenance and progress of cooperation between concerned parties. The Parties largely work together in the monitoring of the TB WH Sites which the WH Convention implies, to ensure that a property retains its outstanding universal value. Ideally, the mechanisms of the WH Convention will guarantee the safeguarding and improvement of WH Site transboundary initiatives. But first, UNESCO and IUCN need to further encourage the States Parties to engage in cooperative relationships and develop agreements and other modes of collaboration, before applying for a transboundary extension or nominating a new TB WH Site. Both the WH Committee and IUCN have openly encouraged the States Parties to nominate TB WH Sites. The development of guidelines and directions which define the process of nominating a TB WH Sites would be valuable for States Parties. Such guidelines would ensure that TB WH nominations are adequately prepared (see Table 2).

The WH Committee needs to ensure that transboundary sites are not inscribed on the WH List unless the States Parties have fully engaged in transboundary processes before WH listing. There is an urgent need for the development of clearer guidelines for the management of TB WH Sites, incorporating the principles/practice of TBPA management and requirements for WH Site management. These guidelines would help the States Parties understand, not only the cooperative management principles that are required in TB WH Site management, but also the value and prospects of such TB WH Sites. The guidelines need to provide a clear direction to ensure the effective management of a TB WH Site after its inscription on the WH List.

Carrying out a global analysis of national Tentative Lists (inventory of national important heritage sites from which a nomination for WH inscription can be submitted to UNESCO) would be an important tool to help in assessing the potential to create future TB WH Sites.

Table 2: Some key future directions for Transboundary World Heritage Sites

1.	Manage TB WHS as a single unit (apart from daily country specific issues) with common vision
	and management objectives.
2.	Ensure full engagement in transboundary processes before WH Site listing as TB WHS.
3.	Monitor the status and progress of TB cooperation in TB WHS through WH reporting mechanisms.
4.	Develop guidelines on management of TB WHS by incorporating TBPA management practice and
	WHS management requirements, and to be adopted and incorporated in the Operational Guidelines
	for the Implementation of the World Heritage Convention.
5.	Develop policy and technical papers on opportunities for TB nominations and management.
6.	Develop guidelines and directions for nominations of TB WHS.
7.	Carry out a global analysis of national Tentative Lists to assess potential to create TB WHS.
8.	Promote the value and opportunities of TB WHS, including the possibilities to ensure its
	sustainable financing.

#### BIOSPHERE RESERVES AND WORLD HERITAGE SITES IN ARGENTINA

#### Zlata Drnas de Clément \*

SUMMARY: 1. Introduction. - 2. The Biosphere Reserves in Argentina. - 3. a) national level. - 4. b) subregional level. - 5. World Heritage in Argentina. - 6. a) national level. - 7. b) subregional level. - 8. Final remarks.

# 1. Introduction.

According to UNESCO's Ecological Sciences and Biodiversity Section chief, Thomas Schaaf, natural world heritage (WH) sites conserve the natural ecosystems for which they have been inscribed;<sup>122</sup> while biosphere reserves (BRs) also carry out environmental restoration and rehabilitation activities of degraded environments. BRs are mainly concerned with managing change in ecosystems linked to human activity in order to promote sustainable development.<sup>123</sup>

The designations "World Heritage Site" and "Biosphere Reserve" were launched at the beginning of the '70s, but the legal framework, as well as the political and cultural connotations, have changed since then at international, regional and local levels.<sup>124</sup>

Sometimes a WH site has also become or been incorporated into a BR or Ramsar site. This is the case of Laguna de los Pozuelos in Argentina. Many BRs and natural WH sites (inscribed for natural heritage values) are protected by national park laws. In Argentina, as in other South American countries, there is no separate local legislation for BRs and for WH sites.

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<sup>&</sup>lt;sup>122</sup> Management of natural WH takes sustainable development into account, trying to ensure that the uses are compatible with the outstanding universal values for which the sites were inscribed on the World Heritage List.

<sup>&</sup>lt;sup>123</sup> V. CAVANDER, L., When World Heritage Sites and Biosphere Reserves Merge, in Forum UNESCO Universidad y Patrimonio FUUH's Newsletter, p. 8 (http://universityandheritage.net) 2009.

<sup>&</sup>lt;sup>124</sup> TAMBURELLI, G., UNESCO Designations, An Overview of Current Legal Issues, Workshop on: "European Protected Areas and UNESCO Designations" (http://www.europarc.org/library/conferencepresentat/europarc-2010-pres/), 2010.

# 2. The Biosphere Reserves in Argentina.

The establishment of BRs<sup>125</sup> is not covered by a specific convention, but is part of an international scientific programme, UNESCO's *Man and the Biosphere Programme* (MAB).<sup>126</sup> According to MAB, a BR is a voluntary, cooperative conservation reserve, created to protect the biological and cultural diversity of a region while promoting economic development.<sup>127</sup>

The MAB Programme was created as an international framework for the national implementation of individual BRs. The ultimate goal of the Programme is the creation of a World Network of Biosphere Reserves (WNBR).<sup>128</sup>

Argentina has established 13 BRs recognized under the MAB Programme to promote sustainable development. These are sites of excellence - under national sovereign jurisdiction - where practices for managing nature and human activities have been compromised and must be tested and demonstrated. The State shares their experiences and ideas nationally, regionally and internationally within the WNBR. Argentina has more reserves than any other South American country.<sup>129</sup>

The first BR in Argentina was the San Guillermo in San Juan Province (1980), covering a million acres where vicuña and guanaco were the main reasons for conservation. The latest are (2007) the Pereyra Iraola Park of 10,248 hectares in Buenos Aires Province, and the Andean-Patagonian area covering 2,266,942 hectares in Neuquen, Río Negro and Chubut Provinces.

The BRs in Argentina are: 1 San Guillermo [1980, San Juan, 990,000 hectares]<sup>130</sup>; 2 Laguna Blanca [1982, Catamarca, 973,270 hectares]<sup>131</sup>; 3 Costero del Sur [1984,

<sup>&</sup>lt;sup>125</sup> The concept of the biosphere reserve incorporates the heart of ecosystem management. At its initiation, MAB was the first international attempt to address the concept of sustainable development. See BROWN, J. D., *The Integration of Man and the Biosphere*, *The Georgetown International Law Review*, vol. 14, 2001-02, p. 741.

<sup>&</sup>lt;sup>126</sup> UNESCO, Man and the Biosphere Programme, World Network of Biosphere Reserves, http://www.unesco.org/mab/.

<sup>&</sup>lt;sup>127</sup> Seville Strategy for Biosphere Reserves (www.unesco.org).

<sup>&</sup>lt;sup>128</sup> BROWN, J. D., The Integration of Man and the Biosphere", op. cit.

<sup>&</sup>lt;sup>129</sup> For example, - Bolivia has 3 (Pilón-Lajas [1977], Ulla Ulla [1977]; and Beni [1986]; - Brazil has 6 (Mata Atlântica [1993], Cerrado [1993], Pantanal [2000], Caatinga [2001], Central Amazon [2001], and Espinhaço Range [2005]; - Chile has 9 (Fray Jorge [1977], Juan Fernández [1977], Torres del Paine [1978], Laguna San Rafael [1979], Lauca [1981], Araucarias [1983], La Campana-Peñuelas [1984], Cabo de Hornos [2005], Bosques Templados Lluviosos de los Andes [2007]; - Paraguay has 2: Bosque Mbaracayú [2000], El Chaco [2005]; - Uruguay has 1: Bañados del Este [1976].

<sup>&</sup>lt;sup>130</sup> In 1998, its core area was declared a National Park. It has established a cooperation agreement between the Government of San Juan, the National Parks Administration (APN) and the Environmental Foundation of San Juan (FAS) as part of a provincial conservation strategy.

Buenos Aires, 25,000 hectares]<sup>132</sup>; 4 Ñacuñán [1986, Mendoza, 12,300 hectares]<sup>133</sup>; 5 Laguna de Pozuelos [1990, Jujuy, 400,000 hectares]<sup>134</sup>; 6 Yabotí [1995, Misiones, 253,775 hectares]<sup>135</sup>; 7 Parque Atlántico Mar Chiquita [1996, Buenos Aires, 26,488 hectares]<sup>136</sup>; 8 Delta del Paraná [2000, Buenos Aires, 88,624 hectares]<sup>137</sup>; 9 Riacho Teuquito [2000, Formosa, 81,000 hectares]<sup>138</sup>; 10 Laguna Oca del Río Paraguay [2001, Formosa, 10,000 hectares]<sup>139</sup>; 11 Las Yungas [2002, Salta and Jujuy, 1,350,000 hectares]<sup>140</sup>; 12 Andino Norpatagónica [2007, Neuquen, Rio Negro and Chubut, 2,266,942 hectares]<sup>141</sup>; 13 Pereyra Iraola [2007, Buenos Aires, 10,248 hectares]<sup>142</sup>.

We must not forget that Ramsar sites work towards similar objectives to those of BRs (and natural WH sites).<sup>143</sup>

<sup>&</sup>lt;sup>131</sup> Area predominantly private with 600 inhabitants. The reserve is under the Ministry of Production of Catamarca.

<sup>&</sup>lt;sup>132</sup> This reserve stretches along the coast of Rio de la Plata. The administration of the area is bipartite, between the municipalities of Magdalena and Punta Indio.

<sup>&</sup>lt;sup>133</sup> The entire population of the reserve consists of approximately 100 people and is concentrated in the town of Nacuñán, located in the transition area. There are no residents in the core and buffer zones.

<sup>&</sup>lt;sup>134</sup> This is a mixed area of mountains and highlands inhabited by 3,500 people (the highest density of the Puna Argentina) dedicated to breeding sheep and llamas. More than 50% is private property. It is administered by the Corporation for the Development of Pozuelos (CODEPO), a multisectoral entity (producers, provincial government and university created by provincial law, with technical support from the Regional Ecology Programme of the Institute of High-Altitude Biology (National University of Jujuy).

<sup>&</sup>lt;sup>135</sup> The Reserve includes the Provincial Park and the Reserve Moconá Esmeralda, both of Provincial state domain.

<sup>&</sup>lt;sup>136</sup> The Reserve is administered by the municipality of Mar Chiquita.

<sup>&</sup>lt;sup>137</sup> This is a delta (channels of the estuary of the Rio de la Plata). It is administered by the municipality of San Fernando.

<sup>&</sup>lt;sup>138</sup> An area of tropical dry forests. Its surface is appropriate to meet the three functions of the Reserve; however, it is considered an extension to an area of 100,000 hectares.

<sup>&</sup>lt;sup>139</sup> A wetland located near Formosa, on the right bank of the river Paraguay. The core area is uninhabited.

<sup>&</sup>lt;sup>140</sup> Yungas are forests and subtropical forests of the mountains, between 300 and 5,000 metres. The reserve is trans-provincial (Salta, Jujuy) and is divided into 23 communes. It has around 506,000 inhabitants (including the City "portal" of the reserve, San Salvador de Jujuy). The reserve is inhabited by various indigenous peoples (Kolla, Guaraní and Ocloyas) that preserve their customs.

<sup>&</sup>lt;sup>141</sup> The reserve is trans-provincial (Neuquen, Rio Negro, Chubut), and mostly occupies the area of national parks. It is under national and provincial jurisdiction.

<sup>&</sup>lt;sup>142</sup> The BR is maintained by the Ministry of Land Affairs in the province of Buenos Aires, and is located in the largest conurbation in the country, between the cities of Buenos Aires and La Plata.

<sup>&</sup>lt;sup>143</sup> The RAMSAR sites in Argentina are: Río Pilcomayo [1992], Laguna Blanca [1992], Laguna de los Pozuelos [1992], Reserva Costa Atlántica de Tierra del Fuego [1995]; Laguna de Llancanelo [1995], Bahía de Samborombón [1997], Lagunas de Guanacache, Desaguadero y del Bebedero [1999], Lagunas de Vilama [2000], Jaaukanigás [2001], Lagunas y Esteros del Iberá [2002], Bañados del Río Dulce y Laguna de Mar Chiquita [2002], Reserva Provincial Laguna Brava [2003], Humedales Chaco [2004], Reserva Ecológica Costanera Sur [2005], Parque Provincial El Tromen [2006], Reserva Natural Otamendi [2008], Humedal Laguna Melincué [2008], Lagunas Altoandinas y Puneñas de Catamarca [2009], Glaciar Vinciguerra y turberas asociadas [2009]. See maps and references on the website of the Secretary of Environment and Development (www.ambiente.gov.ar).

The mission of the Convention is to promote "the conservation and wise use of all wetlands<sup>144</sup> through local and national action and international cooperation, as a contribution towards achieving sustainable development throughout the world". The "wise use" of wetlands is defined as "the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development". "Wise use" therefore has at its heart the conservation and sustainable use of wetlands and their resources, for the benefit of humankind.<sup>145</sup>

The preservation of protected areas (PAs) as WH or BRs involves a set of objectives. In many instances, the most appropriate measure for achieving these complex objectives is not to alter the status of the site.

### 3. a) national level.

Argentina ratified the *Convention on Biological Diversity* in 1994, the *Convention on Wetlands* in 1992, and is party to the UNESCO-MAB. However, like other MERCOSUR countries, it has not adopted a comprehensive national legal regime to protect these areas of rich biological diversity. The general legal systems of PAs and national parks are applied to them, if appropriate.

In Argentina, BRs have no legal status as such, despite the fact that the Madrid Action Plan recommends that BRs benefit from an enhanced legal regime and states be encouraged to include BRs in their own legislation. Nevertheless, a number of national rules apply to them, *e.g.* the following:

- *National Constitution*: Article 41 states that it is the competence of the Nation to promulgate rules for assuring minimum environmental protection, and of the provinces those necessary to enforce them, without altering their local jurisdictions. - Article 124 in its last paragraph states that the provinces have the original ownership of natural resources within their territories. Provinces exercise control over resources located in their territory.

<sup>&</sup>lt;sup>144</sup> The Convention uses a broad definition of the types of wetlands covered in its mission, including lakes and rivers, swamps and marshes, wet grasslands and peat lands, oases, estuaries, deltas and tidal flats, near-shore marine areas, mangroves and coral reefs, and human-made sites such as fish ponds, rice paddies, reservoirs, and salt pans, including areas of marine water the depth of which at low tide does not exceed six metres (*Ramsar Convention on Wetlands* [1971 with amendments]).

<sup>&</sup>lt;sup>145</sup> See http://www.ramsar.org/.
- General Environmental Law 25675 (2002) states: Article 1: This law determines the minimum standard to achieve sustainable and appropriate management of the environment, preservation and protection of biodiversity and sustainable development implementation. Article 2: The national environmental policy must meet the following objectives: a) To ensure the preservation, conservation, restoration and improvement of the quality of environmental resources, both natural and cultural, in the conduct of the various human activities (...); d) To promote the rational and sustainable use of natural resources; e) To maintain the balance and dynamics of ecological systems; f) To ensure the conservation of biological diversity; g) To prevent human activities that are harmful or hazardous to the environment to enable ecological sustainability, economic and social development (...); j) To establish a federal system of inter-jurisdictional coordination for the implementation of environmental policies at national and regional level (...).

- National Law 25688, on *Minimum Standards for Environmental Management of the Waters* (2003), establishes: Article 1 - *This law establishes minimum standards for the preservation of waters, their improvement and rational use.* 

- National Law 26331, on *Minimum Standards for Environmental Protection of Native Forests* (2008), provides: Article 1. - *This law determines the minimum environmental protection for the enrichment, restoration, conservation, sustainable use and management of native forests and the environmental services they provide to society* (...).

- National Law 26639, on Minimum Standards for Preservation of Glaciers and Periglacial Environment (2010), states: Article 1 - Purpose. This law determines the minimum standards to protect glaciers and periglacial environments in order to preserve them as strategic reserves of water for human consumption, for agriculture and as suppliers of water to recharge basins; for the protection of biodiversity as a source of scientific study and tourist attraction. Glaciers are public property.

- National Law 22351, on National Parks, Reserves and National Monuments<sup>146</sup> (1980), states: Article 1. - For the purposes of this law, an area of the territory of the

<sup>&</sup>lt;sup>146</sup> There are in Argentina 38 National Parks (NP), Reserves (R) and National Monuments (NM): NM Ballena Franca Austral; NP Baritú; NM Bosques Petrificados; NP Calilegua, NP Campo de los Alisos, NP Los Condores, NP Chaco, R Colonia Benítez, NP Copo, NP El Leoncito, NP El palmar, NP El Rey, R Formosa, NM Huemul, NP Iguazú, NP Lago puelo, NP Laguna Blanca (Neuquén), NM Laguna de los Pozuelos, NP Lanín, NP Lihué Calel, NP Los Alerces, NP Los Arrayanes, NP Los Glaciares, NP

Republic may be declared a National Park Reserve or National Monument, for its extraordinary beauty and wealth of flora and fauna or because of its particular scientific interest, It should be protected and preserved for scientific research, and the education and enjoyment of present and future generations (...). In each case the declaration shall be made by law. Article 2. - The existing public lands in national parks and natural monuments, are of national public domain (...). Article 4. - National Parks will preserve areas in their natural state (...).

- National Decree 2148, on *Strict Nature Reserve* (1990), states: *The biological diversity of a country is its richness of life, shaped by thousands of species of plants, animals and microorganisms, the genes they contain and the intricate ecosystems they contribute to the constitution of the living environment (...). (...) For this reason, it is imperative to create the category of strict nature reserves, which minimizes direct human interference as possible in areas that are designated under that name (...). Article 4 - In strict nature reserves all activities that alter their natural characteristics, which threaten their biodiversity or diminish that in any way affect the elements of flora, fauna or geology, with the exception of those are necessary to manage and control them are prohibited* 

In Argentina the Coordination Unit MAB-UNESCO (UCPMAB) performs tasks relating to the MAB Programme. This Unit is the technical area of the Argentine MAB Committee, whose President is the National Secretary of Environment and Development.

The UCPMAB organizes national meetings of the National Network of BRs, workshops for the periodic review of the objectives of the BRs, national and international meetings, such as the Red IberoMAB. It supports the management of reserves, the exchange of experiences and personal and technical publications, is involved in the assessment of compliance with objectives and advises on and promotes the generation of new reserves. It diffuses and preselects the MAB Young Scientists Research Fellowships. The responsibility of the MAB-UNESCO falls within the Working Group on Conservation of Biodiversity.

Mburucuya, NP Monte León, NP Nahuel Huapi, R Otamendi, NP Predelta, NP Perito Moreno, NP Quebrada del Condorito, NP Río Pilcomayo, R San Antonio, NP San Guillermo, NP Sierra de las Quijadas, Np Talampaya, NP Tierra del Fuego, NM Taruca o Venado Andino, NM Yaguareté.

The MAB National Committee is a body "responsible for the activities that constitute the national contribution of a country to the international MAB Programme in the field of biodiversity conservation, sustainable development, capacity building and information sharing, and in particular in promoting the biosphere reserve concept, the WNBR and its constituent regional networks".<sup>147</sup>

In Argentina, Resolution 386/98 of the Secretariat for Natural Resources and Sustainable Development specified the functioning and mandate of the Coordination Unit within the Secretariat for Environment and Sustainable Development. In spite of modest financial resources, the allocation of working time to dedicated staff is a strength, which enables this Committee to carry out a wide range of successful activities. These include for example regular meetings of representatives of the country's BRs, sub-regional thematic workshops on coastal BRs in cooperation with neighbouring Brazil and Uruguay and, more recently, a workshop on the periodic review of BRs. In addition, in 2001, Argentina hosted a major meeting of a regional network. Through its National Committee, Argentina has strongly contributed to the continuous evolution of the programme.<sup>148</sup>

In line with the MAB Programme, in order to carry out the conservation and complementary use of natural resources, BRs are organized spatially and functionally by dividing them into three interrelated areas: core, buffer and transition. In practice, this zoning is applied in different ways to accommodate geographical conditions and local limitations.

The core area is protected by law and should ensure long term protection of the landscape, ecosystems and species it contains. It must ensure the objectives of conservation. Typically, the core area is not subject to human activities, except for research and monitoring.

According to the system, the buffer zones, whose boundaries are well defined, surround the core area or are next to it. The activities here are organized to ensure its protection. Inside it, it's possible to conduct experimental research to find ways to manage natural vegetation, croplands, forests or fisheries, to improve production while conserving natural processes and biodiversity including soil, to the fullest extent

<sup>&</sup>lt;sup>147</sup> Guidelines for Establishing National MAB Committees (www.unesco.org/mab/docs/Guidelines.pdf).

<sup>&</sup>lt;sup>148</sup> V. www.medioambiente.gov.ar.

possible. Similarly, in the buffer zone experiments on the rehabilitation of degraded areas may be performed. The buffer zone can provide support for education activities, tourism and recreation.

The transition zone is the area outside the reserve, it can include human settlements, develop agricultural activities, livestock, forestry and wildlife utilization. Here local people, conservation organizations, scientists, civil associations, cultural groups, private companies and other stakeholders should work together on tasks of management and sustainable resource development in the area for the benefit of its inhabitants.

As we stated, several BRs are also PAs under other systems (such as national parks or nature reserves) or are included in other internationally recognized sites (such as WH sites or Ramsar wetlands). The core areas of BRs are usually public lands, but they can also be private or belong to non-governmental organizations (NGOs). In many cases, the buffer zone is public or private property, and this is the usual case in the transition zone.

The establishment of a BR does not introduce changes in the jurisdiction or possession of land. Biosphere Reserves (under the Seville Strategy and the Madrid Plan of Action) have a new global role: not just to achieve a balanced relationship with the environment for people who live in or around them, but also to explore how to meet the basic needs of human society as a whole, showing the way towards a more sustainable global future.

Argentina has recently submitted to the UN Programme for Development the Project ARG 05/015 UNDP Development of a Strategy for Sustainable Tourism in Biosphere Reserves and Ramsar Sites.

There have been criticisms of the system of BRs arguing: a) improper influence on land management decisions involving federal lands, and b) lack of congressional participation in the designation process.

## 4. b) subregional level

Already in the early stages of the MAB programme there was an intensive dialogue between colleagues working on BRs on behalf of ministries, administrations, development agencies and NGOs. A total of over 40 interviews were conducted during missions to Argentina, Belize, Bolivia, Brazil, Chile, Costa Rica, Cuba, Dominican Republic, Guatemala, Nicaragua, Panama, Paraguay, and Uruguay, at various international meetings in the region, and, whenever possible, during field visits to BRs.<sup>149</sup>

Argentina is carrying out cooperative relations at the *sub-regional level* aimed at the development of the WNBRs, contributing to and promoting the exchange of information and experience between BRs in different countries, especially with the countries of MERCOSUR.<sup>150</sup>

Transboundary Biosphere Reserves (TBRs) work as an official recognition at international level and as a UN instrument for co-operation in the conservation and sustainable use, through common management, of a shared ecosystem.<sup>151</sup> They also represent the commitment of two or more countries to apply together the Seville Strategy and Madrid Plan of Action and their objectives.

## 5. World Heritage in Argentina

The World Heritage Convention (1972), accepted by Argentina in 1974, is an international instrument that provides for a technical process through which governments can propose national PAs for official international recognition. WH sites are also formally recognized by large mining and oil companies and by the largest banks of the world as places that should not be touched, for the benefit of future generations.<sup>152</sup> The complete World Heritage List recognizes 936 properties of "outstanding universal value" in 153 States Parties.

According to the Convention (1972) the fundamental purpose of the instrument is:

Article 1. For the purpose of this Convention, the following shall be considered as "cultural heritage": - monuments: architectural works, works of monumental sculpture

<sup>&</sup>lt;sup>149</sup> DANIELE, C., ACERBI, M., CARENZO, S., *La implementación de Reservas de Biosfera: La experiencia latinoamericana (Argentina)*, UNESCO MAB Programme, UN, South-South Cooperation Programme Working Papers no. 25, 1998.

<sup>&</sup>lt;sup>150</sup> Regional integration processes appear to be an excellent opportunity for cooperation to ensure minimum conditions for preservation and good management.<sup>151</sup> For example, the Chaco region extends into Argentina, Bolivia, Paraguay and to a lesser extent Brazil.

<sup>&</sup>lt;sup>151</sup> For example, the Chaco region extends into Argentina, Bolivia, Paraguay and to a lesser extent Brazil.

<sup>&</sup>lt;sup>152</sup> PATRY, M., *Future Perspectives*, in Guerrero, E., Sguerra, S. (eds.), *Protected Areas and Development in Latin America. From Santa Marta 1997 to Bariloche 2007 and Perspectives for a New Decade*, Fundación Natura, IUCN Colombian Committee and Parques Nacionales Naturales, Colombia, 2009, p. 47 and subsequent (www.iucn.org).

and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science; - groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science; - sites: works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view.

Article 2. For the purposes of this Convention, the following shall be considered as "natural heritage": - natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view; - geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation; - natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

These natural and cultural sites symbolize the awareness of States and peoples of the significance of these places and reflect their attachment to collective ownership and to the transmission of this heritage to future generations.

It should be noted that, at present, the selection criteria are: "i to represent a masterpiece of human creative genius; *ii*. to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; iii. to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; *iv.* to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history; v. to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change; vi. to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance (the Committee considers that this criterion should preferably be used in conjunction with other criteria); vii. to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; viii. to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or

significant geomorphic or physiographic features; *ix.* to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals; *x.* to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation".<sup>153</sup>

In many cases, the selection of goods and cultural evidence is performed by dominant social and political groups, according to general criteria and values, but possibly restrictive or exclusive. Moreover, when the historical process manifests the presence of a national state with a nationalistic historical project, then the selection of goods and evidence of cultural heritage is made in conformity with the 'national interest' of that State which does not always coincide with real values. This is the case of American States, which are multi-ethnic nations with different cultural heritages, some of which have been historically marginalized, neglected or rejected by the dominant cultural notion underlying the nation state.<sup>154</sup> Every object can become historical testimony and all human element can take, deliberately and in retrospect, a rote role. Hence the variety of objects that fill today's "memory market".

Ramos said: "The relationship between memory and identity is historical; and the record of that relationship can be traced through various forms of commemoration... Commemorative activity is by definition social and political, for it involves the coordination of individual and group memories, whose results may appear consensual when they are in fact the product of processes of intense contest, struggle, and, in some instances, annihilation".<sup>155</sup> In this regard, Gillis expressed: "The relationship between memory and identity is historical; and the record of that relationship can be traced through various forms of commemoration (...)".<sup>156</sup>

<sup>&</sup>lt;sup>153</sup> V. http://whc.unesco.org/en/criteria.

<sup>&</sup>lt;sup>154</sup> FLORESCANO, E., *El patrimonio cultural y la política de la cultura*, en Florescano, E., (comp.) *El patrimonio cultural de México*, México, FCE, 1993, p. 9.

<sup>&</sup>lt;sup>155</sup> RAMOS, L., *Sueños patrimoniales: Chile reinventa su historia ante la UNESCO*, note 18. See http://humanidades.uprrp.edu/romanitas/espanol/volumen3/ramos.html.

<sup>&</sup>lt;sup>156</sup> GILLIS, J. R. (ed.), *Commemorations: The Politics of National Identity*, Princeton University Press, Princeton, 1996, p. 5, cit by RAMOS, L., note 6.

Monuments<sup>157</sup> and sites in Argentina are: 1. Los Glaciares [1981, Santa Cruz, 7,178 square kilometres]; 2. Jesuit Missions of the Guaranis [1983, Misiones and Rio Grande-Brazil, cultural heritage]<sup>158</sup>; 3. Iguazu<sup>159</sup> National Park [1984, Misiones, 49,200 hectares]; 4. Cueva de las Manos, Río Pinturas [1999, Santa Cruz, cultural heritage]<sup>160</sup>; 5. Península Valdés [1999, Santa Cruz, 3625 square kilometres]<sup>161</sup>; 6. Ischigualasto / Talampaya Natural Parks [2000, La Rioja and San Juan, 275,369 hectares]<sup>162</sup>; 7. Jesuit Block and Estancias of Córdoba [2000, Córdoba, cultural heritage]<sup>163</sup>; 8. Quebrada de Humahuaca [2003, Jujuy, 172,116 hectares]<sup>164</sup>.

Argentina has a relatively important number of monuments and sites in comparison with other states in South America. Most of the sites in Argentina are natural monuments, unlike those in other South American countries, *e.g.*, Bolivia, Brazil, Chile, Paraguay, and Uruguay.

Every six years, the States Parties are invited to submit to the WH Committee a periodic report on the application of the WH Convention, including the state of conservation of the WH properties located on its territories.<sup>165</sup>

#### 6. a) national level.

As we stated above, there are no particular national standards that regulate the WH sites in Argentina, but the MAB Programme, the national general Environmental Law, the Law of Native Forests and the National Parks Act (if applicable)<sup>166</sup> apply to them.

<sup>&</sup>lt;sup>157</sup> The essence of the monument is its anthropological role.

<sup>&</sup>lt;sup>158</sup> Transnational heritage, remains of five Jesuit missions, built in the land of the Guaranis during the 17<sup>th</sup> and 18<sup>th</sup> centuries.

<sup>&</sup>lt;sup>159</sup> Iguazu is an indigenous (Tupi-Guarani) name, meaning Great Waters.

<sup>&</sup>lt;sup>160</sup> Famous for the paintings of hands, made by the indigenous inhabitants some 9,000 years ago.

<sup>&</sup>lt;sup>161</sup> The only human settlement of the peninsula is Puerto Piramides with 500 inhabitants.

<sup>&</sup>lt;sup>162</sup> Transprovincial natural heritage. These two contiguous parks extend in the desert region on the western border of the Sierra Pampeanas of central Argentina, and contain the most complete continental fossil record known from the Triassic Period (245-208 million years ago).

<sup>&</sup>lt;sup>163</sup> The Jesuit Block in Córdoba, is in the heart of the former Jesuit Province of Paraguay, and contains the core buildings of the Jesuit system: the university, the church, the residence of the Society of Jesus, the college, and five estancias lasting over 150 years in the 17<sup>th</sup> and 18<sup>th</sup> centuries.

<sup>&</sup>lt;sup>164</sup> The valley has been used over the past 10,000 years as a crucial passage for the transport of people and ideas from the high Andean lands to the plains.

<sup>&</sup>lt;sup>165</sup> See http://whc.unesco.org/en/committeerules/.

<sup>&</sup>lt;sup>166</sup> The "Latin American Congress on National Parks and Other Protected Areas" has become a meeting in which all government and non-government stakeholders interested in the subject get together. The first two Congresses were held in 1997 (Santa Marta, Colombia) and 2007 (Bariloche, Argentina) and the third one is expected to be held about 2017.

In general, as in the case of BRs, there has been little political opposition to environmental protection among people of different areas because the inhabitants have received promises of financial aid.

#### 7. b) regional level

Argentina, Bolivia, Chile, Colombia, Ecuador and Peru share a common cultural heritage of outstanding value: the *Qhapaq Ñan*, or Main Andean Road (a network of roads over 23,000 km in length connecting various manufacturing, administrative and ceremonial centres constructed over more than 2,000 years of pre-Inca Andean culture). For the past three years the World Heritage Centre has been assisting these countries in a pioneering project: the preparation of a single nomination for the inclusion of Qhapaq Ñan in the WH List entailing an original and innovative regional cooperation process.<sup>167</sup>

Some projects, such as the Pro-Amazonia Project, Iguazu Project for example, are directed towards strengthening both local and national research capacities for sustainable development. Through this and other networks MAB contributes to the testing and application of research results between one country and another, which is particularly important for South-South cooperation in the environment, an aspect of the utmost importance for developing countries.<sup>168</sup>

## 8. Final remarks.

Argentina has made considerable efforts over the years to participate in international conferences and programmes in which the country is involved, however it is observable that there are weaknesses in the application of international commitments. There are serious depredations<sup>169</sup> in PAs as a result of lack of monitoring and the weak enforcement capacity of the government. There is a lack of government will to constitute a technically competent and politically impartial forum, especially in the preservation of forests and waters.

<sup>&</sup>lt;sup>167</sup> http://whc.unesco.org/en/qhapaqnan/.

<sup>&</sup>lt;sup>168</sup> DROSTE, B. von, UNESCO's Man and the Biosphere Programme: Two Decades of Sustainable Development, 2 Colombia Journal of International Environmental Law & Policy, 1991, p. 259 ss.

<sup>&</sup>lt;sup>169</sup> *E.g.* shearing of vicuña, poaching, accumulation of waste, uncontrolled vehicle traffic, highways drawn within protected areas, oil spills, military manoeuvres, unauthorized diversions of waters, marketing of fossil elements, forest fires and clearings, tourism and housing ventures not in accordance with the condition of the area, often accompanied by corruption of government officials without required studies or environmental impact assessment, without taking into consideration the public will, etc.

The declared sites in the complex international commitments on BRs, WH, and wetlands are representative of the biodiversity of Argentine ecosystems.

The Madrid Action Plan, agreed at the 3<sup>rd</sup> World Congress of Biosphere Reserves (2008), builds on the Seville Strategy and guides the Argentine work on BRs, although the difficulties are those already mentioned.

There is a pressing need to strengthen the institutional capacity of the agents and institutions related to the management and administration of PAs. On the other hand, it is indispensable to increase the informed participation of the local stakeholders of civil society, in particular, indigenous peoples. It is also necessary to promote joint work and sharing of scientific information among the MERCOSUR member-countries as a mean of promoting state responsibility and scientific knowledge in favour of the environment and of natural resources management. It would be useful to share studies to create sites of exceptional environmental value for the countries which are parties to MERCOSUR.

It would also be very useful to create new partnerships and build innovative strategies of income generation in order to attain a sustainable financing of Pas.<sup>170</sup>

Only the integrated action of the work undertaken under the Convention on Biological Diversity, Desertification, Wetlands protection, WH and MAB Programme, coupled with a real and effective will of the Argentine authorities in those complex international commitments, can optimize international objectives for the BRs and world heritage sites.

As places that seek to reconcile the conservation of biological and cultural diversity and economic and social development through partnerships between people and nature, they are ideal to test and demonstrate innovative approaches to sustainable development both on a local and an international scale.<sup>171</sup>

<sup>&</sup>lt;sup>170</sup> GUERRERO, E., SGUERRA, S. (eds.), Protected Areas and Development in Latin America (...), op. cit. See also TILMAN, J., New Prospects for the MAB Programme and Biosphere Reserves. Lessons Learned from Latin America and the Caribbean, UNESCO Biosphere Programme, UN, South-South Cooperation Programme Working Papers, no. 35, 2005, p. 279 and subsequent.

<sup>&</sup>lt;sup>171</sup> See http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves.

#### **BIOSPHERE RESERVES IN THE CZECH REPUBLIC**

## Lenka Vostra\*

SUMMARY: 1. Introduction. - 2. Legal Framework. - 3. Particular biosphere reserves in the Czech Republic. - 4. Conclusion and de lege ferenda.

## 1. Introduction.

About 40 years ago the Man and the Biosphere Programme started as one of the intergovernmental UNESCO programmes (hereinafter only "MAB"). At that time, it was an innovative enterprise of international significance in the field of ecological cooperation with the aim of developing a platform within the framework of natural and social and economic sciences to make rational use of natural resources of the biosphere and to improve relations between man and the natural environment. Over time, the centre of the programme has come to regard (and emphasis is still being put on it) sustainable development and the rational use of biodiversity.

The Czech Republic has participated in the MAB programme since its beginnings. The first step toward creation of the MAB programme was made by the international conference on protection and the rational use of biosphere resources in Paris in 1968. That year is a painful milestone in the history of Czechoslovakia, or as the case may be, the Czech state, because in the summer of that year, the territory of the state was overrun and subsequently occupied by the Warsaw Treaty armies, specifically by the USSR. Despite this fact, representatives of Czechoslovakia participated in that UNESCO conference.

At that time Czechoslovakia entered the MAB programme through its representation at UNESCO. At the beginning of the 1970's, the first Czechoslovak MAB Committee was formed, composed of leading Czech and Slovak experts appointed by the Czechoslovak Academy of Sciences, who became a guarantor of the programme on the basis of an agreement resulting from intradepartmental negotiations. The current Czech UNESCO/MAB National Committee (composed of 16 representatives from the Ministries of Environment, Agriculture, and Education, the

<sup>\*</sup> Institute of State and Law, Academy of Sciences of the Czech Republic.

Ministry for the Regional Development and the Academy of Sciences and the Charles University) still functions with the Academy of Sciences of the Czech Republic.<sup>172</sup>

Within the MAB programme the network of biosphere reserves (BRs) has started to develop. Apart from the protection of valuable natural ecosystems these BRs serve as an example of the solution to the problem of aligning biodiversity and natural resources protection with the social and economical development of a particular territory, as well as the interconnection of scientific research and collection of information on traditional knowledge of use of resources.

Comprehensive collaboration between scientists in natural and social fields, environmentalist and development groups, state administration and local government representatives, and above all local inhabitants, is the recommended model, which is also being followed in the Czech Republic. Biosphere reserves in the territory of the Czech Republic came into existence immediately in the first wave of designations within the MAB programme in 1974. There are currently 6 BRs involved in the international network of BRs, namely the BRs of Křivoklátsko, Třeboňsko, Šumava, Krkonoše, Bílé Karpaty (the White Carpathians) and Dolní Morava (Lower Morava).

In addition to the objectives of the MAB, which represent the development of a scientific platform for sustainable use and protection of the biosphere resources and improvement of relationship between man and the environment, the network of BRs also functions as an optimum tool for refining international collaboration in these directions. In fact, in the Czech Republic, the most significant criterion (with the exception of the inland Křivoklátsko) for the selection out of prospective candidates for BRs was the geographical location of a territory near to the state border and the resulting possibilities of across the border (international) collaboration.

## 2. Legal framework

One of the rules for joining the network of BRs is that the BR cannot be declared in the event that national legal protection is missing. Therefore, some of the countries involved adopted their own legislation. The Czech Republic has not done this and therefore no special legal regulation on BRs can be found in the Czech legal order.

<sup>&</sup>lt;sup>172</sup> See http://mab.kav.cas.cz/.

Despite this the Czech BRs enjoy legal protection. Their legal protection is derived from legislation based on national parks and protected landscape areas. The majority of valuable biotopes in the Czech Republic exist within the framework of protected landscape areas and national parks.<sup>173</sup> BRs in the Czech Republic more or less overlap with the territory of natural parks and protected landscape areas.

Legislation governing national parks as well as protected landscape areas comes from the Nature and Landscape Protection Act (no. 114/1992). The purpose of the Act is to contribute with the participation of pertinent regions, communities, owners and administrators of lands, to the maintenance and renewal of natural balance in the countryside, to protect the diversity of life forms, natural values and beauties, to manage natural resources on an environment friendly basis and create the Natura 2000 system in the Czech Republic in compliance with the EC law. In doing this, it is necessary to consider the economic, social and cultural needs of the inhabitants, as well as the regional and local conditions. Therefore, the Act describes naturally, or aesthetically, important or unique areas, by the general term '*specially protected areas*' and lends them various degrees of protection depending on their categorization. The categories of specially protected areas are as follows: (1) national parks, (2) protected landscape areas, (3) national nature reserves, (4) nature reserves, (5) national natural monuments and (6) natural monuments.<sup>174</sup>

The *national park* is defined by a provision of Section 15 of the said Act as an extensive territory, unique on a national or international scale, a considerable part of which is covered by natural ecosystems or ecosystems little affected by human activities, where plants, animals and biotic nature are of exceptional scientific and educational importance. All utilization of national parks must be subordinated to preservation and improvement of the natural conditions and must be in conformity with scientific and educational objectives pursued by the proclamation of the national parks. Pursuant to provisions of Section 25 of the said Act, the *protected landscape area* is defined as an extensive territory with a harmoniously formed landscape, a

<sup>&</sup>lt;sup>173</sup> The total area of these territories is 1,153,000 hectares, out of which 369,000 hectares represents the agricultural land.

<sup>&</sup>lt;sup>174</sup> There are four proclaimed national parks in the Czech Republic: The National Park of Krkonoše, the National Park of Šumava, the National Park of Podyjí and the National Park of České Švýcarsko. Further to this, there are 25 protected landscape areas, 114 national nature reserves, 801 nature reserves, 107 national natural monuments, 1214 natural monuments.

characteristically developed relief, a significant proportion of natural ecosystems of forests and permanent grasslands, with abundant presence of woody plants, or with preserved monuments of historical settlement. Economic utilisation of these territories shall be carried out according to the zones of graded protection so as to maintain and improve their natural state and to maintain and create optimum ecological functions of these territories. Recreational use shall be admissible, if it does not damage the natural values of the protected landscape areas. National parks, their mission and detailed conditions of their protection, shall be proclaimed in a law. Protected landscape areas, their mission and detailed conditions of their protection shall be proclaimed by the Government of the Czech Republic in an order.

The quoted Act stipulates basic protective conditions of all categories of the *specially protected areas*. The National Park clearly enjoys the greatest protection. It must be pointed out that the term "national park" is used abroad with a similar meaning as in the Czech Republic, however with regard to the origin of the term in national legislations, dissimilarities exist among states. Generally, we can say, that the national park status in the Czech Republic protects areas which are little affected by human activity, where the aim of protection is to preserve nature to the maximum possible extent. In the territory of national parks, the entry, access of vehicles, free movement of persons outside the build-up area, as well as recreational and tourist activities of prohibited tourist and recreational activities are set out by the said Act, which designates the particular national park, and by the Visitors Rules.

Methods and ways of protection of national parks are graded on the basis of division of the territory of national parks, usually into three zones of nature protection delimited with regard to natural values. The strictest protection regime is set out for the first one. Similarly, there are usually four, but at least three zones of graded natural protection areas which define the method of nature protection in the *protected landscape areas* in the Czech Republic; the first zone has the strictest protection regime. A more detailed regime of the zones of nature protection in protected landscape areas is set out by the legal regulation, which proclaims the protected landscape area.

The Czech Republic is therefore one of the countries, the BRs of which are above all the so called the "first generation biosphere reserves", *i.e.* focused primarily on nature protection. However, the contemporary model of management and administration of BR can also be found in the Czech Republic, *i.e.* the model with direct involvement of respective communities and stakeholders (see infra). In this sense, the so-called Seville Strategy of 1995 played a significant role, while putting a specific emphasis on the mission of BRs in developing new visions of relationship between nature protection and sustainable development. Since the Seville conference, the MAB programme has increasingly accentuated the role of man in the utilization and protection of ecosystems and biosphere resources. "It is more and more confirmed that BRs, apart from containing protected natural areas, represent also some kind of 'agreement' among local inhabitants, nature and society as a whole".<sup>175</sup>

Apart from the legal protection of BRs resulting from the Nature and Countryside Protection Act, the Czech legal order also includes special laws protecting environmental components and ecosystems including: the *Waters Act* (no. 254/2001), the *Act on the Protection of Agricultural Land* (no. 334/1992, 220/2004), the *Forest Act* (no. 289/1995 Coll.), the *Act on Landscape Planning and Building Regulations* (no. 183/2006), the *Clean Air Act* (no. 86/2002) and other.

Generally, from the perspective of the legal regulation at the highest legal level, the *Constitution* of the Czech Republic (no. 1/1993) imposes upon the State to assure the prudent utilization of natural resources and the protection of natural wealth (Article 7). The *Charter of Basic Human Rights and Freedoms* (no. 2/1993) then declares the right to a favourable environment (Article 35, subsection 1), the right to timely and complete information regarding the condition of environment and natural resources (Article 35, subsection 2), as well as setting down an obligation not to endanger, or damage, the environment, natural resources, the natural abundance of species or cultural monuments exceeding the degree set out by the law (Article 35, subsection 3). Further to this, the exercise of proprietary rights must not damage human health, nature, or the natural environment exceeding the degree set out by the law (Article 11, subsection 3).

In order to get a complete picture of the sector legislation from the perspective of international law, it is necessary to add, that in 1945, Czechoslovakia was one of twenty states that founded the United Nations Educational, Scientific and Cultural

<sup>&</sup>lt;sup>175</sup> JELÍNKOVÁ, E. - JENÍK, J. - KVĚT, J., *Program UNESCO Člověk a biosféra a biosférické rezervace*, Akademický Bulletin, 2001, no. 7, p. 12 (*The UNESCO Programme Man and Biosphere and Biosphere Reserves*, Academic Bulletin, 2001).

Organization (UNESCO) and the Czech Republic became a member immediately after its creation, on 22<sup>nd</sup> February 1993.

The (former) Czech and Slovak Federative Republic acceded to the *Convention Concerning the Protection of World Cultural and Natural Heritage UNESCO* (hereinafter only the "Convention") in 1990. The Convention became valid for the Republic as of 15<sup>th</sup> February 1991. Upon termination of the Czech and Slovak Federative Republic in 1992 and thereby the formation of the Czech and Slovak Republics, both Republics acceded by way of succession,<sup>176</sup> inter alia, to this international Convention. The Ministry of the Environment along with the Ministry of Culture takes part in the practical implementation of this Convention.

The activities of the MAB programme and biosphere reserves are being endorsed by other international treaties on nature protection. The declared international treaties, ratification of which has been approved by the Parliament and which are binding for the Czech Republic, form a part of the legal order (Article 10 of the Constitution). Incidentally, the quoted Nature and Countryside Protection Act sets down an obligation to observe international treaties in the area of nature protection (Section 74). One of the most crucial conventions for the MAB programme - *the Convention on Biological Diversity* became valid for the Czech Republic on 3<sup>rd</sup> March 1994.

# 3. Particular biosphere reserves in the Czech Republic.

The admission of a BR into the Network of BRs is decided on by the International Co-ordinating Council (ICC) of the MAB Programme based upon nominations by the State. Each of the nominated BRs must meet, before its admission to the international network, a set of criteria and conditions and its designation must be supported by the consent of significant entities of the area in question.

In most of the cases, the Czech BRs came into being in the geographical and political context of the former Czechoslovakia. With regard to responsibility arising from international obligations, the intention of the National MAB Committee was to propose only several nominations. In the beginning, the Czech and Slovak experts were

<sup>&</sup>lt;sup>176</sup> For more details on succession of states and the Czech Republic with regard to conventions, see *e.g.* ČEPELKA, Č. - ŠTURMA, P., *Mezinárodní právo veřejné* (Čepelka, Č. - Šturma, P., *International Public Law*), Prague, C.H.Beck, 2008.

tackling issues with the term "biosphere reserve". The attribute "biosphere" could imply an accent on the biomes (climatic climaxes), of specific zones of the Earth, or an emphasis on multilateral complexes of natural, semi-natural, as well as cultural ecosystems. Of course, the first interpretation fitted the already existing protected landscape areas or national parks (Krkonoše, Vysoké Tatry). The Czechoslovak national MAB Committee inclined to the other interpretation and nominated territories, where, alongside natural ecosystems and examples of their prudent utilization, there were also insensitive conflicts between civilization and nature. Emphasis was laid on the question of, whether the selected territory also had potential for ecological research and the implementation of protection measures, and whether it had specialists, who could become actors in the follow-up international activities. This calculation finally led the Czech representatives in the national committee to select Křivoklátsko and the Třebon Basin.<sup>177</sup>

Křivoklátsko and the Třebon Basin were designated as BRs in 1977 and it is interesting that at the time of their designation, they were neither national parks, nor protected landscape areas in accordance with the former Act on Nature and Landscape Protection (no. 40/1956).

The BR of Křivoklátsko covers an area of 628 km<sup>2</sup>, currently administered by the administration of Křivoklátsko protected landscape area.<sup>178</sup> Křivoklátsko was designated a protected landscape area by the Ministry of Culture on 24<sup>th</sup> November 1977. The main reason for including Křivoklátsko in the international network of biospheres was the fact that it represents "an important landscape with preserved mixed forests along the perimeter of a broken river valley, with both positive, as well as negative examples of forestry management and agriculture; because of the proximity of Prague's scientific institutes, Křivoklátsko had a potential for the development of foreign contracts".<sup>179</sup>

The BR of Třeboňsko covers an area of 700 km<sup>2</sup> and is currently administered by the Administration of the Třeboň Basin protected landscape area.<sup>180</sup> Třeboňsko was

<sup>&</sup>lt;sup>177</sup> JENÍK, J. A KOL., Biosférické rezervace České republiky. Příroda a lidé pod záštitou UNESCO (*Biosphere Reserves of the Czech Republic. Nature and People under Auspices of UNESCO*), Prague, Empora, 1996. p.14.

<sup>&</sup>lt;sup>178</sup> www.krivoklatsko.nature.cz.

<sup>&</sup>lt;sup>179</sup> JENÍK, J. A KOL., cit., pp. 14-15.

<sup>&</sup>lt;sup>180</sup> www.trebonsko.nature.cz.

designated a protected landscape area by the Ministry of Culture on 15<sup>th</sup> November 1979. The main reason for the inclusion of Třeboňsko in the international network of BRs was the fact, that "the Třeboň Basin represents a complex of natural, semi-natural and man-induced ecosystems, that was exposed to great pressure on the part of ambitious branches of the national economy (fish farming, agriculture, gravel and sand mining); in view of the location of scientific institutes of the Academy of Sciences in Třeboň and České Budějovice it had excellent long-term affiliation with international ecological institutions".

The biggest of the Czech BRs is the Šumava BR, which covers an area of 1,671 km<sup>2</sup> and includes the whole of the Šumava National Park and most of the Šumava protected landscape area. The Šumava BR was designated by ICC MAB in 1999, when Šumava was a protected landscape area (designated by the Ministry of Education and Culture as of 27<sup>th</sup> December 1963), therefore even before the designation of the National Park, on 20<sup>th</sup> March 1991 (no. 163/1991). It is currently administered by the Šumava BR is located in the mountainous area along the Austrian and Bavarian border. It was affected by human activities and had also been frequently used since the 10<sup>th</sup> century (*e.g.* gold mining, glass industry). The territory includes virgin forests, lakes of glacial origin, peat-bogs, rivers and their canyons. Forests can be found on more than half of the BR area (acidic montane beech forests, montane spruce forests, peat-bogs), while the most significant feature is considered to be the local peat-bogs.<sup>182</sup>

The Krkonoše BR, designated by ICC MAB in 1992, indicates "the change of a standpoint of the Czechoslovak National Committee, which originally considered the institution of a national park to provide sufficient coverage to environmental issues of the mentioned territories. However, the structure of the international network of BRs showed that these territories should not be left aside, as their bio-geographical importance in Central Europe is incomparable and because important bilateral projects are carried out in their framework".<sup>183</sup> Krkonoše was designated a national park as of 17<sup>th</sup> May 1963 (no. 41/1963), while the National Park of Krkonoše was newly

<sup>&</sup>lt;sup>181</sup> www.npsumava.cz

<sup>&</sup>lt;sup>182</sup> Šumava, is basically the last extensive Central-European area with an extensive manner of use large plains. There is a great number of rare animal species in this territory.

<sup>&</sup>lt;sup>183</sup> JENÍK, J. A KOL., cit., p. 15.

designated and the conditions of its protection were set out on 20<sup>th</sup> March 1991 (no. 165/1991). The Krkonoše BR is currently administered by the Krkonoše National Park administration and includes a territory of 548 km<sup>2</sup>. The exceptional scientific value of Krkonoše is associated with the geographical location of this characteristic geomorphological mountain-range in the middle of Europe, across which air masses roll both from the Atlantic, and from the Arctic and across which both plant and animal species used to migrate and still migrate.

The White Carpathians BR covering an area of 715 km<sup>2</sup> was designated by ICC MAB in 1996. It is administered by the White Carpathians protected landscape area administration,<sup>184</sup> while the protected landscape area of the White Carpathians was established by the Ministry of Culture on 3<sup>rd</sup> November 1980. The White Carpathians represent an extraordinary area among the Czech large-area protected territories. The entire area has been cultivated by man for many centuries. Despite this, or maybe, because of this, exceptionally valuable natural values have been preserved, and in many places, we can talk about harmonious landscape (apart from natural biomes, we can find artificial ecosystems with a remarkable biodiversity - the White Carpathian meadows). Another no less valuable element is represented by extensive forest complexes in the central and northern part of the mountain-range with a whole range of typical features of Carpathian flora and fauna. Apart from cross-border cooperation,<sup>185</sup> the ethnographical factor of the Carpathians also played an important role during nomination to the network of BRs.

The last of the six Czech BRs, the BR of Lower Morava (Dolní Morava) differs from the others in many aspects. It came into existence in two stages, as the Pálava BR, designated in 1986, already existed when this nomination to ICC MAB was made on the basis of experience with the functioning of the first two BRs (Křivoklátsko and Třeboňsko). The nomination was substantiated by "the special bio -geographical position of calcareous cliffs at the edge of the Panonian Basin and the existence of extraordinary biodiversity, which were continuously monitored, <u>especially</u> by the scientific institutes of two universities in Brno".<sup>186</sup> Therefore, in July 2003, its extension

<sup>&</sup>lt;sup>184</sup> www.bilekarpaty.ochranaprirody.cz

<sup>&</sup>lt;sup>185</sup> Blíže o ochraně Karpat z evropského hlediska viz, in Sustainable Development and Transboundary Co-operation in Mountain Regions, ed. by Majtényi, B., Tamburelli, G., Budapest, L'Harmattan, 2009.

<sup>&</sup>lt;sup>186</sup> Jeník, J. A kol., cit., p. 15.

by the inclusion of the Lednice-Valtice Site and the Riparian woodland at the junction of the Morava and Dyje rivers was approved, thus creating the current BR of Lower Morava. This BR covers an area of 354 km<sup>2</sup> and it is currently administered - which is quite unique in the case of BRs in the Czech Republic - by the non- profit nongovernmental organization (a beneficiary society) Biosferická rezervace Dolní Morava, o.p.s.,<sup>187</sup> which was founded in 2004. The Lower Morava BR is therefore a BR of the so-called second generation, where the model of complex cooperation between state administration representatives, local governments, scientists and other entrepreneurial<sup>188</sup> and other entities acting in the area is applied.

The importance of the Czech BRs is great. From the international perspective, for example, the Czech Republic applied through its National MAB Committee to the international programme for long-term research of ecosystems (ILTER) initiated by the USA National Science Foundation. The long-term series of data on emissions, bioclimate, water chemistry, production of ecosystems, etc. collected in the BRs in the Czech Republic are important from the scientific point of view; permanent areas in BRs are repeatedly monitored with regard to changes in the structures of communities and populations and the population dynamics of present organisms. The Czech BRs thus contribute in many ways to the exchange of information on landscape protection, where rare natural elements are under pressure from civilization.<sup>189</sup>

#### 4. Conclusion and de lege ferenda.

In conclusion we can say that the Czech Republic has taken part in the MAB / UNESCO Programme since its beginnings and has also participated from the beginning in the network of BRs, the number currently standing at six. The institution of the BR as such is not fixed in the Czech legal order, however it derives from legislation on nature and countryside protection and categories of *specially protected areas* (specifically the national park, protected landscape area) inherent in them.

The Třeboňsko BR and the White Carpathians BR fall into the category of protected landscape area. The Křivoklátsko BR also falls into this category, although

<sup>&</sup>lt;sup>187</sup> www.dolnimorava.org

<sup>&</sup>lt;sup>188</sup> One of the founders of the beneficial society Biosférická rezervace Dolní Morava, o.p.s. is the biggest Czech company engaged in oil and natural gas mining and related activities.

<sup>&</sup>lt;sup>189</sup> JELÍNKOVÁ, E. - JENÍK, J. - KVĚT, J., cit., p. 14.

realistic considerations have been made in recent years to set up the National Park of Křivoklátsko. The Krkonoše BR corresponds to the national park category. The territorial area of the Šumava BR includes both national parks, as well as protected landscape area and it is expected that the borders of the protected landscape area will be adjusted (BR zoning). The area of the Lower Morava BR as a whole does not correspond with any specially protected area, even if the Pálava part is a protected landscape area.<sup>190</sup>

It might seem, for the reasons given above, that it is necessary to anchor BRs in the legal regulations of the Czech Republic, however despite this the current legislation seems to be sufficient at the moment, and we can even encounter opinions that "this status has a positive influence, as it forces the BRs to use flexibility and creativity, which currently represent one of the major strengths of the concept of BRs allowing their functions in various political and geographical conditions".<sup>191</sup> If there are voices calling for legal regulation, then these relate to a closer look at the zoning of BRs, or as the case may be, the buffer and transitional zones. According to J. Jeník this is caused by problematic conflicts between social and economical factors and proprietary rights.<sup>192</sup> As far as the core zone of the BR is concerned, it has already been said that the protection legislation is sufficient.

Finally, it is essential to mention the financial restrictions caused by the global economic crisis, which have affected a number of activities of administrators of the Czech BRs. Let us believe that the functioning of the BRs itself will not be endangered in the future, so that these can henceforth fulfil the objectives, for which they were included in the international network of BRs.

<sup>&</sup>lt;sup>190</sup> Zoning of the BR of Lower Morava is not entirely functional according to the administration company, therefore in 2009-2010 they were working on the solution together with the Austrian Scientific Institute for Ecology, on the international Project "Transboundary Information Exchange for Revision and Functional Improvement of Zonation in the Lower Morava BR - Czech Republic".

<sup>&</sup>lt;sup>191</sup> Biosférická rezervace Dolní Morava, o.p.s. cited as of 20.1.2011 from http://www.dolnimorava.org/index.php?option=com\_content&view=article&id=12&Itemid=31&lang=cs (BR of Lower Morava, beneficia society)

<sup>&</sup>lt;sup>192</sup> JENÍK, J. A KOL., cit., p. 16.

## LEGAL SYSTEM IN FRANCE MAB RESERVE

## Danilo Comba\*

SUMMARY: 1. Introduction. - 2. MAB Sites in France: the absence of specific rules. - 3. Existing legal framework. - 4. Management within the existing legal framework: advantages and limitations of the MAB Programme. - 5. The review process as a drive towards integration. - 6. Promoting the extension of the reserves. - 7. Focus on federal role of management bodies - 8. Concluding remarks.

#### 1. Introduction.

As learning sites for sustainable development, biosphere reserves (BRs) direct attention to environmental protection through a holistic approach. As precursors of an integrated management, particularly on biodiversity, they are recognized within the Man and the Biosphere (MAB) Programme.<sup>193</sup> Designation is based on national initiative, that of the concerned State. The creation of a MAB site is linked to its national jurisdiction.

States Parties are not required to adopt specific rules regarding the definition of a site as a BR. Many States Parties have no *ad hoc* legislation: the MAB reserve is an international designation that builds on existing national instruments.<sup>194</sup> MAB goals are therefore modulated according to national protection experiences (conservation areas, parks, landscapes, reserves ...), a flexibility that can be consistent with local conditions and needs. France favours this approach. In the absence of a single framework, we will evaluate the normative figures and organizations through which the ten French reserves are administered.

The "Madrid Action Plan" (MAP) is intended to enhance MAB reserves as the principal internationally-designated areas dedicated to sustainable development. The

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<sup>&</sup>lt;sup>193</sup> Integration of conservation, development and research topics within a given area is the basis for designation as MAB reserve by the International Coordinating Council. The Programme, launched in 1976, has been particularly developed since 1996. Main documents are available on the UNESCO website, at http://www.unesco.org/new/fr/natural-sciences/environment/ecological-sciences/related-info/publications/biosphere-reserves/.

<sup>&</sup>lt;sup>194</sup> More than a special status, the reserves have an international "label". Texts for their establishment are the *Seville Strategy* and the *Statutory Framework of the World Network of Biosphere Reserves*, adopted by Resolution 28C/2.4 of the General Conference of UNESCO.

theme is that of "zoning", the intention to stimulate the creation of transition areas.<sup>195</sup> It encourages a reinforced legal recognition in national legislation.<sup>196</sup> The discussions have not led to its transferral, with an\_autonomous significance, into the French legal system. The review process to which MAB reserves are subject seems to support the extension of areas, the integration of conservation, development and research topics, and the improvement of governance.

#### 2. MAB Sites in France: the absence of specific rules.

Created from 1977 onwards, the ten French MAB reserves stand out for the variety of protected sites and agencies involved. We will consider the richness of the legislative framework in which they occur. We will assess whether the national legal system can enhance reserves in accordance with the MAB Programme.

#### 3. Existing legal framework.

The French reserves are diverse among themselves, a diversity that enriches the concept of "biosphere".<sup>197</sup> To geographical and ecological variety<sup>198</sup> are added

<sup>&</sup>lt;sup>195</sup> According to Article 4 of *Statutory Framework*... (cit.), the function of MAB reserves should be pursued through appropriate zonation, recognizing: (*a*) a legally constituted core area or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives; (*b*) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place; (*c*) an outer transition area where sustainable resource management practices are promoted and developed.

<sup>&</sup>lt;sup>196</sup> Issue reopened by EuroMAB and AfriMAB, the Madrid Action Plan (action area of "Cooperation, Management and Communication") recommends that "Biosphere Reserves receive a reinforced legal recognition and that States are encouraged to include BRs in their legislation" (Target 11, action 11.1). Although Category VI Protected Areas of IUCN is close to MAB reserves, its definition does not provide the integrated approach as developed in the biosphere concept, cf. ERG, B., *IUCN Protected Area Management Categories and UNESCO Designations*, supra, p.

The *Report on the Legal Concept of Biosphere Reserves in National Law* (doc. SC-09/CONF.207/INF.4), presented in Paris 24<sup>th</sup> April 2009 as part of the development and implementation of the Madrid Plan of Action, contains a model law that countries wishing to adopt a specific legislative category could adopt. The Report was produced with the support of the French National MAB Committee. The results were discussed at Sessions of the ICC MAB. According to the document Germany, Australia, Brazil, Spain, Kyrgyzstan, have a specific category. In Colombia and Benin, the reserves are not a category recognized by the law, but each MAB reserve is established by law or decree.

<sup>&</sup>lt;sup>197</sup> According to Article 1 of the *Statutory Framework*. (cit.) "Biosphere reserves are areas of terrestrial and coastal/marine ecosystems or a combination thereof". For a detailed definition see Title 4 of the Spanish Law, *Natural Heritage and Biodiversity Act* 42/2007 of 13 December 2007.

institutional distinctions, the latter owing to their location: eight reserves are located in "France Metropolitane",<sup>199</sup> one in an Overseas Department (DOM<sup>200</sup> archipelago of Guadeloupe) a tenth in an overseas community (COM<sup>201</sup> French Polynesia, Fakarava Common). MAB reserves vary as a result of differing socio-cultural interests and their extension. These elements affect their significance and the requirements that qualify the area as suitable for sustainable development.

The creation, management and testing of sites constitute part of an already developed normative fabric. Since 1976,<sup>202</sup> State-owned heritage and environmental protection have been of general interest, and have led to a gradual building up of legislature. The most notable step has been the adoption of the 2005 Environmental Charter, which gives a constitutional value to the protection of the environment (more precisely, to all the rights and duties established in it).<sup>203</sup>

The Environmental Code harmonizes all provisions concerning environmental protection.<sup>204</sup> Book III details the classification and regulation of natural areas: coasts, parks and reserves, sites, landscapes, "green frame" and "blue frame".

None of these articles contains a definition of, or reference to, the notion of biosphere: MAB reserves do not exist in French law. In answering the Madrid Plan of

<sup>201</sup> Pursuant to the constitutional amendment, Overseas Communities (COM) replace "TOM". The COM are governed by Article 74 of the Constitution.

<sup>202</sup> Law n° 629 of 10 July 1976, *for the Protection of Nature*, published in JORF, 13 July 1976, p. 4203. Chapter III relates to the creation of nature reserves (Articles 16-27).

<sup>&</sup>lt;sup>198</sup> They can be distinguished into two broad categories: the six terrestrial reserves (Cévennes, Luberon, Mont Ventoux, Vosges, Fontainebleau, Vallée du Fango) and the four coastal and marine reserves (Camargue, Mer d'Iroise, archipelago of Guadeloupe, Commune of Fakarava).

<sup>&</sup>lt;sup>199</sup> The Northern Vosges site is part of a Franco-German project, the Vosges du Nord – Pfälzerwald reserve. Founded in 1998, it is the first Transboundary MAB reserve in Europe. From an institutional perspective each party is responsible for its site management; enhancement as a common site requires, however, a major cooperative effort (Interreg, Life). Germany has incorporated the biosphere concept through the *Federal Nature Conservation Act* of 25 March 2002 (Articles 3, 22, 25).

<sup>&</sup>lt;sup>200</sup> The DOMs are Territorial Communities integrated with the French Republic as well as Departments or Regions of France Metropolitane (Title XII, "Des Collectivités Territoriales", Article 72 of the French Constitution). Since the constitutional reform initiated in 2003 (*Constitution Act no. 276 of 28 March 2003 Relating to the Decentralized Organization of the Republic*, JORF no. 75, 29 March 2003, p 5568), the four DOMs have been also mono-department Regions, the said "région d'Outre-Mer". In these areas the principle of assimilation legislation applies, although some texts may be adjustments resulting from the particular characteristics of such Communities (Article 73 of the Constitution).

<sup>&</sup>lt;sup>203</sup> Constitutional Law no. 205 of 1 March 2005 *on the Environmental Charter* published in JORF no. 51, 2 March 2005, p. 3697. Article 1 amends the preamble of the Constitution; it now refers to the rights and duties defined in the Charter. According to Article 6, "Public policies shall promote sustainable development. To this end, they reconcile the protection and enhancement of the environment, economic development and social progress".

<sup>&</sup>lt;sup>204</sup> Previously spread over about thirty texts, the Environmental Code is composed of a Legislative Part and a Regulatory Part, each subdivided into seven books. *Order no. 914 of 18 September 2000 Establishing the Environmental Code* (Legislative Part).

Action questionnaire, MAB-France underlined that this choice is due to the fact that "a newly created specific category (...) would be superimposed on an already crowded institutional landscape".

The international "label", and the promotion and management of such reserves thus requires an entirely new legislative and institutional framework.<sup>205</sup>

Half of the MAB reserves are controlled by the Regional Parks (Iroise Sea-Armorique, Vosges, Luberon, Camargue, Corsica). Two are under the supervision of National Parks (Guadeloupe, Cévennes), two are managed by "1901 Law Associations" (Fontainebleau and Commune of Fakarava),<sup>206</sup> two by a "syndicat mixte" (Mont Ventoux, Camargue Gardoise in collaboration with the regional park Camargue). The majority of MAB reserves are therefore managed through public institutions (regional parks, national parks, syndicats mixtes).<sup>207</sup>

# 4. Management within the existing legal framework: advantages and limitations of the MAB Programme.

The notion of protected area (PA) has evolved to promote the integration of objectives and the control of man-nature interaction. The approach is clearly stated in the regulation of the parks. According to Article 331 of the Environmental Code, a national park may be constituted when it contains flora, fauna etc. of special interest, whose protection and preservation from degradation and violation likely to affect its diversity, composition, appearance and evolution must be ensured. National parks are created by the "Conseil d'Etat" in accordance with the procedure established by decree under Article 331-7. Governed by a Charter specific to each park, which sets out guidelines for the achievement of its goals, these national sites must have "a core area" and an "accession area" (Article 331.3). These areas are fixed by decree. Under Act n. 2006-436 (and subsequent amendments), greater participation of local entities is

<sup>&</sup>lt;sup>205</sup> The non-distinction also leads to overlap with other European (Natura 2000) and international (RAMSAR) designations. "Pays de Fontainebleau" is a UNESCO site, MAB reserve and RAMSAR reserve. The overlapping is not in itself negative. Moreover, the compatibility of these objectives need not be challenged. The difficulty lies rather in the development of sites in accordance with the objectives that underlie the various designations.

<sup>&</sup>lt;sup>206</sup> Act of 1 July 1901 relating to the contract of association.

<sup>&</sup>lt;sup>207</sup> Syndicats mixtes are governed in Part Five, Book VII of *General Code of Local Authorities*.

planned (public inquiry, consultation). These changes have led to the making of some adjustments (see below regarding Cevennes Reserve).

It is regional parks, however, that are closest to the concept of BR. According to Article 333-1 they contribute to protection policies, sustainable planning, development, education and training of the public. In particular, "(...) they are territories of local experimentation for innovation regarding the sustainable development of rural areas. They form a privileged framework for actions carried out by public authorities for the preservation of landscapes and natural and cultural heritage.

The Environmental Code does not predetermine the areas that will constitute the regional parks, leaving the choice of area, and the definition of the constituent charter to the region and local authorities. Its adoption, however, establishes the ecological link between the core area and the surrounding areas.<sup>208</sup> In accordance with paragraph V of Article 331-1, State and local governments are required to apply the guidelines and measures of the Charter, exercising their competences on park areas and ensuring coherence of actions and resources.<sup>209</sup>

Notwithstanding the absence of any explicit reference, we can note the increasing attention, de facto if not in law, towards the relationship between areas to which the MAB Programme refers. Can this approach enhance the specificity of a BR? There have been both negative and positive experiences. Among the first, the National Park of Guadeloupe coordinates its MAB reserve without any specific programme having been implemented. Regarding the Iroise Sea, two management systems (Parc naturel marin d'Iroise et le Parc régional de l'Armorique) operate in an integrated manner, an interaction which also tries to balance the goals of a plurality of management bodies (Association Bretagne vivante - SEPNB, Office national de la chasse et de la faune sauvage - ONCFS, Le conservatoire du littoral, ...).

Among the second, we can mention the MAB Reserve of Mont Ventoux. The Reserve is managed by the syndicat mixte of Mont Ventoux (SMAEMV, composed of

<sup>&</sup>lt;sup>208</sup> The project is developed by the region with all concerned local authorities, in consultation with interested partners. It is subject to public survey, then approved by the local authorities and adopted by decree, classifying the territory as regional park for a period of twelve years.

<sup>&</sup>lt;sup>209</sup> A Regional Park does not have a specific regulatory power. State and Regions adhering to the charter can draw up a contract with the park management organization (syndicat mixte de gestion). Under Article L-5721-1 of the General Code of Local Authorities (syndicat mixte associant des collectivités territoriales, des groupements de collectivités territoriales et d'autres personnes morales de droit public), the park management organization is a public institution (Part Five, Book VII, Title II). "SYCOPARC" is the organization for French activities in the Franco-German Transboundary reserve.

the Department of Vaucluse, the 34 municipalities of Mont Ventoux, the municipalities of the Pays de Sault and the municipalities of the Vallée de Toulourenc) an organization established in 1965. In carrying out its activities, it refers to the reserve designated in 1990, an action area which was changed precisely as a result of the creation of the MAB Reserve of Mont Ventoux.<sup>210</sup> The Reserve has a management committee that assists the members of the SMAEMV and a scientific council. In this sense, this Reserve appears to be the closest to the objectives of the Madrid Action Plan.

It follows that outside a specific category, management and coordination agencies can play a part in adopting decisions consistent with the objectives of the MAB Programme. In this sense, MAB France has adopted guidelines for the implementation of management plans within the different BRs and has created thematic networks for furthering MAB objectives.

#### 5. The review process as impetus to integration.

The review process to which MAB reserves are subject every ten years is an instrument for broadening and improving their goals. It leads to reflection on the spatial extent of the reserves. In recent years, the process has led to an emphasis on the informative and federative role of management and support bodies.

#### 6. Promoting the extension of the reserves.

The Camargue Reserve, the first French site to be inscribed in the MAB Programme, was revised in 1995. Following Seville Strategy criteria, its extension was changed. It now concerns two regions and two departments.<sup>211</sup> The changes were recognized by the MAB Council in 2006.

In 2008, the extent and distribution of areas within the Fontainebleau Reserve were changed.<sup>212</sup> In the same year, the management plan was adopted.

 $<sup>^{210}</sup>$  The Reserve has 6 core areas, subject to a biotope protection order by the prefect of the Department of Vaucluse.

<sup>&</sup>lt;sup>211</sup> The site is managed by the regional park of Camargue and the "Syndicat Mixte" for the Conservation and Management of Camargue Gardoise.

<sup>&</sup>lt;sup>212</sup> The core areas include areas protected by other strong programmes (Natura 2000, forest protection, heritage sites, RNN, RNR, sensitive natural areas, prefectural biotope protection order).

In 2009, Decree n. 1677 changed the rules regarding the Cevennes National Park.<sup>213</sup> Called for by the reform act of 2006, the Decree aims at improving the integration of the park into the region.<sup>214</sup> With regard to the MAB Reserve, it intends to extend its boundaries and to share its operational concept with all stakeholders. At the end of the proceedings, it is planned to present a new dossier to the MAB Council.

The 2006 review of the Fakarava Reserve led to the creation of a new unit which took the name of the *Tuamotu BR*. On one hand, it was required by the constitutional amendment on COM, on the other, it was no longer consistent with MAB criteria. The Reserve has been extended to include six other inhabited atolls in the commune of Fakarava.

The Reserve of Guadeloupe is under review. Decree n. 2009-614 adjusted the boundaries of the national park as provided for in the Code.<sup>215</sup> In consultation with local stakeholders, the majority from the Directorates, the core area was expanded. The charter is expected to be completed in 2012.<sup>216</sup> It is likely that the Reserve will cover the core area, the area of optimal adherence and the adjacent sea area, which will require an amendment within the MAB programme.

## 7. Focus on the federal role of management bodies.

Considering both legislative changes and review processes, the participation of local authorities and professional organizations or associations in the management of reserves can be defined as in-depth.

Among real experiences we can mention that of the Fontainebleau Reserve, which is managed by an association "type loi 1901". If coordination is generally entrusted to a public institution, in the case of Fontainebleau this is provided by an independent association. Since 1998 two institutional phases have been developed. Until 2004, the objectives were pursued by the National Forestry Board, a phase that led to the creation

<sup>&</sup>lt;sup>213</sup> Decree no. 1677 of 29 December 2009 for the adaptation of the delimitation and regulation of the Cevennes National Park with the Environment Code resulting from Law no. 436 of 14 April 2006, JORF n. 303 of 31 December, 2009, p. 23039.

<sup>&</sup>lt;sup>214</sup> The development of the National Parks Charter began in 2010.

<sup>&</sup>lt;sup>215</sup> Decree no. 614 of 3<sup>rd</sup> June 2009 for the adaptation of the delimitation and regulation of the National Park of Guadeloupe with the Environmental Code resulting from the Law 436 of 14<sup>th</sup> April 2006, JORF of 5<sup>th</sup> June 2009, edition n. 128.

<sup>&</sup>lt;sup>216</sup> Pending its adoption, the Park directorate has adopted Guidelines for the provisional application of the rules, see Resolution dated 14<sup>th</sup> April 2010, available at http://www.guadeloupe-parcnational.fr/IMG/pdf/deliberation10\_07-2010\_04\_14-raa\_21.pdf.

of the first Scientific Council (1999). Since 2005, management has been provided by the l'Association de la réserve de biosphère de Fontainebleau et de Gâtinais. The objective is to promote coordination in the multifunctional management of the Reserve. The association has a board of directors, which brings together the main local actors, and two scientific councils (Conseil Scientifique pluridisciplinaire et Conseil éducation, formation et sensibilisation des publics).

One objective is thus to enhance the visibility of MAB reserves, and improve their integration into management and advisory bodies. With this intention, the presidents of the scientific boards of BRs and MAB France Committee members emphasize the value of developing specific activities within MAB reserve advisory councils. They also aim at enhancing synergies and partnerships. National Committees have an important role in promoting bilateral activities, knowledge -sharing and the use of "best practices" techniques.

## 8. Concluding remarks.

In line with a developed institutional framework, within which the sustainable development principle is clearly stated, the French experience emphasizes activity coordination and the strengthening of local participation. From this point of view, the recognition of specific interest to MAB reserves in existing bodies seems to be the most efficient method.

The Mont Ventoux Reserve is the one that comes closest to the possibility of *ad hoc* recognition. While using the traditional regulatory framework, the SMAEMV management is closely connected to the objectives of MAB reserves.

It is not easy to find official documentation regarding the framework. More important, it is difficult to argue that the creation of transition areas, officially recognized, is encouraged. This does not preclude, however, that the biosphere reserve concept continues to attract attention: in all likelihood the "Dordogne" (bassin versant de la Dordogne) will be the next French candidate for UNESCO designation. Four other projects are also under consideration, of which the first two are cross-border areas: Queyras - Mont Viso; Mont Perdu (Pyrénées Centrales); Hautes Vallées de la Loire et de l'Allier; Hauts de la Réunion.

# UNESCO DESIGNATIONS AND PROTECTED AREAS IN ITALIAN REGIONAL LEGISLATION: A PRELIMINARY ANALYSIS

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SUMMARY: 1. Introduction. - 2. UNESCO sites and regional PAs in Italy. - 3. Regional level legislation and UNESCO designations. - 4. Region powers and tasks on landscape and territorial planning in relation to UNESCO designations. - 5. UNESCO designations and protected area planning in Italy. - 6. Final remarks.

## 1. Introduction.

The principal administrative subdivision in Italy is the Region, which represents an important element of the institutional configuration of the State. Regarded only as territorial subdivisions of the country during the early period of life of the unified national State, which came into being in the second half of the 19<sup>th</sup> century, the 20 Regions that make up Italy were transformed into institutional entities with the approval and entry into force of the Republican Constitution in 1948. It took, however, more than two decades for the Regions to be formally established as institutions, with the election of the first regional parliaments. Constitutional reforms approved over the following decades, and in particular a major amendment approved in 2001, have partly reshaped the powers and mandate of regional governments and parliaments. According to the Constitution, legislative power in Italy is now shared, depending on policy sectors, between the State, which still retains exclusive competency over a series of matters, and the Regions.

Even though the Regions in Italy can thus be regarded as a quite recent institution, they have responsibilities and mandate over a variety of administrative matters and socio-economic sectors, and they play a direct and pivotal role in several issues and processes related to nature conservation, territorial planning, landscape protection and environmental management. Considering the protected areas (PAs) sector, for example, an important feature of the Italian network of areas designated for conservation is the significant role played by regional PAs, *i.e.* those established and managed by the Regions.<sup>217</sup> But Regions do not only contribute actively to the establishment and

<sup>&</sup>lt;sup>217</sup> See for example G. TALLONE, *The Role of Regional Parks in the Italian Legal System: a short outline*, in: G. Tamburelli (ed.), *Biodiversity Conservation and Protected Areas - The Italian and Ukrainian Legislation*, Rome, 2007.

management of a rather complex network of parks and reserves, they have also assumed a direct role in the implementation of one of the main European Union level initiatives to preserve biodiversity, having received the mandate from the national administration to designate and manage conservation sites identified, according to the European "Birds" and "Habitat" Directives, as suitable to form part of the Natura 2000 network.<sup>218</sup> Furthermore, as far as territorial and landscape planning is concerned, the Regions have major powers and tasks, representing the administrative level at which major decisions are taken, based on regional level territorial and landscape plans, for the configuration and development of their territory, which are intended to constitute a general framework for more local development plans.

While the coordination and promotion of the designation of UNESCO sites is still a matter under the supervision of central government (and considering also that the implementation of obligations deriving from the signature of international treaties is, according to the constitution, a matter reserved to the State), considerable scope exists for overlap and interaction between such designations and the administrative, regulatory and planning activities of the Regions. Considering the mandate, functions and responsibility of Regions, it is not surprising that the designation of sites according to UNESCO promoted agreements or programmes, be they World Heritage Sites or MAB Biosphere Reserves (BRs) or others, often results in direct links with plans, programmes or sites promoted at regional level. As an example, it is not uncommon for sites designated according to UNESCO conventions or programmes to overlap, at least partially, with conservation sites designated or managed in some way or other by the regions. Moreover, areas already under a protection and management regime established according to regional legislation, such as regional parks, are frequently proposed for designation as UNESCO sites, and candidatures for listing are often put forward by regional government.

On these grounds, we provide in this chapter a preliminary analysis of the relationship between UNESCO designations and the legislation developed by the Italian Regions, focusing in particular on the legal tools which regulate PAs. The aim of our analysis is first of all to assess whether, and to what extent, the designation of UNESCO sites has influenced, or has been taken into account and integrated into, regional laws

<sup>&</sup>lt;sup>218</sup> Natura 2000 sites in Italy only partly overlap with PAs such as parks and reserves.

concerning natural PAs. However, we have also tried to make a preliminary assessment as to whether and how the designation of UNESCO sites has been integrated into other acts approved by the legislative bodies of the Regions, such as bylaws, regulations or local government plans which are the responsibility of, or are to be endorsed by, the approval of regional authorities.

To put the issue into context, we will first give a brief overview of the spatial overlap between UNESCO sites and PAs or other conservation sites designated at regional level. We will then present a short overview of the current legislation concerning UNESCO designations approved by Italian Regions, focusing in particular on regional laws concerning or related to PAs. We will subsequently try to analyse the relationship between UNESCO designations and other regulatory measures and administrative tools adopted by the Regions, such as territorial plans and sectoral plans, as these often represent the main instruments by which the Regions exercise their authority and carry out their mandate in a variety of fields, with particular reference to landscape planning and conservation, and with a focus on plans in view for PAs.

## 2. UNESCO sites and Regional PAs in Italy.

At present Italy has more WH listed sites than any other country, with 47 designated sites (out of 936 worldwide), 44 of them listed as cultural heritage sites and only 3 as natural heritage sites. Notwithstanding the prevalence of cultural heritage sites, an analysis of their location shows that many of them partially or completely overlap with one or more PAs. We are, of course, dealing with different types of PAs, ranging from national parks to local level PAs, but they are all listed on the official Italian PAs list, which is kept by the Ministry of the Environment.<sup>219</sup> When we consider their distribution over Italian Regions (fig. 1), the analysis shows that 11 Regions have at least one WHS property that overlaps a with a PA. In particular, at least 30 PAs, distributed over Regions as shown in table 1, partially overlap\_with a total of 9 WH properties. This list could even grow longer, as other sites now in the tentative list of WH properties at least partially overlap with parks or reserves.<sup>220</sup>

<sup>&</sup>lt;sup>219</sup> Elenco Ufficiale delle Aree Protette (Official List of Protected Areas), last update April 2010.

<sup>&</sup>lt;sup>220</sup> Examples are: The Marble Basin of Carrara, Via Appia "Regina Viarum", Island of Asinara, Ponds in the Bay of Oristano and the Sinis Peninsula island of Mal di Ventre.

Italian Regions with WHS	n. of PAs overlapping with WHS	WHC Cat	Name of WHS (and year of designation)
Piemonte	7	С	Sacri Monti di Piemonte e Lombardia (2003)
Trentino Alto Adige	6	N	Le Dolomiti (2009)
Sicilia	5	N	Isole Eolie (2000)
Liguria	3	С	Portovenere, Cinque Terre e Isole Palmaria, Tino e Tinetto (1997)
		С	Costiera Amalfitana (1997)
Campania	2	С	P. N. Cilento e del Vallo di Diano siti archeologici di Paestum e Velia e Certosa di Padula (1998)
Veneto	2	С	Le Dolomiti (2009)
Toscana	1	С	Val d'Orcia (2004)
Friuli Venezia Giulia	1	С	Le Dolomiti (2009)
Lombardia	1	С	Sacri Monti di Piemonte e Lombardia (2003)
Basilicata	1	С	l Sassi e il parco delle Chiese rupestri di Matera (1993)
Emilia Romagna	1	С	Ferrara città del Rinascimento e il suo delta del Po (1995 e 1999)

Tab. 1. Italian Regions hosting WH sites overlapping with national or regional-level PAs.

Even more interesting is a look at the category of PAs encompassing whole WH sites or portions of them, which shows a marked prevalence of regional PAs (i.e. those established and managed by regional governments). These represent 80%, in numerical terms, of the PAs having some degree of overlap with WHSs: 43% are in fact regional



parks, while another 40% is represented by regional reserves. Conversely, only 10% of these PAs is represented by national parks.

Taking into account the prevalence of cultural properties among the World Heritage Sites listed in Italy, the significant overlap between WHSs and parks and PAs reflects two commonly acknowledged factors. The first is the fact that the rich cultural and archaeological heritage in Italy is very often inextricably linked and intertwined with landscape and natural features. On the other hand, a feature of most Italian PAs is the widespread presence of man: rather than encompassing major wilderness areas (almost non-existent in Italy), they usually protect ecosystems which are subject in one way or another to human use, with a significant presence of urban and peri-urban areas as well as important settlements very often with a long history. Thus, in many cases PAs are established where important cultural heritage features are also present, a trait that adds significantly to their value and that offers potential for synergies, especially in terms of visitor use, but a trait which also results in important management challenges, as it often leads to the overlapping, and sometimes even to conflicts, of competences among public administration entities.

As far as the Man and Biosphere (MAB) programme is concerned, so far 8 areas have been included in the MAB list, all of them corresponding to officially designated PAs. In particular, 4 MAB sites are comprised within national parks, 2 sites within state reserves, and 1 overlaps with a marine reserve.<sup>221</sup> Conversely, only 3 MAB sites are comprised within the boundaries of regional level PAs, which are anyway represented by regional parks. In this case, the bias towards national level PAs is partly due to the fact that the MAB programme, for several years after its launch, was promoted and administered in Italy by the forestry service, which was responsible for the management of several State reserves. The first MAB sites designated in Italy in the 70's are in fact represented by areas at the time under the responsibility or management of the Ministry of Agriculture and Forestry. The initial trend was therefore towards smaller state reserves, while in more recent years the designation of BRs has targeted wider systems, commonly encompassed by national or regional parks.

<sup>&</sup>lt;sup>221</sup> As all sea areas within territorial waters are still under the exclusive jurisdiction of state administration, marine PAs in Italy are still to be regarded as state level PAs, even though their management is often delegated to local authorities.

Italian Regions with MAB	n. of PAs overlapping with MAB reserves	Name of MAB reserve (and year of designation)
Campania	2	Cilento and Vallo di Diano (1997) Somma Vesuvio and Miglio d'Oro (1997)
Toscana	2	Tuscan Islands (2003) Selva Pisana (2004)
Molise	2	Collemeluccio-Montedimezzo (1977)
Piemonte	1	Valle del Ticino (2002)
Friuli Venezia Giulia	1	Miramare (1979)
Lombardia	1	Valle del Ticino (2002)
Lazio	1	Circeo (1977)

Tab. 2. Italian Regions hosting MAB reserves and number of PAs overlapped.

A further issue to be considered is that of the coincidence of several UNESCO designated sites with Natura 2000 sites, *i.e.* sites designated according to the provisions of the European Directives "Habitats" and "Birds" (so far defined respectively as SCIs, or Sites of Community Importance and SPAs, or Special Protection Areas), as the designation and management of these sites is delegated to regional administrations. Several cases can be found of WH properties or MAB areas which completely or partially overlap with Natura 2000 sites. Two important examples are those of the Aeolian Islands WHS, which overlaps with areas designated both as SCI and SPA, and of the Macchia Pisana MAB reserve, which in addition to being included in a regional park, encompasses areas included in several Natura 2000 sites as well.

Finally, another programme, the European Geopark Network, which is now coordinated with the UNESCO promoted Global Geopark Network, deserves a mention, as it has led to the designation of sites often overlapping with national or regional PAs. As of today, 7 Italian geoparks have been designated and are included in the European Geopark Network: they include one national park (Cilento e Vallo di Diano), 3 Regional parks (Adamello Brenta, Bigue e Madonie) and 3 other PAs of more local importance (Parco geominerario in Sardegna, Parco minerario Toscano, and Rocca di Cerere in Sicilia).

## 3. Regional level legislation and UNESCO designations.

So far, the legislative interventions of the Italian Regions relating to the designation of UNESCO sites have been sporadic. A search on a database of regional laws,<sup>222</sup> reveals that few Regions have so far approved laws or law articles with specific provisions on UNESCO sites. Apart from a few cases concerning matters related to the licensing of tourist guides, these legal instruments most commonly concern the management of an already listed site or the candidature as WH property of a single site within the Region by the regional administration. In such cases, either the participation in or the support of the candidature of a site is endorsed by law, or the allocation of funds for activities relating to the management or candidature of a property is authorized. Very often, such provisions are adopted in a single, specific article of the budget laws approved annually by the Regions. Examples can be found in the legislation approved by several Regions, such as Friuli Venezia Giulia, Veneto, or Puglia.<sup>223</sup> In one case a budget allocation is indicated for a MAB reserve.<sup>224</sup> Apart from the latter case, no specific provision is made for sites connected to PAs.

Three cases of regional laws are, however, worth mentioning, in addition to those referred to in the following paragraphs. The first is represented by a regional law approved by the Lazio Region in 2004, concerning "Initiatives for the enhancement of regional sites inscribed in the World Heritage List".<sup>225</sup> While still basically representing a legal tool designed to facilitate the transfer of funding to local organizations or authorities for initiatives relating to the sites, this law deserves attention as it represents the only example of a regional law that specifically addresses, and attempts to put into a more structured framework, the issue of UNESCO designation. Again, no specific mention is made of the possible relationships of the sites with other designations, such as PAs.

<sup>&</sup>lt;sup>222</sup> Database on Laws of Regions and Autonomous Provinces of Trento and Bolzano, Chamber of Deputies - Ancitel.

<sup>&</sup>lt;sup>223</sup> Puglia, Regional Law n. 1 of 2005 (budget law for 2005), Art. 49; Veneto, Regional Law n. 11 of 2010 (budget law for 2010); Friuli Venezia Giulia, Regional Law n. 17 of 2008 (budget law for 2009), Art. 7, and Regional Law n. 24 of 2009 (budget law for 2010), Art. 6;

<sup>&</sup>lt;sup>224</sup> Molise, Regional Law n. 14 of 2007 (budget law for 2007), Art. 1.

<sup>&</sup>lt;sup>225</sup> Lazio, Regional Law n. 14 of 2004.
More interesting in terms of links with the PA sector is the case of a law approved by the Piedmont Region in 2005, concerning the establishment of a regional nature reserve, as well as of a visitors' information centre, in an area encompassing part of the WHS "Sacri Monti di Piemonte e Lombardia".<sup>226</sup> According to the regional law on protected areas of Piedmont<sup>227</sup> in fact, regional reserves are to be declared and formally established by means of a regional law. What makes this specific law interesting is the fact that it represents the only instance we find of a law that explicitly links the management of a PA to that of a WH site. In its Article 3 in particular, the law defines the objectives of the reserve under establishment, and in so doing, in addition to recalling the provisions of the regional law on PAs, it makes explicit reference to Articles 4 to 6 of the World Heritage Convention. Moreover, in its Article 5 the same law makes reference to another key instrument in the management of WH sites, *i.e.* the site management plan, apparently recognizing this plan as the main planning tool for the regulation of the reserve as well.<sup>228</sup> These two articles of the law thus represent an attempt to harmonize the management of the PA with the requirements and commitments of the management of the WH property.

The last case has in fact little to do with either PAs or UNESCO designations, but can be mentioned because it represents the only case of a specific provision regarding a site designated under a UNESCO programme within a law concerning a completely different sector. This is in fact represented by a law of the Molise Region concerning mining and quarrying.<sup>229</sup> In its Art. 3, this law includes the MAB reserves on a list of areas where mining and quarrying are prohibited, a provision clearly due to the presence of one of Italy's eight MAB sites within the Region.

# 4. Regional powers and tasks on landscape and territorial planning in relation to UNESCO designations.

Bearing in mind the fact that the law-making activity of the Regions has so far been relatively opportunistic and sporadic, another topic that would deserve an at least exploratory analysis is that of the planning tools developed by the Regions that can

<sup>&</sup>lt;sup>226</sup> Piedmont, Regional Law n. 5 of 2005.

<sup>&</sup>lt;sup>227</sup> Piedmont, Regional Law n. 12 of 1990 (and subsequent amendments).

<sup>&</sup>lt;sup>228</sup> Regional Law n. of Piedmont does not define specific planning tools to be applied to all PAs, but refers for their definition to the specific laws establishing the different PAs.

<sup>&</sup>lt;sup>229</sup> Molise, Regional Law n. 8 of 2005.

directly affect the development of the areas where designated sites are found, and in particular those concerning landscape protection. As mentioned at the beginning of this chapter, a relatively recent reform of the Constitutional Law, and in particular of the fifth of its main sections, sets up new criteria for the organization and sharing of powers among central and local government administrations, taking a step towards the proposed federal structure of the Republic. In the field of landscape management and protection, in particular, the reform states that matters of conservation lie exclusively within the domain of powers of the State, at least in terms of legislative activity, while the Regions have the specific role of promoting and managing the "*mise en valeur*" of landscape, mainly regarded as a natural and cultural resource. This leads for example to the Regions becoming the most obvious and "natural" counterpart of the EU institutions for channelling the financial resources made available through structural (FESR) and social (FSE) funds or through the support of the EU agricultural policy.

Other national laws contribute to completing the relatively complex framework of landscape and territorial planning in Italy, such as the 267/2000 Law,<sup>230</sup> that defines the administrative organization of the provinces (Province), local councils (Comuni) and other administrative subdivisions at levels below the regional, and assigns clear responsibilities on environmental and landscape planning to the provinces, fixing the content and scope of the planning tools within their mandate. But equally important when dealing with issues related to landscape planning are the provisions of the recently revised framework law on the preservation of cultural and landscape heritage,<sup>231</sup> and in particular those of its Article 135, which states that, in order to ensure the adequate consideration and protection, through planning and management, of all sites of value found throughout the country's territory, the Regions must adopt plans to regulate the use of their own territory that specifically take into account the landscape values found therein. The Regions are therefore responsible for drafting and adopting, jointly with state administration, a main planning tool which has a direct effect on the preservation of landscape values. Once such plans are approved, they provide the main framework for more local plans, such as the provincial plans mentioned above and PA management

<sup>&</sup>lt;sup>230</sup> Legislative Decree 18 August 2000, n. 267, "Testo unico delle leggi sull'ordinamento degli enti locali".

<sup>&</sup>lt;sup>231</sup> Legislative Decree n. 42 of 2004 "Codice dei beni culturali e del paesaggio", as later modified by Legislative Decree n. 63 of 2008.

plans, which have to be revised and updated as required to be consistent with the general plan. The same article makes explicit reference to WHSs, whose presence has to be taken into specific account, in terms of compatibility with the expected development of human settlements and activities, when drafting regional level landscape plans.

In this way, it should be possible in fact to transfer directly the principles and values recognized as forming the basis of UNESCO sites designation into landscape planning tools. This arrangement can be regarded as a natural consequence of the distinctive approach to landscape and environment adopted by the Italian body of laws to ensure their conservation and enhancement, an approach that remains closely linked to cultural values. Italy's laws had in fact been lacking in explicit provisions on the value of environmental resources until 1985, when Law n. 431/1985 stated for the first time that a certain category (mountains over 1600 m in the Alps and over 1200 m in the Apennines, lake and sea shores, mountain glaciers, forests, common lands, wetlands of international importance, volcanoes, and PAs) were to be considered properties of high landscape value in the same way as those territories identified by specific designation acts. This interweaving of landscape and environmental values stems from the historic prevalence, adopted in Italian legislation since the passing of Law n. 1497/1939 (the very first act concerning landscape based on Benedetto Croce's aesthetic theories), of a more "aesthetic" point of view on landscape and scenery, a prevalence also reflected in the etymology of the Italian word for landscape, "paesaggio", which refers directly to "paese",<sup>232</sup> a land somehow transformed by man (see also the former assumption on pervasive and long lasting human presence in Italian landscape).

As a result, it is more likely that we will find explicit references to UNESCO designations when we look for them in landscape conservation plans: an example is the *Piano Territoriale Paesistico Regionale* (PTPR) of the Lazio Region, which in its Article 18 directly links its objectives of conservation and enhancement of regional landscape to the provisions of Article 135 of the framework law on the preservation of cultural and landscape heritage, explicitly mentioning World Heritage properties among the various items to be given special consideration in the planning process. In this regard, it is worth noting that the Lazio regional *Law on Landscape* n.

<sup>&</sup>lt;sup>232</sup> See MICHAEL JAKOB, *Il Paesaggio*, Bologna, Il Mulino, 2009.

24/1998<sup>233</sup>provides specific planning and programming tools for landscape preservation and enhancement, structured as action plans with a specific area of competence, a provision that may allow, in our opinion, the development of important synergies with UNESCO WHS Management Plans.

It is therefore clear that the Regions could assume a key role in ensuring that the presence of sites of particular value, such as those designated under UNESCO programmes, is well integrated and harmonized into the strategic outlines of the development of their territories, including the designation of parks and reserves aimed mainly at preserving nature and biodiversity values, and that local development around such sites is consistent with the general objectives of preserving those outstanding values which form the grounds for their designation. An in-depth analysis of such planning tools and of the legal provisions of regional laws would, however, be beyond the scope of this preliminary analysis, as well as premature, considering that not many Regions have yet adopted broad scale plans in line with the new constitutional and legal framework summarised earlier. We would therefore limit our review to mentioning, in addition to the case of the Lazio Region referred to earlier, another, even more significant, example: that of the regional law of Piedmont which defines, following the principles outlined by the national framework law on cultural and landscape heritage, the regulatory framework for the preservation and enhancement of landscape in the Region.<sup>234</sup> In its third article in particular, which deals with the financing of projects promoting landscape values enhancement, this law states that priority in the assignment of funding should be given to projects concerning, among other things, areas designated as WH sites, as PAs, or as Natura 2000 sites.

# 5. UNESCO designations and protected area planning in Italy

When considering the relationship between UNESCO designations and PA planning, it must be stressed first of all that in the broad horizon of planning instruments described by Italian law, a special role is reserved for PAs, both at national and at regional level. In general, at both these levels, and according to the national framework

<sup>&</sup>lt;sup>233</sup> Lazio Regional Law n. 24 of 1998, Article 31, paragraph 1, and Article 31bis.

<sup>&</sup>lt;sup>234</sup> Piedmont, Regional Law n. 14 of 2008, Norme per la valorizzazione del paesaggio.

law<sup>235</sup> and to regional laws regulating the establishment of parks and reserves, management boards of PAs can endorse a plan with zoning (even though in some cases, such as that of Piedmont mentioned earlier, the specific definition of the planning tools is deferred to the legal tools that establish each park or reserve). Regarding the structure of plans in MAB/WHS and in Italian PAs, some remarks should, however, be made.

Management plans for WH properties in Italy are the subject of two documents published by the Ministry of Cultural Heritage (MIBAC) in May 2004 and in January 2005, which represent two different versions (the second one more detailed and including best practice case studies) of the guidelines for the management plans of WHSs in Italy. Their elaboration follows the new framework law on the preservation of cultural and landscape heritage mentioned earlier. In an extremely synthetic description focusing on the topic of this chapter, a WHS management plan is built up through i) an assessment phase, which takes into account physical assets as well as social and economic resources and programmes, *ii*) a subsequent and related evaluation phase, which then leads to a *iii*) strategic framework definition phase, the results of which will, in the case of a positive outcome, be transposed into an executive programme that will constitute the core of the WHS Management Plan, made up of action and projects. Implementation, monitoring and the consequent reporting activity close, with the necessary feedback, the planning cycle. Participation and cooperation are the basis of the local sustainability of planning decisions and choices. With regard to the content and general objectives of management plans, these tools are to be organized along four main axes referring to knowledge, preservation, enhancement and valuing, and communication. For each axis, a set of objectives and a strategic and operational plan are prepared, in most cases as a collection of synergic projects.

Protected areas management plans (PAMP) are regulated in Italy by national framework laws, and as far as regional level PAs are concerned by several regional laws.<sup>236</sup> Even if their objectives are in most cases similar or equivalent to those typical of WHS management plans, the technique for their development is generally constrained to a rather fixed zoning scheme, articulated into four zones with progressive

<sup>&</sup>lt;sup>235</sup> Framework Law on Protected Areas, n. 394 of 1991.

<sup>&</sup>lt;sup>236</sup> For a review of some of the provisions of regional laws on PAs in Italy, see SINIBALDI I. & TALLONE G., *Classifications of PAs Adopted in the Italian Regional Legislation, Particularly in the Lazio Region*, in *Legal Systems for the Management of Protected Areas in Italy and Ukraine*, ed. by G. Tamburelli, Giuffrè, 2008.

restrictions to human activities: zone "A", a strictly PA, with strong limitations of access even for scientific purposes; zone "B", in fact a buffer zone surrounding A-designated areas, where some limited human activities are possible; zone "C", where agricultural and livestock activities are permitted, provided they follow "traditional" practices; and zone "D", where activities and services for the local populations and for the park management body are to be located.

Moreover, PAMPs do not have (as a result of a rather obsolete content format prescribed by the law) an internal logical articulation into strategic, non-prescriptive statements, and operational rules and projects. Some parks and Regions, in any case, have tried to overcome this limit with a more articulated structure of plans. For instance, the Lazio regional administration released in 2004 an official guideline document for the development of management plans for regional PAs in which a set of project sheets is envisaged as one of the components of the plan.

Another planning tool provided for by the national framework law as well as by several regional laws,<sup>237</sup> the Multi-year Socio-Economic Plan (*Piano / Programma Pluriennale Economico e Sociale* or PPES,<sup>238</sup> in some regional laws with the inclusion of "development") is aimed at fostering the development of compatible activities within the PA. This tool is much more similar to an action plan, where specific projects are harmonized into an overall programme, and it includes a financial feasibility study identifying suitable funding sources.

In terms of relationships between PAMPs and WHSs Management Plans (WHSMP), the Italian national guidelines from MIBAC seem to delineate a process in which actions of the PAMP are regarded as external elements defining the framework of the WHSMP, in conjunction with other planning instruments on land use or infrastructural development. Of course, in general terms the objectives defined by the PAMP and by the WHSMP can be said to converge in many major areas, so that an integration between actions and projects in the two plans should be generally possible and capable of generating positive effects.

<sup>&</sup>lt;sup>237</sup> Examples are the regional laws on PAs approved by Lazio, Toscana, Abruzzi, Sicilia.

<sup>&</sup>lt;sup>238</sup> PPES can be regarded as a heritage of a similarly defined planning tool provided for by an earlier law regulating mountain communities (*Comunità Montane*), *i.e.* groupings of local village councils established in mountain areas. Reasons for this can probably be found in the spatial coincidence of most of the larger PAs initially established in Italy with the mountain territories of Alps and Apennines, where the *Comunità Montane* (a sort of formalization of cooperative and common land management models typical of highlands) were still in action as administrative entities.

A different pattern arises for areas where PAs and MAB reserves overlap. The adoption of a zoning system by both protection instruments leads to a potential match, even though not necessarily complete, between the two zoning schemes. As generally regarded, a classical MAB zoning scheme is articulated into three different levels: a core area, where legal provisions defined by the protection laws of the country shall apply, designed for the conservation of biological diversity and where only low impact scientific research and monitoring activities may take place, and human presence is either excluded or strongly limited; a buffer zone, where compatible human activities can take place, including education and tourism; and a transition area, where agricultural and other compatible uses are permitted and where activities for sustainable local development and resource management can be implemented with a participative process involving local communities, environmental agencies, investors and any other stakeholders. This articulation is very similar to the one of PAMPs, and the spatial relationship between the two could be considered as one of the most important issues in pursuing the proper coordination of the two instruments. An analysis of the laws on PAs adopted by those Regions where MAB sites are found does not, however, show that this relationship has so far been considered.

From a methodological and more technical point of view, there is in fact no substantial difference between WHS and PA management plan documents. As is well pointed out in the MIBAC Guidelines of 2005, which take into account PA management plans as useful examples for WHS management plan development, the knowledge base and the inventory of issues, values and points of particular interest are largely the same, and share the same elaboration process. From this point of view, synergies and economies stemming from the interchange of data and of the evaluation framework represent an obvious advantage of the coincidence of the two protection designations on the same area. Furthermore, it must be noted that in general WH site management planning tends to rely on other planning instruments in a dynamic way, analyzing them as a collection of objectives and actions (projects, conservation statements, and so on) and trying to include the relevant ones as concurrent and complementary with the specific objectives of the management plan itself. MAB zoning patterns, on the other hand, can be usefully included in the preparatory documents of PA planning, note being taken of the possible coincidence of land use zone objectives as established by Italian

law and the performance objectives of MAB zoning, and assuming that no conflicts between the general objectives of MABs and PAs is likely to occur.

Finally, in a situation like the Italian one, no strictly defined "wilderness" areas can easily be found. Rather, a high level of human transformation of the landscape is to be considered as a fundamental driving force of most of the areas targeted for conservation (sometimes referred to as cultural landscapes). In such territories, an important contribution can be made by WHS Management Plans to tackling the problem of the unsatisfactory definition of D zones, in most regional PA laws, when local development issues are considered (*e.g.* sustainable and community-driven tourism). Even in this sector, concepts like sustainability and carrying capacity are common ground of the two management tools.

Additional insights into the links between PA and WHS or MAB designations and between the objectives for PA and WHS or MAB management plans may also come, at least in one case, from a look at the chronological relationship between a WH site and its PA designation. Usually, a WH site designation follows the declaration of a PA. This is not the case of Cinque Terre National Park in Liguria Region, that was first designated a WHS site (a pilot "cultural landscape"), and at a later stage was declared a national park. The study of this case is of particular interest in terms of planning procedures, as it resulted in a more careful consideration of the WH objectives, and in an attempt, by integrating them into the park management plan, to update the format of this plan as prescribed by the PA national framework law. In fact, as mentioned earlier, the framework law, in prescribing the contents of plans for national parks, only defines the zoning pattern, and does not allow for structuring the plan on a strategic or an operational level, as most land use planning laws in Italy do nowadays. The attempt made for Cinque Terre National Park is of particular interest because it tries to integrate the objectives defined for the WHS into the strategic level of the PA management plan, assuming, as a logical consequence, that there would be some harmony between the lower level actions envisaged by each plan. It must be noted that this modus operandi, even though it represents an obvious and logical method for the integration of management instruments, would need, in order to be fully adopted and tested, a substantial updating of the definition of PA management plans in the national framework law, aimed at the introduction of a two level system of statements in the management plan, one strategic and one operational.<sup>239</sup>

Analogies can also be observed with reference to the systemic principles which form the groundwork of the MAB network. The mission of the World Network of Biosphere Reserves of the MAB Programme is defined as follows:<sup>240</sup> "To ensure environmental, economic and social (including cultural and spiritual) sustainability through: - the development and coordination of a worldwide network of places acting as demonstration areas and learning sites with the aim of maintaining and developing ecological and cultural diversity, and securing ecosystem services for human wellbeing; the development and integration of knowledge, including science, to advance our understanding of interactions between people and the rest of nature; building global capacity for the management of complex socio-ecological systems, particularly through encouraging greater dialogue at the science-policy interface; environmental education; and multi-media outreach to the wider community".

A thorough review of how these principles are incorporated into the provisions of regional level laws on PAs would, again, be beyond the scope of this preliminary analysis, but at least the example of the Lazio Region can be cited, where PAs now, after the passing of the first regional law of 1977, (later amended and revised in 1997) are intended to be part of a system (*Sistema Regionale delle Aree Naturali Protette* - SRANP). In both laws a system management plan is envisaged, by which areas of interest for new PA designations and a regional ecological network are defined in order to achieve objectives of biodiversity conservation, enhancement of cultural heritage and sustainable development for local communities. Analogies between the missions of the two systems, even with the obvious scale differences, are quite evident: in fact, in the Lazio Region a specific agency (*Agenzia Regionale per i Parchi* - ARP) implements several programmes of scientific research and monitoring, promotion of quality local products, environmental education and system planning in cooperation with bodies entrusted with the management of PAs.

<sup>&</sup>lt;sup>239</sup> In the Cinque Terre National Park Management Plan, the strategic and operational double level distinction is achieved by splitting zoning statements into two different scale patterns: a broader one, corresponding to the strategic level objectives, and a more detailed one, built up by subdivision in sub-zones of the broader pattern, with operational objectives associated.

<sup>&</sup>lt;sup>240</sup> UNESCO MAB official website.

Finally, a further conservation planning tool to be considered is the management plan for Natura 2000 programme sites in the EU. In Italy, the Ministry of Environment published in 2002 guidelines for the development of Natura 2000 Site Management Plans. Some Regions, such as Lazio in 2004, have adopted their own guidelines. The structure of such management plans is similar to WHSMPs, with an extended knowledge framework as a first phase, and with a direct logical line leading from objectives to selected actions and monitoring programmes. However, so far little attention has apparently been given to the overlap and interaction of the two instruments, even though this pattern is often to be found among the general shortage of detailed legal measures adopted at regional level on Natura 2000 site management plans.

## 6. Final remarks.

Some remarks can be added to the preliminary analysis presented in this chapter. So far, it can be generally concluded that, except in a few cases, the whole issue of UNESCO designations has received little attention in regional level legislation, apart from spot interventions aimed at facilitating the nomination or, later on in the process, the management of selected sites. While the drawing up of regional laws on UNESCO sites may in fact not be necessary, legislative interventions on specific issues, for example through limited amendments of already existing legal tools, could, however, be useful in order to facilitate the management of such sites, to avoid difficulties arising from conflicting objectives, and last but not least, as far as WH sites are concerned, to enable the fulfilment of the requirements of the Operational Guidelines for the Implementation of the World Heritage Convention in terms of legislative, regulatory and contractual measures for protection to be adopted not only at national but also at local level.<sup>241</sup>

A first remark in this regard could be made by considering the key role of regional level government in defining the overall guidelines for, and broad scale patterns of, territorial development, in particular those concerning landscape protection. In this

<sup>&</sup>lt;sup>241</sup> Paragraph 98 of the operational guidelines: "Legislative and regulatory measures at national and local levels should ensure the survival of the property and its protection against development and change that might negatively impact the outstanding universal value, or the integrity and/or authenticity of the property. States Parties should also ensure the full and effective implementation of such measures".

respect, specific legal provisions, within the regional level instruments regulating broad scale planning, for an improved integration of the requirements deriving from UNESCO designation with other protection tools, such as PAs, could stimulate integration and the enhancement of possible benefits from multiple-level designations. It should, however, be noted that Strategic Environmental Assessment procedures, whose adoption is now required by the Regions for most planning tools, can already provide further opportunities for establishing links between planning levels, having the direct outcome of re-designing planning practices by imposing "new standards" on several environmental issues and by requiring their evaluation as a basic planning principle. It seems desirable that the introduction of new methodological approaches related to SEA procedures will have the effect of a general optimization of the planning processes and of promoting the inclusion of internationally recognized principles, such as those of integration and precaution, most commonly applying to sites designated under international programmes and conventions. New prospects in environmental governance and awareness arising after the initial stages of the planning processes are other desirable "collateral effects" of SEA, that may contribute to the improvement of the harmonization of requirements for sites designated under multiple legal tools originating from international, national or local policies and programmes.

Secondly, considering the complex institutional framework regulating territorial planning as well as the tasks delegated to local government on some matters, legal provisions that could define a more coherent approach to the issue of the planning of sites, and especially to the issue of the relationships between the management tools envisaged for each level of designation, would probably be beneficial. In this respect, a clear definition of the procedures for adoption by regional level authorities of management plans for UNESCO sites, and a more precise definition of the value and hierarchical relationship of management plans for UNESCO sites with other management planning tools, such as those of Natura 2000 sites and regional level PAs, would be probably useful.

## UNESCO DESIGNATIONS IN PERU

#### Oyarce-Yuzzelli, Aarón\*

SUMMARY: 1. Introduction. - 2. Legal framework of natural protected areas in Peru. - 3. Biodiversity protection in Peru and the key role of Native and Farming Communities. - 4. Natural protected areas and UNESCO designations in Peru. - 5. World Heritage Sites. - 6. Biosphere Reserves. - 7. Conclusions.

## 1. Introduction.

Peru is one of the richest countries in the world in terms of biodiversity, with an immense and vast territory, and with an enormous wealth of natural resources.<sup>242</sup> The management of the use of biodiversity is important in all South American countries, but particularly in Peru, where it is concerned with fishery, agriculture, and the forestry sector, and also with pharmaceutical activities, industry and tourism.<sup>243</sup>

An important multiplicity of cultures is to be found in Peru: fourteen linguistic families, forty-four races, forty-two of them located along the Amazon. These populations possess important knowledge on the use and properties of natural species, the variety of genetic resources and conservation techniques.

### 2. Legal framework of natural protected areas in Peru.

The legal framework of protected areas (PAs) in Peru rests on four pillars: *a*) the *Political Constitution*: that recognizes the necessity of preserving biological diversity and the PAs and the obligation of the Government to guarantee this; *b*) the *Protected Natural Areas Act*:<sup>244</sup> this is the most important act for the conservation and management of Peruvian PAs which fall within the National System of Natural Protected Areas (SINAMPE) and of those conservation areas that do not come under

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<sup>&</sup>lt;sup>242</sup> See: Gobierno de Perú. *Biological Diversity in Peru. National Report*, Lima, December 1997; DELGADO-RAMOS, Gian Carlo, *Biodiversidad, Desarrollo Sustentable y Militarización*. Plaza y Valdés. México, 2004. See also: Peruvian National Strategy on Biodiversity. *Republic of Peru Environmental Sustainability: A Key to Poverty Reduction in Peru, Country Environmental Analysis*, World Bank, Report n. 40190-PE, 2007, p. 11.

<sup>&</sup>lt;sup>243</sup> See *Republic of Peru Environmental Sustainability: A Key to Poverty Reduction in Peru, Country Environmental Analysis*, World Bank, Report 40190-PE, 2007, p. 11.

<sup>&</sup>lt;sup>244</sup> Ley de Áreas Naturales Protegidas, n. 26834, enacted in 1997.

State regulation. The Act defines the concept of the protected area, delineates the SINAMPE, specifies the tools for management and sustainable use and describes the participation mechanisms and planning tools; *c*) the *Director Plan*: the plan gives conceptual and strategic guidance for the management of the SINAMPE. It also defines policies and strategic planning for efficient management; *d*) *bylaws of the natural protected areas*: these redefine the rules of the Natural Protected Areas Act.

Some collateral acts that bear relation to the PA legal framework may be mentioned: *Environmental Protection Code*;<sup>245</sup> *Forest and Wild Life Act*<sup>246</sup> and its bylaws;<sup>247</sup> the *Natural Resources Act; Law for the Conservation and Sustainable Use of the Biodiversity* and its bylaws.<sup>248</sup>

The Peruvian political constitution of 1993 recognizes as a fundamental right, the right to a safe environment in Article 2, point 22,<sup>249</sup> and in point 5 the right to request information on environmental matters or others. Article 66 refers to the government property regime over natural resources;<sup>250</sup> Article 67 gives the State the right to establish the national environmental policy;<sup>251</sup> Article 68 obliges the State to preserve biodiversity;<sup>252</sup> Article 69 refers to the promotion of the protection of biodiversity in the Amazon.<sup>253</sup>

The Peruvian government has a policy to preserve biodiversity through a concrete programme and with a consistent legal framework.

<sup>250</sup> Peruvian Constitution, Chapter II, Article 66.

<sup>&</sup>lt;sup>245</sup> Código del Medio Ambiente, Legislative Decree n. 163.

<sup>&</sup>lt;sup>246</sup> Ley Forestal y de Fauna Silvestre, n. 27308, published on 16<sup>th</sup> June 2000.

<sup>&</sup>lt;sup>247</sup> Reglamento de la Ley Forestal y de Fauna Silvestre y su Modificatoria, Decreto Supremo 014-2001-AG.

<sup>&</sup>lt;sup>248</sup> The main laws relating to PA's in Peru: Ley General del Ambiente, Conservación de la diversidad biológica n. 28611, 2005; Ley de Áreas Naturales Protegidas n. 26834, 1997; Decreto Legislativo Establecen medidas que garanticen el patrimonio de las áreas protegidas n. 1079, 2008; Decreto Supremo MINAM Obligación de solicitar opinión previa vinculante en defensa del patrimonio natural de las ANP n. 004-2010; Decreto Supremo MINAM Reglamento del D.L. n. 1079 que establece medidas que garanticen el patrimonio de las áreas naturales n. 008-2008; Decreto Supremo MINAM Disposiciones para la elaboración de los planes maestros de las ANP, 2009; Decreto Supremo AG Conforman sistema nacional de áreas naturales protegidas por el Estado n. 010-1990.

<sup>&</sup>lt;sup>249</sup> Article 2, 22, "every person has the right to: peace, tranquillity, enjoyment of leisure time and rest, as well as to a balanced and appropriate environment for the development of life".

<sup>&</sup>lt;sup>251</sup> "The State determines the national environmental policy. It also promotes the sustainable use of its natural resources" (Article 67).

<sup>&</sup>lt;sup>252</sup> "The State is obliged to promote the conservation of biological diversity and of protected natural areas" (Article 68).

<sup>&</sup>lt;sup>253</sup> "The State promotes the sustainable development of Amazonia by means of appropriate law" (Article 699).

# 3. Biodiversity Protection in Peru and the key role of Native and Farming Communities.

Native and farming communities in Peru have contributed largely to the Peruvian environment since the beginning of the Peruvian civilization. Cultural diversity is considered to be part of biological diversity.

In order to prevent risks from the use of biotechnology, Law n. 27104 was approved in 1999, regulating the safety of biotechnology according to Article 8, *g*, and Article 19, pars. 3 and 4 of the Convention on Biological Diversity, approved by Legislative Resolution n. 26181, with particular regard to the use of biotechnology to produce GMO.

Regarding the Peruvian institutions which govern the protection of the environment, we can comment that the Ministry of the Environment was only created in May 2008 through Legislative Decree n. 1013. This Ministry is a fusion of institutions that formerly dealt with the protection of the environment in Peru. Since June 2008 there has been a Secretary of Environment.<sup>254</sup>

# 4. Natural protected areas and UNESCO designations in Peru.

Peruvian natural PAs<sup>255</sup> are regulated by Law n. 26834 of 4<sup>th</sup> July 2004. This Law defines the PA as: a continental or maritime area of the national territory officially recognized and declared as such, together with its categories and zoning, in order to preserve biodiversity and other values, such as cultural or scientific interest, panorama, or its contribution to the nation.

The natural PA is a patrimony of the nation. Its original conditions have to be preserved; a regulated use of its resources is permitted, though some restrictions for their direct use are established. The Peruvian PA preserves biodiversity, and promotes potential social and economic development, its principal aspects being: a) the

<sup>&</sup>lt;sup>254</sup> The Peruvian Ministry of the Environment was established on 14<sup>th</sup> May 2008, by Legislative Decree n. 1013. Its main mission is to preserve the quality of the environment and ensure to present and future generations their right to enjoy a balanced and suitable environment for the development of life. Thus, the Ministry favours and ensures sustainable, responsible, rational and ethical use of natural resources and the environment. See http://www.minam.gob.pe/english/html/index.

<sup>&</sup>lt;sup>255</sup> There are 61 natural PAs in Peru, covering an area of 19096654,95 hectares; 14,86% of the national territory.

preservation of natural resources; b) the preservation of biodiversity and c) the preservation of the landscape.

Peruvian legislation classifies PAs in: *a*) National Parks; *b*) National Sanctuaries; *c*) Historic Sanctuaries; *d*) Landscape Reserves; e) National Reserves; *f*) Community Reserves; *g*) Species Management Area; *h*) Protected Forest and; *i*) Hunting Grounds. Peruvian laws do not foresee biosphere reserves (BRs) as a specific category of PA. <sup>256</sup>

In order to preserve biological biodiversity, in harmony with the safeguarding of Peruvian cultural values UNESCO has designated areas that must be protected and constitute sites for research, long term monitoring, training, education and promotion of public awareness, while enabling Peruvian local communities to become fully involved in the conservation and sustainable use of resources.

## 5. World Heritage Sites.

World Heritage Sites are divided into: *a*) cultural, *b*) natural, *c*) mixed and there is a *d*) tentative list.

## 5.1. Cultural:

The main Peruvian Cultural Heritage Sites are: *a*) Chan Chan Archaeological Zone (1986); *b*) Chavin Archaeological Site (1985); c) City of Cuzco (1983); d) Historic Centre of Lima (1988); e) Historic Centre of the City of Arequipa (2000); f) Lines and Geoglyphs of Nazca and Pampas de Jumana (1994); *g*) Sacred City of Caral-Supe (2009).

Chan Chan is the largest city of pre-Hispanic America and is a unique testimony to the lost kingdom of Chimu. It is a masterpiece of inhabited space and hierarchical construction which illustrates a political and social ideal. The Chan Chan Archaeological Zone was created by Supreme Resolution n. 518-67-ED of 14<sup>th</sup> June 1967, and Supreme Decree n. 003-2000-ED of 21<sup>st</sup> January 2000, which approved the Conservation Master Plan, and Law n. 28261 which declared it a question of public necessity to recover the archaeological zone.<sup>257</sup>

<sup>&</sup>lt;sup>256</sup> See Art. 22 of Peruvian Law on PAs n. 26834.

<sup>&</sup>lt;sup>257</sup> The Chimu kingdom, of which Chan Chan was the capital, reached its peak in the 15<sup>th</sup> century, not long before it fell under the Incas. The ruins of Chan Chan are located in Trujillo, one of the world's most arid regions, and are literally melting. The planning of the largest city of pre-Colombian America is an absolute masterpiece of town planning. See: http://www.inc.gob.pe/documentos/sitios.

The Chavin culture developed between 1500 and 30 B.C. in this high valley of the Peruvian Andes, located in the department of Ancash, Province of Huari. The former place of worship is one of the earliest and best-known pre-Columbian sites. Its appearance is striking, with the complex of terraces and squares, surrounded by structures of dressed stone, and mainly zoomorphic ornamentation.<sup>258</sup> The village of Chavin de Huántar, located in a high valley of the Peruvian Andes at an altitude of 3177 m, was constructed near one of the oldest known and most admired pre-Hispanic sites. The Chavin site was created by Law n. 9298 of 22<sup>nd</sup> January 1941, modified by Law n. 13457, where it is declared a National Archaeological Park.<sup>259</sup>

Cusco is situated in the Peruvian Andes, developed under the Inca ruler Pachacutec into a complex urban centre with distinct religious and administrative functions. It was surrounded by delineated areas for agricultural, artisan and industrial production.<sup>260</sup>

The City of Cusco was declared Cultural Heritage by Law n. 23765.<sup>261</sup> It was, until the middle of the 18<sup>th</sup> century, the capital and most important city of the Spanish dominions in South America. The City is an amalgam of the Inca capital and the colonial city. It preserves impressive vestiges of the Inca city, especially its plan: walls of meticulously cut granite or andesite, rectilinear streets running with the walls, ruins of the Sun Temple where the Golden Garden is located. Of the colonial city, there remain the freshly whitewashed squat houses, the palace and the marvellous Baroque churches which achieved the apparently impossible fusion of Plateresco, Mudejar and Churrigueresco styles with that of the Inca tradition.<sup>262</sup>

The Lima site was founded on 5<sup>th</sup> January 1935 and possesses a great number of monuments such as the Plaza de Armas, the University of San Marcos, the Torre Tagle palace, etc. The demographic change, from the colonial city to today, explains the serious modifications to the urban landscape. Scant trace of the historic centre of Lima can be seen in the present metropolitan area, with the exception of a few remarkable

<sup>&</sup>lt;sup>258</sup> For Chavin Archeological Site, see: http://whc.unesco/org.

<sup>&</sup>lt;sup>259</sup> The site consists of a number of terraces and squares having constructions of bonded stones. The prevailing ceremonial and cultural nature of the entire Chavin complex is very clear.

<sup>&</sup>lt;sup>260</sup> Situated at 3400 m above sea level, in a fertile alluvial valley fed by several rivers in the Peruvian Andes it is the most historically imbued city of the Peruvian high plateau.

<sup>&</sup>lt;sup>261</sup> Inca mythology attributes the foundation of the city to the Inca Manco Capac: according to tradition; the golden sceptre that the sun had given him was thrust into the fertile Cusco to designate the placement of the capital.

<sup>&</sup>lt;sup>262</sup> For the City of Cusco see: http://whc.unesco.org/en/list/273.

ensembles - the Plaza de Armas, with the Cathedral Sagrario chapel, the archbishop's palace, the Plaza de la Vera Cruz with Santo Domingo, and especially the monumental complex of the convent of San Francisco (founded by Emperor Charles V and Francisco Pizarro).

The historic centre of Arequipa, built in volcanic sillar rock, represents an integration of European and native building techniques and characteristics, expressed in the admirable work of colonial masters and Criollo and Indian masons. This combination of influences is illustrated by the city's robust walls, archways and vaults, courtyards and open spaces, and the intricate Baroque decoration of its facades. Arequipa was founded in 1540 by a handful of conquistadores. The site was in a valley that had been intensively farmed by pre-Hispanic communities, a fact that has contributed to the topography of the place. The layout of an indigenous hamlet has survived close to the Historic Centre in the district of San Làzaro. The core of the historic town is the Plaza de Armas with its archways, the municipality, and the cathedral, the most important neoclassical religious buildings in the country, constructed in the mid 19<sup>th</sup> century on the ruins of an earlier Baroque church.<sup>263</sup>

*Lines and Geoglyphs of Nazca and Pampas de Jumaca (1994)*: located in the arid Peruvian coastal plain, some 400 km south of Lima, the geoglyphs of Nazca and the pampas of Jumaca<sup>264</sup> cover about 450 km<sup>2</sup>. These lines, which were scratched on the surface of the ground between 500 B.C. and A.D. 500, are among archaeology's greatest enigmas because of their quality, nature, size and continuity. The geoglyphs depict living creatures, stylized plants and imaginary beings, as well as geometric figures several kilometres long.

The 5000-year-old 626-hectare archaeological site of the Sacred City of Caral-Supe is situated on a dry desert terrace overlooking the green valley of the Supe river. It dates back to the Late Archaic Period of the Central Andes and is the oldest centre of civilization in the Americas. Exceptionally well preserved, the site is impressive in terms of its design and the complexity of its architecture, especially its monumental

<sup>&</sup>lt;sup>263</sup> The historic centre of Arequipa is an outstanding example of a colonial settlement, challenged by the natural conditions, the indigenous influences, the process of conquest and evangelization, as well as the spectacular nature of its settings.

<sup>&</sup>lt;sup>264</sup> The Nazca Lines are protected under the provisions of Law n. 24047. This confers on the National Institute for Culture the responsibility for the identification, protection, and investigation of archeological sites; central and local government authorities and agencies have a duty to ensure the enforcement of the law, and urban and rural development planning projects must take account of them.

stone and earthen platform mounts and sunken circular courts. One of 18 urban settlements situated in the same area, Caral features complex and monumental architecture, including six large pyramidal structures. It is the best representation of Late Archaic architecture and town planning in ancient Peruvian civilization.

# 5.2. Natural

Among the Peruvian natural World Heritage (WH) Sites we can mention: *a*) the WH and National Park *Huascarán*, and b) the Manu Biosphere and National Park.

## 5.2.1 The World Heritage and Parque Nacional Huascarán (1985).

This is an area of direct use, designated to preserve and protect the tropical Andes: The Cordillera Blanca.<sup>265</sup> It has a great richness of flora and fauna and geological formations; 663 glaciers, 200 snowcapped mountains, 296 lakes and 44 rivers, with a great variety of animals and plants; some of them close to extinction, and also archeological monuments of great historical and cultural value.<sup>266</sup>

The site was first created on 1<sup>st</sup> July 1975 by Supreme Decree n. 0622-75-AG,<sup>267</sup> with an extension of 340000 hectares. On March 1<sup>st</sup> 1977 it was recognized by UNESCO as a Biosphere, and in 1985 as a Natural Human Patrimony.<sup>268</sup>

## 5.2.1. The Manu Biosphere Reserve and National Park (1987).

This site is located in the department of Madre de Dios y Cusco, in the provinces of Manu and Paucartambo. It comprises lands on the eastern slopes of the Andes and in

<sup>&</sup>lt;sup>265</sup> It covers 340000 hectares and encloses a diversity of geomorphologic features and is also a WH Site and Natural Park. It supports a wide range of vegetation types, humid mountain forest in the valleys, with alpine fluvial tundra and very wet sub alpine paramo formations at higher levels. The national park is uninhabited although there is some grazing in the lowlands by native livestock, llama and alpaca, under an agreement with local people. Over 260,000 inhabitants live in the buffer and transition areas, http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?code=PER+02&mode=all.

<sup>&</sup>lt;sup>266</sup> The Huascarán National Park is situated in the Cordillera Blanca, the world's highest tropical mountain range, Mount Huascarán rising to 6768 m above sea level. See: http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?code-PER

<sup>&</sup>lt;sup>267</sup> The Supreme Decree n. 0622-75 states that this site will be considered a National Heritage area in order to preserve the ecosystem of the Cordillera Blanca, also because of the archeological monuments that preserve the great Peruvian past. The Decree also states that Communal corporations and indigenous people in legal possession of the area, may continue agrarian activities.

<sup>&</sup>lt;sup>268</sup> The Parque Nacional Huascarán is located in the Department of Ancash. It covers almost all the Cordillera Blanca and in political terms covers the following provinces: Huaylas, Yungay, Carhuaz, Recuay, Bolognesi, Huary, Asunción, Mariscal Luzuriaga and Pomabamba.

the Peruvian Amazon. There are three major landforms within the reserve, alluvial plains, hills and mountains. It is a huge park of 1.5 million hectares, and has successive tiers of vegetation rising from 150 to 4200 metres above sea level. The tropical forest in the lower tiers is home to an unrivalled variety of animal and plant species. Some 850 species of birds have been identified and rare species such as the giant otter and the giant armadillo also find refuge here. Jaguars are often sighted in the park.

The reserve was created in Peru by Supreme Decree n. 0644-73-AG of  $29^{\text{th}}$  May 1973 and on March 1<sup>st</sup> 1977 UNESCO recognized it as a Biosphere. It is inhabited by at least four different native groups: *a*) the Machihuenga; *b*) the Mascho-Piro; *c*) the Yaminahua and *d*) the Amahuaca. Mostly nomadic, they subsist on some form of root crop agriculture along riverbanks and lake shores, on hunting along watercourses and within the forest, on fishing and on the collection of turtle eggs. There are no towns in the reserve. Nevertheless, there is some colonization pressure on the eastern boundary of the Park.

# 5.3. Mixed:

# 5.3.1. Historic Sanctuary of Machu Picchu (1983).

The sanctuary stands 2430 m. above sea level, in the middle of a tropical mountain forest, in an extraordinarily beautiful setting. It was probably the most amazing urban creation of the Inca Empire at its height; its giant walls, terraces and ramps seem as if they have been cut naturally in the continuous rock escarpments. The natural setting, on the eastern slopes of the Andes, encompasses the upper Amazon basin with its rich diversity of flora and fauna.<sup>269</sup>

Machu Picchu is situated in the district of Machu Picchu, province of Urubamba, department of Cusco, with many pre-Hispanic archeological remains, among them: Machu Picchu, Inka raq'ay, Intiwatana, Intipata, Choq'esy, Chachabamba, Wiñay Wayna, Phuyupatamarka, Sayacmarka, Runkuraq'ay, Wayllabamba, Torontoy, Waynaqente, Machuq'ente, Q'ente, Qoriwayrachina, Pulpituyuc, Patallapta, Falkay.

 $<sup>^{269}</sup>$  Machu Picchu was declared Santuario Histórico by Supreme Decree n. 001-81-AA on  $8^{\rm th}$  January 1981.

Machu Picchu covers 32,592 hectares in some of the most scenically attractive mountainous territory of the Peruvian Andes.<sup>270</sup> The surrounding valleys have been cultivated continuously for well over 1000 years, providing one of the world's greatest examples of a productive man- land relationship; the people living around Machu Picchu continue a way of life which closely resembles that of their Inca ancestors, being based on potatoes, maize, and llamas. The site provides a secure habitat for several endangered species, notably the spectacled bear, one of the most interesting species in the area. Other animals include dwarf brocket, the otter, long tailed weasel, pampas cat and the vulnerable ocelot, boa, the Andean cock of the rock, and the Andean condor.

Set on a granite mountain sculpted by erosion and dominating a meander in the Rio Urubamba, Machu Picchu is a world-renowned archaeological site. The construction of this amazing city, set out according to a very rigorous plan, comprises one of the most spectacular creations of the Inca Empire.

# 5.3.2. Rio Abiseo National Park (1990.)

The Parque Nacional Rio Abiseo was created by Supreme Decree n. 064-83-AG on September 1983 to protect the fauna and flora of the rainforests that are characteristics of this region of the Andes. There is a high level of endemism among the fauna and flora found in the park, including the yellow tailed woolly monkey previously thought extinct.<sup>271</sup>

The Rio Abiseo National Park is an outstanding example of significant ongoing geological processes, biological evolution and man's interaction with the natural environment. It contains exceptional combinations of natural and cultural elements and extremely important and significant natural habitats where threatened species still survive. The pre-Hispanic monuments in the Montecristo valley area within the Rio Abiseo National Park constitute an outstanding example of pre-Hispanic human occupation at high altitudes in the Andean region from as early as the 4<sup>th</sup> century BC.

<sup>&</sup>lt;sup>270</sup> As the last stronghold of the Incas and of superb architectural and archaeological importance, Machu Picchu is one of the most important cultural sites in Latin America; the stonework of the site remains as one of the world's great examples of the use of a natural raw material to provide outstanding architecture which is totally appropriate to the surroundings.

<sup>&</sup>lt;sup>271</sup> Situated in the Andes mountain chain (Cordillera Oriental de los Andes), to the east of Huicungo on the Amazon slope of the Peruvian Andes, the Park is located at a crossroads between the Marañon and Huallaga rivers. It encompasses the entire Abiseo River basin.

Evidence from the Manachaqui Cave suggests that the Rio Abiseo Natural Park area was settled by man from an even remoter period, as early as 6000 BC.

Rio Abiseo is renowned for its pristine primary cloud forest and highland grasslands (paramo). The cloud forest is reputed to stem from the last glaciation, leading to great species diversity and a high degree of endemism. High latitude grassland inventories have resulted in the identification of 1000 species of plants. The cloud forest supports a wide diversity of fauna, including the marvellous Spatuletail Humming Bird, the South American Pochard, the Golden Plumed Conure, and the Yellow Browed Toucanet. Altitude zones have strongly influenced the avifauna: there are over 132 bird species of restricted distribution. There are several notable mammal species, such as the endemic yellow -tailed woolly monkey, previously believed to have become extinct in 1926; also present are three other species of monkey, including the long-haired spider monkey. Other larger mammals include the North Andean Huemul, spectacled bear, jaguar, jaguarondi, giant armadillo and tapir

Among the most important pre-Columbian ruins are: *a*) La Playa; *b*) Las Papayas; *c*) Los Pinchudos; *d*) Gran Pajaten; *e*) Cerro Central; *f*) Manachaqui Cave.

### 5.3.Tentative List:

The most representative site in the tentative list is Lake Titicaca:

#### 5.4.1. Lake Titicaca 2005.

Lake Titicaca is the largest freshwater lake in South America and the highest of the world's largest lakes. Titicaca is one of less than twenty ancient lakes on earth. It lies 3810 m. above sea level and is situated between Peru to the west and Bolivia to the east. The Peruvian part is located in Puno department, in Puno and Huancane provinces.

It covers 3200 square miles (8300 square km) and extends in a northwest to southeast direction for a distance of 120 miles. It is 50 miles across at its widest point. More than 25 rivers empty their waters into Titicaca; the largest, the Ramis, draining about two fifths of the entire Titicaca basin.

There is evidence of the continuous presence of human population in the lake area, showing the constant relationship between man and nature from ancient times, and over a long period of time from the birth and development of Andean pre-Hispanic societies until the present day.

Lake Titicaca was declared a National Reserve by Supreme Decree n. 185-78-AA (enacted October 31 1978) because of its exceptional characteristics of flora and fauna and landscape and the traditional uses of natural resources in the area comprehended between the Ramis River, the Capachica peninsula and Esteves Island.

#### 6. Biosphere Reserves.

In order to promote and demonstrate a balanced relationship between Peruvian people and nature, four BRs have been designated in Peru: a) Huascarán; b) Manu; c) Noroeste and since 2010 d) Oxapampa-Ashaninka Yanesha.

## 6.1. The biosphere of Noroeste.

This biosphere is located on the northern coast of Peru in the Tumbes and Piura departments. The area covers part of the Ecuadorian dry forest in the tropical Pacific forest with high biodiversity in flora and fauna. The reserve also includes the "*Cerros de Amotape*" National Park, the "*Coto de Caza el Angolo*" and the national forest of Tumbes. Its landscape is very varied, and it is covered by formations of matorral, very dry forest, dry and tropical submontane forest and mangroves of Tumbes. It also contains endangered fauna species as Crocodylus acutus, iguanas, birds such as the Vulture gryphus, Sarcoramphus papa, and Burhinus superciliaris, and mammals such as Odocoileus viginianus. Over 480 inhabitants live in the BR, engaged in agriculture, cattle raising and tourism mainly in the buffer zones, which generates the principal income and benefits to local communities.

Created by Supreme Decree n. 0800-75-AG of 22<sup>nd</sup> July 1975 and Supreme Resolution n. 0264-75-AG, on March 1<sup>st</sup> 1977 UNESCO recognized it as a Biosphere.

# 6.2 Oxapampa- Ashaninka Yanesha.

On 7<sup>th</sup> June 2010 UNESCO recognized this area as a BR, as a result of the presence of groups including the Yanesha Ashaninka indigenous people, who use

traditional knowledge to manage their cultural and biological diversity of high-altitude Amazonian rain forests.

Located in the department of Cerro de Pasco Oxapampa, the area is named Oxapampa-Ashaninka Yanesha, Chemillen. It is part of the country's Amazonian high forest region. Although classified as an important conservation area, the region is under intense pressure from human activities such as deforestation. To address these issues, the BR has developed participatory management processes involving regional authorities, NGOs and the local population. The presence of indigenous cultures, such as the Yanesha and Ashaninka, helps preserve ancestral knowledge in managing natural resources. Sustainable development initiatives include the progressive adoption of agroforestry and the promoting of eco tourism and artisanal crafts.<sup>272</sup>

The site was created in Peru by Supreme Resolution 0193-88-AG-DGFF in order to preserve the forest of the Palcazu river, which is necessary for the survival of the native populations of the ethnicity of Yanesha.

# 7. Conclusions.

Peruvian biodiversity should be preserved in order to maintain the indigenous populations' knowledge on the use and on the properties of the natural species, the variety of genetic resources and the conservation techniques.

The WH Site and Parque Nacional Huascarán; the Manu BR and National Park; the Noroeste BR, and Oxapampa Ashaninka Yanesha are a great recognition to the Peruvian government and private entrepreneurs in their effort to preserve the world's biospheres.

<sup>&</sup>lt;sup>272</sup> See: http://www.unesco.org/new/en/media-services.

# MULTILEVEL REGULATIONS AND ENVIRONMENTAL LAW: THE PROTECTION OF NATURAL AREAS IN SPAIN

#### M. Belén Olmos Giupponi\*

SUMMARY: 1. Introduction. - 2. The internal and the international legal frameworks: an overview. - 3. Biosphere reserves in Spanish legislation and MAB sites. - 4. The evolution of the MAB Programme in Spain. - 5. Spanish biosphere reserves: protected areas and sustainability. - 6. Spanish Biosphere Reserves Network (Red de Reservas de la Biosfera Españolas - RRBE). - 7. The consolidation of the institutional set-up and the role of federal agencies. - 8. The implementation of the Ramsar Convention in Spain. - 9. The Natura 2000 Programme Network in Spain. - 10. Concluding remarks.

### 1. Introduction.

Over the past twenty-five years, Spain has developed a full-time involvement in the field of the protection of natural areas through the adoption of various specific legal regimes. This development has taken place at different levels: regional (*Comunidades Autónomas*), federal (*Estado central*), and European and international levels.

In the case of Spain, the decade of the '80s was the turning point in the protection of the different types of natural area. The two main reasons for this change were: the ratification of the main legal instruments adopted at the United Nations on the protection of natural areas, and, the accession to the European Union (EU). On one hand, Spain became party to the main conventions adopted at international level concerning the protection of natural areas, incorporating the provisions to the internal legal framework. On the other hand, with the accession of Spain to the EU in 1986, another regulatory level in the protection of natural areas was established.<sup>273</sup>

In this context, and after years of activity, it is useful to look at current legislation in the field of natural areas protection and evaluate how this is being implemented. Therefore, the main aim of this article is to analyze the evolution of the different legal frameworks (regional and federal) adopted in Spain, with the intention of identifying those cases in which there is an overlap between the various regulations. In particular, I

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<sup>&</sup>lt;sup>273</sup> The European Community Programme of policy and action in the field of environment and sustainable development (1993-2000) was approved by the European Commission in 1993. This Programme promoted the integration of environmental policies into the configuration and implementation of EU sectoral policies and strategies.

will focus on the implementation of the UNESCO MAB Programme, the Ramsar Convention and the Natura 2000 Programme in Spain.

In the following paragraphs, I will consider first of all the evolution of the Spanish internal legal framework concerning protected areas (PAs) and its interaction with international and EU regulations. In the concluding paragraphs, I will review the evolution in the protection regimes of the different types of natural area that lies behind the current situation and its possible future evolution. The first section is devoted to an examination of internal and international legal frameworks concerning the protection of natural areas. In the second section, the implementation of the MAB Programme is analyzed. The third section aims at providing the whole "picture" of the Spanish participation within the Ramsar Convention. The analysis of the current situation four. The author's opinion is summarized in section five.

# 2. The internal and the international legal frameworks: an overview.

In the case of Spain, one can observe the overlapping between various regulations on the protection of natural areas at different levels: the regional, federal-state, international and EU levels. It is also worth mentioning that diverse joint programmes have been undertaken together with Portugal and many Latin American countries, such as the Araucaria Programme.<sup>274</sup>

For many years, biodiversity conservation and environment protection in Spain were based on the 4/1989 Act relating to the conservation of natural areas and wild flora and fauna. As regards strategic documents, the Spanish *Strategy for the Conservation and Sustainable Use of Biological Diversity* was approved in 1998. The Strategy aims to constitute a "bridge" between European Union strategy and the strategies being adopted by the various autonomous regions, directly responsible for the implementation of the required measures and actions. In addition to this, an Action Plan for protected natural areas in Spain (Europarc - Spain 2002) was approved within the framework of

<sup>&</sup>lt;sup>274</sup> Araucaria Programme - *Programa español para conservar la biodiversidad en Iberoamérica en el siglo XXI*. This Programme is being implemented by the Spanish Agency for Cooperation and Development and involves 21 Latin American States. In the implementation, interaction with the Ramsar Convention and the MAB Programme are foreseen and enhanced.

the forum of organizations responsible for conservation policies.<sup>275</sup> The 4/1989 Act was substituted by the 42/2007 Act, of 13<sup>th</sup> December 2007, on Natural Heritage and Biodiversity.<sup>276</sup> According to Spanish legislation, the various PAs are the following (from more to less important protection): national park (*parque nacional*); natural reserve (*reserva natural*); protected landscape (*paisaje protegido*) and natural park (*parque natural*).

The role of the regions (*Comunidades Autónomas*) is significant,<sup>277</sup> and many of them have adopted specific regional laws regulating the protection of natural areas.<sup>278</sup> The increase in the number of PAs is the direct outcome of this legislative activity. However, it must be underlined that these regional legal frameworks are heterogeneous, and show a wide array of different provisions applied to similar cases.<sup>279</sup> Ultimately, this "normative proliferation" has led to overlapping, and a lack of coordination between, the different regimes.

In addition to these regional and federal regimes, various international and European norms on natural areas protection are applied. Up to today, in Spain, one can observe the convergence of at least five different international or European regimes aimed at the protection of the environment and natural areas, as follows: Ramsar, biosphere reserves (BRs), ZEPA areas, NATURA areas and ZEPIN areas (this acronym stands for *Zonas Especialmente Protegidas de Importancia para el Mediterráneo*).<sup>280</sup> In certain cases, such as in the Tablas de Daimiel or Doñana Park there is a convergence of all these regimes.

<sup>&</sup>lt;sup>275</sup> This forum was created by the Government, in pursuit of that objective. In the document there is specific mention of the need to articulate networks of PAs linked by corridors.

<sup>&</sup>lt;sup>276</sup> Act 42/2007 on Natural Heritage and Biodiversity. The Law was issued on 14<sup>th</sup> December 2007. This Act establishes the basic legal regime for conservation, sustainable use, improvement and restoration of Spain's natural heritage and biodiversity as part of the duty to preserve and to ensure the rights of individuals to an environment adequate for their welfare, health and development.

<sup>&</sup>lt;sup>277</sup> For the role or regions in this sector in Italy, see M. BRUSCHI, I. SINIBALDI, M. TUFANO, UNESCO Designations and Protected Areas in the Italian Regional Legislation: a preliminary analysis, supra, p.

 <sup>&</sup>lt;sup>278</sup> Andalucía: Law no. 18 of 29<sup>th</sup> December 2003, approving fiscal and administrative measures (Article 121); Castilla - La Mancha: Law no. 9 of 26<sup>th</sup> May 1999, *Conservation of Nature*; Extremadura: Law no. 8 of 26<sup>th</sup> June 1998, *Conservation of Nature and Natural Areas in Extremadura*; Galicia: Law no. 9 of 21<sup>st</sup> August 2001, *Conservation of Nature*; La Rioja: Law no. 4 of 26<sup>th</sup> March 2003, *Conservation of Nature*; Regional Law no. 9 of 17<sup>th</sup> June 1996, *Natural Areas of Nature*.

<sup>&</sup>lt;sup>279</sup> The region of Valencia (*Comunidad Valenciana*), for instance, has been working actively on the implementation of federal and international norms.

<sup>&</sup>lt;sup>280</sup> DA CRUZ, H., *Zonas Especialmente Protegidas de Importancia para el Mediterráneo*, Medio Ambiente, n. 43. Sevilla: Consejería de Medio Ambiente-Junta de Andalucía, 2003, pp. 20-23.

## 3. Biosphere reserves in Spanish legislation and MAB sites in Spain.

As a State member of UNESCO, Spain has been working intensely to implement the goals and objectives of the MAB Programme, both at national and international level. At the beginning, the activities were conducted mainly by the Spanish Committee for the MAB Programme. Over the past thirty years, there has been a progressive increase in participation not only on the part of other government levels (regions), but also on the part of private entities and agents.

### 4. The evolution of the MAB Programme in Spain.

The Spanish Committee of UNESCO's MAB Programme was created in 1975 within the framework of the Spanish Commission for Cooperation with UNESCO. The Committee has undergone a significant evolution over the past thirty years. In this evolution, four main periods can be identified:

• In an initial phase, between 1975 and 1987, the Committee for MAB functioned as a working group under the Spanish National Commission for UNESCO. At this stage, the composition of its members was predominantly scientific, but it gradually began to incorporate representatives from sectors related to environmental management and administration.

• A second period ran from 1988 to 1996. This period started with the creation of a Support Office for the MAB Committee within the Directorate General of Environment of the Ministry of Public Works and Urbanism (*Ministerio de Obras Públicas y Urbanismo*). The MAB Committee activities underwent significant development. Over the following years, the work of the Committee focused on the figure of "biosphere reserve". As a result, in 1992 a Technical Working Group on BRs was created, determining the beginning of the Spanish Network. The results obtained by this Working Group were included in the Spanish contribution to the Second International Conference on BRs, organized by UNESCO in Seville in 1995. The period 1988-1996 can be considered as a period of acceptance and shared interest on the part of the Committee for MAB and public institutions responsible for environment, both at federal and regional level. • During the third period (from 1996 to 2007) diverse actions on the follow-up of the MAB Programme were taken. Among them should be noted the reform of the Ministry of Environment, adopted in 1996 by Royal Decree 1894/1996, which also attributed to the National Parks Autonomous Body (*Organismo Autónomo de Parques Nacionales* - OAPN) the coordination and development functions of the MAB Programme.<sup>281</sup> Consequently, since 1996 the OAPN has been performing technical tasks to support the development of the MAB Committee activities. Later, the institutional structure was modified by Royal Decree no. 1130 of 4<sup>th</sup> July 2008, relating to the structure of the Ministry of Environment and Rural and Marine Affairs.

• The fourth (and last) period started in 2007 (and runs up to the present) with the adoption of a new regulatory framework. Indeed, Royal Decree no. 342 of 9<sup>th</sup> March 2007 regulates the development of the functions of the MAB Programme and the Committee and its advisory bodies (Scientific Council and Board of Managers). This Royal Decree has defined how the National Parks Autonomous Body is to perform its functions, has strengthened institutional support for implementing the MAB Programme in Spain and has introduced incentives towards the development of programme activities. At the same time, the inclusion of BRs in Law 42/2007 on Natural Heritage and Biodiversity policy has supported and consolidated the Spanish BRs Network.

# 5. Spanish biosphere reserves: protected areas and sustainability.

The practical application of the figure of a BR in Spain has experienced an evolution similar to the evolution that has taken place in the international arena. Almost all spaces declared as BRs, appointed in the period from 1977 to 1992, were previously protected by the Spanish legislation as natural parks, national parks or natural reserves.<sup>282</sup> In 1993, Spain introduced a modification to the international trend, and proposed two complete islands (Lanzarote and Menorca) to be declared PAs. The idea behind this proposal was that these PAs constitute an example of the integrated management of a complex territory, covering all productive sectors, all uses of land and

<sup>&</sup>lt;sup>281</sup> The head of the National Parks Autonomous Body is the Environment Secretary-General, who is also functionally dependent on the Conservation Directorate-General.

<sup>&</sup>lt;sup>282</sup> The exception is Urdaibai BR (Basque Country) which was declared PA in 1983 by a specific law.

all its inhabitants, on the basis of a working programme with goals consistent with sustainable development.<sup>283</sup>

Between 1997 and 2006 there was a "boom" in the creation of BRs in Spain: 23 new territories were declared BRs, with no regard, in any of the cases, to the recommendations of the Seville Strategy and its statutory framework.<sup>284</sup>

Since 2007, the rate of declaration of new reserves has decreased considerably. At the same time, the network has been reinforced on the basis of the reform of the MAB Committee and the support to the system of BRs being implemented by the OAPN.

The reform in the regulatory framework increased the requirements for the submission of a proposal to proclaim a PA. According to the new procedure shaped by the 42/2007 Act, the acceptance of a new proposal is determined and implemented within the new structure of the Committee of MAB and its advisory bodies. However, this has not constituted a disincentive for the territories aspiring to form part of the network. On the contrary, it seemed to have had a positive effect on claims, and up to the present many areas have expressed their desire to seek a declaration as a BR.

In the future scenario, this legislation can offer solid support to the Spanish BRs Network. The new regulatory framework can contribute to a period of intense activity aimed at deepening the cooperation established in the case of BRs already recognized and adapting the situation to the requirements in the case of BRs that lack a functional minimum structure.<sup>285</sup>

# 6. Spanish Biosphere Reserves Network (Red de Reservas de la Biosfera Españolas - RRBE).

The Spanish BRs Network (Red de la Biosfera Españolas Reservas - RRBE) constitutes a significant example of how to protect the diverse ecosystems and enhance relationships between human beings and the environment. The importance of natural heritage has given rise to the setting up of an organizational system and a significant number of successful sustainable development experiences. Under the current legal

<sup>&</sup>lt;sup>283</sup> These two experiences had an important incidence in the approaches taken in Seville, in 1995.

<sup>&</sup>lt;sup>284</sup> UNESCO, *The Seville Strategy for Biosphere Reserves*, http://www.unesco.org/mab/doc/brs/Strategy.pdf.

<sup>&</sup>lt;sup>285</sup> In addition, Royal Decree 342/2007 is aimed at harmonizing the conservation of natural resources with local development, and, at the same time, at sharing the experiences through the network.

framework, the system consists of a network of different actors in which the main regulatory entity of the BRs Network is the National Parks Autonomous Body. Within this framework, the network also receives support from other central government departments, autonomous communities, and local and private actors.<sup>286</sup>

The first BRs declared in Spain were Grazalema (Cádiz) and Ordesa- Viñamala (Huesca) in 1977. Currently, Spain has forty BRs, two of which are transboundary: the Mediterranean Intercontinental BR (between Andalusia and Morocco) and the transboundary reserve Gerês-Xurés- (between Galicia and Portugal).<sup>287</sup>

The creation of the network began in 1992 with the first meeting of the BRs, organized by the Spanish Committee for the MAB Programme. The first steps were oriented towards sharing uncertainties, doubts and expectations and to identifying activities of common interest. The first stage coincided with the inclusion in the MAB Committee of representatives of the administration and management, and the creation of eleven BRs at federal level (only one of which, Urdaibai, was not initially a protected natural area). With the inclusion, in 1993, of Lanzarote, Menorca and Sierra de las Nieves as BRs, the strategy was oriented towards the practical application of the biosphere reserve concept in its many dimensions, in particular, those regarding conservation and development.

In 1995 contributions to the field induced a crucial shift in the practice of, and in the theory behind, BRs, globally reflected in the Seville Strategy and its Statutory Framework. Since December 2007, the Spanish BRs have been recognized in the 42/2007 *Act on Natural Heritage and Biodiversity and Protected Areas*, turning the voluntary commitment made in the context of MAB, into a legally binding obligation.

The 42/2007 Act specifies the objectives of the BRs Network, as well as the requirements for the inclusion and maintenance of the BRs in the network. The minimum requirements are related to achieving an appropriate distribution of areas (core areas, buffer and transitional areas) and a management entity responsible for developing strategies, guidelines for action and programmes.<sup>288</sup>

 $<sup>^{\</sup>rm 286}$  The participation of other governmental and non governmental agencies has stimulated an intensive network activity.

<sup>&</sup>lt;sup>287</sup> Spanish Biosphere Reserves Directory, 2010, see Red de Reservas de la Biosfera Españolas, http://www.mma.es/secciones/el\_ministerio/organismos/oapn/oapn\_mab\_redreservas.htmMAB.

<sup>&</sup>lt;sup>288</sup> The Spanish definitions are: Zona Núcleo, Zona Tampón y Zona de Transición.

The existing BRs should follow the guidelines of the UNESCO Global Network of BRs reference documents,<sup>289</sup> which are currently the Seville Strategy and Statutory Framework (Sevilla, 1995) and the Madrid Plan of Action 2008–2013.<sup>290</sup> The objectives and actions contained in these documents have been transferred to the so - called Montseny Action Plan 2009-2013 (Plan de Acción de Montseny - PAMO),<sup>291</sup> which is the Spanish Action Plan on the BRs Network.<sup>292</sup> The Action Plan is the result of the intense cooperation between the Committee for MAB and its two advisory bodies. Besides this, the Action Plan is expected to involve both levels of administration and the BRs themselves in its implementation.<sup>293</sup>

## 7. The consolidation of the institutional set-up and the role of federal agencies.

In 2006, with the support of the National Parks Autonomous Body, the First Spanish Congress on Biosphere Reserves was held. As a result, a plan of action was adopted: the so-called Lanzarote Action Plan 2007-2009, aimed primarily at defining the profile for the RRBE to act as a real "moving force" of the BRs.<sup>294</sup> During the Conference, a report on the status of Spanish BRs was prepared. The Lanzarote Declaration called for the various administrations and governments to implement the actions described in the Lanzarote Action Plan in order to strengthen the RRBE. In 2008, over 80% of the proposals of the Plan were accepted, and the RRBE was able to begin work according to the guidelines established by the World Network of BRs in the Madrid Action Plan 2008-2013.

It is worth mentioning that the National Parks of the Autonomous Communities (which function as independent bodies) and other regional agents working on the protection of BRs (based on the support of the Spanish Committee for MAB and its advisory bodies) play an active part in the network. Among the regions, various forms

<sup>&</sup>lt;sup>289</sup> UNESCO, *Biosphere Reserves: Model Regions with a Global Reputation*, in UNESCO Today, Journal of the German Commission for UNESCO, 2/2007, pp. 1-92.

<sup>&</sup>lt;sup>290</sup> UNESCO, Madrid Action Plan, 2008-2013.

<sup>&</sup>lt;sup>291</sup> Plan de Acción de Montseny 2009-2013. This document translates into the Spanish context the main guidelines laid down by the Action Plan of the World Network of BRs, adopted in Madrid in 2008.

<sup>&</sup>lt;sup>292</sup> The aspects which need more effort in this period in order to implement the Action Plan are emphasized.

<sup>&</sup>lt;sup>293</sup> Plan de Acción de Montseny 2009-2013. The Action Plan is the point of reference until 2013.

<sup>&</sup>lt;sup>294</sup> See Oficina del Programma MAB, *El Plan de Acción de Lanzarote*, 2007-2009. *Objetivo cumplido*", in Boletín del Comité Español del Programa MaB y de la Red de Reservas de Biosfera Españolas, no. 1, 2009, pp. 1-22.

and degrees of support to BRs can be observed. Some regions, such as Andalusia and the Canary Islands have established regional networks of BRs that have their own coordination unit. The priority given to each regional BR and its functioning, depends on their own criteria. The reserves contribute to the working of the network, providing the experience they have gained through the implementation of the reserve model in their own territories, with the many implications this entails: territorial planning, strategies and plans for sustainable development, participatory processes, sectoral policy development, dissemination strategies, education and communication. Communication and exchange of personal experiences are a constant in the network, which functions as a place where new initiatives for BRs and individual initiatives of common interest can be generated.<sup>295</sup>

The entities responsible for determining the respective relations with the autonomous communities, which are represented in the MAB Committee, vary from one region to another. The manager plays a special role in each BR since he or she meets the respective institutions and is, therefore, a component of the Board of Managers of the Spanish BRs Network. This body is the backbone of the technical network.

The Board of Managers functions as a working group which analyzes the situation in which BRs find themselves; identifies action needed on both an individual and a network scale; organizes meetings (usually every two years) and keeps up an intense interaction within the network. It is a very important source of initiatives. Currently, there are seven working committees to develop (in-between the meetings) the issues identified by the Board of Managers.

To sum up, the Spanish Committee for MAB is a space for coordination between institutions involved in BRs and between them and other actors.

The different meetings have an important role in providing a guiding framework, in maintaining and coordinating relationships with the international MAB Committee and in promoting and endorsing commitments and guidelines for RRBE, whose origin may be the Board of Managers, the Scientific Council or the National Parks Autonomous Body (OAPN). The MAB Committee normally meets twice a year. Both the Council and the Scientific Council Managers fulfil the role of advisory bodies and

<sup>&</sup>lt;sup>295</sup> The main impetus to the network activities comes from the reserves themselves, the entities responsible for biosphere reserves, the technical support teams and the social partners.

contribute to the meetings of the MAB Committee with the results of their work or their respective proposals. The Scientific Council has also an important role as supervisor of the correct application of the principles of the MAB Programme in the Spanish BRs. The Council is composed of twenty members, and their function is to assess and guide new proposals, evaluate existing reserves collect and generate knowledge for the implementation of the BR scheme on the ground. Its members meet several times per year as necessary.<sup>296</sup>

The National Parks Autonomous Body (OAPN) is the national coordinator of the network's activity and is in charge of the development of the MAB Programme. Within the framework of the OAPN, there is an office which acts as RRBE secretariat and deals with information distribution and exchange node. In addition to this, the OAPN develops general support initiatives online, such as brand imaging, the commissioning of a system to monitor the spread of the network, etc. The OAPN works closely with the Council of Managers and the Scientific Council.<sup>297</sup> Finally, it must be pointed out that, among other departments of the central government, the Directorate General for Sustainable Rural Development provides significant support to the BRs network. Cooperation takes place in the form of agreements with the entities responsible for managing the BRs to implement sustainable development initiatives.<sup>298</sup>

# 8. The implementation of the Ramsar Convention in Spain.

With regard to the Ramsar Convention,<sup>299</sup> Spain adhered to the Convention in 1982.<sup>300</sup> Spain has many wetlands of international importance such as the Doñana National Park (which is also a World Heritage Site), the Tablas de Daimiel (included in the Montreux Record) as well as the Mar Menor and its surroundings, included under the Barcelona Convention, and many other places under international protection.

As is well known, the Ramsar Convention introduced a change in the concept of wetlands. Among its main contributions, we can mention: the broad and open legal definition of the wetlands; the rational use of wetlands, and binding obligations on the

<sup>&</sup>lt;sup>296</sup> The contacts are ongoing between the meetings through digital means. Everyone works individually in accordance with to instructions received.

 <sup>&</sup>lt;sup>297</sup> There are usually common initiatives which originate in proposals by the Council of Managers.
<sup>298</sup> The agreements involve co-funding by the signatories.

<sup>&</sup>lt;sup>299</sup> Convention on Wetlands, signed in Ramsar, Iran, in 1971.

<sup>&</sup>lt;sup>300</sup> B.O.E., no. 199, 20<sup>th</sup> August 1982.

states to protect the wetlands (even though there is no monitoring mechanism to assess compliance).

In the case of Spain, the Ramsar Convention's main contributions are the following: the diversification of wetlands under protection; the adoption of specific protective measures; the increase in Spain's role in the international committees and the contribution to the internal enforcement of the specific legislation. The inclusion of a high number of Spanish wetlands on the list of the Ramsar Convention has contributed to an improved knowledge of these areas at national level. Besides this, the participation of Spanish representatives (forming part of the National Ramsar Committee) in the Ramsar International Committee has been significant over the past twenty-five years.<sup>301</sup>

Even if the Ramsar Convention itself does not establish any compulsory mechanism to strengthen compliance (such as a monitoring body), from an internal point of view, the Convention is considered as a legally binding instrument in Spanish legislation, since it has been ratified and published as forming part of the internal legal system.<sup>302</sup> On the basis of the Ramsar Convention, diverse internal measures have been taken to protect Spanish wetlands.

As for the weaknesses of the application of the Ramsar Convention in Spain, two main questions must be underlined. The first question regards the delayed implementation of the Convention. Indeed, Spain ratified the Convention only in 1982 and the internal technical committee or working group started working only in 1988. As a result, the activities related to the Ramsar Convention were not properly launched until the '90s. In the early nineties, there was a period of constant activity after which the cooperation suffered from a stagnation process.<sup>303</sup> Another question is the difficulty in establishing clear measures on how to implement accurately the Convention provisions on an internal level. Since the Convention does not provide specific guidelines, in practice Spanish norms concerning different schemes of protection are

<sup>&</sup>lt;sup>301</sup> The 8<sup>th</sup> Conference of the Parties (COP8) of the Convention took place in 2002 in Valencia.

<sup>&</sup>lt;sup>302</sup> ALDAYTURRIAGA, I., La Convención de Ramsar relativa a los humedales de importancia internacional, in Régimen jurídico de los espacios naturales protegidos, ed. by LÓPEZ RAMÓN, F., Zaragoza, 1995, pp. 43-56.

<sup>&</sup>lt;sup>303</sup> One can observe a decrease in the number of proposals since 1996, due, partly, to bureaucratic questions and, partly to the lack of interest on the part of the regional governments (*comunidades autónomas*) which are supposed to submit the proposals.

being applied to each case.<sup>304</sup> This has led to the existence of diverse management systems; each wetland is under a different regime.<sup>305</sup>

# 9. The Natura 2000 Programme Network in Spain.

Spain is one of the leading European countries in terms of recognition of BRs. In 1988, the European Commission proposed (Action on Environment, 1987-1992), the creation of a large community network of special areas of conservation, which was called the Natura 2000 network. Later, the European Community programme of policy and action in the field of environment and sustainable development (1993-2000) was launched. Among the main objectives, the programme included the creation of a coherent European network of PAs. The initiative to establish such a network at European level was well received by Spain, and years later, the Directive 92/43/EC 21<sup>st</sup> May 1992 on the conservation of natural habitats and flora and fauna was passed. This Directive constituted the reference instrument of Community policy on nature conservation and it was incorporated into the internal legislation in Spain.<sup>306</sup>

According to the Directive, each member State must elaborate a national list of places, representative of the various types of 'natural habitats' and 'species', in the respective annexes. Once the Commission has approved these proposals, they will become Sites of Community Interest (SCIs). Up to the present, in Spain 1434 places have been declared "Sites of Community Interest", many of which are also recognized as BRs under the MAB Programme,<sup>307</sup> States must also guarantee the designation of Special Areas of Conservation (SAC) according to Directive 79/409/EEC. Consequently, the Natura 2000 network consists of Special Areas of Conservation designated under the Habitats Directive and Special Protection Areas for birds established under Directive 79/409/EEC (Birds Directive) which have already been declared as such, or which will be so declared in the future (Article 3.1). The main purpose is to ensure the long-term survival of species and the most threatened habitats

<sup>&</sup>lt;sup>304</sup> MULERO MENDIGORRI, A., *Iniciativas internacionales para la protección de espacios naturales. Un análisis crítico de su aplicación en España*, in Doc. Anàl. Geogr. 44, 2004, pp. 167-187.

<sup>&</sup>lt;sup>305</sup> MULERO MENDIGORRI, A., La protección de espacios naturales en España. Antecedentes, contrastes territoriales, conflictos y perspectivas, Madrid, 2002.

<sup>&</sup>lt;sup>306</sup> The transposition of Directive 92/43/EEC into Spanish law was implemented through two royal decrees, 1.997/1995 and 1.193/1998.

<sup>&</sup>lt;sup>307</sup> Ministry of Environment and Rural and Marine Affairs, November 2010. See at http://www.mma.es/portal/secciones/biodiversidad/rednatura2000/rednatura\_espana/lic/lic.htm.

in Europe, helping to protect biodiversity loss caused by the adverse impact of human activities. Up to the present, the Natura 2000 Programme has constituted not only an European ecological network of areas for biodiversity conservation but also, and most importantly, the main instrument for nature conservation in the European Union.<sup>308</sup> How are these EU legislative instruments being implemented in Spain? Currently, the main internal legal instrument is the 42/2007Act, which is in line with the EU Directives. According to the 42/2007Act,<sup>309</sup> Natura 2000 management instruments shall contain, at least: the conservation objectives (Article 45.1); appropriate measures to maintain the site at a favourable conservation status (Article 45.1); appropriate measures to avoid the deterioration of natural habitats and the habitats of species as well as disturbance of the species (Article 45.2).

As for the formal requirements, the procedures must meet the following: public participation (Article 44); formal approval (Article 3.22) and publication in the Official Journal (Article 44). Another important provision included in the 42/2007 *Act on Natural Heritage and Biodiversity*, is the drafting of Guidelines for the implementation of Natura 2000. Consequently, "the Ministry of Environment, with the participation of the Autonomous Communities, shall prepare guidelines for the conservation of the Natura 2000 network, which will be the framework for the planning and management of the Natura 2000 sites".<sup>310</sup> The *Guidelines for the conservation in the framework of the Natura 2000 network*, should include specific guidelines for the implementation, from a technical perspective, of the legal framework established by the Habitats Directive and the 42/2007 Act. These guidelines aim at verifying that the management instruments for Natura 2000 sites are being implemented according to a framework coherent with the specific conservation objectives.<sup>311</sup>

<sup>&</sup>lt;sup>308</sup> MILIAN, J., *Le projet Natura 2000 et la protection du patrimoine naturel*, in Études rurales, no. 157-158, 2001, pp. 173-194.

<sup>&</sup>lt;sup>309</sup> 42/2007Act, Article 45.1: "For special areas of conservation and special protection areas for birds, Autonomous Communities shall establish the necessary conservation measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species".

<sup>&</sup>lt;sup>310</sup> 42/2007Act, Article 41.3.

<sup>&</sup>lt;sup>311</sup> These Guidelines must include aspects such as: the geographical limits; the inventory of features of community interest; pressures and threats; conservation status; conservation objectives; conservation measures; monitoring and assessment; economic valuation and priorities and the zonification.
# 10. Concluding remarks.

In the case of Spain, one can observe the existence of various regulations concerning natural reserves at different levels: federal, regional, international and European. In addition, in the context of Ibero-America (including Portugal and Latin American states) Spain has developed cooperation programmes, such as the aforementioned Araucaria Programme. The analysis reveals the difficulties in dealing with different regimes: there is an overlap between UNESCO regulations (MAB Programme), the European regulations (such as Natura 2000) and other international regulations (such as the Ramsar Convention). Lack of coordination sometimes affects objectives, measures taken, and the planning of activities.

The activities of the MAB Spanish Committee are crucial to the consolidation of the Spanish BRs Network (RRBE). The RRBE constitutes a clear example of the confluence of various actors who contribute to the coordination of the implementation of the various regimes.

As a member of the Ramsar Convention, Spain has many wetlands of international importance included on the list. Some of them are also under other forms of international protection. The variety of legislative measures being adopted at regional level has led, in practice, to different specific regimes being applied to each wetland.

The new regulatory framework, the 42/2007 *Act on Natural Heritage and Biodiversity* lays down principles to increase the harmonization between internal norms and European legislation and to lead to the adoption of guidelines to guarantee an improved implementation of the Natura 2000 Programme.

Even if there has been an evolution in the coordination of activities within the Spanish MAB Committee, there is a need for greater coordination between the regional governments (*comunidades autónomas*) and the central government (*estado*) to safeguard the coherence between various regimes and regulations in the future.

### MANAGEMENT OF UNESCO DESIGNATIONS IN UKRAINE

#### Oleg Rubel\*, Katerina Stepanova \*\*

SUMMARY: 1. Introduction. - 2. Theoretical bases of ecological management. - 3. Preconditions for development of biosphere reserves in Ukraine. - 4 Biosphere reserves in the structure of natural resources management of Ukraine. - 5. Review of the activity of the national Committee of Ukraine under the UNESCO Programme "Man and the Biosphere". - 6. Review of the management of the Danube Biosphere Reserve. - 7. Conclusions.

## 1. Introduction.

The complex of measures for the optimization of the natural environment is needed to overcome imbalances between economic development and natural recourses management. The optimization of the natural environment is a complex interdisciplinary problem because it regards the use, recovery, protection, monitoring, etc. of natural resources.<sup>312</sup>

One of the components of natural environment optimization and environmental problem solving is the designation of special zones of protection – called protected areas (PAs). The practice of creating a network of such areas in order to maintain ecological balance, protect the genofund of threatened species, conserve wildlife and natural beauty, and to develop tourism and ecological education, is gaining importance both worldwide and in Ukraine. PAs in Ukraine, including biosphere reserves (BRs), were established as a cornerstone for the realization of a biodiversity protection strategy.<sup>313</sup>

BRs are natural areas, coastal or marine sites, defined by countries and recognized by UNESCO's Man and the Biosphere (MAB) Programme.<sup>314</sup> BRs are nominated by States, through national MAB Committees. Potential sites must meet special criteria and

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<sup>&</sup>lt;sup>312</sup> Theory and Practice of Natural Reserves Development in Ukraine // collected articles, Kyiv, 2005, p. 267.

<sup>&</sup>lt;sup>313</sup> MUNASINGHE, M. (ed.), *Environmental Economics and Natural Resource Management in Developing Countries*, Committee of International Development Institutions on the Environment, World Bank, Washington, D.C., 1993.

<sup>&</sup>lt;sup>314</sup> http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/man-andbiosphere-programme/.

characteristics and fulfill three interconnected functions: conservation, development and logistic support.<sup>315</sup>

A BR must include 3 elements: one or more core zones, a buffer zone and a manipulation or transition zone. The core zone is a territory which provides protection of biodiversity, monitoring of pristine ecosystems, research and other environmentally friendly activities, such as education. The buffer zone is a precisely defined zone adjacent to the core zone, and is used for limited human activity including ecological education, ecotourism and recreation, applied and fundamental research. The manipulation or transition zone is a zone where several human activities can take place.<sup>316</sup>

In this connection the present paper highlights important aspects of biosphere wildlife management in Ukraine, in particular, the activities of four BRs of the UNESCO world network: the Danube Biosphere Reserve (DBR) of National Academy of Sciences (NAS) of Ukraine, Carpathian BR, "Askania Nova" BR and "Chornomorsky" BR of NAS with special consideration of the economic and institutional aspects of the management of the Danube BR.

# 2. Theoretical bases of ecological management.

It is necessary to notice that rapid economic development is accompanied by an increase in environmental impact. Complex problems of wildlife management lead to a need for further research concerning the rational use of natural resources and the protection of natural complexes.<sup>317</sup>

The concept of "ecological management" is frequently identified with the concept of "nature protection management". This is not correct; the concept of "ecological

<sup>&</sup>lt;sup>315</sup> Conservation includes the protection of cultural diversity and biodiversity, including genetic resources, ecosystems and landscapes and services provided by such diversity. Development provides sustainable and environmentally friendly economic and human development. Logistic support provides environmental education and training, research and monitoring in order to solve local, national, international and global environmental problems and provide sustainable development, MINICHEVA, G., LEONENKO, V., VOLOSHIN, V., GORIUP, P. // Seville Strategy of Biosphere Reserves (TACIS Project Lakes of Low Danube), 2001, pp. 5-9.

<sup>&</sup>lt;sup>316</sup> In the transition zone local communities, authorities, researchers and NGOs collaborate in order to provide sustainable management and development of the area, http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere reserves/main-characteristics/functions/

<sup>&</sup>lt;sup>317</sup> RIJIKOV, Theoretical Basis of Natural Reserves Systems Projects and Their Development in Time, Part: Wildlife Protection, sup. 6, Kyiv: Institution Kyiv Stroyproject, 1997.

management" is in fact much wider than "nature protection management" or "natural resources use management" and includes both these last two concepts and a number of others (for example, management of ecological safety, etc.).

According to the *Law on Environmental Protection* (Section 4 of Article 16 amended in conformity with Law no. 81 of 6<sup>th</sup> March 1996) *nature protection management* includes planning, research, monitoring, forecasting, compliance with environmental legislation, precautionary measures, and the protection of the ecological rights of citizens.<sup>318</sup>

The main point of *ecological management* lies in the State's guarantee of ecological safety and ecological balance within its territory; of the protection and rational use of both natural resources and of the environment with all its components. So, ecological management is a science regarding principles, forms, types and methods of harmonization of mutual relations in the system "society-technique-nature" which is based on the laws of nature.<sup>319</sup>

*Economic-ecological transaction (EE transaction)* can be considered as part of *transaction of natural resources management* which, in turn, can be described by the following formula: *natural resources management = resource transformation + economic-ecological transaction*.

*Resource transformation* is a function not only of applied technology but also of Institutes. Resources are necessary also to transform land, labour and capital into goods and services.<sup>320</sup>

The purpose of *EE transaction* is to organize, inform about, and maintain targets of sustainable natural resource management systems. This purpose is valid for all administrative levels, micro- and macro-economic problems.

EE transaction of BRs management is one of the higher levels of EE Transaction, asking for the development of a national ecological network with core zones, the protection and reproduction of biological and landscape variety, the maintenance of biosphere services and the strengthening of biotic mechanisms of self-regulation and environmental self-reproduction.

<sup>&</sup>lt;sup>318</sup> http://www.elaw.org/node/2659

<sup>&</sup>lt;sup>319</sup> http://www.dcr.virginia.gov/natural\_heritage/ecomangt.shtml

<sup>&</sup>lt;sup>320</sup> According to D. NORTH, *Institutes, Institutional Changes and Economics Functioning*, institutes, together with applied technologies, define the size of the transaction costs, p. 18, 1997.

For the management of BRs, *resource transformation* means: (*a*) the preservation of integrated (biosphere) natural resources; (*b*) development (economic and social for the area/territory of natural resources management); (*c*) scientific research and information- sharing - the creation of an innovative information product.<sup>321</sup>

According to the Statutory Framework of BRs (Article 5, *Designation Procedure*), BRs are designated for inclusion in the Network by the International Coordinating Council (ICC) of the MAB Programme.<sup>322</sup>

# 3. Preconditions for the development of biosphere reserves in Ukraine.

Thanks to its geographical position Ukraine has an extremely rich and various biota, that constitutes four landscape zones from North to South within quite a small territory: forest zone, forest-steppe zone, steppe zone and sub-tropical zone.<sup>323</sup> The geographic position, the climate and the physiographical setting enhance the richness of the flora and fauna of Ukraine, which comprises more than 70,000 species.

The most floristically rich regions of Ukraine are the Crimean and Carpathian Mountains. The Crimean Mountains are especially rich in endemic taxa (240 to 300 endemics, according to different estimations). Almost 1/4 of the species of Ukrainian flora are concentrated in forests (in particular, 15.5% in the broadleaved forests), and ca.

<sup>&</sup>lt;sup>321</sup> Analyzing EE Transaction from an economic and subjective point of view, it is possible to consider that: EE Transaction of nature protection is connected with the economic and institutional interaction of some principals and actors, participants of natural resources management: reserve administration, public service hierarchy, resource users (special natural resource management), local residents (general natural resources management).

<sup>&</sup>lt;sup>322</sup> States, through national MAB committees where appropriate, forward nominations with supporting documentation to the secretariat after having reviewed potential sites, taking into account the criteria as defined in Article 4; the secretariat verifies the content and supporting documentation: in the case of incomplete nomination, the secretariat requests the missing information from the nominating State; nominations will be considered by the Advisory Committee for BRs for recommendation to ICC; ICC of the MAB Programme takes a decision on nominations for designation. The Director-General of UNESCO notifies the State concerned of the decision of ICC, http://www.sovereignty.net/tline/statutory-framework.htm.

<sup>&</sup>lt;sup>323</sup> Natural or semi-natural vegetation covers about 29% of Ukraine territory and is represented mostly by forests (14.3%), meadows (9.7%), mires (2%), steppes and saline habitats (3%).

20% - in steppes.<sup>324</sup> Forty-five thousand species of animals inhabit the territory of Ukraine, including the water areas of the Black Sea and the Sea of Azov.<sup>325</sup>

On 29<sup>th</sup> October 1992, the Verkhovna Rada of Ukraine adopted the Statute on *The Red Data Book of Ukraine*. The Book is published in two volumes. The first volume is devoted to plants and fungi and provides brief descriptions, illustrations and other data on 541 taxa (mostly species, in some cases also subspecies, varieties, forms) of plants and fungi, including vascular plants, mosses, algae, lichens, and fungi. The second volume includes 382 species of animals: hydroids, roundworms, segmented worms, crustaceans, arachnids, myriapods, insects, molluscs, jawless fishes, fishes, amphibians, reptiles, birds, and mammals.<sup>326</sup>

Biodiversity preservation is one of the key components of sustainable development strategy and ecological policy of states all over the world.<sup>327</sup> In the *Convention on Biological Diversity* (CBD) the term "biological variety" is defined as meaning a variety of live organisms, including, land, marine, and other water ecosystems and ecological complexes, of which they are part.<sup>328</sup>

The development of scientific and organizational bases of reserve management in Ukraine is predetermined by the degradation of natural ecological systems, which is increasing more and more on both a regional and a global scale. In this connection, the basic ecological processes of areas of special value are maintained, their unique ecological systems, and the genetic resources of the biosphere which are now under threat of destruction as a result of overexploitation are protected. The most effective tool

<sup>&</sup>lt;sup>324</sup> Useful plants are also well represented and include medicinal (more than 1000 species), vitamin-producing (200), oil-producing (300), melliferous (more than 1000), tannin- and natural dye-producing (up to 100 species) plants. These taxa are of special interest for economic botany. There are more than 100 species of trees in Ukraine.

<sup>&</sup>lt;sup>325</sup> The vertebrates include fish (together with subspecies they number about 170 species), amphibians (17 species), reptiles (21 species), birds (about 400 species), and mammals (about 108 species). The rest of the species are invertebrates (including 35,000 species of insects). A certain number of species of the animals of Ukraine are endemic and subendemic. The hydro fauna of the Black Sea, the Sea of Azov and estuary cenoses includes 32 animal species of the pontocaspian complex. 12 species of invertebrates are endemic.

<sup>&</sup>lt;sup>326</sup> http://enrin.grida.no/biodiv/biodiv/national/ukraine/legis/l2\_3.htm.

<sup>&</sup>lt;sup>327</sup> Biodiversity brings enormous benefits to mankind, from the direct harvesting of plants and animals for food, medicine, fuel, construction materials, and others, to aesthetic, cultural, recreational and research uses. Benefits to ecosystems include climate and water regulation; the creation and protection of soils, helping to reduce floods and soil erosion, shoreline protection, and providing natural controls of agricultural pests, all of which promote creative evolution.

<sup>&</sup>lt;sup>328</sup> http://bch.cbd.int/protocol/.

for the protection of biodiversity and unique natural complexes is the creation and development of a natural reserves network.<sup>329</sup>

# 4. Biosphere reserves in the structure of natural resources management of Ukraine.

Research into the history of nature protection activity allows us to define a timescale. The historical "Pagan" period was connected with the allocation of sacred places for pagan worship (sacred woods, lakes, trees, rocks) in the territory of Ukraine - Kiev Russia. The "feudal" period was distinguished by a corresponding type of land ownership, and a restriction of the use of feudal property. Capitalist development in our territory was characterized by an active use of natural resources and as a result by deforestation. The URSS made the first attempts at forest recovery.

In 1843, in the south of Ukraine, in the Dneprovsky (Oleshkovsky) protected forest area was created. Here, in the 1860s, Crimean pine and other trees were planted under the project of forest warden Weilant.

The further development of the system of natural reserves was connected with the activities of Friedrich E. Falz-Fein, the founder of the world-famous steppe reserve. He started his activities while studying at the Gymnasium, after building an open-air cage for birds (1874). This began the bird collection of the Askanija Reserve. Friedrich E. Falz-Fein in 1883, for the first time, withdrew sites of virgin steppe from use. The protection of all-natural complexes had begun. The year 1888 is considered the year of the establishment of the reserve. In 1898 following the advice of the well-known researcher of southern Ukraine botany J. K. Pachoskyi<sup>330</sup> a site of virgin steppe "Old" (518 hectares), was definitively excluded from economic use, and has remained so until today.<sup>331</sup>

The "Soviet" period was characterized by the creation of new reserves. On March 1919 the Askania Reserve was confiscated from Falz-Fein under the State nationalization programme. On 1<sup>st</sup> April 1919 the Askania-Nova was declared a national park and in 1921 - the State steppe reserve of Ukraine under the name of "Heron". In 1932, on the basis of the presence of a zootechnical station, the All-Union

<sup>&</sup>lt;sup>329</sup> http://zakon.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=177%2F94-%E2%F0.

<sup>&</sup>lt;sup>330</sup> http://www.artkavun.kherson.ua/en-falts\_fejn\_fridrih\_eduardovich.htm.

<sup>&</sup>lt;sup>331</sup> http://de.domotica.net/Friedrich\_von\_Falz-Fein.

scientific research institute for the hybridization and acclimatization of animals was organized here. The greatest value of the reserve was the virgin steppe, with an area of 11054 hectares. This site was unique for Eastern Europe. In 1927 the Azovo-Sivashsky reserve for the acclimatization of deer, and the Chornomorsky reserve for the protection of wintering, flying and nesting birds, were organized.<sup>332</sup>

The system of ecological management of the 1920s was oriented exclusively towards the protection of, and research on, natural complexes and did not answer the new economic purposes of a communist society. The 1930s were characterized by quantitative and qualitative shifts in natural reserves development and management. The reason was not only increasing ecological activities, but also the applied use of nature protection territories. A rapid development of the reserves network was also due to the large number of uncultivated lands and the resulting facility of withdrawing lands from traditional economic activities. Up to 1939 in the USSR 43 reserves were established, with a total area of 6,7 million hectares.

In the early '50s the development of natural reserves suffered a serious crisis because of the prevalence of narrow departmental interests. The ideas of making a quick profit, and of the uselessness of reserves caused their mass liquidation. In 1951 of 128 reserves in the Soviet Union (12,5 m. ha) 88 (10 m. million ha) were liquidated, 9 transformed to semi industrial establishments.

In November 1972 for the purpose of the further improvement of the management of the reserve fund the Government of the USSR established new rules for PAs around the national parks. In 1983 according to a Decision of the Council of Ministers of the USSR "About Classification and a Network of Territories and Objects of Natural Reserve Fund of Ukrainian Soviet Socialist Republic" the following territories were included in the natural reserve fund: state reserve, state natural national park, preserve at republican and local level, state nature sanctuary at republican and local level, state botanical park, the state park - a sanctuary of landscape gardening art at republican and local level, state reserve natural boundary.

In 1994 Ukraine ratified the CBD. In line with this document, the State made a commitment to protect biodiversity, which represents an absolute value not only for Ukraine but for Europe and the entire world.

<sup>332</sup> http://www.vashsad.ua/more/reserves/show/5338/.

The basis of Ukrainian environmental legislation is the Law "On the Natural-Reserve Fund of Ukraine" of 16<sup>th</sup> June 92. The Law defines the legal bases of the organization, protection and sustainable use of the Natural Reserve Fund of Ukraine, and the renovation of its natural complexes and objects.

According to the Cabinet of Ministers Resolution no. 106 of 31<sup>st</sup> January 07, "Procedure of Development and Implementation of State Target Programmes", the Project of the Law "On the All-state Target Ecological Programme of Renovation and Sustainable Use of Biodiversity of Ukraine for 2009-2027" was elaborated. The main purpose of these actions is the maintenance of the state policy in the sphere of the protection and sustainable use of biodiversity in Ukraine, directed towards the reduction of anthropogenic impact on biodiversity, the maintenance of natural habitats, and the sustainable use of biological resources<sup>333</sup>.

Currently there are 4 BRs (Tab. 1) in the structure of the Natural Reserve Fund of Ukraine.

	Name of Reserve	Subordination	Year of creation	Total area, ha	The area in permanent use, ha
1.	"Askania Nova" BR	Ukrainian Academy of Agrarian Sciences	1985	33307.6	11312.2
2.	"Chornomorsky" BR of NAS of Ukraine	NAS of Ukraine	1985	89129.0	70509.0
3.	Carpathian BR	Ministry of Ecology and Natural Resources	1993	53630.0	31977.0
4.	Danube BR of NAS of Ukraine	NAS of Ukraine	1998	46402.9	22662.0

**Table 1. Biosphere Reserves in Ukraine** 

(1) The BR "Askanija Nova" is subordinated to the Ukrainian Academy of Agrarian Sciences (Kherson region, Chaplinsky Region. The area is 33307.6). The area in the Askania steppe was registered as a PA in 1898. In 1921 by a Decree of the Council of National Commissioners of the USSR the first state steppe reserve was established here. The Reserve received the status of BR in 1983 by a Decision of the Presidium of the Southern Branch of the All-Union Academy of Agricultural Sciences.

<sup>&</sup>lt;sup>333</sup> http://www.eba.com.ua/services/lobbying/newsbits/.

In 1985 UNESCO included "Askanija Nova" in the world network of BRs. The Decree of the President of Ukraine of  $26^{\text{th}}$  November 1993 confirms the status of BR for "Askanija Nova". According to functional zoning the reserved zone is 11,054 hectares, the buffer zone - 6, 909 hectares, the zone of anthropogenic landscapes – 15,344.6 hectares. The buffer zone includes zoological (61.6 ha) and dendrological (196.6 ha) parks. Within the reserve territory there are several land users. The scientific curator of the Reserve is the Institute of agro-ecology and biotechnology subordinated to the Ukrainian Academy of Agrarian Science.<sup>334</sup>

(2) The "Chornomorsky" BR of NAS of Ukraine was organized in 1927 by a Resolution of USSR Council of Peoples Commissars of 14<sup>th</sup> July 14, no. 172, "On the Establishment of Seaside Reserves on the Coast of the Black and Azov Seas". On 25<sup>th</sup> November 1983 the NAS Presidium with Decision no. 538, transformed the "Chornomorsky" Reserve into a BR. In 1985 the "Chornomorsky" BR was included in the international network of BRs (UNESCO certificate of 15<sup>th</sup> February 1985). The basic lines of the reserve's research activities are: protection and conservation of natural systems; development of scientific principles for preserving their natural conditions; ecological monitoring.

So, the protected territories have been assigned the highest conservation status. These territories are wetlands of international value (under the Ramsar convention). Currently, the classification and inventory of natural complexes of the "Chornomorsky" BR are carried out at the Reserve. A representative system of ecological monitoring of their state has been developed and implemented.

(3) The activity of scientists on Ukrainian Carpathians nature protection was particularly stimulated after the Second World War. Already in 1949, a valuable forest massif with an area of 3,900 ha was established on the northern slopes of the Chornohirskyi range. In 1955, it was proclaimed a protected massif. A great deal of attention to the questions of territorial nature protection was also given in the Transcarpathian region. In 1958, on the southern slopes of the Krasna mountain massif, in the basins of Velyka and Mala Uholka, the Uholskyi forest preserve was established, with an area of 4,600 ha, and in 1969 the Shyrokoluzhanskyi floristic preserve, with an area of 5,644 ha, in the basin of Luzhanka. Thus, all preconditions for the establishment

<sup>&</sup>lt;sup>334</sup> http://ascania-nova.com/.

of a biogeographically representative reserve in the region of the Ukrainian Carpathians were formed. In 1968, with the aim of preserving the unique mountain landscapes, the Ukrainian Government adopted a Resolution on the formation of the Carpathian reserve, with an area of 12,600 ha. Within 30 years of its formation, the territory of the reserve has been changed several times. Today, nearly 2,5% of the whole territory of the region is under the protection of the reserve, which in 1992 became part of the UNESCO World Network of BRs.

The Carpathian BR, with a total area of 53,630 ha, consists of six detached massifs, and the botanical preserves "Chorna Hora" and "Yulivska Hora". The protected massifs are located at an altitude of 180 - 2,061 m in the central and eastern sectors of the Ukrainian Carpathians. The territorial structure of the CBR is representative of almost all the landscape and bio geographical diversity of the Eastern Carpathians.<sup>335</sup>

The best-preserved Carpathian ecosystems, which serve as storehouses for many rare and vanishing plant and animal species, are represented here. 64 species of plants and 72 species of animals, entered into the Red Data Book of the IUCN (International Union for Conservation of Nature) and Ukraine.

(4) The Danube BR is subordinated to the NAS of Ukraine. In 1973 the "Danube Wetlands Branch" was created as a part of the Black Sea National Park (the Kherson region). It was reorganized into an independent national park on 23<sup>rd</sup> April 1981 by a Decision of Council of Ministers of USSR. The Danube BR was organized by a Decree of the President of Ukraine of 10<sup>th</sup> August 1998, no. 861, on the basis of the 'Dunayski Plavni' Nature Reserve (1981) and is its legal successor. By a Decision of UNESCO of 2<sup>nd</sup> February 1999, the Danube BR was included in the international network of BRs as part of the bilateral Romanian-Ukrainian BR 'Danube Delta'. By a Decree of the President of Ukraine of 2<sup>nd</sup> February 2002, no. 117, its territory was enlarged by 3850 hectares and now totals 49676.46 hectares. Within its structure, the following departments operate: the research department, the department for reserve conservation and that for environmentalist education and tourism. There is also an Information

<sup>&</sup>lt;sup>335</sup> Practically undisturbed by human activity, foothill oak-groves; mountain beech, mixed and spruce forests; subalpine and alpine meadows, formed of pine-alder mossy forest and rocky-lichen landscapes are represented here. Almost 90% of the whole territory of the reserve is covered with forests - mainly virgin forests. More than one thousand species of high vascular plants, 64 species of mammals, 173 species of birds, 9 reptile species, 13 species of amphibian, 23 fish species, more than 10, 000 invertebrate animal species etc. are protected in the reserve.

Centre. The objects of the scheduled and state-financed research are observation and studies under the 'Annals of Nature' Programme, in common with all the reserves of Ukraine.<sup>336</sup>

The scientists of the Reserve monitor the state of fauna, flora and vegetation. The flora of the reserve includes 955 species of vascular plants belonging to 380 genera and 101 families. 16 species are entered in the Red List of rare plants and animals (Red Book) of Ukraine, 10 species - in the European Red List. The vegetation of the reserve is represented by groups of genetically different types - from aquatic to semi-desert. 12 groups of vegetation are entered in the Green Book of Ukraine.<sup>337</sup>

# 5. Review of the activity of the national Committee of Ukraine under the UNESCO Programme "Man and the Biosphere".

The first concept of biosphere reserve was approved in the framework of the UNESCO Programme "Man and the Biosphere" (MAB) in 1974. It was decided to create a bio-geographically representative network of BRs. The main goal of the concept was the monitoring and protection of the most valuable environments.

A new concept of BR creation was proposed by the Seville Strategy. Following the Recommendation of the International Coordinating Council (ICC) of UNESCO MAB Programme, and the decision of the General Conference of UNESCO, and considering the request of the Ukrainian SRR Commission for UNESCO, on 24<sup>th</sup> December 1973 the Presidium of the NAS established (Decree no. 477) the National Committee of Ukraine.

During the years of its activities UNESCO-MAB Ukraine has carried out scientific supervision and coordination of scientific research according to the directions of the ICC and its interdisciplinary national programme. Its work was also coordinated by the National Commission for UNESCO and the Permanent Mission of Ukraine to UNESCO. Considerable attention is paid to research aimed at developing a scientific basis for the rational use and conservation of natural resources and improving environmental quality.

<sup>&</sup>lt;sup>336</sup> Danube Biosphere Reserve, http://www.51jishu.com/wkl/916.htm.

<sup>&</sup>lt;sup>337</sup> http://en.Wikipedia.org/wiki/Danube\_Delta.

In the course of its work the Committee has prepared 70 recommendations. Among them are programme of research on biosphere problems, complex target programme on the protection of the Dnieper basin, recommendations on the need for comprehensive environmental studies for the Danube-Dnieper canal construction and its possible ecological and economic impacts.<sup>338</sup>

The committee has prepared proposals to the UNESCO Secretariat on the establishment of BRs: «Chornomorsky» BR (1982), «Askania Nova» BR (1982), Carpathian BR (1992), Danube BR (1998), «Shatsky» Reserve (2002) and transboundary reserves Polish-Slovak-Ukrainian «Eastern Carpathians» (1998), the Romanian-Ukrainian «Danube Delta» (1998), Polish-Ukrainian «West Polesie» (2002).

The Committee has also prepared proposals concerning the network of natural reserves and national parks, the creation of PAs in the Lower Dniester, and the protection of the territories on the route of migratory birds.

The Committee has also developed a scientific concept of the Single System of Monitoring of the Environment (Ukraine SSM) and proposals for an International Chernobyl radio laboratory of UNESCO at the NAS of Ukraine.

Under the auspices of the Committee, series of international conferences and meetings have been held: the VIII International Conference of the National MAB Committees of Central and Eastern Europe on the Problems of Carpathian Region, the Black Sea, and the Danube; a workshop for coordinators from European countries, entitled "Changes in Land Use in Europe and Their Environmental Impacts"; an international workshop named "Environmental Monitoring System: Key Issues".

UNESCO-MAB Ukraine provides scientific supervision and coordination of research in the following spheres: scientific basis of an ecosystem approach to conservation and sustainable use of biological diversity in Ukraine in the context of the Seville Strategy of UNESCO; scientific basis for the creation and building of network of transboundary BRs of the UNESCO system to implement in practice the international scientific cooperation principles and objectives of the UNESCO Seville Strategy; landscape and biodiversity protection; recovery of degraded ecosystems, including hydrological and land systems based on the sustainable use of natural resources;

<sup>&</sup>lt;sup>338</sup> The problems of the small rivers of Ukraine, including drainage and melioration problems, and the protection of forest resources, wetlands, and flora and fauna have also been investigated.

regional science-based monitoring of transboundary UNESCO BRs and nature reserves in Ukraine; analysis of impacts of anthropogenic activities on ecosystems, including coastal and marine ecosystems; taking into consideration relationships between cultural and biological diversity, protection of genetic potential of ecosystems to strengthen their role in the transition to sustainable development.

# 6. Review of the management of the Danube Biosphere Reserve.

The management plan of the Danube BR is developed on the basis of the research carried out with the financial support of the World Bank in the framework of the GEF (Global Environmental Facility) Project "Protection of the Biodiversity of the Danube Delta" (1994-1998).<sup>339</sup> We will analyze this management plan from the point of view of economic-ecological, and institutional approaches.

The Danube Delta is a key natural territory of the Danube region and the Northwest Black Sea Coast. Active protection of the natural complexes of the Ukrainian part of the Danube Delta, according to many scientists<sup>340</sup> is one of priorities of natural reserves development in Ukraine. The Danube Delta is in fact the second largest delta in Europe and is a Ramsar site.

According to the Seville Strategy (1996),<sup>341</sup> BRs must meet special criteria. The Strategy provides recommendations for developing effective BRs and for setting out the conditions for the appropriate functioning of the World Network of BRs. It does not repeat the general principles of the CBD, nor Agenda 21, but instead identifies the specific role of BRs in developing a new vision of the relationship between conservation and development. Thus, the document is deliberately focused on a few priorities. It includes recommended *implementation indicators*, *i.e.* a check-list of

<sup>&</sup>lt;sup>339</sup> http://www.icpdr.org/icpdr-pages/danube\_delta.htm - Danube Delta.

<sup>&</sup>lt;sup>340</sup> VOLOSHKEVICH O. M., Creation of Danube Biosphere Reserve – one of the ways of regional ecological problems solving, in Ecological Problems of Danube Basin in Ukraine, T. I. Kotenko, O. M. Voloshkevich, 1996, 102-112.

<sup>&</sup>lt;sup>341</sup> The Strategy suggests the level (international, national, individual BR) at which each recommendation will be most effective. However, given the large variety of different national and local management situations, these recommended levels of actions should be seen merely as guidelines and should be adapted to fit the situation in hand. Note especially that the "national" level should be interpreted as including other governmental levels higher than the individual reserve (e.g., provincial, state, county, etc.). In some countries, national or local NGOs may also be appropriate substitutes for this level. Similarly, the "international" level often includes regional and inter-regional activities, http://www.unesco.org/mab/doc/brs/Strategy.pdf.

actions that will enable all involved to follow and evaluate the implementation of the Strategy. According to the Seville Strategy criteria the BR needs to have a large area, and special natural and/ or scientific value, to include ecosystems and landscapes unique from a global point of view, and to provide sustainable use of natural resources.

Until 1998, the Nature Reserve "Dunayski Plavni" was located in the territory of the Ukrainian part of the Danube Delta (with an area of 1240 Km<sup>2</sup>). According to A.N. Voloshkevich,<sup>342</sup> the creation of the natural reserve was not sufficiently prepared, either from a scientific, or from a social, economic or legal point of view. As a result, it was able to deal only partially with wildlife management problems. The natural reserve became a constant source of social and economic conflicts in the Kilijsky area of the Odessa oblast.

The idea of the creation of the Danube BR for the prevention of the irreversible transformation of the Ukrainian part of Danube Delta, to protect its unique flora and fauna, to create conditions for sustainable development and management by granting to the whole region the status of BR was approved in the '80s.<sup>343</sup>

Between 1994 and 1999, the *Danube Delta Biodiversity Project* (with a total cost of US \$ 1.7 million and a GEF grant of US \$ 1.5 million) was implemented. The Project provided support for protecting and improving the conditions of the Ukrainian part of the ecological system of Europe's largest waterway delta, which had a beneficial effect on the general situation regarding the preservation of its biodiversity. In the process of the project implementation, the Danube water-meadows reserve developed and carried out effective plans for PA management around the Danube Delta; monitoring and database management were improved, a pilot project of restoring wetlands was carried out, efficient public information was initiated, professional specialists were trained and a number of other measures were implemented. The Project provided for activity coordination with the GEF measures carried out in Romania, and GEF measures to manage ecological activities in the Black Sea basin.<sup>344</sup>

<sup>&</sup>lt;sup>342</sup> VOLOSHKEVICH O., JMUD M., TITAR V., *Danube Biosphere Reserve. Management Plan*, Kyiv, 1999, 64 p.

<sup>&</sup>lt;sup>343</sup> Danube Biosphere Reserve, http://www.dbr.org.ua/default.aspx?lng=en.

<sup>&</sup>lt;sup>344</sup> Global Environmental Facility, *Romania Danube Delta Biodiversity Project. Local Benefit Case*, https://thegef.org/gef/sites/thegef.org/files/documents/Local\_Benefits-Case\_Study-Romania.pdf.



A considerable part of the DBR lies in the border zone or adjoins to it. Frontier troops help to maintain a strict regime. At the same time there is a special regime of access to the zone of strong protection of the DBR. DBR employees and fishermen have right of access.

According to Fedorenko V., from the very beginning in the Ukrainian part of the delta, contrary to existing legislation, fishing was permitted, as a traditional economic activity. Without this compromise it would have been difficult to create the reserve.<sup>345</sup> In 1990 in the Romanian part of the delta a similar problem was resolved without serious consequences. Territories of insignificant size were joined to the reserve, were fishing became forbidden.

Most of the territories which became part of the Ukrainian DBR by Decree of the President of Ukraine of 10<sup>th</sup> August 1998 (Stentsovsko - Zhebrijanovsky wetlands, the Zhebrijanovsky ridge, Ermakov Island) are supervised by the designated inspectors in interaction with a specially created mobile group. The interest of the local population in the DBR is based on its nature resource potential - fish stocks, pastures, and hunting grounds. On regional and national levels, the DBR also plays an important role as an eco-tourism destination and also as a transport corridor between the Black Sea and the Danube. Eco-tourism and reed preparation are considered as important sources of selffinancing of the reserve.

According to the management plan of the DBR the territory around the DBR is the biggest agricultural area of the Odessa Region for the cultivation of rice. More than half of these lands are irrigated lands. The population of these areas traditionally produces grain, meat and milk products; provide wine growing, gardening and cultivation of garden cultures. Ponds aquaculture is unprofitable today and many of the ponds are used in agriculture.

The land of the Kilijskaya Delta of the Danube, Ermakov Island, and the territory of Stentsovsko-Zhebrijansky wetlands are used for cattle and horses. An important part of the management of the DBR is the recognition of cattle as an important tool of regulation of vegetation for the maintenance of biological variety of marsh grounds. Cattle is a traditional form of economic activity in the Delta. Grazing cattle are an important environmental factor. Regulated cattle production in the territory

<sup>&</sup>lt;sup>345</sup> FEDORENKO V. A., International Biosphere Reserve in Danube Delta, 2002, p. 16.

is also an important factor in the relations between administrations and local population.<sup>346</sup>

The greater part of the Kilijsky Delta and Ermakov Island is covered by natural or artificial forests, used mainly as a fuel. In the Kilijskaya Delta approximately 300 ha of riverbed sites are covered by gardens. During the vegetative season, few reeds are cut for livestock feeding. Cane harvested in winter is used as a building material and exported to Western Europe. Currently, taking into account the difficult social and economic situation and the interests of foreign markets, the reserve administration considers reed preparation as one of the possibilities for unemployment reduction. Remote territories cannot use machine techniques and demand manual labour. In conditions where labour is extremely cheap, companies-suppliers make wide use of the manual labour of local residents. Apart from unemployment reduction, reed preparation by locals provides a reduction in illegal hunting and fish poaching and as a whole improves the crime situation.<sup>347</sup>

By the Law of Ukraine "On the Nature Reserve Fund of Ukraine" (entered into force: 25<sup>th</sup> July 1992) hunting was forbidden on practically all territories of the Natural Reserve Fund of Ukraine - in natural and BRs, national parks, regional landscape parks, boundaries natural reserves, and also security zones of natural reserves.<sup>348</sup> Hunting is forbidden on all the territories of the DBR, namely on 23,791.26 ha of land in the Kilijsky area and on 3,850 ha within the Tatarbunarsky area (the upper course of Lake Sasik and the Dzhantshejsky estuary).

Certain areas have frogs catching activities. The process of preparation for selling included keeping the frogs in small ponds, covered by sun protection tents. Extra feeding was provided by insects attracted by the electric light. Before exportation frogs were cooled, packed in boxes of 20 kg and sent in refrigerated lorries to Moscow, and further - to France. Up to 150 t of frogs were prepared annually.

In the area of the DBR it is also possible to develop beekeeping, and the preparation of medical plants, including sea-buckthorn berries, important from the point of view of genetic selection.

<sup>&</sup>lt;sup>346</sup> VOLOSHKEVICH, O., JMUD, M., TITAR, V., Danube BR. Management Plan, cit.

<sup>&</sup>lt;sup>347</sup> FEDORENKO, V. A., International Biosphere Reserve in Danube Delta, cit.

<sup>&</sup>lt;sup>348</sup> Today the territories and objects of the Nature Reserve Fund of Ukraine covers 4,6 % of its territory. It also includes botanical gardens, zoological and dendrology parks, parks-monuments of landscape gardening art, also incompatible with hunting.

In 2004 the Government of Ukraine began the construction of the Danube-Black Sea Canal, with the purpose of renewing navigation on the Ukrainian part of the Danube Delta. For this, by a Decree of the President of 2<sup>nd</sup> February 2004 no. 117, part of the territory of the DBR was transferred to the territories with the status of a zone of anthropogenic landscapes. The construction of the Danube - Black Sea Canal endangers the biodiversity conservation of the Danube Delta, and the process of decision-making on the canal is carried out in violation of the national legislation and international obligations of Ukraine in the spheres of nature protection and public participation.

The DBR of Ukraine has an environmental and cultural value not only for the Ukrainian nation, but also for the whole of Europe and mankind. Unique biodiversity, and natural resources give a reason to consider this region as a perspective polygon for the development of unique biosphere wildlife management, and as an element of a global system of sustainable management.

#### 7. Conclusions.

The management of BRs in Ukraine reflects the whole structure of natural resources management. Lack of system, finances, information can be hardly covered by high quality diversity of natural territories. Economic-ecological transaction cannot replace the functions of management in nature protection activity or in the use of natural resources, which require a specific place and individual theory.

The category of transaction allows us to consider wildlife management mechanisms (including, biosphere) from a new point of view: the questions of motivation, interaction between the subjects of natural resources use, efficiency of expenditure, and, last but not least, self-regulation of the economic-ecological system of management, which is a core of institutional economic theory and its application.

The BRs of Ukraine should keep and increase their natural and cultural values by scientifically proved, cultural-creative and sustainable management. A world network of BRs as the tool of the Seville Strategy connects people and nature on the most global scale. The aim of environmental management in Ukraine is to find a place in this global process.



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