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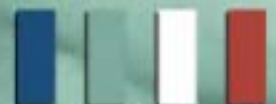
Biosphere Reserves Bulletin

OF THE WORLD NETWORK

THE WORLD NETWORK OF BIOSPHERE RESERVES



The MAB Programme
People living in and caring for the biosphere



Contents

International	2
▶ Post WSSD field trip to Waterberg Biosphere Reserve, South Africa	2
▶ 17th Session of the MAB International Coordinating Council	3
▶ Two New Biosphere Reserves: West Polesie (Poland) and Shatskiy (Ukraine)	5
▶ Withdrawal of Five Biosphere Reserves	5
▶ Professor Mohamed Abdel Gawad Ayyad	5
▶ RAMSAR-MAB Programme of Joint Work	6
▶ MAB Task Force on the Development of Quality Economies in Biosphere Reserves	6
▶ International Year of Ecotourism: the World Ecotourism Summit	7
▶ Study on Global Change in Mountain Biosphere Reserves	7
▶ Meeting of the Advisory Committee on Biosphere Reserves	8
▶ UNESCO-Cousteau Ecotechnie Programme	9
▶ Meeting on Urban Ecosystem Research and the Millennium Ecosystem Assessment: Exploring the Interlinkages	10
▶ Columbia University/UNESCO Joint Programme on Biosphere and Society	10
▶ Liaison Group Meeting on Biological Diversity of Inland Water Ecosystems	11
▶ Stockholm Thirty Years On	11
▶ International Workshop on Desertification: Rehabilitation of Degraded Drylands and Biosphere Reserves	12
▶ International Workshop on Sustainable Management of Marginal Drylands	13
▶ International Conference on Man and the Ocean: 'Conserving our Coastal Environment'	13
▶ Third Global Biodiversity Workshop	14
▶ Workshop on Emerging Ecosystems	14
Regions	16
▶ Good News From the ERAIFT Project	16
▶ Expert Meeting on Water and Biodiversity	16
▶ UNESCO-MAB/UNEP-GEF Regional Project on 'Strengthening scientific and technical capacities for effective management and sustainable use of biological diversity in biosphere reserves in arid lands of West Africa'	17
▶ Cooperation between the Council of Europe and UNESCO-MAB on Natural Heritage and Landscapes	18
▶ EuroMAB Workshop on Ecotourism and Sustainable Development in Biosphere Reserves: Experiences and Prospects	18
▶ Workshop on the Development of an Integrated European Research Programme on the Urban and Peri-Urban Environment	19
▶ First EuroMAB Training Workshop on Conflict Resolution in Biosphere Reserves	19
▶ Workshop 'In Search of Biosecurity: Capacity Building on Access to Genetic Resources, Benefit Sharing and Biosafety in Central Asia and Mongolia'	20
▶ IberoMAB VII	20
▶ Latin American Meeting for Protected Areas Management, Biosphere Reserves and Biological Corridors	21
▶ REDBIOS IV	21

Countries and sites	22
▶ National Biosphere Reserves Review Workshop in Kenya	22
▶ Process for the Conciliation of the Yasuni Biosphere Reserve, Ecuador	22
▶ UNDP/GEF Support for the Gulf of Mannar Biosphere Reserve, India	23
▶ The Talamanca Initiative in Costa Rica Receives Equator Initiative Prize	24
▶ Citizen-based Environmental Monitoring in the Southern Appalachian Biosphere Reserve, USA	24
▶ European Village Renewal Prized 2002 For Grosses Walsertal Biosphere Reserve	25
▶ Vosges du Nord/Pfälzerwald Transboundary Inauguration Ceremony	25
▶ Inauguration Ceremony for Entlebuch Biosphere Reserve, Switzerland	25
▶ Ecotourism in the Wadi Allaqi Biosphere Reserve	26
▶ Polish-Danish Cooperation in the Bialowieza Forest Region	27
▶ Kristianstads Vattenrike in Sweden: A Biosphere Reserve Candidate	27

Publications	30
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Weaving our Web . . . 15

Illustrating a biosphere reserve . . . 29



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MAB and the World Summit on Sustainable Development



Without doubt the highlight for MAB in Johannesburg was the field visit to Waterberg Biosphere Reserve on 5-6 September, kindly organized by the South African MAB National Committee¹. About 40 international participants, with a global distribution, took part. Thanks to the careful planning and wonderful support of our South African colleagues, the visit was an outstanding success for the delegates and for the local communities making up the biosphere reserve. A real 'two-way' exchange of information and views took place, underlining very clearly the practical role biosphere reserves have in the practice of conservation through sustainable development.

In addition, at the WSSD several promotional activities were undertaken, including joint distribution with the World Council for Travel and Tourism (WCTT), of a greeting card with programme information. These cards were distributed by key hotels in the area and also featured on the Virtual exhibition television site. We also produced a video which was very popular, and which is now available on our website²! We expect to develop some cooperative programmes in the future with the WCTT, and other appropriate business organizations.

Moreover, a promotional brochure was issued illustrating the role of biosphere reserves in sustainable development. While these brochures were prepared in Paris, they were printed locally through the cooperation of MAB-South Africa. In this way we used our funds in South Africa and saved a little bit of extra carbon output! There has been excellent feedback on these initiatives and the brochure can be found on the MABNet³.

There were also meetings at the Development Bank of southern Africa, highlighting development of further biosphere reserves in the African Region, and several activities with IUCN for the World Parks Congress where MAB is taking a lead role.

The role of biosphere reserves is recognized implicitly in the implementation plan from the summit, especially through promotion of the ecosystem approach, with which MAB is working with the CBD Secretariat. The ecosystem approach is a strategy for the integrated management of land, water and living resources that is consistent with the conservation, sustainable use and sharing of benefits of biodiversity - and is also linked to the Millennium Development Goals.

Finally, it was a real pleasure to be able to present, on behalf of UNESCO, the Equator Initiative Prize, awarded to the Talamanca Initiative in Costa Rica⁴, which includes La Amistad Biosphere Reserve as well as the World Heritage site. This initiative provides funding support for local communities that have made excellent progress in reducing poverty and conserving biodiversity. In fact all three finalists in the world heritage section were also partly or wholly biosphere reserves - a good example of the joint supportive nature of these instruments!

In summary, MAB achieved reasonable prominence at WSSD, highlighting biosphere reserves as agents of delivering sustainable development at the Summit - and now we must continue to make that reality happen!



1. See article page 2.
2. www.unesco.org/mab/video.htm
3. For more information on the brochures, see the Publications section.
4. See article page 24.

International



a)

Post-WSSD Field Trip to Waterberg Biosphere Reserve, South Africa

At the 17th session of the MAB International Coordinating Council, several recommendations were made on how to improve the visibility of the MAB Programme and biosphere reserves in the preparations and follow up to the World Summit on Sustainable Development. One of the recommendations was that the Secretariat should work in cooperation with the South African authorities to organize a field trip for WSSD delegates to a biosphere reserve in the vicinity of Johannesburg. The South African MAB Committee and the Waterberg Biosphere Reserve Management Committee consequently organized a field trip on 5-6 September, that is,



b)



c)

immediately after the closure of the WSSD. This field trip drew some 40 participants from outside South Africa from some 15 countries: some participants were involved in MAB but many others - including governmental advisers, environmental lawyers, scientists, and an EU officer - were learning about biosphere reserves for the first time. The organizers also invited a number of people from existing and potential biosphere reserves in South Africa as well as people of influence within Limpopo Province, in which Waterberg lies, to allow them to gain exposure of biosphere reserves and the Waterberg experience.

Upon arrival, participants were provided with background documents and were greeted by the Premier of Limpopo Province, Adv. N. Ramathlodi, MEC Mr Thabo Mufamadi (the high official in charge of the environment in Limpopo Province), Mr Godfrey Molekwa, Executive Mayor of the Waterberg District Council, and a member of the MAB Secretariat. Participants then visited the Melora Mountain, an 18th century settlement of significant cultural and historical value within the core area of the Lapalala Reserve. This first part of the programme was purposely designed to give participants an insight into the magnitude of the natural resource base in Waterberg, and also the size of the conservation effort that is being put into place in the area. This served as a backdrop to the development challenges facing the biosphere reserve, which participants encountered on the following day when visiting the rural communities. This consisted first of a presentation by Clive Walker and Peter Tseola on the process leading up to the establishment of the Waterberg Biosphere Reserve and its challenges. Participants then received a tumultuous welcome by the local community at the George Masabe High School, with much dancing and singing. This was followed by a lunch with the local communities, whose Chief, His Majesty D.M. Langa, appealed to the audience to assist in resolving their problems of poverty, unemployment and lack of infrastructure. The Chairperson of the Waterberg Biosphere Reserve Management Committee, Mr Rupert Baber, outlined the role and future of the site, and the MEC Mr Mufamadi gave a final address, highlighting

- a) and b) *Dancing and a poem recital by the children of the George Masabe School in the Waterberg Biosphere Reserve to welcome field trip participants. A prime challenge for this biosphere reserve is to provide employment opportunities for these young people – thus serving to meet a main WSSD recommendation.*
- c) *Too poor for agriculture, the Lapalala core area harbours nevertheless a rich array of wildlife which is now the focus of a growing ecotourism activity.*

issues that had emerged from the WSSD and how locally, Waterberg could address them.

The MAB Secretariat would like to express its sincere thanks to the community and the Management Committee of the Waterberg Biosphere Reserve for their support in making this field trip such a success.

17th Session of the MAB International Coordinating Council

The 17th session of the MAB International Coordinating Council took place at UNESCO Headquarters in Paris from 18 to 22 March 2002. Thirty-three Council members participated, as well as twenty-one non-members as observers. Several of MAB's main international partners (Ramsar Convention, ICSU, IUBS, ISSC and IUCN) were also represented. The Council elected the following Bureau:

Chairperson:

Mr Driss Fassi (Morocco)

Vice-Chairpersons:

Mr Olabiyi J. Yaï (Benin)

Mr Jan Kvet (Czech Republic)

Mr Maximo Aquino (Dominican Republic, elected for 2002)

Mr Alfredo Reca (Argentina, elected for 2003)

Mr Robert Barbault (France)

Mr Kunio Iwatsuki (Japan)

General debate

As with previous sessions, the Council gave the opportunity to hear the national reports of a large number of countries, which demonstrated the vitality of the MAB Programme. Speakers highlighted in particular the importance of biosphere reserves in their countries, emphasizing how the new generation of biosphere reserves, i.e. large scale sites, could serve as tools for land management, and also giving special attention to the development of transboundary biosphere reserves, several of which were being planned. The Council also took stock of the activities of the different regional networks.

An exhibit illustrating the various activities undertaken to celebrate MAB's 30th anniversary was organized in conjunction with the Council session, and a class of school children from the Mont Ventoux Biosphere Reserve in the south of France, winner of a drawing competition on biosphere reserves, had travelled to Paris to address the Council. As concerns cooperation with international partners, a special mention was made of the joint Ramsar-MAB work programme for 2002-2003¹, elaborated by the MAB and the Ramsar Secretariats and endorsed by the Council.

Periodic review

The Council had an in-depth discussion on the results of the periodic review which had concerned 121 dossiers and had resulted in many positive effects, such as the redefinition or extension of sites so that they better fulfilled the criteria of the Statutory Framework. The Council recalled that the credibility of the World Network depended on the quality of its component biosphere reserves and considered that everything should be done to ensure that biosphere reserves were model sites fulfilling the three functions and criteria defined at Seville. The Council did not retain the Bureau's previous suggestion to draw up a 'red list' which was not provided for in the Statutory Framework and was considered to be contrary to the spirit of the process, since it had a very negative connotation related in particular to the lists of endangered species and reflected a coercive line of reasoning. On the other hand, the Council recommended that the MAB-Net be used more systematically to highlight sites that had complied with



The winners of the French drawing competition attending the MAB Council.



the periodic review requirement. The proposal to establish a category of Network associated sites that, even though they did not fill all the functions, would be able to participate in research and monitoring activities in the context of regional networks, was not accepted by the Council either. The general opinion was that the introduction of a new category would make messages confused, did not really meet a methodological need and had no purpose other than to deal with the problem raised by 'old' sites that did not comply with the existing criteria. Lastly, the Council rejected the proposal, also considered by the Bureau, to strengthen the Statutory Framework by drawing up a binding legal instrument. The Council recommended that the provisions of the Statutory Framework and the Seville Strategy be fully exploited and that guidelines be drafted to

assist Member States in their implementation. The Observer for the United Kingdom informed the Council that, after a study covering all the biosphere reserves in her country, the decision had been taken to withdraw from the Network the following four sites: St Kilda, Claish Moss, Isle of Rhum and Caerlawaerock². She added that other biosphere reserves would be completely reorganized to meet the criteria. The Council took note of this decision and congratulated the United Kingdom on the positive results of the periodic review.

• **Implementation of Seville + 5 recommendations**

The Council reviewed the various measures that had been taken to implement the Pamplona recommendations. In particular, the Council examined the future developments of the Biosphere Reserve Integrated Monitoring (BRIM) Programme and was glad to note the progress made since its 16th session, thanks to a special workshop held at FAO Headquarters (see Bulletin No. 10, page 5). BRIM activities include the holding of workshops, setting up partnerships, preliminary work on methodologies and indicators as well as data and information management, and the incorporation of social sciences and social monitoring. The Council noted that a first regional consultation on BRIM in West Africa had taken place in Yaoundé (Cameroon) on 27-29 November 2001 in collaboration with the American Association for the Advancement of Science (AAAS) (see Bulletin No. 10, page 15). The Council's other main points of discussion were:

- a 'planned strategy' for mobilizing funds for biosphere reserves;
- the establishment of a task force, including biosphere reserve managers and local specialists on developing quality economies at the site level, for which a first meeting was held during the Council session (see article page 6);
- a critical analysis of existing biosphere reserve coordinating structures and the functioning of these structures.

• **New biosphere reserves**

Two new biosphere reserves were approved: these were the West Polesie Biosphere Reserve (Poland) and the Shatskyi Biosphere Reserve (Ukraine)³. This dual designation was a first step in establishing a future transboundary biosphere reserve in West Polesia, to which a site in Belarus could be added later.

• **MAB participation in major international events**

The Council recalled the various events foreseen in 2002-2003 and discussed the means to ensure an appropriate participation and visibility of the Programme. These events included the World Summit on Ecotourism in Quebec (see article page 7), the World Summit on Sustainable Development, Johannesburg (see editorial page 1) and the International Year of Mountains with its Summit at Bishkek (Kyrgyzstan)⁴ (see also article on 'Global Change in Mountain Biosphere Reserves', page 7), and finally the World Parks Congress in Durban (South Africa)⁴.

• **Water and ecosystems**

In this debate, many Council members welcomed collaboration between UNESCO's science programmes on water and ecosystems, and insisted that such integrated and interdisciplinary approaches were needed to resolve water conflicts. The Council considered that biosphere reserves were particularly useful laboratory and pilot sites and that concrete projects and actions should be implemented in wetlands, drylands and mountain environments.

It was suggested that the Council should meet next in March 2004, for which the exact dates would be fixed by the Bureau and sent to Council members well in advance.

1. See article page 6.
 2. See also article page 5.
 3. See also article page 5.
 4. For more information, see the Calendar section.



Two New Biosphere Reserves: West Polesie (Poland) and Shatskiy (Ukraine)

These two new sites are adjacent wetland areas in the Polesie region, shared among Belarus, Poland and Ukraine. These two sites are 'unified' by the watershed areas between the Bug River (flowing north to south) and the Pripyat River (flowing east to west). The Pripyat floodplain is one of the most extensive wetland areas in Europe together with the Danube Delta and the Wadden Sea. The sites feature a landscape of rivers, lakes, swamps, moors and forests, which have a rich biological diversity. They are a haven for birdlife with a major migratory birds' passage going through the region. The Shatskiy Biosphere Reserve also includes the Ramsar site 'Shatsk Lakes' which is part of a unique European lake system of 22 lakes, important for breeding and migrating waterfowl, waders and other water birds. The land is used for agriculture (hay making, grazing), fishing and eco-tourism.

The sites are a melting pot of inhabitants of different cultures, nationalities and religions with some 41,000 people living in West Polesie and 12,000 in Shatskiy. Regional, social and economic changes are creating opportunities to develop this sparsely populated area, but this in turn poses challenges for conservation. The longer-term aim is to merge the two sites into a single transboundary biosphere reserve. Hopefully the third site in neighbouring Belarus will be added later. This step-by-step process is fully in line with the recommendations for the establishment and management of transboundary biosphere reserves¹. The idea is to foster cooperation between the three countries to streamline the use and management of the shared natural resources. UNESCO's biosphere reserve concept is being used as a framework to accommodate the different interests and users of the cross-border ecosystem, including nature conservation, improving livelihoods for local inhabitants and carrying out scientific research and education.

1. The 'Recommendations For the Establishment and Functioning of Transboundary Biosphere Reserves' are available at: www.unesco.org/mab/mabicc/2000/eng/TBREng.htm

Withdrawal of Five Biosphere Reserves

In conformity with the provision of Article 9 of the Statutory Framework of the World Network of Biosphere Reserves¹, four sites were withdrawn by the United Kingdom and one site, Maritchini ezera, by Bulgaria. The UK sites – the Isle of Rhum, St. Kilda, Claish Moss and Caerlawaerock - all located in Scotland, were

It is with great sadness that we learned of the passing away of Professor Mohamed Abdel Gawad Ayyad.



Professor Ayyad was one of the 'MAB family' for over the 30 years' existence of the MAB Programme. He was a great scientist, and one of the world's leading specialists in arid land ecology, promoting exemplary work in Egypt through the SAMDENE and REMDENE research projects from 1974 to 1983. As Chairman of MAB Egypt, he conducted with fatherly care the establishment of the two biosphere reserves in the country at Omayed (1981) and Wadi Allaqi (1993). Both these biosphere reserves have served as pilot sites lighting the way for the beginnings of a true ArabMAB network, which is today one of the most dynamic and successful of the MAB regional networks. In addition, Professor Ayyad's expert scientific advice and sound common sense helped many countries in the Arab region in developing their own contributions to the MAB Programme.

We remember especially his commitment to promoting the cause of young scientists and ensuring the training and capacity building of science in the Arab region and beyond. It was for all these qualities that he in 1997 accepted, on behalf of the Department of Environmental Science of the University of Alexandria, the Sultan Qaboos Prize for Environmental Preservation.

Internationally, Professor Ayyad will be remembered also for his wise and patient work with the MAB International Coordinating Council, for which he served several times as rapporteur, and then ultimately as chairman from 2000 to 2002.

We will all miss Professor Ayyad. However, we will remember that he had the rare gift of modestly communicating his knowledge and indefatigable interest in people and nature to future generations. His generous, kind and noble spirit remains with us.

considered not meeting the 1995 criteria² for a functional biosphere reserve, even if they are sites of natural beauty and excellent conservation value (St. Kilda is a natural World Heritage site³). All the sites designated as biosphere reserves in Bulgaria are being reviewed - the withdrawal of this small site is a first step in this process.

The criteria for biosphere reserves have evolved over the years, so that some sites designated in the early part of the MAB Programme no longer conform to the criteria today. Countries in the World Network are invited to withdraw such non-functional sites, when changes to meet the new criteria are not possible. This increases the credibility and importance of the World Network as a whole. As of August 2002, there were 408 biosphere reserves in 94 countries.

1. The Statutory Framework is available at: www.unesco.org/mab/docs/statframe.htm
2. The Seville Strategy is available at: www.unesco.org/mab/docs/stry-1.htm
3. Information on the St. Kilda World Heritage Site is available at: whc.unesco.org/nwhc/pages/sites/main.htm

RAMSAR-MAB Programme of Joint Work

The MAB Programme and the Convention on Wetlands of International Importance (Ramsar) have started a fruitful collaboration which has resulted in a Programme of Joint Work¹ for 2002-2003 as well as a joint web site². The Programme of Joint Work was accepted by the Ramsar Standing Committee (Decision SC26-51) on 7 December 2001 and by MAB's International Coordinating Council at its 17th Session on 20 March 2002. The joint programme has been developed in recognition of the fact that there is mutual interest in the activities of the Ramsar Convention and the MAB Programme, particularly in the areas of the identification and designation of sites, site management planning, assessment and monitoring, and communication, education and public awareness.

The provision of joint guidance and assistance in these areas of common interest can assist countries in implementation of their commitments under Ramsar and MAB, particularly where wetland protected areas have been designated, or may be designated, and managed as both Ramsar sites and biosphere reserves.

1. The complete Programme of Joint Work can be consulted at the Ramsar web site: ramsar.org/key_mab_pjw1.htm
2. Please visit the joint Ramsar-MAB web site: www.unesco.org/mab/ramsarmab.htm

MAB Task Force on the Development of Quality Economies in Biosphere Reserves

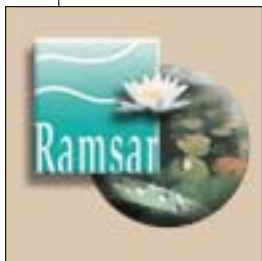
Following a recommendation made at the 'Seville +5' international meeting of experts on the implementation of the Seville Strategy for Biosphere Reserves (Pamplona, Spain, October 2000)¹, the MAB Secretariat established the MAB Task Force on the Development of Quality Economies in Biosphere Reserves². The objective of the Task Force is to provide policy advice that could help biosphere reserves become regional models for sustainable development. In particular, it should contribute to the development of quality economies in biosphere reserves, i.e. activities, goods and services that are produced and consumed in ways that are compatible with and supportive of the objectives set forth in the Seville Strategy³ and the articles in the Statutory Framework of the World Network of Biosphere Reserves⁴. The Task Force reports to the MAB-ICC.

The first meeting of the Task Force was held on 21 March 2002⁵. Mr Engelbert Ruoss, Director of the Entlebuch Biosphere Reserve in Switzerland, was selected as chairperson, responsible, in cooperation with the MAB Secretariat, for the coordination of its activities. The 30 participants discussed the terms of reference and the work programme for the Task Force and centred around several key issues to be tackled, including:

- ▶ The definition of the notion of 'quality economies in biosphere reserves'. The discussions revealed that this is an umbrella term that implies a number of considerations: conservation of nature, natural and cultural landscapes and efficient use of natural resources; interactions among people and the biosphere reserves favouring sustainable regional development and implementation of Agenda 21; developing/using biosphere reserves as model regions for sustainability; and the creation of benefits and added value from economic activities to the local population.
- ▶ Identification of minimum standards, criteria and guidelines for quality economies in biosphere reserves at the national and international levels.
- ▶ Promotion and communication of successful model biosphere reserves, or lessons learned in different sectors, such as ecotourism, regional products and sustainable use of natural resources in biosphere reserves.
- ▶ The need for a logo for biosphere reserves/World Network of Biosphere Reserves and its legal protection, including guidelines and charters related to its use.
- ▶ Suggestions on how to attract investments in the quality economy sectors and on the establishment of trust funds for promoting the development of quality economies in biosphere reserves.

In order to move forward on these issues, the Task Force proposed that a questionnaire should be sent to biosphere reserves on their experiences of promoting quality economies. An Internet platform for the Task Force should be developed in order to promote open dialogue and transparency. The meeting also suggested that National MAB Committees, Focal Points and regional MAB Networks be invited to collaborate with the Task Force, and that they consider including quality economy issues on their respective meeting agendas, as appropriate.

Following the proposal of the Task Force, a questionnaire was addressed to all biosphere reserve managers and coordinators in August 2002. As a small incentive, at least five biosphere reserves will receive financial support of \$1,500 each in order to carry out case studies related to economic development in their biosphere reserves. The selection of these case studies



will be made by the Focus Group of the Task Force in collaboration with the MAB Secretariat.

1. UNESCO, 2001, *Seville+5 International Meeting of Experts*. Pamplona, Spain, 23-27 October 2000. Proceedings/Comptes rendus/Actas. MAB Report Series No. 69. UNESCO, Paris.
2. For further information, please contact Peter Dogse at the MAB Secretariat (p.dogse@unesco.org)
3. The Seville Strategy is available at: www.unesco.org/mab/docs/stry-1.htm
4. The Statutory Framework is available at: www.unesco.org/mab/docs/statframe.htm
5. Information on the issues under consideration by the Task Force are outlined in some detail in a background document prepared for its first meeting, and in a discussion paper entitled 'Research Needs and Policy Issues Related to the Establishment of a Labelling Scheme for Biosphere Reserve Goods and Services'. These documents, together with the Terms of Reference for the Task Force, its present composition, as well as copies of the questionnaire are available on the MABnet: www.unesco.org/mab/qualityEconomies/qualityhome.htm.

International Year of Ecotourism: the World Ecotourism Summit

The highlight of the UN International Year of Ecotourism (2002)¹, held under the aegis of UNEP and the World Tourism Organization (WTO), was the World Ecotourism Summit, hosted by Quebec City, *Tourisme Québec* and the Canadian Tourism Commission. Over 1,000 participants attended from 132 countries, from the public, private and non-governmental sector. Many Ministers of Tourism were present, notably from African and Latin American countries and small island states, all heavily dependent economically on tourism. There was also a well-organized group of indigenous people mainly from the Americas.

The Summit was the culmination of 18 preparatory meetings held in 2001 and 2002 involving over 3,000 representatives of all sectors involved in 'ecotourism'. The Summit avoided giving a definition of 'ecotourism' but rather gave some broad principles that characterize the approach. The Summit was organized around four themes, two technical fora, and a ministerial segment. UNESCO had been invited to give a statement that focused on means by which UNESCO can promote ecotourism, for example through cultural heritage projects in the Himalayas, and biosphere reserves for testing out the CBD guidelines on tourism².

The main output of the Summit was the Québec City Declaration on Ecotourism which is not a 'negotiated document', but provides the preliminary agenda and a set of recommendations for the development of ecotourism in the context of sustainable development.

With the assistance of the MAB Secretariat, MAB Canada at the Canadian UNESCO Commission set up a UNESCO booth at the 'Eco Rendez Vous' exhibition. This proved to be an efficient outlet for UNESCO documents, including the special brochure in English and French on 'Tracking the path of sustainable tourism'

(see the Publications section of this Bulletin). The book 'Tourism, Biodiversity and Information' edited by F. di Castri and V. Balaji was also widely distributed to Summit participants.

1. More information on the International Year of Ecotourism can be obtained on: www.world-tourism.org/sustainable/IYE-Main-Menu.htm
2. For more information on sustainable tourism please visit: www.unesco.org/mab/ecotourism/index.htm or contact the MAB Secretariat.

Study on Global Change in Mountain Biosphere Reserves

The MAB International Coordinating Council, at its 17th Session, welcomed collaboration between MAB and the Mountain Research Initiative (MRI)¹ to study the impacts of global change on the biophysical environment and the socio-economic conditions of mountain dwellers. In particular, the World Network of Biosphere Reserves, with its many mountain sites, could provide an excellent site-based framework for such studies.

A first meeting was organized by the Mountain Research Initiative in Bern (Switzerland) in June 2002, to discuss future collaboration. The meeting agreed that for assessing global and environmental change, climatic and hydrological data as well as land use, land cover, demographic, economic and cultural changes should be measured, preferably along gradient transects and at transition zones of vegetation belts. About three biosphere reserves per region (Africa, Asia-Pacific, Latin America, North America and Europe) should be selected as monitoring and study sites. A larger workshop should be organized in September 2003, which would have the following objectives:

- to review the state of global and environmental change research at local and regional levels (natural, social, cultural, economic and political sciences) in a range of mountain biosphere reserves that could be used as pilot sites for implementation activities;
- to refine and prioritize activities to an operational level;
- to identify gaps in coverage and methodological problems regarding global change research in mountains;

Tracking the path of sustainable tourism

Composition

of the

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- ▶ Bunyamin A. Ola-Adams
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Abeokuta
Nigeria

Vice Chairpersons

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Cotonou
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Protected Areas, Ministry
of Natural Resources
Russian Federation
- ▶ Doris Pokorny (Ms)
Rhön Biosphere Reserve
Germany
- ▶ Effendy A. Sumardja
Ministry of the Environment
Indonesia

Consultants/Observers

- ▶ Michel Batisse
Special advisor
UNESCO
- ▶ Silvio Olivieri
Conservation International

List

of biosphere reserves

of which

periodic review reports

were examined by

the Advisory Committee

EUROPE-N. AMERICA

- ▶ Niagara Escarpment

Germany

- ▶ Bayerischer Wald
- ▶ Mittlere Elbe (part of
Flusslandschaft Elbe
Biosphere Reserve)
- ▶ Vessertal-Thüringen Forest

Spain

- ▶ Mancha Húmeda

ASIA

Islamic Republic of Iran

- ▶ Arasbaran
- ▶ Arjan
- ▶ Geno
- ▶ Golestan
- ▶ Hara
- ▶ Kavir
- ▶ Lake Oromeeh
- ▶ Miankaleh
- ▶ Touran

People's Democratic Republic of Korea

- ▶ Mount Paekdu

LATIN AMERICA

Costa Rica

- ▶ La Amistad

Mexico

- ▶ El Cielo

ARAB STATES

Algeria

- ▶ El Kala

- ▶ to provide guidelines for implementing integrated global change research in mountain biosphere reserves, towards general applicability in mountain regions.

1. The Mountain Research Initiative is a joint endeavour of IGBP, IHDP and GTOS. For further information, please consult the web page of MRI: www.mri.unibe.ch/

Meeting of the Advisory Committee on Biosphere Reserves

The Advisory Committee on Biosphere Reserves held its ninth meeting at UNESCO Headquarters in Paris, 23-25 September 2002, chaired by Mr Ola-Adams, professor at the University of Agriculture in Abeokuta, Nigeria. The Committee was composed of twelve members, designated by the Director-General of UNESCO. In conformity with the statutes of the Committee, six new members replaced six former members. The new composition of the committee can be found in the box to the left. Representatives of IUCN also participated in the meeting. The issues discussed by the Committee are summarized below.

Twenty-five propositions for new biosphere reserves were presented by the following countries: Algeria, Argentina, Australia, Brazil, Canada, China, Dominican Republic, Ecuador, Guinea, Italy, Madagascar, Mongolia, People's Democratic Republic of Korea, Republic of Korea, Russian Federation, Slovenia, Spain, and Viet Nam. The recommendations of the Committee in connection with these propositions were prepared for consideration by the Bureau of the ICC for decision on the occasion of its meeting in UNESCO Headquarters, 6-8 November 2002. Two propositions for transboundary biosphere reserves were also examined by the Committee as well as six requests for extensions of existing biosphere reserves.

• Periodic review

The Advisory Committee studied a number of periodic review reports submitted to the Secretariat on the status of biosphere reserves designated more than 10 years ago, in conformity with Article 9 of the Statutory Framework of the World Network. Eighteen reports were examined by the Committee in the light of the criteria stipulated in Article 4 of the Statutory Framework. The list of biosphere reserves of which reports were examined can be found in the box to the left.

The Advisory Committee made recommendations on the status and functioning of each of the biosphere reserves, for consideration by the ICC Bureau at its meeting in November 2002.

UNESCO-Cousteau Ecotechnie Programme

International Ecotechnie Chairs Workshop,
UNESCO, Paris, 25-27 March 2002

The UNESCO-Cousteau Ecotechnie Programme (UCEP)¹ is a joint initiative between MAB and The Cousteau Society (Paris) to promote interdisciplinary education, research and policy-making in the field of the environment and development. UCEP has developed rapidly the last few years, with several new Ecotechnie Chairs, and many initiatives at the national and regional level. In order to take stock of these developments, share experiences and develop a strategy for networking and further collaboration, 31 participants from 15 countries attended the first International Ecotechnie Chairs Workshop held at the UNESCO Headquarters in Paris.

Under the presidency of Mme Francine Cousteau (President, Equipe Cousteau) and Mr Peter Bridgewater (MAB Secretary), the ten UNESCO-Cousteau Ecotechnie Chairs provided detailed reports on their respective Chair and network activities followed by questions and discussions.

The UCEP Chairs and Chair representatives at the Workshop were:

- Mr Charles Susanne, Free University of Brussels (VUB), Belgium.
- Mr Angheluta Vadineanu, University of Bucharest, Romania.
- Mr Guy Heyden, Göteborg University, Sweden.
- Mr Truong Quang Hoc, Viet Nam National University, Hanoi, Viet Nam.
- Mr M.S. Swaminathan, Swaminathan Foundation², India.
- Ms Irina Springuel and Mr Ahmed Belal, University of South Valley, Egypt.
- Mr Alberto Morán, University of San Martín, Argentina.
- Mr Dumitru Ungureanu, Technical University of Moldova, Moldova.
- Mr Ahmad Abu-Hilal, Bahrain University, Bahrain.
- Mr Berj Hatjian, Balamand University, Lebanon.

Representatives of several non-Chair institutions interested in the programme gave succinct overviews of relevant activities and projects, namely: Mr Brendan Barret, United Nations University, UNU (Tokyo), Ms Marja Spierenburg, Free University of Amsterdam (The Netherlands), Mr Carlos Cerri, Sao Paulo University (Brazil), Mr Benjamin Lane, UNESCO-Columbia University International Program on Biosphere and Society (at the Columbia Earth Institute, USA) and Mr Martin

O'Connor, Center of Economy and Ethics for the Environment and Development (C3ED) at the Université de Versailles – Saint-Quentin en Yvelines (France). Among the participants were also Mr Christophe Valia-Kollery, French National Commission for UNESCO.

The specific objectives of the workshop were:

- to share information and experiences among existing UNESCO-Cousteau Ecotechnie Chairs;
- to seek to identify opportunities for collaboration and networking among the participating universities and organizations, including development of joint project proposals, field research, curriculum development, etc.;
- to examine some of UNESCO-MAB's priorities for 2002-2003 and the extent to which UCEP and its partners can contribute to their realization;
- to prepare for the World Forum of UNESCO Chairs (UNESCO Paris, November 2002).

The Workshop made several recommendations for future collaboration and networking. Several of the Chairs are already active in and supportive of biosphere reserves (including the Danube Delta Biosphere Reserve (Romania), Gulf of Mannar Biosphere Reserve (India) and Wadi Allaqi Biosphere Reserve (Egypt), Can Gio Mangrove and the Cat Tien Biosphere Reserves (Viet Nam)), and the workshop stressed that biosphere reserves constitute ideal sites for exploring and promoting interdisciplinary research and education for sustainable development.

1. Information about UCEP is available on the MABnet: www.unesco.org/mab/capacity/ucep/ucepmab.htm
2. See also information on the M.S. Swaminathan Foundation, Box, page 23



Participants of the International Ecotechnie Chairs Workshop

Photo: © Equipe Cousteau

Meeting on Urban Ecosystem Research and the Millennium Ecosystem Assessment: Exploring the Interlinkages

UNU/IAS – UNESCO/MAB – WHO
UNESCO Headquarters, Paris
12-15 March 2002,

The objective of this meeting was to introduce the Millennium Ecosystem Assessment (MA) components (see box below), as they have evolved, to a group of scholars and MAB Urban Group members involved in urban research. The goals were to examine how current and future urban research undertaken by, or associated with, the organizations sponsoring the meeting could contribute to the success of the MA, as well as how the MA could facilitate benefits for scholars by introducing new approaches, concepts and expected results. The meeting also provided participants with an opportunity to exchange information, perspectives and ideas related to urban and peri-urban research and policy in general, with the objective of exploring opportunities for future cooperation and joint action. Among the main meeting outcomes were:

- Identification of concrete measures for supporting the MA in relation to urban ecosystems, including through possible sub-global assessments in urban and peri-urban areas, such as the Sao Paulo City Green Belt Biosphere Reserve;
- Examination of MA's approaches, concepts and expected results and the extent to which on-going urban ecosystem research efforts could benefit from them;

The Millennium Ecosystem Assessment

The goal of the MA is to improve the management of the world's natural and managed ecosystems by helping to meet the needs of decision-makers (including all stakeholders from all sectors) for peer-reviewed, policy-relevant scientific information on the condition of ecosystems, consequences of ecosystem change, and options for responses. The MA will provide information and also build human and institutional capacity. The MA will be undertaken at multiple spatial scales. The design consists of a global assessment as well as assessments of conditions and changes in ecosystems in individual communi-

ties, nations, and regions (i.e. sub-global assessments). Numerous assessments will be undertaken at scales ranging from local villages to river basins. Several sub-global assessments are already approved, but it is expected that additional assessment activities may become components of the MA during the first year of the assessment (2002). The sub-global assessments have been designed to foster and build capacity for widespread adoption of integrated assessment approaches globally. Among the sub-global assessments is an urban and semi-urban assessment focusing on three regions in Sweden¹.

1. See also: www.millenniumassessment.org/en/assessments/a.sweden.htm

- Promotion of networking and information exchange among different urban ecosystem research teams;
- A conceptual document on Urban Ecosystems that was presented to the MA Board meeting in Paris on 15 March 2002, that will be included in a subsequent UNU-MAB report.

Columbia University/UNESCO Joint Programme on Biosphere and Society

New York's Columbia University and UNESCO's MAB Programme launched a Joint Programme on Biosphere and Society (CUBES) at the United Nations Headquarters in New York on 21 June 2002. Jeffrey Sachs, Director of the University's Earth Institute, will run the programme that is the first joint partnership between Columbia University and the United Nations. He is also Under-Secretary General and acts as advisor to UN Secretary-General Kofi Annan.

The mission of CUBES is to assist local communities around the globe in adapting to environmental and societal change and to share information between societies facing similar challenges. It is about putting people at the heart of nature and environment.

This partnership is the outcome of the UNESCO/Columbia University International Conference on Biodiversity and Society held in May 2001¹. The Conference adopted a Declaration calling "upon our colleagues in government and civil society to embrace flexible, multifaceted and democratic visions of biodiversity conservation and sustainable development tailored to the social, cultural and environmental particularities of each location". Common themes were explored that led to the establishment of six research sites in Cambodia, Peru, South Africa, the Democratic Republic of Congo and the United States.

As Secretary-General Kofi Annan has himself observed² in the context of the World Summit on Sustainable Development, there are five key issues needing resolution for the future – Water, Energy, Health, Agriculture and Biodiversity (WEHAB)³. While CUBES will not address all of these issues, it will tackle a number of them in an integrated way, blending the resources of Columbia University and its Earth Institute and the networks of UNESCO.

1. For further information on the International Conference on Biodiversity and Society, see *Biosphere Reserve Bulletin* No. 10 (page 4), or consult the following web site: www.earthscience.org/r11/cbs01/cbs01.html
2. Secretary-General's speech on WEHAB 'Both rich and poor have clear interest in protecting environment, promoting sustainable development' available at: www.un.org/News/Press/docs/2002/sgsm8239.doc.htm
3. WEHAB Framework papers available at: www.johannesburgsummit.org/html/documents/wehab_papers.html

Liaison Group Meeting on Biological Diversity of Inland Water Ecosystems

Wageningen, the Netherlands,
13-15 June 2002

This meeting¹ was organized by Wetlands International and the Bureau of the Convention on Wetlands (Ramsar) in order to review the implementation of the Programme of Work on the biodiversity of inland water ecosystems under the Convention on Biological Diversity (CBD). Some 30 participants representing various international and Dutch institutions attended the meeting. Jan Kvet, member of the MAB Bureau, represented UNESCO-MAB. The aims of the meeting were:

- to develop a comprehensive picture of the status and trends of biodiversity in inland water ecosystems, its uses and threats to it, and to identify gaps in our knowledge of this biodiversity;
- to develop a proposal for the review and refinement of the Programme of Work, taking into account options and priority actions for conservation and sustainable use of inland water resources, and at the same time promoting the implementation of the objectives of the Convention on Biological Diversity at the national level.

Two documents were tabled and developed during the meeting: one entitled 'Review of Status and trends of inland water biodiversity'²; and a document entitled 'Review of Implementation of the Programme of Work on biodiversity of inland water ecosystems and proposal for refinement of the Programme of Work'³. With regard to the latter, particular attention was paid to the obstacles in implementing the Programme of Work. These can be grouped under three general headings:

1. Lack of enabling environment and tools;
2. Lack of capacity, and;
3. Lack of knowledge.

Ways of overcoming these obstacles have been suggested and MAB could play an important role in this effort. Both these documents are of relevance to the activities of the MAB Programme and its cooperation with the Ramsar Convention.

1. Text by Jan Kvet, Czech MAB National Committee
2. This report is seen as a help to the Parties of the CBD in their implementation of the Programme of Work and, especially, in assimilating scattered materials. The final version of the report will be published in the technical series of the CBD in late 2002.
3. This document will be redrafted and prepared as a background document for the discussions on the draft revised Programme of Work.

Stockholm Thirty Years On

Progress achieved and challenges ahead
in international environmental cooperation,
17-18 June 2002

Thirty years ago, the United Nations Conference on the Human Environment¹ took place in Stockholm. The Conference established the basis for a new era of international cooperation in environmental issues. 'Stockholm thirty years on'² was organized by the Swedish Government, commemorating the 1972 conference in Stockholm and its purpose was to reflect on implications of lessons learned for the future, particularly in view of the upcoming Johannesburg Summit. Conference participants met in the Swedish Parliament to hear a series of plenary presentations from a wide range of experiences and areas of expertise, including from Maurice Strong, Under-Secretary-General of the United Nations, Klaus Töpfer, Executive Director of UNEP, Kjell Larsson, Swedish Minister for the Environment, and Paul Raskin, Director of the Stockholm Environment Institute in Boston. The meeting then worked in eight different seminars:

1. The Road from Stockholm to Johannesburg;
2. The interplay between science and politics;
3. Sustainability as a motor of technological innovation, exchange and system change;
4. Emerging technologies and concentration of corporate power: Environmental and social challenges;
5. New tools required after three decades of carrots and sticks in sustainability efforts?;
6. Assessing environmental risks and coping with uncertainty;
7. Building resilience: a necessity in view of global change;
8. Windows of opportunity: Equitable growth, green development, structural change and sustainability.

The results, including information on the biosphere reserve approach, will be published in time for the World Summit on Sustainable Development and presented by the Swedish Delegation in Johannesburg.

1. More information on the Stockholm Conference 1972 available at: www.unep.org/Documents/Default.asp?DocumentID=97
2. More information on 'Stockholm thirty years on' available at: miljo.regeringen.se/Projekt/plus-30/



International Workshop on Desertification: Rehabilitation of Degraded Drylands and Biosphere Reserves

International Center for Agricultural Research in Dry Areas (ICARDA), Aleppo (Syrian Arab Republic), 2-3 May 2002

This workshop¹ was organized by UNESCO-MAB in collaboration with ICARDA² and the United Nations University (UNU)³. Fourteen participants from Egypt, Germany, India, Japan, Jordan, Lebanon, Morocco, Pakistan, the Russian Federation, Sudan, Tunisia and Yemen attended the meeting. Representatives from FAO, UNEP, UNU, ICARDA and the Sahara and Sahel Observatory (OSS) also participated in the workshop.

The workshop addressed in particular the following questions:

1. Can core areas of biosphere reserves and similarly managed sites be considered as 'reference sites' for assessing potential natural vegetation and viable wildlife populations in drylands?
2. Can restoration activities be carried out in buffer and transition zones of biosphere reserves using the gene pool contained in core areas for restoration measures?
3. Which cash crops and multi-purpose species have proven to be particularly successful in fostering both rehabilitation of degraded drylands and income-generation for local people dwelling in the transition areas of biosphere reserves?
4. Can traditional knowledge help combat desertification?
5. Can suitable test sites (biosphere reserves and similarly managed areas) in Africa, Arab States and Asia be identified for a joint research initiative on the rehabilitation of degraded drylands?

As regards the first question, participants agreed that core areas *should* be reference sites, in particular if a biosphere reserve is large enough to encompass both areas with a conservation value and areas that are economically used by human populations in line with the conservation objectives.

With regard to the second question, it is important to determine the overall management and land use objective for each biosphere reserve. Buffer zones can be used for restoration ecology by using the gene pool of the core area(s): in this sense they would serve to expand the biosphere reserve's core area(s). Buffer and transition zones can also be used for rehabilitation activities, thus enhancing the agro-biodiversity of a given area and generating income for dryland dwellers. In essence, restoration activities in buffer zones should be carried out in line with the core areas' plant associations and species compositions.

Several successful cash crops and multi-purpose species for dryland rehabilitation were mentioned (e.g. xerophytes and halophytes such as jojoba, acacia, prosopis, tamarix and zizyphus species). While some participants highlighted the merits of the introduction of exotic multi-purpose species into drylands, others were more cautious since they may become invasive and dominant species, thus threatening the original ecological balance of the ecosystem. It was felt that emphasis should be given to the propagation and use of *local* and *indigenous* multi-purpose species in the field of dryland rehabilitation, as there is often also a wealth of traditional knowledge available among local people on their specific usages.

Concerning traditional knowledge, participants were of the opinion that local and indigenous knowledge provided important means to combat desertification, as it is often based on simple and 'affordable' technologies. Traditional knowledge covers know-how on pollinator species, medicinal species, pest control species, etc., which can be very effective tools to ensure survival in harsh dryland conditions. Several participants felt that traditional knowledge needs to be documented in order to avoid its loss or disappearance. Moreover, it needs to be tested and validated by scientific research. In some cases, traditional knowledge to combat desertification should also be complemented with modern technologies.

Finally, all workshop participants expressed the wish to continue workshops of this kind in order to work together on dryland degradation and rehabilitation in biosphere reserves. It was appreciated that the workshop provided information exchange across regions, spanning northern Africa, Arab States, as well as south and central Asia. Future workshops on drylands and biosphere reserves should attempt to elaborate joint methodologies and standardize data collections for comparative reasons.

1. For further information, please contact Thomas Schaaf at the MAB Secretariat (t.schaaf@unesco.org)
2. More information on ICARDA is available at: www.icarda.cgiar.org/
3. More information on UNU is available at: www.unu.edu

International Workshop on Sustainable Management of Marginal Drylands

UNU-UNESCO-ICARDA. Alexandria, Egypt, 23-25 September 2002

Over 30 participants from 12 countries and several international organizations (including FAO, the Arab Center for the Studies of Arid zones and Drylands (ACSAD), ICARDA, UNU and UNESCO) participated in this workshop¹, which was organized by UNU with support from UNESCO and ICARDA. Workshop participants agreed on the need for continued collaborative research in dryland areas whereby the following four major themes emerged:

1. Importance of marginal drylands (recognition of their unique characteristics for which integrated management schemes and a balanced approach between traditional knowledge and the application of new technologies are needed).
2. Challenges in dryland management (e.g. selection of suitable dryland crops, coping with urban expansion and tourism).
3. Research issues (such as improved water-use efficiency, seawater/brackish water irrigation, use of halophytes, application and validation of traditional knowledge in combating land degradation, etc.).
4. Institutional issues (need for improved coordination for research/development projects among donor-recipient countries, improved integration of projects at the national level, transfer of research findings to policy-makers).

The workshop also provided an opportunity to convene a preparatory meeting for a new joint UNU-UNESCO-ICARDA project on 'Sustainable Management of Marginal Drylands', which was held in Cairo and in Alexandria. It would be a comparative dryland research project in China, Egypt, Iran, Jordan, Pakistan, Syria, Tunisia and Uzbekistan over a period of four years, starting in 2003. The Flemish Region of Belgium, and the Chinese participants through the Chinese Academy of Sciences, signaled their interest to consider funding a part of the project, which would be jointly implemented by UNU, UNESCO and ICARDA. The project would address water issues and sustainable management of drylands using several biosphere reserves (Omayed (Egypt), Dana (Jordan), Lal Suhanra (Pakistan) and Xilin Gol (China)).

1. UNU will publish the workshop proceedings through UNU Press.

International Conference on Man and the Ocean: 'Conserving our Coastal Environment'

Tokyo, Japan, 8-10 July 2002

This conference¹ was co-organized by the United Nations University (UNU), Iwate, and UNESCO-MAB. It highlighted the achievements of UNU collaborators and described the current state of the science on following three critical topics:

- ▶ Endocrine Disruptor Pollution in Asia and the Pacific
- ▶ Coastal Management and Sustainable Development
- ▶ Marine Ecology and Environment.

The findings of each subject are summarized below.

Endocrine Disruptor Compounds (EDCs) is an important sub-set of pollutants which effects the hormonal development of living organisms and the resulting impacts that may be caused to human populations and ecosystems. EDCs come from industries, agricultural activities, urban run-off and sewage. They are also present in the environment at continually increasing levels despite bans on their use in Asia and the Pacific. During the meeting, it was recognized that proactive strategies are needed to foresee and limit the risks of exposure. Moreover, it was clear that scientists and policy-makers from all regions need to cooperate to tackle present and future problems of EDCs in the environment.

The threats to **coastal habitats** such as mangrove systems, seagrass beds, coastal mudflats, etc. are growing. The threats that have been discussed in this symposium include those caused by over-exploitation through shrimp farming and other forms of cultivation, by removal of coastal habitats for increasing construction in coastal areas, and by pollutants which were seen as a key threat in its various forms. It was recognized that there is still much to do to mitigate the damages caused to coastal ecosystems through human activities, but that there now are tools available for formulation of coastal management policies based on rationalized information and analyses. It was concluded that for the achievement of successful coastal management, political will is a key element, both within national governments and amongst the population. Therefore, there is a great need for awareness raising amongst the general public and key stakeholders.

New technological developments have provided us with the tools to better understand **coastal and marine ecosystems** and the sensitivities of the animals that inhabit them. Presentations made during the sym-

posium included an overview of the threats posed to coastal and marine life, in particular, bioaccumulation of pollutants in fish and mammals. Some perspectives of the survival prospects of marine species were also featured during the Symposium. It was concluded that it will be continually important to promote efforts towards maximization of scientific discoveries through:

- ▶ collaboration between scientific groups that leads to a synergistic multiplier effect on scientific outcomes;
- ▶ development of partnerships that are crucial in efficient utilization of limited resources, both human and financial;
- ▶ dissemination of scientific information by international organizations, which is essential; and
- ▶ capacity building in the developing countries of Asia and the Pacific to undertake research and translate the findings to policy-relevant recommendations.

1. Proceedings volumes are available at the UNU or UNESCO-MAB Secretariat. For further information, please contact Miguel Clüsener-Godt at the MAB Secretariat (m.clusener-godt@unesco.org) or consult the UNU web site at: landbase.hq.unu.edu/Conference/Programme.htm

Third Global Biodiversity Workshop

Pretoria, South Africa, July 2002

This workshop¹ was organized by BioNET-INTERNATIONAL² in collaboration with the Secretariats of the Convention on Biological Diversity (CBD) and MAB and in association with the Secretariat of the International Plant Protection Convention.

The mandate of BioNET-INTERNATIONAL is to create sustainable mechanisms to assist developing countries to overcome the 'Taxonomic Impediment' by becoming self-reliant in taxonomy. One of the greatest achievements of BioNET-INTERNATIONAL has been to establish sub-regional networks or 'LOOPS' (Locally Organized and Operated Partnerships) in Southern Africa and East Asia. Some LOOPS have succeeded in raising major funding from the Global Environment Facility³, which is the financial mechanism of the CBD, and from some other multi-lateral environmental agreements. BioNET-INTERNATIONAL is, with UNESCO, one of the key partners in the implementation of the CBD programme of work on the Global Taxonomy Initiative⁴.

The workshop was structured in three sessions that had the following themes: End-user needs; Optimizing technology and tools, networks and partnerships; and Resourcing taxonomic capacity building. One of the main outputs was a statement for the World Summit on Sustainable Development. Governments of

the World were called upon to strengthen taxonomic capacity and recognize the key contribution of taxonomy to sustainable development, including the delivery of ecosystem services such as clean water supplies⁵. Moreover, a programme of work on how to build the necessary capacity to counteract the taxonomic impediment was developed during the meeting. This programme will be very useful especially for MAB Regional Networks wanting to contribute to the LOOPS' work, with the aim of enhancing taxonomy capacity and taxonomy applications in those regions.

1. For further information, please contact Salvatore Arico at the MAB Secretariat (s.arico@unesco.org)
2. For further information on BioNET-INTERNATIONAL, consult their web page at: www.bionet-intl.org/
3. See also the article on Gulf of Mannar on page 23.
4. Information on the Global Taxonomy Initiative is available on the CBD web site: www.biodiv.org/programmes/cross-cutting/taxonomy/default.asp
5. The complete statement for the WSSD is available at: www.bionet-intl.org/3rdglobalworkshop/WSSD_statement.htm

Workshop on Emerging Ecosystems

Granada, Spain, September 2002

This workshop was organized by UNESCO-MAB and the Scientific Committee on Problems of the Environment (SCOPE) of the International Council for Science (ICSU). Some 20 scientists attended the workshop, whose main objective was to test the validity of the 'emerging ecosystems' concept. It was recognized that this is a valid concept that, even if it needs to be further explored, has very important societal implications. It was agreed that the socio-economic aspects would be discussed at a follow-up workshop to be held in Brazil in spring 2003.

Within a continuum of ecosystems (from wild to heavily managed), emerging ecosystems occupy the segment in between. These systems are characterized by new combinations and/or relative abundance of species that have never before existed in a given biogeographic region.

The workshop dealt with issues related to the scale at which emerging ecosystems have to be studied and managed; ecological thresholds that have to be crossed before an ecological system can be considered as an emerging one; and the values associated with emerging ecosystems, especially their opportunistic values (for economic development, biodiversity conservation, educational purposes, etc.).

Emerging ecosystems might become the subject of a joint project of UNESCO-MAB and SCOPE in the area of novel ecological theory and its implication for sustainable landscape management and planning.

1. For further information, please contact Salvatore Arico at the MAB Secretariat (s.arico@unesco.org).

Weaving our web

(www.unesco.org/mab)

Information on what is happening on the MABNet

With the intention to make it easier to find information on the MABNet, we have slightly changed its structure. One example is the heading '**Topics, a-z**' which includes keywords that quickly take you where you want to go.

The MABNet has devoted a new web site to the **BRIM** (Biosphere Reserve Integrated Monitoring)¹ Programme, including information on different methodologies on socio-economic monitoring. This web site is still in a first phase so please continue looking for more information.

A CD-ROM² entitled '**UNESCO in the Mountains of the World**' is available online. It contains information on mountain sites included in the World Network of Biosphere Reserves and inscribed on the World Heritage list, and other useful information.

The **Environmental Education Kit on Desertification**, launched in collaboration with the Secretariat of the United Nations Convention to Combat Desertification, is now also available on line in English, French and Spanish³.

Since March 2002, we have had the pleasure to feature '**Little MAB**' on the MABNet, created by the Vosges du Nord/Pfälzerwald Biosphere Reserve, which includes interactive pages for children. Accompanied by 'Loustic the lynx', children will discover the mission and objectives of biosphere reserves, the impact of man on nature, and the natural and cultural values of the biosphere reserve. We would like to take the opportunity to thank the Vosges du Nord/Pfälzerwald Biosphere Reserve for letting us publish Little MAB on the MABNet.



... and what about 'your' web sites:

Vosges du Nord/Pfälzerwald Biosphere Reserve, France/Germany

Discover this transboundary Biosphere Reserve, designated by UNESCO in 1998. A site rich in dynamic information such as interactive maps, virtual visit, photo gallery, Little MAB for kids, information on the biosphere reserve and its walking tracks, etc. In English, French and German.

www.biosphere-vosges-pfaelzerwald.org/



Reserva de Biosfera Delta del Paraná, Argentina

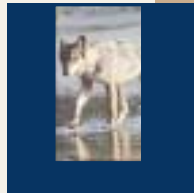
Includes general information on the biosphere reserve, a video presentation, and meeting documents as well as meteorological information. In Spanish.

www.sfernando.mun.gba.gov.ar/biosfera.html

Clayoquot Biosphere Trust, Canada

With information on the Clayoquot Biosphere Trust, science and research, kids zone, documentation, First Nations and local communities as well as a community message board. In English.

www.clayoquotbiosphere.org/



**Do you know of
other interesting
biosphere reserve web sites
that you want to share
with our readers?**

**Please send us an e-mail
with its URL
and a short description
of the site to mab@unesco.org.**

1. The BRIM web site is available at: www.unesco.org/mab/brim/index.htm
2. CD available at: www.unesco.org/mab/publications/cdroms.htm and at: valhalla.unep-wcmc.org/unesco/index.htm
3. Kit available at: www.unesco.org/mab/publications/publications.htm and directly on the Unesdoc web site in English: unesdoc.unesco.org/images/0012/001258/125816e.pdf, French: unesdoc.unesco.org/images/0012/001258/125816f.pdf, and Spanish: unesdoc.unesco.org/images/0012/001258/125816s.pdf

News from regions

Good News From the ERAIFT Project

The highlight of 2001 was the recognition of the ERAIFT DESS diploma by the CAMES (African and Madagascar Council for Higher Education) at its 20th meeting in Abidjan, Côte d'Ivoire on 3 December 2001. The highlight of 2002 was the graduation of the first and second years of DESS students from ERAIFT (Regional School on Integrated Management of Tropical Forests), all nationals of the two Congos (DRC and Congo/Brazzaville). The colourful graduation ceremony was held in the 'People's Palace' in Kinshasa on

university co-sponsoring): Columbia University/ UNESCO Programme on Biodiversity and Society (CUBES); UNESCO-Cousteau Ecotechnie Programme (UCEP); the FAO Forestry Department; ENEF (National School of Water and Forests of Gabon); ULB, Gembloux, Belgium; Abobo-Adjamé University (Côte d'Ivoire); Marien Ngouabi University (Congo); and CAMES. The graduation ceremony was covered by several television companies from Kinshasa and Brazzaville and thus served to heighten the visibility of UNESCO in the sub-region¹.

1. For more information on the UNDP/UNESCO-MAB ERAIFT project, please contact Sami Mankoto at the MAB Secretariat (s.mankoto@unesco.org)

Mr P. Bridgewater, MAB Secretary, congratulating one of the DESS graduates in the presence of the Ministers of the Environment of the Democratic Republic of Congo, and of Forest Economy, Fisheries and Marine Resources of the Congo.



Photo: © ERAIFT

3 June 2002. It was attended by more than 500 people, including members of the families of the graduates. This graduation ceremony coincided with the opening of the 5th session of the ERAIFT International Steering Committee, chaired by the Minister of National Education of the Democratic Republic of Congo, in the presence of several other government ministers and university and diplomatic representatives. This event was important on the sub-regional level as the Minister of Forest Economy, Fisheries and Marine Resources of the Congo also attended. The UNESCO Delegation was **lead** by Mr P. Bridgewater, MAB Secretary, accompanied by Mr S. Mankoto, responsible for ERAIFT. UNESCO colleagues from Field Offices included: Mr E. Fassbender, UNESCO-Kinshasa; Mr Gassama and V. Seck, UNESCO-Libreville; and A. Olloy of UNESCO-Dakar.

In accordance with the recommendation of the 17th session of the MAB Council (Paris, 18-22 March 2002), the following international programmes and institutions participated with the aim of exploring the possibility of exchanges and partnerships (and possible

Expert Meeting on Water and Biodiversity Alexandria, Egypt 3-5, March 2002

'Water and Biodiversity in Arid and Semi-Arid Regions' is one of the UNESCO-MAB priorities for 2002 - 2003, and it is of particular relevance and importance for the Arab States. It represents a joint initiative between the two UNESCO science programmes: IHP and MAB. International and regional renowned experts participated in this expert meeting¹ and contributed with presentations, followed by a round table discussion that focused on two main issues:

• Potential projects of relevance to the theme "Water and Biodiversity" that could be implemented by the ArabMAB Network

Two potential projects were recommended:

- ▶ **Project 1:** The role of water management (including water harvesting) in conservation and sustainable utilization of biodiversity in dryland ecosystems;
- ▶ **Project 2:** Study of biodiversity in wetlands of Arab countries.

• **Principles**

Some general principles that govern the application of these potential projects were agreed upon:

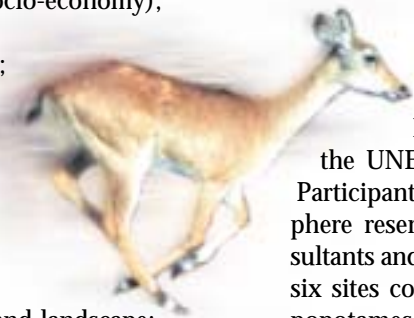
1. Consensus on the mission, goals and objectives by participating countries;
2. Integration of MAB (biodiversity), IHP (hydrology) and MOST (socio-economy);
3. Applications should be in selected biosphere reserves;
4. Integration of scientific with traditional knowledge;
5. Local participation in all project phases;
6. Principle of 'Adaptive Management';
7. Scale problem: ecosystem and landscape;
8. Relevance to international conventions;
9. Security of income generating activities for the benefit of local people;
10. Capacity building;
11. Standardizing methodologies;
12. Selecting a few biosphere reserves / potential biosphere reserves / Ramsar sites or other protected areas that fulfill the criteria to serve as models for wider applications.

Finally, it was recognized that there is a need for creating a web-based annotated glossary or lexicon of ecologically related terms used in MAB and IHP programmes in Arabic, English, and French (e.g. biodiversity, rehabilitation, ecohydrology, adaptive management, etc.).

I. Text by Boshra Salem, MAB-Egypt.

UNESCO-MAB/UNEP-GEF Regional Project

on 'Strengthening scientific and technical capacities for effective management and sustainable use of biological diversity in biosphere reserves in arid lands of West Africa'.
End of PDFB¹ phase



The preparatory phase of the UNESCO-MAB/UNEP-GEF Project, which began in April 2001, ended in July 2002.

In February 2002, the six countries met at the UNESCO Regional Office in Dakar (Senegal). Participants included the MAB Focal Points, the biosphere reserve managers, the national scientific consultants and representatives of local communities of the six sites concerned: Pendjari (Benin), Mare aux Hippopotames (Burkina Faso), Comoé (Côte d'Ivoire), Boucle du Baoulé (Mali), 'W' Region (Niger) and Niokola Koba (Senegal). Mr Jacques Weber, Director of the French Biodiversity Institute, attended the meeting as an international expert. The meeting mainly aimed at setting up a regional workplan for the global phase of the project and at defining priority activities to be undertaken in each of the six biosphere reserves of the project.



a) Participants of the Dakar Workshop.
b) Mr Albert Yomboleny (Representative of the local communities in the Pendjari Biosphere Reserve, Benin), Mr Brice Sinsin (National Scientific Consultant for Benin), and Mr Mamane Abdou (Representative of the local communities in 'W' Biosphere Reserve, Niger).
c) Pendjari Biosphere Reserve.



Photos: © UNESCO Dakar

Photos: © M. Bouamrane

- The meeting had three objectives:
- ▶ propose activities for each site and identify scientific, technical and sponsoring partners for each;
 - ▶ develop common research protocols for the six countries;
 - ▶ elaborate a regional programme of training and information exchange.

A concluding session was held on 15 February, attended by representatives of the Ministry of Environment of Senegal, the Director of National Parks, representatives of IRD (l'Institut de recherche pour le développement), GTZ (German Agency for Technical Cooperation), ISE (Institute of Environmental Sciences) and IUCN.

The activities proposed at the Dakar meeting were examined by the members of the PDFB Phase International Steering Committee at their second meeting, held at UNESCO Headquarters in Paris in April 2002. The Secretariat prepared a project document for the global phase of the project on the basis of the results of the Dakar regional workshop, the final reports of the national scientific consultants, and also the recommendations of the International Steering Committee, and has transmitted this to UNEP-GEF in Nairobi. The Secretariat is working in close cooperation with the UNEP-GEF Office to finalize the document for submission to the GEF Council at the beginning of 2003.

1. Project Development Facility Block B. For more information, please contact Meriem Bouamrane, at MAB Secretariat (m.bouamrane@unesco.org).

Cooperation between the Council of Europe and UNESCO-MAB on Natural Heritage and Landscapes

On 22 July 2002, the Secretariats of the Council of Europe and UNESCO-MAB met to strengthen cooperation between the two organizations. Two main axes were defined aiming at better coordination of the European networks and mutually reinforcing activities of common interest.

In Europe, there are 151 biosphere reserves (as of September 2002), of which five are transboundary. If one adds Canada and the USA, which belong to the European region of the United Nations, the number is 209. The Council of Europe helps countries to set up two networks of different types: these are the Pan-European Ecological Network, and the Emerald Network¹ – an extension of Natura 2000 under the Bern Convention. The main task is to ensure that these various networks are consistent, compatible and complementary. For this, the two organizations have decided to encourage the designation of Emerald sites as core areas

of biosphere reserves, to provide special support to transboundary biosphere reserves, to define guidelines on integrated management and to periodically distribute joint information briefs through the information networks of both organizations. Joint positions were also found with respect to the implementation of the Convention on Biological Diversity, and the two Secretariats will cooperate in making their contributions, especially through the European networks, to discussions at COP VII on protected areas in 2004.

At the field level, this means that, in agreement with the authorities concerned, specific biosphere reserves will test out the Council of Europe guidelines to demonstrate concretely how biodiversity conservation can be integrated with policies of other sectors such as transport, agriculture or tourism.

In addition, sites which have received the European Diploma and which are wholly or partially biosphere reserves will be the focus of special efforts and systematic information exchanges. As concerns education and public awareness, the two organizations will try to better use their own communication networks to regularly exchange information on ongoing activities. A link between the two web sites² has been established. Specific activities will be identified to implement these main lines of cooperation.

1. Emerald Network web site: www.nature.coe.int/english/main/econets/emerald/intro.htm
 2. See web page of the Council of Europe: www.coe.int/T/E/Cultural_Cooperation/Environment/Nature_and_biological_diversity/Ecological_networks/PEEN/default.asp#TopOfPage and of the MABNet: www.unesco.org/mab/cooperation.htm

EuroMAB Workshop on Ecotourism and Sustainable Development in Biosphere Reserves: Experiences and Prospects

MAB Canada organized this workshop¹ on 24-25 May 2002 directly after the World Summit on Ecotourism in Quebec City (see 'International' section of this Bulletin). Some 20 persons were present from ten countries, a few ecotourism specialists, and an observer from the Republic of Korea. Almost all had attended the Summit and hence had benefited from exposure to the complex issues at hand. Guided by MAB Canada Chairman Mr Fred Roots, the workshop examined the Summit recommendations for pertinence to biosphere reserves, which were seen as 'working tools' to test out some of these. Several case studies were made including one on Russia highlighting the difficulties of 'opening' the biosphere reserves, based on *zapovedniks*, to ecotourism which would bring new income and cultural enhancement to the local communities. The Canadian example highlighted the difficulties of 'product

development' (an ecotourism package) in the eleven Canadian biosphere reserves, which have very different levels of tourist appeal and visitor infrastructures. The representative of the NGO Ecological Tourism in Europe (ETE) presented the project undertaken in cooperation with MAB on testing out the CBD recommendations on sustainable tourism in several biosphere reserves in central and eastern European countries.

The workshop gave rise to a number of general recommendations and a special request for a follow-up workshop to explore the challenges for developing sustainable tourism in biosphere reserves in transition economies.

1. MAB Canada has published the Workshop Summary report. It can be obtained from MAB Canada (contact Ms Gisèle G. Trubey, Canadian Commission for UNESCO, 350 Albert Street - Box 1047, K1P 5V8 Ottawa, Canada. Tel.: (1) (613) 5664414 ext.5517. Fax: (1) (613) 5664405. E-mail: gisele.trubey@unesco.ca) and it is also available on the MABNet in English (www.unesco.org/mab/regions/Euromab/ECotRepE.pdf) and in French (www.unesco.org/mab/regions/Euromab/ECotRepF.pdf).

Workshop on the Development of an Integrated European Research Programme on the Urban and Peri-Urban Environment

Organized by ESF/URGENT/EuroMAB/UK-Urban Forum at the University of Birmingham, UK, 11-13 April 2002

This workshop¹, which was sponsored by the MAB Urban Group, aimed at exchanging information among different urban-related programmes and to assist the European Science Foundation (ESF) in the preparation of a 'forward look' on urban science, and ultimately to develop an Integrated European Research Programme on the Urban and Peri-Urban Environment.

Session 3 of the workshop was dedicated to presentations and discussions on the biosphere reserve concept applied to urban areas. John Box and George Barker (UK-MAB Urban Forum) outlined the origin of the biosphere reserve concept and the outcomes of a workshop held in Manchester in 1994 on this topic. Peter Frost (Community Officer, Countryside Council for Wales and member of the UK-MAB Urban Forum) made a presentation on 'Urban Biosphere Reserves: Developments in thinking and possible application in practice'. John Celecia provided a general overview of MAB's work on urban ecology.

Three working groups produced recommendations under the following themes:

- Characterization of the urban environment;
- Decision support for planning and development;
- Communicating urban science issues to the general public.

The workshop participants made a field trip to Ironbridge and the Greenwood Trust Building where they were welcomed by Phil Davis (Council Leader, Telford & Wrekin).

1. The report from the workshop is available on the UK-MAB Urban Forum web site: www.ukmaburbanforum.org.uk/ESF_URGENT_EuroMAB_UF/Agenda.htm

First EuroMAB Training Workshop on Conflict Resolution in Biosphere Reserves

La Petite Pierre, Vosges du Nord-Pfälzerwald Biosphere Reserve, France, 2-6 September 2002

This first training workshop on conflict resolution was sponsored by UNESCO-MAB and the French Ministry of Foreign Affairs, with the support from the French MAB Committee. Sixteen participants from 12 countries attended the workshop, of which the majority were coordinators or managers of the following nine biosphere reserves: Oberlausitzer Heide-und Teichlandschaft (Germany), Grosses Walsertal (Austria), Vosges du Nord (France, part of the transboundary biosphere reserve [TBR] with Pfälzerwald, Germany); Tatra (Poland, part of the TBR with Slovakia); Krkonoše (Czech Republic, part of the TBR with Karkonosze, Poland); Danube Delta (Romania, part of the TBR with Ukraine); Okskiy (Russian Federation), Tsentral'nolesnoy (Russian Federation), and Golija-Studenica (Yugoslavia).



b)



a)

a) Ms Natasa Panic, Serbia and Ms Catherine Cibien, MAB France.

b) and c) Working groups sessions.

d) Working group presentation by Loïc Duchamps, Vosges du Nord Biosphere Reserve.

e) The Château of La Petite Pierre, headquarters of Vosges du Nord Biosphere Reserve.



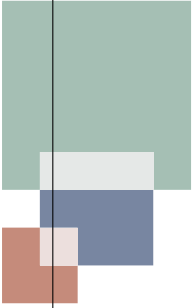
c)



d)



e)



Dr Philip Scott Jones of the University of Wolverhampton (UK) taught the theoretical basis of conflict analysis, including cultures of conflict management, analysis of partners and participation, creative thinking and negotiation. Each theoretical course was illustrated by practical exercises carried out in groups or by all participants together. This method proved to be highly interactive and allowed participants to quickly get to know each other and share their experience within their own biosphere reserves. There was a good gender balance and mix of young specialists and more experienced persons. On the Friday, participants visited the Vosges du Nord Biosphere Reserve with Jean-Claude Genot, responsible for nature protection within the Vosges du Nord-Pfälzerwald TBR.

On the last day, an evaluation of the training workshop was carried out and each participant drew up an action plan for their own biosphere reserve: what were the next steps to be taken to manage conflicts within the site? How would they use the lessons learned at this training workshop?

Participants will continue to keep in contact by e-mail and it is planned that the case studies of each of the biosphere reserves presented at the workshop will be published, with the aim of assessing the impact of the training workshop on conflict management for each site. The MAB Secretariat proposes to replicate this type of training workshop in other regions.

For more information, please contact Jane Robertson at the MAB Secretariat (j.robertson@unesco.org).



Workshop 'In Search of Biosecurity: Capacity Building on Access to Genetic Resources, Benefit Sharing and Biosafety in Central Asia and Mongolia'

Ulaanbaatar, Mongolia, 30 June-3 July 2002

Over 60 participants attended this workshop, which was organized by the United Nations University's Institute of Advanced Studies (UNU/IAS), the Mongolian Ministry of Nature and Environment, the Mongolian National Institute of Science, and UNESCO-MAB.

The workshop addressed issues related to access to genetic resources and benefit sharing, which is important for the central Asian region, in a state of economic transition and marked by low income. Traditional knowledge and safeguarding intellectual property rights in the context of bioprospecting could offer one source of economic income for the countries if well integrated in national strategies and legislation, ensuring that international pharmaceutical companies would share their benefits derived from bioprospecting. The

workshop was therefore designed to inform participants on the various international agreements and instruments, such as the Cartagena Protocol on Biosafety (2001), and the Bonn Guidelines (2002) which promotes equitable sharing of benefits arising from the use of genetic resources. A series of case studies focusing on access and benefit sharing, traditional knowledge and biosafety in Central Asia helped to exchange information. As the countries of the workshop also dispose of large dryland areas, the links between the CBD and the CCD were discussed.

Participants agreed on the creation of a 'Central Asian and Mongolian Biosafety and Bioresources Network' (for which UNU/IAS will provide technical support and assistance). The network would elaborate on the following activities:

- ▶ Case studies on traditional knowledge (TK) and the role it plays in the protection and promotion of genetic resources, and creation of a regional database on TK;
- ▶ Regional representative strategy (for demonstration purposes) on Access and Benefit Sharing (ABS) and on TK;
- ▶ Biosafety capacity on risk assessment, awareness, and integrated approaches; and
- ▶ Public awareness and education.

The Kyrgyz participants offered to host the next meeting at the Issyk Kul Biosphere Reserve (Kyrgyzstan).

For further information, please contact Thomas Schaaf at the MAB Secretariat (t.schaaf@unesco.org).



IberoMAB VII

MAB-Brazil organized the VIIth IberoMAB meeting in Rio de Janeiro/Parati from 17-22 June 2002, with support from UNESCO and MAB-Spain. More than 60 participants from 15 countries were present. Topics ranged from large-scale biosphere reserves to integrated management and the periodic review. Two field trips took place to a biological station and to two core areas of the Mata Atlântica Biosphere Reserve. During the events participants could see how real biosphere reserves can function and how multi-faceted are the attendant management approaches.

For the first time Dominica, a non-Spanish speaking country of the Caribbean region participated, thus following the recommendation of the 17th Session of the MAB-ICC that called for a better participation of non-Hispanic countries in the region. However, participants insisted that Spanish and Portuguese would be the only working languages of this and future IberoMAB

meetings, but all countries of the region were cordially invited to participate.

In the conclusions of the meeting it was agreed to hold the next meeting in late 2003 in Paraguay. Participants discussed the possibility of adapting the periodic review form to the specificities of the region. A new logo for IberoMAB and a subtitle was approved (IberoMAB: IberoAmerican Network of MAB National Committees). National representatives were invited to motivate country participation for Durban (Parks Congress) and Johannesburg (World Summit for Sustainable Development), and to solicit National Committees to insist on a high profile for MAB during the upcoming regional meeting (UNESCO Montevideo Office, July 2002). It was also agreed to foster transboundary biosphere reserves and to give special emphasis on ecotourism.

For further information please contact: Mr Clayton F. Lino, Presidente, Conselho Nacional de Reserva da Biosfera da Mata Atlantica, Rua do Horto 931, 02377-000- São Paulo- SP, Brazil. Tel.: (55) (11) 2896441. Fax: (55) (11) 2898580. E-mail: cflino@uol.com.br or Dr Javier Castroviejo, Presidente, Comité Español del Programa MAB, Ministerio de Medio Ambiente, Plaza San Juan de la Cruz s/n., 28071 Madrid, Spain. Tel.: (34) (91) 5976827/28. Fax: (34) (91) 5978542. E-mail: antonia.agama@sgma.mma.es or Miguel Clüsener-Godt, MAB Secretariat. Tel.: (33) (1) 45684146. E-mail: m.clusener-godt@unesco.org.

Latin American Meeting for Protected Areas Management, Biosphere Reserves and Biological Corridors

Hosted by CYTED and the Latin American School for Protected Area Management (ELAP)
San José, Costa Rica, 1-4 July 2002

The Ministers for Science and Technology and for the Environment and Energy of Costa Rica inaugurated this event, indicating the importance of the meeting for both Costa Rica and the region. The meeting was organized by ELAP, a unit of the University for International Cooperation (UCI). It brought together the heads of protected areas and biodiversity departments from a large number of Latin American countries. Furthermore, the Central American offices of WWF and IUCN, as well as representatives from major NGOs, such as the Wildlife Conservation Society (WCS) and Conservation International (CI) were actively involved. Mr Kenton Miller, Chair of the World Commission of Protected Areas (WCPA) participated in the meeting.

This meeting confirmed that there is a great potential for information exchange in Latin America and the Caribbean in the field of sustainable development and conservation. Several days of intense discussions and brief field visits proved to be an excellent occasion to compare experiences both at the technical and political level. Biosphere reserves were a major discussion

topic and there was a general consensus that they continue to be a valuable concept and instrument that deserves to be used and further developed in the region. A declaration on and recommendations for conservation and development in Latin America and the Caribbean were drafted which brought together the results of the various working groups.

For further information please contact the organizers at Stanley Arguedas Mora, Coordinador Técnico, Escuela Latinoamericana de Áreas Protegidas-ELAP, Universidad para la Cooperación Internacional-UCI, Altos de Barrio Escalante, Apartado 504 - 2050 San José, Costa Rica. Tel.: (506) 2836464-112. Fax: (506) 2808433. E-mail: webmaster@uci.ac.cr. Web site: www.uci.ac.cr/elap/elap.htm

REDBIOS IV

The IVth meeting of the REDBIOS network took place in La Palma, Canary Islands (Spain) from 1 to 3 February 2002. The meeting discussed an integrated approach for the conservation of coastal zones and sustainable human development for the Macaronesian Region. Discussions also turned around the topic of establishing a large interchange of information about rural tourism in biosphere reserves and the management and administration of these in the region. During the meeting, the REDBIOS network was extended to Azores and Madeira (Portugal) as well as to Mauritania. A series of collaborative projects was also elaborated and submitted to the Canary Island Authorities for consideration. It was decided to hold the next REDBIOS network meeting in November 2002 in Nouakchott, Mauritania.

For further information please contact: Sr Antonio San Blas Álvarez, Gerente Reserva de la Biosfera Los Tiles, Avenida Marítima, número 3, 38700-Santa Cruz de La Palma (Islas Canarias), Tel.: (34) (922) 43399. Fax: (34) (922) 423281. Web site: www.lapalmabiosfera.com or Sr. Juan Antonio Menéndez-Pidal, ARBIOS, General Martínez Campos, 51 3. izda, 28010 Madrid, Spain. Tel.: (34) (91) 3086176. Fax: (34) (91) 3191226. E-mail: ulatina@lander.es or Miguel Clüsener-Godt, MAB Secretariat. Tel.: (33) (1) 45684146. E-mail: m.clusener-godt@unesco.org



Participants of REDBIOS IV in front of the Teide on Tenerife.

Photos: © M. Clüsener-Godt.

News from countries and sites

This section reports only on activities which have been brought to the attention of the Secretariat.

In order to improve the diffusion and exchange of information within the World Network, please send any information or opinions which you would like to have published in the Bulletin.

We would also welcome receiving photographs illustrating specific activities and dimensions of biosphere reserves, with appropriate legends.

Please address your contributions to the UNESCO-MAB Secretariat, for the attention of M. Jardin.

Fax: (33)(1) 45685804.

E-mail: m.jardin@unesco.org.

National Biosphere Reserves Review Workshop in Kenya

Malindi, 29-31 July 2002

Thirty-five persons from the Kenya Wildlife Service, representatives of the biosphere reserves, the Kenyan MAB National Committee and National Commission, etc. attended this workshop which focused on the periodic review of the five Kenyan biosphere reserves. Representatives of FAO, UNDP, WWF and IUCN were also present.

Mr Trevor Sankey from the MAB Secretariat (Nairobi Office) introduced the workshop and made a presentation of the periodic review process, management planning and transboundary biosphere reserves. It was recalled that the periodic review process is based on the following principles¹:

- ▶ it relies on the voluntary participation of States (and the production of a report by the concerned authorities) and therefore on commitment;
- ▶ it is not based on external inspection but on involvement of concerned stakeholders;
- ▶ the purpose is to encourage the countries to improve the functioning of their sites as biosphere reserves;
- ▶ it is by no means a question of penalizing sites.

The organization of this workshop goes in line with the recommendation made at the 'Seville+5' meeting held in Pamplona in 2000 which reads²: "Where appropriate, a workshop involving multidisciplinary experts/scientists (including coordinators of other biosphere reserves in the country) should also be held as part of the process".

The workshop both equipped participants with a better understanding of biosphere reserves and collected much information on the current status of the five biosphere reserves in Kenya and on Mount Elgon, proposed as a transboundary biosphere reserve with Uganda. It was clear that all of the five biosphere reserves have the potential to fully meet the biosphere reserve criteria. However, they do not all do so at present and in this respect, management plans were recognized as

a crucial element in making the biosphere reserves effective. The workshop was recognized as a new beginning for the biosphere reserves in Kenya to work in this direction.

1. For more information on the Periodic Review, see Article 9 of the Statutory Framework of the World Network of Biosphere Reserves available at: www.unesco.org/mab/docs/statframe.htm.
2. In: UNESCO, 2001, *Seville+5 International Meeting of Experts. Pamplona, Spain, 23-27 October 2000. Proceedings/Comptes rendus/Actas*, MAB Report Series No.69. UNESCO, Paris.

Process for the Conciliation of the Yasuni Biosphere Reserve, Ecuador

The Yasuni National Park is located in the Ecuadorian Amazonian region. It was designated as biosphere reserve in 1989. Yasuni is considered as one of the areas with the highest cultural and biological values in Ecuador.

A process¹ for the development and conservation of the biosphere reserve was initiated in year 2000, a process led by the Ministry of Environment, the Wildlife Conservation Society (WCS) and UNESCO.

If you send photographs...

In order of preference, we would like to receive:

1. Slides;
2. Slides from negatives;
3. Paper prints with their negatives (or duplicates of negatives);
4. Paper prints;
5. Numeric photographs.

... Please note that photographs downloaded from the web, are not suitable for printing purposes.

Two workshops were held in 2001 to analyse the actual situation, to conciliate the biosphere reserve and create a management committee. Some specific objectives were to:

- ▶ define a working strategy for the different institutions in order to apply the biosphere reserve concept;
- ▶ strengthen inter-institutional coordination mechanisms with emphasis on the management committee that will promote conservation and development;
- ▶ organize working groups following a geographic distribution in order to assure participation of all sectors involved; and
- ▶ create an international or national scientific committee to advise the management committee at a technical level.

An initial working group was created to accomplish these objectives. The working group was constituted of a wide range of institutions (i.e. the Ministry of Environment, the provincial Council, the armed forces, representatives of universities, indigenous organizations, the church and international organizations).

The workshops also enabled participants to identify and analyse threats in collaboration with the inhabitants of the area. Some examples were oil exploitation, institutional weakness, spreading of urban centers, administrative and legal corruption, areas for military practices and illicit trade of flora and fauna.

In an effort to propose alternatives to the current situation, the working groups agreed to take action in several areas such as legalization of property and land, support to social organization, elaboration of community development plans, projects for goods production, as well as in education and technical training. It was also suggested to avoid new highway constructions, develop a communication strategy, relocate military training camps, and to work on new strategies to defend the territories and the environment.

It was concluded that there is a need for better management, to define the limits of the biosphere reserve, to increase community and local authorities participation in decision making and to have a permanent follow-up of the process. Finally, it should be emphasized that this process is being impelled by actors of the area itself with the support of foreign agents, obtaining the incorporation of sectors traditionally detached from this type of initiatives. A follow-up meeting is planned to continue the consolidation work of the Yasuni Biosphere Reserve.

1. Original text submitted by Olga Garcia - UNESCO Quito Office.

UNDP/GEF Support for the Gulf of Mannar Biosphere Reserve, India

The United Nations Development Programme (UNDP) with the Global Environment Facility¹ (GEF) has approved over US\$7.5 million for India's conservation of the Gulf of Mannar Biosphere Reserve, which is one of the world's richest regions from a marine biodiversity perspective. Among the Gulf's 3,600 plant and animal species are the globally endangered dugong (*Dugong dugon*) and six mangrove species endemic to peninsular India.

The project is an initiative by the Tamil Nadu State Government and it has been conceptualized by the M.S. Swaminathan Foundation (see box below). It will focus on capacity building for local communities, particularly women, so as to conserve and manage this unique biological heritage, the coastal ecosystem and its natural resources, for current and future generations. It will demonstrate new approaches to the integration of conservation, sustainable coastal zone management and livelihood creation through an innovative institutional and financial mechanism.

An independent Statutory Trust Fund has been set up by the Government of Tamil Nadu for the project

M.S. Swaminathan Research Foundation, India

The M. S. Swaminathan Research Foundation¹ (MSSRF) was established in 1989 to impart a pro-nature, pro-poor, pro-women and pro-job orientation to technology development and dissemination. Under the MSSRF National Resource Centre for Ecotechnologies, numerous training programmes are organized for farmers, students, professors and other stakeholders. These programmes include integrated attention to on-farm and non-farm employment, training in the production of biological software for sustainable agriculture and harmonizing biotechnology and organic farming. Field training programmes include farm level production of biopesticides, biofertilizers, organic farming resulting in eco-certifica-

tion, sustainable agriculture and aquaculture, and the establishment of pulse (leguminous crop) villages.

The MSSRF has also initiated an eco-entrepreneurship project, which encourages rural communities, and particularly women, to establish micro-enterprises supported by microcredit for sustainable development. The MSSRF is the coordinator of the Asian Ecotechnology Network (AEN).

The Chairman of the Foundation, Prof. M S Swaminathan, is also holder of a UNESCO-Cousteau Ecotechnie Chair², which aims at promoting ecotechnologies and eco-jobs, as well as regional networking among universities that are active in the field of environmental education for sustainable development.

1. For further information on the M.S. Swaminathan Research Foundation, consult: www.mssrf.org/
2. For further information on UCEP Chairs, consult the MABNet: www.unesco.org/mab/capacity/ucep/ucepmab.htm.



to ensure effective inter-sectoral cooperation, encouraging multi stakeholder participation and community-based management and decision making – moving from a regulatory process to a participatory model. The Trust will also coordinate funds and expenditure from different agencies and departments, and mobilize new resources. With this kind of funding mechanism, the Statutory Trust is a pioneer of its kind in India, and might facilitate replication of results for other coastal areas of Tamil Nadu.

1. For more information on GEF, consult: www.gefweb.org.

The Talamanca Initiative in Costa Rica Receives Equator Initiative Prize

The Equator Initiative¹ is a programme of UNDP in partnership with the Government of Canada, the International Development Research Centre (IDRC) and the United Nations Foundation. It has launched a scheme of 'Innovative Partnership Awards' aiming at rewarding initiatives that "exemplify extraordinary accomplishment in reducing poverty through the conservation and sustainable use of biodiversity in the equatorial belt".

Five awards were selected for the first time by an international jury and each award winner received US\$30,000 and a certificate of recognition. One of the five awards was made in recognition of an outstanding community initiative associated with a World Heritage site². The winner of this award was the Talamanca Initiative, working within La Amistad World Heritage site, which is part of the larger La Amistad Biosphere Reserve³ in Costa Rica. The Talamanca Initiative is a collaborative partnership of three community-based organizations, which since 1983 have worked to integrate biodiversity conservation and socio-economic development.

1. For more information on the Equator Initiative, please visit www.equatorinitiative.org or contact UNDP, One UN Plaza, New York, NY.
2. More information on the Talamanca Range-La Amistad Reserves World Heritage site is available at: whc.unesco.org/nwhc/pages/doc/mainf3.htm
3. More information on La Amistad Biosphere Reserve is available at: www2.unesco.org/mab/br/brdir/directory/biores.asp?code=COS+01&mode=all

Citizen-based Environmental Monitoring in the Southern Appalachian Biosphere Reserve, USA

Groups of volunteers in eight Southern Appalachian communities are conducting environmental inventory and monitoring activities¹ or being trained to conduct these activities as part of the SAMAB Foundation's Appalachian Environmental Monitoring Program². At the outset the monitoring programme is focused on water quality and/or invasive exotic plants, but other resource areas are being explored.

Overall, SAMAB has focused on monitoring protocols, data collection instruments, and volunteer training with a goal of assuring high-quality data. Technical assistance from watershed teams and consultation with USDA Forest Service field biologists was key to adapting monitoring protocols. The specific activities supported by the SAMAB Foundation vary among the volunteer groups, depending on the community's interests and needs. They range from recruiting and training volunteers to making information already collected by a watershed group available and usable by the community.

Four watershed associations in three states are receiving support from this programme. These associations are conducting water quality assessments using biomonitoring and chemical analysis. The monitoring sites are selected to supplement state and Federal monitoring and include headwater areas located near or on the Appalachian Trail. Two of these watershed associations will also carry out invasive exotic plant monitoring. The invasive-plant-monitoring activities are focused on areas adjacent to natural sites in the national parks, national forests, and adjacent private lands. The goal is to identify invasive plants that could spread to the protected lands.

The objectives of the Appalachian Regional Environmental Monitoring Program are dual. The first objective is to help citizens in these communities understand their environment so they are better equipped to make good decisions about their own lands and to participate more fully in decision-making processes. The second objective is to collect natural resource data that can inform these very decisions. The aim, ultimately, is to build a network of citizen-based environmental monitoring that extends throughout the Appalachian region.

1. Extracted from 'SAMAB News' (Summer 2002), published by SAMAB, 314 Conference Center Building, Knoxville, TN 37996-4138, USA. Available at: samab.org/Pubs/Newsletters/news_0802.pdf
2. For more information on the programme, please contact Andy Brown, coordinator of the monitoring programme. E-mail: equinoxab@earthlink.net.

European Village Renewal Prize 2002 for Grosses Walsertal Biosphere Reserve

In June 2002, Grosses Walsertal Biosphere Reserve won this European Award for Rural Development and Village Renewal of the European Association for Rural Development and Village Renewal, among 33 participants. The prize is highly desired among regions and municipalities all over Europe. The assessment criteria for candidates were to carry out "Exemplary activities and initiatives contributing to strengthening the future perspective of rural areas in the sense of Agenda 21 and focusing particularly on courageous, innovative and committed 'border crossings' with a view to area, content and ideology".

Vosges du Nord/Pfälzerwald Transboundary Inauguration Ceremony

This transboundary Biosphere Reserve (France/Germany) was formally inaugurated on 23 February 2002. The ceremony took place at the RatHaus and several presentations were made by different speakers such as Margit Conrad, Minister for Rhine-Palatinate, Mr Dupont, representative of the French Minister of the Environment, Mr Richert, President of the local Regional Transfrontier Funding Agency of the European Union (PANIMA), Mr Nauber from the German MAB National Committee and Mr Lecomte from the French MAB National Committee.

Peter Bridgewater, Secretary of the MAB Programme, congratulated the authorities of both France and Germany for the biosphere reserve's new web site¹ that was inaugurated that day. He mentioned that the experiences gained in this biosphere reserve have been very useful in the development of the text for the 'Recommendations for the Establishment and Functioning of Transboundary Biosphere Reserves'², and he concluded that UNESCO would continue promoting the designation of such transboundary sites that could contribute to the strengthening of peaceful relations in regions where past conflicts have taken place.

The event was a great success and the press conference that followed was well attended. All participants were invited to a lunch of local produce, showing how well 'Quality Economics' is taking hold.

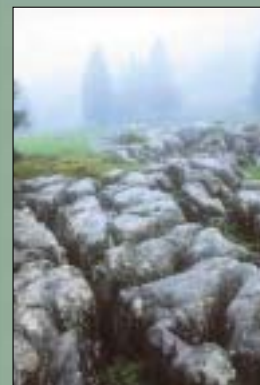
1. See article page 15. Web site: www.biosphere-vosges-pfaelzerwald.org
2. The 'Recommendations for the Establishment and Functioning of Transboundary Biosphere Reserves' are available at: www.unesco.org/mab/mabicc/2000/eng/TBREng.htm

Inauguration Ceremony for Entlebuch Biosphere Reserve, Switzerland

On 25 May 2002, over 650 people attended the inauguration ceremony for the Entlebuch Biosphere Reserve¹, including the Head of the Canton of Lucerne, and the Swiss President, Kaspar Villiger. The ceremony was a success, featuring a host of performances including the Entlebuch Biosphere Reserve Brass Band. The nomination of the Entlebuch has been a long process. Initial scepticism from local people finally turned in favour for the application and in year 2000, 94% of the inhabitants of the eight communes voted for the project. Now, the inhabitants see the biosphere reserve as an opportunity to promote sustainable tourism, a way of cultivating natural resources, and a market for regional quality products, and some young farmers have seen the commercial potential of being part of a biosphere reserve.

There are some 17,000 people living in the biosphere reserve and 36% of the population is involved in the primary sector. There is a lack of attractive, modern jobs for well-educated people and many young people are forced to move to bigger towns. Regional development is therefore one of the main concerns of the biosphere reserve. The Swiss government, canton Lucerne and local and environmental groups will make financial contributions towards the development of the region, at an estimated annual cost of SFr 1 million, creating jobs in the process.

1. More information on Entlebuch available at: www2.unesco.org/mab/br/brdir/directory/biores.asp?code=SW1+02&mode=all, and at: www.biosphaere.ch/ (In German).



Ecotourism in the Wadi Allaqi Biosphere Reserve

In Egypt, tourism has traditionally been cultural and historical in focus, given the rich cultural heritage and ancient Egyptian antiquities. Tourism plays an important role in Egyptian economy. As Mamdouh El-Beltagui, Minister of Tourism pointed out; “tourism



Photos: © I. Springuel

has become the nation's most dynamic industry and largest earner, creating more than 2.2 million jobs”. Egypt is primarily concerned with two forms of tourism that are widely developed: coastal tourism in the Red Sea and desert tourism. Taking into

- ▶ Scientific tourism. Scientists who have been working in or visited Allaqi come in small groups to combine research and tourism.
- ▶ Education/Adventure tourism. Occasional conferences, seminars and workshops have been conducted in the biosphere reserve.

In theory, sustainable tourism in Wadi Allaqi could generate income that might be used to protect and conserve the biodiversity and natural resources. (See box page 27 for opportunities for ecotourism activities in Wadi Allaqi Biosphere Reserve.)

An important aspect of ecotourism development must be the participation of the Wadi Allaqi Bedouin community in the planning and management of tourism activities. This would empower the community and enable them to influence the direction of tourism development within their local environment. The principal benefits of this type of participatory approach include:

- ▶ Generation of income for the local community. Tourism activities could generate new forms of income for the inhabitants such as guides, rangers, producers of crafts, and providers of tourism services. This would continue to help alleviate poverty and raise living standards in the area;
- ▶ Utilization of local knowledge in ecotourism. If local people are prepared to share their knowledge and skills with visitors they may improve the quality of ecotourism and help reduce its impact;
- ▶ Preservation of local knowledge and skills. Involving local people in ecotourism would help to preserve traditional knowledge and skills that would otherwise be in danger due to rapid social and economic change in Bedouin communities;
- ▶ Bring new skills and opportunities to the community.

Principles to be followed:

- ▶ Communities should be involved in ecotourism planning from the earliest stages;
- ▶ The local community should be both beneficiaries of, and stakeholders in ecotourism activities;
- ▶ Tourist activities should be sensitive to local cultural values. Tour operators and biosphere reserve staff need to be informed about these values by the community.

The above-points are fully in line with the directives set out in the draft International Guidelines for Tourism Development in vulnerable areas developed under the Convention on Biological Diversity (CBD)².

consideration that 96% of Egypt is desert, the importance of desert tourism is undeniable and has become widespread as alternative to coastal and marine tourism. However, ecotourism promoted by tourist companies in the form of desert safaris is difficult to control and it is hard to assess compliance with environmental standards.

As a contribution to the International Year of Ecotourism 2002, a case study¹ has been conducted on the promotion of ecotourism in the Wadi Allaqi Biosphere Reserve. This region has remained virgin territory for tourists until very recently. Only occasionally have explorers and researchers visited these places, limiting contact between local nomad populations and foreigners.

Currently, there are just a few ecotourism activities in the Wadi Allaqi BR:

- ▶ Desert safaris undertaken by private tourist companies. Although rare, such trips could damage biodiversity by bringing tourists to places that should be strictly forbidden to visitors, by off-road driving, and by affecting the culture of local nomads' communities.

1. This article is based on a case study by Irina Springuel and Ahmed Belal. The full text has been posted on the MABNet (www.unesco.org/mab/qualityEconomies/WadiAllaqi.pdf).

2. These guidelines are available at the CBD web site: www.biodiv.org/programmes/socio-eco/tourism/guidelines.asp

Opportunities for ecotourism activities in Wadi Allaqi Biosphere Reserve

- ▶ Bird watching/wildlife tourism/photography;
- ▶ Geological/historical tourism and visits to geological and archaeological sites;
- ▶ A trek across the desert (e.g. journey to Gebel Elba through Wadi Allaqi);
- ▶ Health tourism - based on clean, quiet environment, spiritual heritage and medicinal plant/herbal treatments;
- ▶ Scientific tourism: e.g. helping scientists conduct conservation research. Ethno-botanical studies, searching for and working with traditional groups to identify these properties;
- ▶ Education/adventure tourism: Educating visitors about the biosphere reserve concept, what it protects, its zonation, and the ecological services, which are the key elements of the environmental educational plan.

Polish-Danish Cooperation in the Bialowieza Forest Region

The Bialowieza Forest is one of the largest remaining natural deciduous and mixed forest in the European lowland. The forest is characterized by rich biodiversity and all five European hoofed animals (including European bison) have been preserved here. It is also the principal source of livelihood for the people of the nine communities in the region, incorporating forest management, wood processing and tourism.

The implementation of the Bialowieza Forest Project phase 1 started in 1999¹. The overall objective was a participatory, coherent and sustainable development of Bialowieza Forest, which would ensure protection of nature values and strengthening of local communities. The project was based on an agreement between the Polish Ministry of Environment and the Danish Ministry of Environment represented by the agency DANCEE – Danish Cooperation for Environment in Eastern Europe.

It had four main objectives:

- ▶ A partly developed and agreed upon strategy and action plan for nature protection and local livelihoods;
- ▶ Pilot activities to protect nature and strengthen socio-economic status of local communities, which are implemented and sustained through

improved capacity and decision-making processes amongst stakeholders;

- ▶ Improved opportunities for the general public in terms of education and tourism linked to nature and cultural values; and
- ▶ Suggested methodology for zonation and planning, securing nature and forestry values.

A second phase of the project is now being implemented with the following main objectives:

- ▶ To further raise awareness amongst key stakeholders about nature conservation and sustainable use of natural resources based on the management guidelines elaborated by the Technical Working Group in phase 1 and to continue capacity building for park and forest staff.
- ▶ Strengthening of local development especially related to tourism, nature protection and cross-border activities.

1. More information is available on the project web site: www.cowi.bialowieza.pl/index.php.

Kristianstads Vattenrike in Sweden: a Biosphere Reserve Candidate

Kristianstads Vattenrike¹ is a 35 km long wetland area surrounded by cultivated landscape in the south of Sweden. A 'MAB candidate office' is now in the process of completing the application form to become a biosphere reserve according to the UNESCO-MAB concept. The envisaged site would cover some 100,000 hectares and include the lower catchment area of the River Helge å. The area is home to many rare plants and animals, and the surrounding countryside, including extensive inland wet grasslands, is of unique natural and cultural value to Sweden. More than 150,000 visitors a year make use of the 13 information centres dotted throughout the wetlands of the Ecomuseum, where water is the dominant theme.

The River Helge å flows from upstream forests, through agricultural land, lowland lakes and wetlands, and passes straight through the town of Kristianstad, which is the regional capital. The river then passes through a vast wet forest area before it reaches Hanö Bay, a coastal area of the Baltic Sea. Some 8,000 hectares of this river and lake landscape with its surrounding flooding lands constitute a Ramsar site under the Convention on Wetlands². The area includes some of Sweden's most extensive wet grasslands which are still being used for livestock grazing and haymaking. There are several nature reserves as well as Natura 2000 sites in the area.

With these natural and historical values as a basis, in particular in relation to the Ramsar site, the MAB candidate office has been working in a 'biosphere reserve spirit' since 1989, in order to protect, develop and promote a sustainable use of the area.

• Why a biosphere reserve?

"For more than 10 years now", says Sven-Erik Magnusson, Director of the Ecomuseum Kristianstads Vattenrike and coordinator of the MAB candidate office, "we have been working together with interested people, from the local to the international level, with land owners, organizations, enterprises, scientists, etc. The activity has now grown to such an extent that we have to find new practical, economic and administrative ways in order to keep what we achieved and to continue developing our initiatives in Kristianstads Vattenrike. There is also a need to develop other initiatives such as a strategy for research and monitoring".

"One of the main challenges is to see how we, together with relevant authorities and organizations, can reinforce the possibilities for people living here to develop and use the area in a sustainable way. It has to be appealing to live and work in a biosphere reserve. If UNESCO approves the area as a biosphere reserve, we believe that local, regional and national support will increase substantially."

"We also look forward with great pleasure to be member of a global network of biosphere reserves that will provide opportunities for cooperation and sharing of experiences", says Mr Magnusson. "We have already visited the Flusslandschaft Elbe and Schaalsee Biosphere Reserves in Germany and the Vosges du Nord Biosphere Reserve in France" (part of the Vosges du

Nord/Pfälzerwald transboundary Biosphere Reserve with Germany).

• The application process

"There is no experience in Sweden in developing biosphere reserves according to the Seville Strategy. Therefore, the nomination process for Kristianstads Vattenrike is seen as a base for a national strategy for biosphere reserves. Such national issues include how to integrate existing protection instruments such as nature reserves' and national parks' concepts with biosphere reserves."

"The zonation for the planned biosphere reserve is also a challenge since there is almost no tradition of zonation according to the biosphere reserve model in Sweden. The core area is the easiest part since the legally protected nature reserves already exist. Natura 2000 areas, of which there are quite a few in the region, could probably also be classified as core areas. The Swedish Environmental Protection Agency is participating in discussions, as is the National Heritage Board, particularly with regard to protection of cultural and historical values."

"We see the activities that are carried out in a biosphere reserve as a continuing, long-term process and we would like to see the biosphere reserve as a tool for promoting sustainable development", Mr Magnusson concludes.

1. The rich wetlands of Kristianstad
2. Information on the Ramsar site 'Helgeån' is available at: www.wetlands.org/RDB/Ramsar_Dir/Sweden/SE003D02.htm.
3. For further information, please contact Sven-Erik Magnusson, Director, Ekomuseum Kristianstads Vattenrike, Coordinator, MAB-candidate office. E-mail: sven-erik.magnusson@kristianstad.se. Web page: www.vattenriket.kristianstad.se



Photo: © P. Olofsson/N

Peri-urban wetlands.

Two tributaries of the River Helge å join downstream of the medieval ruined castle 'Lillö'. In summer, the surrounding wet grasslands are used for grazing, while it becomes a continuous lake landscape at high tide in winter. Several of the rare plant species that Linné found here in 1749 still grow in the area.

Illustrating a biosphere reserve

Kruger to Canyons

This is the first time we feature 'Illustrating a biosphere reserve'

This will be the place for sharing something that is special to you with other readers. It could be pictures or graphics, including a short explanatory text, illustrating activities, people, nature, species, a logo or something else that reflects the specificity of a biosphere reserve. We hope this will become a very special page in our Bulletin.

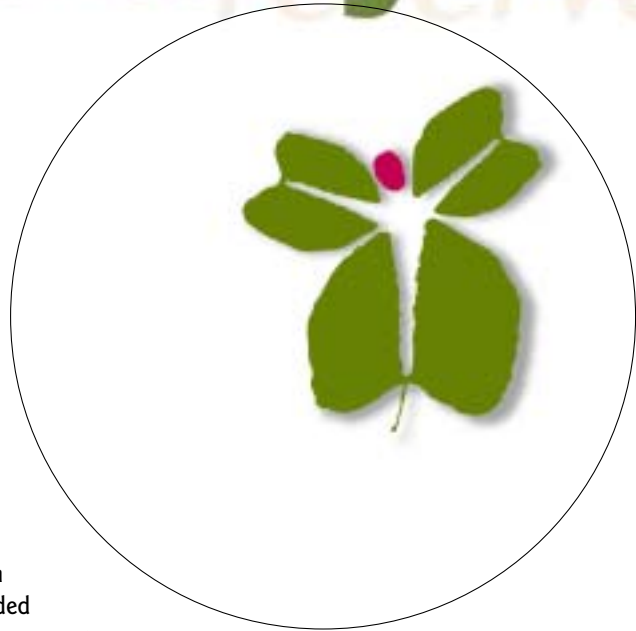
The logo for the Kruger to Canyons Biosphere Reserve in South Africa comprises three mopane leaves (*Colophospermum mopane*). This tree has regional value and has therefore been used in the logo.

The two leaflet, compound leaves, have been arranged so that the space between the leaflets creates an image of a human – thus symbolizing a person surrounded by her environment (the leaves and the spaces beyond).

Secondly the three leaves represent the three main functions of a biosphere reserve: Conservation, Development and Logistics.

Thirdly, the mopane leaves represent the value of the environment to humans and animals, especially when used sustainably. The leaves and pods are a valuable food source to both domestic cattle and wild animals, often being one of the few plants with browse still available in the dryer months. Large caterpillars of the moth *Gonimbrasia belina* feed on the mopani leaves. These caterpillars are highly sought after by local communities as a protein supplement. The caterpillars are collected when abundant and dried and stored for the months to come.

Lastly the three leaves also represent the three biomes encompassed by the Kruger to Canyons Biosphere Reserve: grassland, forest and savanna.



If you send pictures...

In order of preference, we would like to receive:

- ▶ Slides;
- ▶ Slides from negatives;
- ▶ Paper prints with their negatives (or duplicates of negatives)
- ▶ Paper prints
- ▶ Numeric photographs
- ... Please note that photographs downloaded from the web, are not suitable for printing purposes

If you send drawings or other illustrations...

- ▶ Free format. Just contact the Secretariat.

Address:

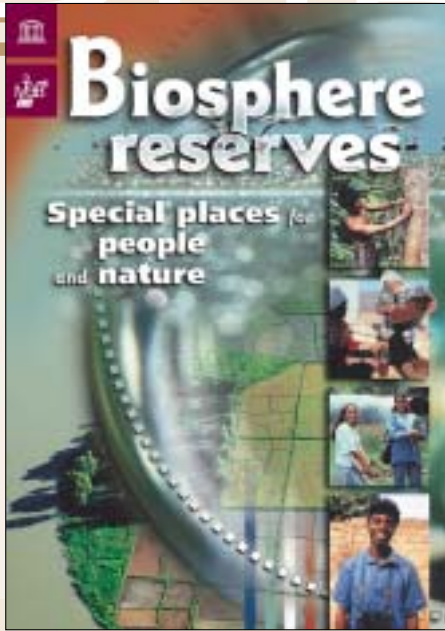
UNESCO-MAB Secretariat,
UNESCO,
1 rue Miollis, 75732 Paris Cedex 15,
France.
E-mail: mab@unesco.org

For technical details,
please contact Ivette Fabbri
E-mail: i.fabbri@unesco.org

Please also visit

the Kruger to Canyons web site:

www.krugertocanyons.20m.com/



■ Biosphere reserves: Special places for people and nature ■

This publication¹ presents an overview of the biosphere reserve concept and its implementation. It has been prepared in 2000-2001 by the UNESCO-MAB Secretariat, as part of its activities to mark the 30th anniversary of the launching of MAB.

The publication brings together a fair amount of hitherto dispersed information, and includes indications of where to find out more. It is designed essentially to present a wide variety of examples on the implementation of the goals and objectives of the Seville Strategy. Although it is wide ranging, with a large bibliography, it clearly does not pretend to be comprehensive. It provides insights, not a balance sheet. It concentrates on relatively recent activities and publications but also includes an overview of the origins and development of the biosphere reserve concept.

The main user groups are the several primary biosphere reserve constituencies (MAB National Committees, biosphere reserve coordinators and managers, collaborating organizations at various levels). More especially, the publication is intended as a tool for these biosphere reserve constituencies, to obtain greater support and understanding from the broader communities of which they form part. In addition, it may also be of interest to a wider group of people concerned with the interlinked issues of biodiversity conservation and sustainable development and associated education and training.

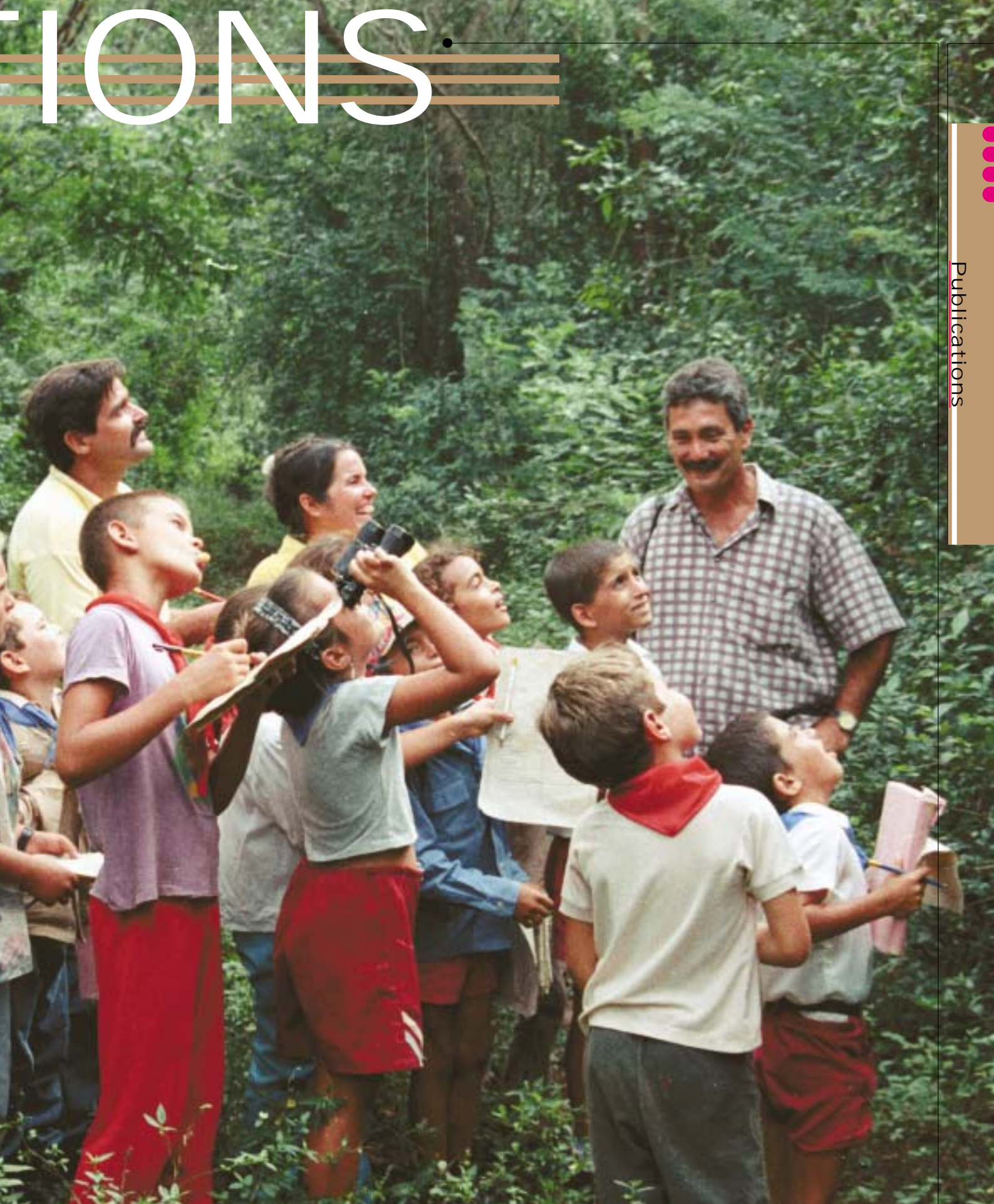
1. UNESCO-MAB Secretariat. 2002. *Biosphere Reserves: Special Places for People and Nature*. UNESCO Paris, ISBN 92-3-103813-3. 208pp. For contents, consult www.unesco.org/mab/publications/BRbook/BRbook.htm

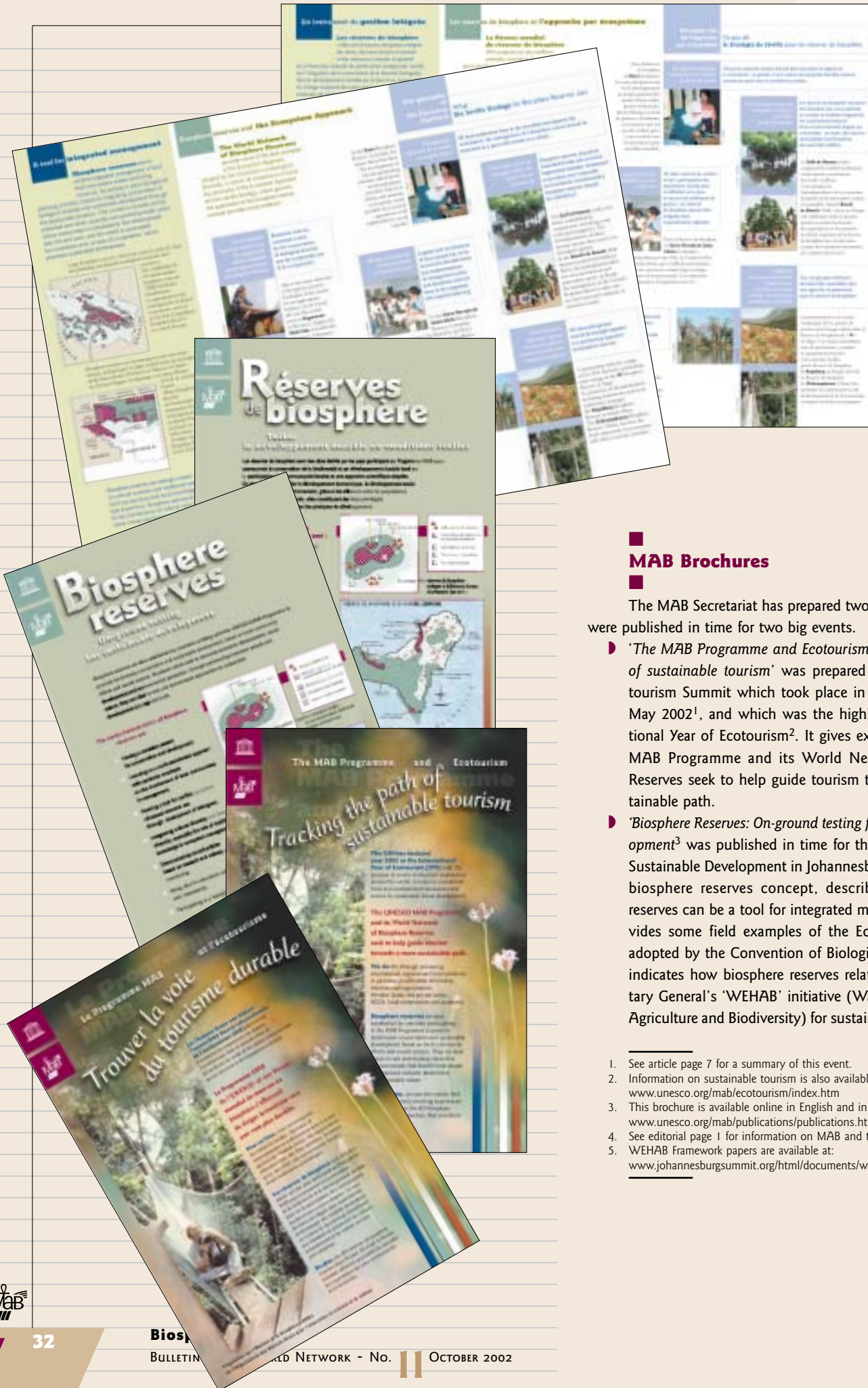
**Practical class on local ecosystems.
Ciénaga de Zapata Biosphere Reserve, Cuba.
From Biosphere reserves: Special places for people and nature**

Photo: © J. Haedo Maden.



IONS.





■ **MAB Brochures** ■

The MAB Secretariat has prepared two new brochures that were published in time for two big events.

- ▶ *'The MAB Programme and Ecotourism - Tracking the path of sustainable tourism'* was prepared for the World Ecotourism Summit which took place in Quebec, Canada in May 2002¹, and which was the highlight of the International Year of Ecotourism². It gives examples on how the MAB Programme and its World Network of Biosphere Reserves seek to help guide tourism towards a more sustainable path.
- ▶ *'Biosphere Reserves: On-ground testing for sustainable development'*³ was published in time for the World Summit on Sustainable Development in Johannesburg⁴. It explains the biosphere reserves concept, describes how biosphere reserves can be a tool for integrated management and provides some field examples of the Ecosystem Approach, adopted by the Convention of Biological Diversity. It also indicates how biosphere reserves relate to the UN Secretary General's 'WEHAB' initiative (Water, Energy, Health, Agriculture and Biodiversity) for sustainable development⁵.

1. See article page 7 for a summary of this event.
 2. Information on sustainable tourism is also available at: www.unesco.org/mab/ecotourism/index.htm
 3. This brochure is available online in English and in French at: www.unesco.org/mab/publications/publications.htm
 4. See editorial page 1 for information on MAB and the WSSD.
 5. WEHAB Framework papers are available at: www.johannesburgsummit.org/html/documents/wehab_papers.html

■ **MAB Book Series - Volume 26**
Agro-Ecological Farming Systems
in China
 ■

This volume¹ presents an overview of integrated agro-ecological farming systems in China, within the context of the main obstacles to agricultural development in the world's most populous country and the recent challenges of the concept of 'sustainable agriculture'. The volume has been prepared by a multi-disciplinary group of Chinese scientists, scholars and resource managers, headed by Professor Li Wenhua. The review represents a joint venture of the Chinese Academy of Sciences and the Ministry of Agriculture, thus bringing together the research focus of the academic community and the practical experience of the agricultural community.

The volume comprises twenty chapters, grouped in six sections, and addresses such aspects as concepts, principles, history and current status, classification and typical models. Descriptions are provided of integrated farming systems with components from the same production sector (e.g. crop rotation and inter-cropping in arable fields, poly-aquaculture in water bodies) and from different production sectors, such as agro-silvicultural systems, interplanting of trees and medicinal herbs, and combination of animal and plant production. The role of integrated farming systems at different



scales is examined, from the homestead garden to the village, county and region, as well as the adaptation of such systems to different ecosystem types (mountains, wetlands, drylands), to various agro-industrial issues and to the use of different energy resources. Closing chapters present suggestions on the systematic design of integrated farming systems and on approaches to their analysis and assessment, as well as reflections on recent trends and future prospects.

1. Li Wenhua (ed.), 2001. *Agro-Ecological Farming Systems in China*. Man and the Biosphere Series Volume 26. UNESCO, Paris, and Parthenon Publishing, Carnforth. 433 pp. UNESCO ISBN: 92-3-103784-6. Parthenon ISBN: 1-85070-631-X.

■ **MAB Book Series - Volume 27**
Nordic Mountain Birch Ecosystems
 ■

The Nordic subarctic-subalpine birch forest belt is unique to Fennoscandia, the Kola Peninsula, Iceland and southern Greenland. The belt corresponds to the current and potential area of Nordic mountain birch (today most often called *Betula pubescens* ssp. *czerepanovii* Orlova/Hämet-Ahti), a taxon which is strongly polymorphic due to introgressive hybridization between related

taxa. The area covered by Nordic mountain birch is characterized by extensive multiple use, including reindeer husbandry, forest and tourist industries and hunting and fishing. Scientifically, the mountain birch has been of special interest from a genetic and autecological angle, including the use of experimental approaches to assess the effects of phylogenesis and environment on biological performance.

Such approaches lie at the core of collaborative studies on Nordic mountain birch ecosystems described in this volume¹, undertaken within the framework of the Nordic Subarctic and Subalpine Ecology group and the MAB Northern Sciences Network.

1. F.E. Wielgolaski (ed.), 2001. *Nordic Mountain Birch Ecosystems*. Man and the Biosphere Series. Volume 27. UNESCO, Paris, and Parthenon Publishing, Carnforth. 390 pp. UNESCO ISBN: 92-3-103783-8. Parthenon ISBN: 1-84214-054-X

■ **MAB Book Series - Volume 28
Freshwater Wetlands
and Their Sustainable Future.
A Case Study of Trebon Basin
Biosphere Reserve, Czech Republic**
■

Wetlands provide important services to human societies, including water supply, sanitation, flood control and food resources. All over the world, management of water – the key component of wetlands – is an issue of crucial importance that affects the daily lives of millions of people. At the same time, many wetlands are under threat from a variety of man-induced impacts and technological developments such as hydraulic works, tourism installations and leisure activities, pollution and other forms of human intervention.

Located in the southern part of the Czech Republic, the Trebon Basin has been influenced and modified by human activities for more than eight centuries. The result is a diverse semi-natural countryside – a mosaic of more than

500 artificial fishponds, deciduous and coniferous forests, meadows, fields and wetlands crossed by numerous small streams, canals and dykes.

Trebon Basin has long been the focus of intensive ecological research, and in 1977 was designated as a biosphere reserve within UNESCO's Man and the Biosphere Programme.

Over the last few decades, nearly one hundred researchers have taken part in research in Trebon, coming from a variety of scientific disciplines and working at a range of different space and time scales and levels of biological complexity, from the cellular to the ecosystem. Research findings present-

ed in this volume¹ are grouped in six sections: the key role of wetlands in the Trebon Basin; fishpond management and its ecological consequences; the wetlands surrounding an ancient man-made lake; mires and peatlands in a marginal situation; and future prospects for the Trebon wetlands, including their ecological and socio-economic functions and their roles in energy and material flows at the landscape level.

1. J. Kvet, J. Jeník and L. Soukupová. (eds.), 2002. *Freshwater wetlands and their sustainable future - a case study of Trebon Basin Biosphere Reserve, Czech Republic*. Man and the Biosphere Series. Volume 28. UNESCO, Paris, and Parthenon Publishing, Lancaster. 495 pp. UNESCO ISBN: 92-3-103825-7 Parthenon ISBN: 1-85070-550-X



■ **Russian Conservation News**
■

A Special Issue of this publication¹ on Biosphere Reserves in Russia was published in late 2001. It is based on the training seminar on biosphere reserves in the Russian Federation and Belarus, held in June 2000 in Krasnoyarsk (see Biosphere Reserves Bulletin No. 10, page 18). The publication consists of an introduction to biosphere reserves, spelling out the main objectives and functions and the Seville Strategy including a glossary of terms, and analysing the particular characteristics of biosphere reserves in Russia. A second section presents nine case studies of biosphere reserves in Russia, providing information which has for the most part not been published elsewhere in English. A section on 'The Future' looks at the possibilities for new sites for biosphere reserves and presents the resolution elaborated at the Krasnoyarsk seminar. Final sections are given on

'Resources for further study' and a list of contacts. The Russian version has also been published, thus providing a basic reference on biosphere reserves for Russian-speakers.

Issue no 29² of *Russian Conservation News* was published in spring 2002. It includes several articles which make reference to biosphere reserves such as: 'A new Strategy for the Volga Delta', by Uli Gräbener; and 'The Role of Astrakhansky Zapovednik', by Nina A. Litvinoca, both part of a special section on the Volga Delta.

The first article describes the special initiatives that the UNESCO Moscow Office have begun to help individual

biosphere zapovedniks address their specific problems and opportunities. This is a direct follow-up to the Krasnoyarsk meeting mentioned above. The second article, written by the Director of Astrakhansky Zapovednik, explains the benefits of creating one or more 'biosphere polygons' in the area. 'Biosphere polygons' is a new concept in Russian nature conservation legislation and defines special areas attached to biosphere zapovedniks that are used for sustainable development initiatives.

1. *Russian Conservation News* No 27, Fall 2001. Published in English and Russian.
2. *Russian Conservation News* No 29, Spring 2002. Published in English and Russian. Copies can be obtained from CRCN/Tides Center, Russian Conservation News, PO Box 57277, Washington, DC 20037-7277, USA or by contacting the UNESCO Office in Moscow (u.grabener@unesco.ru)



Management of the Degraded Ecosystems in Xilingol Biosphere Reserve

Xilingol Biosphere Reserve is one of China's largest nature reserves covering an area of 10,786 km². It represents China's typical steppe ecosystem and has played an important role in public awareness and promotion of scientific research. The nature reserve was established in 1985 and was designated as a biosphere reserve in 1987. In addition to its long-term scientific programme for research and monitoring, the biosphere reserve has carried out many activities along the three functions of biosphere reserves, including international exchange and cooperation. Of special interest has been the establishment of a twinning relation with Australia's Bookmark Biosphere Reserve, which has promoted ongoing and mutually beneficial exchange and cooperation between the two regions. However, as noticed by scientists and local governments, the overall environmental situation in Xilingol has been deteriorating and the reserve is faced with the serious process of grassland degradation and desertification, and has only incorporated 0.2% of its total area within the core areas.

This research report¹, written in composite Chinese and English, is aimed at carrying forward the research and analysis of the social, ecological and economic problems that have arisen over time. The research has been carried out through discussions with the various stakeholders and by analysing the many aspects of the problems including the relationship between the urban and rural industries within the reserve; the utilization of its natural resources like petroleum and coal; and the impact of this extraction upon the grassland environment.

The report mainly focuses on four areas: 1) ecological background and existing problems for the development of the biosphere reserve; 2) policy study for sustainable development of eco-tourism; 3) relations between urban areas and biosphere reserves; 4) policy study on the management of the biosphere reserve. The results include significant reference to the necessary count-

er measures and suggestions for resolving the existing degradation of Inner Mongolia's ecosystem. For those interested in current MAB agenda, the Xilingol study has a particular relevance. The papers on the management mechanisms in Xilingol, eco-tourism in relation to conservation and economic development of the area and the roles of urban development in a biosphere reserve are strongly linked to the new subjects being addressed by MAB through international and regional task forces.

1. Nianyong, H., Gaoming, J., Wenjun, L. (eds.). 2002. *Management of the Degraded Ecosystems in Xilingol Biosphere Reserve*. Series Case Studies on the Sustainable Management of Biosphere Reserves in China.

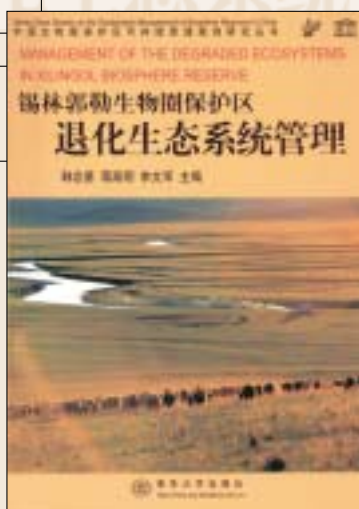
South and Central Asia: Dehra-Dun Meeting Follow-up

In February 2001, a Regional Meeting of coordinators of MAB National Committees and Biosphere Reserves in South and Central Asia was held in Dehra Dun, India¹.

A summary of the meeting is included in the first issue of the South and Central Asia MAB Network Newsletter (SACAM)² produced by the Sri Lankan MAB National Committee. This 24-page issue, dated February 2002, contains summaries of the various interventions at the Dehra Dun meeting, including descriptions of the status and plans of biosphere reserves in the different countries of the region.

Technical presentations at Dehra Dun have been brought together in a volume³ edited by P.S. Ramakrishnan and colleagues. It includes some 40 contributions grouped in five sections, with introductory overviews of the MAB Programme and managing biosphere reserves in South and Central Asia, followed by contributions addressing various dimensions of traditional ecological knowledge relevant to biosphere reserve management. Contributions on experience in existing and potential biosphere reserves in India and other countries of the region include three chapters on the mangrove ecosystems of the Sunderbans and the Indus delta. The last chapter is an attempt to tie all discussion points together, presenting conclusions that may be of value for policy planners, biosphere reserve managers, as well as governmental and non-governmental agencies. The volume has been published by Oxford & IBH Publishing Co. Pvt. Ltd. of New Delhi and Calcutta, in collaboration with UNESCO-New Delhi, with an Executive Summary also published separately for free distribution.

1. For a summary report on the Dehra Dun meeting, see *Biosphere Reserve Bulletin* No. 10, page 12.
2. The newsletter is available in pdf format and can be accessed at: www.unesco.org/mab/docs/SACAM1.pdf.
3. Ramakrishnan, P.S.; Rai, R.K.; Katwal, R.P.S.; Mehndiratta, S. (eds). 2002. *Traditional Ecological Knowledge for Managing Biosphere Reserves in South and Central Asia*. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi and Calcutta. ISBN: 81-204-1544-2. 536 pp. Web page: <http://unescoedelhi.nic.in/public.htm>



■ ASPACO – Apia Meeting Report ■

The report¹ of the “Asia Pacific Cooperation for the Sustainable Use of Renewable Natural Resources in Biosphere Reserves and Similarly Managed Areas” (ASPACO) meeting that was held in Apia, Samoa from 7-10 November 2001² has recently been published³. The volume is a collection of key discussion papers and presentations from and related to the Apia meeting. Also included is the Statement of the participants, as well as observations on the development of the MAB Programme in the Pacific during 2002.

1. UNESCO, 2002. *The Second Meeting of ASPACO. People and Places: Pacific Island Approaches to Integrated Coastal Conservation and Sustainable Human Development – 7-10 November 2001*. UNESCO Office for the Pacific States, Apia, Samoa. PO Box 5766, Matautu-uta, Apia, Samoa. Tel.: (685) 24276. Fax: (685) 26593.
2. A summary of the Apia meeting is given in *Biosphere Reserve Bulletin* No. 10, page 15.
3. The publication is available on line on the MABNet at: www.unesco.org/mab/aspaco/publicat.htm



■ News from Australia ■

The first issue of the Australian Biosphere Reserves Newsletter was published in January 2002, produced by Environment Australia, acting as the focal point for biosphere reserves in Australia. The newsletter is intended for biosphere reserve managers, policy makers, community groups and other persons interested in the biosphere reserve concept. The newsletter provide a quarterly forum for news, information, and articles on biosphere reserves in Australia, including information from UNESCO-MAB in Paris. Environment Australia has also developed a national web site for biosphere reserves¹.

1. www.ea.gov.au/parks/biosphere/index.

■ New Bulletin on the National Network of Biosphere Reserves in Peru ■

As an output of the meeting ‘Biosphere Reserves in Peru: Opportunities for Sustainable Regional Development’ (Reservas de Biosfera del Peru: Oportunidades para un desarrollo regional sostenible) held in June 2000 in Lima (Peru), a network to exchange information between Peru’s three biosphere reserves (Noroeste, Huascarán and Manu) was established (Red Nacional de Reservas de Biosfera / National Biosphere Reserve Network - RENAREB). A Bulletin¹ is also published, which aims to facilitate the exchange of information between the Peruvian biosphere reserves and interested stakeholders. This Bulletin is a useful contribution to the strengthening of the national network of Peru’s biosphere reserves.

The objective of the Bulletin is to communicate the experience of the Peruvian biosphere reserves with a focus on the following fields: planning, tourism development, zonation, sustainable development projects, extension work and publications, both in a national and international context. In addition, the Bulletin aims to diffuse relevant articles and guidance concerning biosphere reserves both from UNESCO-MAB and IUCN.

More specifically, this first publication is dedicated to the origin and implications of the MAB Programme and biosphere reserves and their application in Peru, the Minsk Congress, the Seville Strategy and the Statutory Framework of the World Network of Biosphere Reserves. Furthermore, the publication provides an overview of the Peruvian meeting on biosphere reserves.

1. República del Perú. Ministerio de Agricultura. Instituto Nacional de Recursos Naturales. 2001. *Boletín Informativo de la Red Nacional de Reservas de Biosfera (RENAREB)*. Lima, Peru. National Institute of Natural Resources (INRENA), Tel./fax: (51) (1) 2243298. Web site: www.inreana.gob.pe. Calle 17 No. 355 Urb. El Palomar, San Isidro, Lima, Peru.



New Publications from Mexico's National Institute of Ecology

A series of three publications in Spanish presents the management programmes of two biosphere reserves as well as an overview of the development of the National Protected Area Programme from 1995 to 2000.

The volumes on the management programmes in El Triunfo¹ and El Vizcaíno² Biosphere Reserve respectively are similar in their structure. They include an important descriptive part on the natural and cultural values of the biosphere reserve and present the management objectives and approaches. These sections are followed by detailed descriptions of the actual management activities, including monitoring and evaluation.

The volume on the National Protected Areas Programme³ provides an excellent overview of basic facts and background information on protected areas in Mexico. For the period from 1995 to 2000, a thorough assessment of the national programme is presented. This assessment covers the multiple aspects of protected area management and coordination ranging from legal, administrative and institutional aspects all the way to training, financing and international cooperation.

1. Instituto Nacional de Ecología. 1999. *Programa de Manejo Reserva de la Biosfera El Triunfo, México*.
2. Instituto Nacional de Ecología. 2000. *Programa de Manejo Reserva de la Biosfera El Vizcaíno, México*.
3. Instituto Nacional de Ecología. 2000. *Balance del Programa Nacional de Áreas Naturales Protegidas, México*.

For further information please contact: Instituto Nacional de Ecología. Periférico 5000, Col. Insurgentes Cuicuilco, C.P. 04530, Delegación Coyoacán, México D.F., México. Web site: www.ine.gob.mx/ or Secretaría de Medio Ambiente y Recursos Naturales. Blvd. Adolfo Ruiz Cortines #4209, Jardines en la Montaña, Tlalpan, C.P. 14210; México, D.F., México Web site: www.semarnat.gob.mx/

Information Materials from Brazil

The Ministry of Environment and other partners have published an informative leaflet on the Brazilian Biosphere Reserves¹. It explains the biosphere reserve concept and explains: "The Ministry of the Environment's policy is to implement a comprehensive Biosphere Reserve for each one of the Brazilian biomes. To us, the Biosphere Reserves are strategic laboratories of public policy, with the purpose of guaranteeing the conservation of the biodiversity through biological corridors, as well as the implementation of consistent examples of sustainable development in all regions of the country". Each of the five biosphere reserves are briefly described and the leaflet also includes a map illustrating their zonation.

Moreover, two small brochures on the Sao Paulo City Green Belt² (part of Mata Atlantica Biosphere Reserve) and the Caatinga³ Biosphere Reserves in Brazil have been published. They give general information about the biosphere reserves and there is also a map and information on the youth programme of the Sao Paulo City Green Belt Biosphere Reserve.

1. *Brazilian Biosphere Reserves*. COBRAMaB, Brazilian Commission for the 'Man and the Biosphere' Programme, Secretariat of Biodiversity and Forests, IBAMA, Ministry of Environment, Brazilian Government.
2. *Reserva da Biosfera do Cinturao Verde da Cidade de Sao Paulo - MAB - UNESCO*. Instituto Florestal, Rua do Horto, 931 - CEP 02377-000, São Paulo - SP, Brazil. E-mail: rbcv@iflorestsp.br. Web page: www.rbcv.iflorestsp.br.
3. *Reserva da Biosfera da Caatinga 2002*. Published by: Governo de Pernambuco, Secretaria de Ciencia, Tecnologia e Meio Ambiente (SECTMA). E-mail: sectma@sectma.pe.gov.br. Web page: www.sectma.pe.gov.br





Spanish-language Manual on Assessing Biodiversity in Biosphere Reserves

In the second of a series of Spanish-language manuals on biological diversity¹, Gonzalo Halffter, Claudia Moreno and Eduardo Pineda have prepared a handbook for assessing biological diversity in biosphere reserves. The manual² proposes a quick and simple strategy to obtain an overview of species diversity and the processes that affect it at a landscape scale, especially those related to habitat fragmentation and ecosystem alteration. The main usefulness of the proposed methodology is to measure and predict the effects of human impact on ecosystems and it may thus also be used as a guide in designing assessment and monitoring programmes for biodiversity.

This strategy is based on three main considerations. First, it proposes the landscape as the geographic unit of study. Second, it uses focal or parameter groups (such as Carabid beetles) to estimate biodiversity. Third, it considers simultaneously local species richness (alpha-diversity), species turnover between habitats (beta-diversity) and species richness at the landscape scale (gamma-diversity).

The authors express the hope that implementation of the proposed methods in a number of biosphere reserves will provide relevant information to understand the nature of the components of biodiversity, their spatial and temporal interactions and their responses to habitat transformation by human activities. Furthermore, the approach enables analyses to be undertaken of the effect of the size and shape of a biosphere reserve on biodiversity conservation. This is a useful evaluation for already designated biosphere reserves, and may also help in planning new reserves.

The handbook is mainly aimed at students, biosphere reserve managers, technicians and professional researchers studying biodiversity. It includes a series of sampling protocols and real-

data analysis exercises, aimed at clarifying data handling and analysis procedures for the wide range of audiences interested in the topic.

1. The series of 'M&T – Manuales y Tesis SEA' was launched in 2001 as a joint initiative of the Biodiversity sub-programme of Ciencia y Tecnología Para el Desarrollo (CYTED, the Ibero-American cooperative Programme on Science and Technology for Development), the UNESCO Office in Montevideo, and the Entomological Society of Aragon (SEA, Sociedad Entomológica Aragonesa). Other early volumes in the series are concerned with methods for measuring biodiversity (Volume 1) and the biogeography of Latin America and the Caribbean (Volume 3). Enquiries to Sociedad Entomológica Aragonesa (ESA), Avda. Radio Juventud 37, 50012 Zaragoza, Spain. Web page: entomologia.rediris.es/sea.
2. Halffter, G.; Moreno, C.E.; Pineda, E.O. 2001. *Manual para evaluación de la biodiversidad en Reservas de la Biosfera*. M&T-Manuales & Tesis SEA, Vol.2. Sociedad Entomológica Aragonesa, Zaragoza. ISBN: 84-922495-3-6. 80 pp.

Interdisciplinary Research in Biosphere Reserves in Argentina

This book¹ presents the results of a project entitled 'Interdisciplinary Research in Biosphere Reserves'. This project was carried out from January 1999 to June 2000 and was developed by the Coordination Unit of the MAB Programme, which is affiliated to the MAB National Committee of Argentina. The objective of the project was to analyse the factors underpinning the obstacles to interdisciplinary research within biosphere reserves. The emphasis was on the challenge to integrate the social sciences into the management and coordination of conservation and development, an explicit objective of the biosphere reserve concept. The conclusions and recommendations are aimed at shedding light on the concrete implementation of the Seville Strategy, which defines biosphere reserves as sites for research, monitoring, education, and training. In addition to the Argentinean experience, reference is also made to examples from Mexico.

1. Alicia E. Toribio y Cristina Soruco de Madrazo (eds). 2001. *La investigación interdisciplinaria en las Reservas de Biosfera*. Comité MAB Argentino, Secretaría de Desarrollo Sustentable y Política Ambiental. Buenos Aires, Argentina.

Working Paper No. 33 of the South-South Cooperation Programme

Gender, Power and Change – The Case of the Ñacuñan Biosphere Reserve, Argentina by Laura Maria Torres¹ is the latest issue of the working papers of the South-South Cooperation Programme. This issue is based on extensive research, carried out in Ñacuñan Biosphere Reserve in 1998 and 1999 designed to enhance the understanding of the situation and behaviour of members of the local communities inside the biosphere reserve in terms of land-use, internal and external power relations and current social processes. Special emphasis is put on gender relations, with a view to identifying opportunities to integrate this aspect into future community development. An important descriptive part introduces the reader to the historical, political and ecological charac-

teristics of the area. This part is followed by a comprehensive stakeholder analysis, which investigates the social situation in the communities. Furthermore, the author draws conclusions based on the research results and elaborates how the research could contribute to community development in the Ñacuñan Biosphere Reserve.

1. Laura María Torres. 2002. *Genero, poder y cambio. El caso de la reserva de biosfera de Ñacuñan, Argentina*. Programa de Cooperación Sur-Sur. Documentos de Trabajo No. 33. UNESCO, Paris. Web site: www.unesco.org/mab/south-south/index.htm

MAB and Biosphere Reserves Archive in Canada

A reference archive of documents about UNESCO-MAB, Canada MAB and Canadian biosphere reserves is available in Canada, with some information dating back to the early 1970s when Canada MAB was created¹. This 'George Francis Collection' has been collected for over 20 years and is maintained by the Wilfrid Laurier University (WLU) in Waterloo, Ontario. Most of the material (including both international and Canadian) is from the 1980s and 1990s, and the most recent information is about the Canadian Biosphere Reserves Association (CBRA) and related matters.

1. Extracted from *Biosphere Reserves in Canada Newsletter* No.14 (March 2002), published by the Canadian Biosphere Reserves Association (CBRA). For further information contact Joan Mitchell, Archives & Special Collections Librarian, Wilfrid Laurier University, (1) (519) 8840710, Ex.3825. E-mail: jmmitch@wlu.ca or the Archives at li-barch@wlu.ca

Isla de La Palma Biosphere Reserve

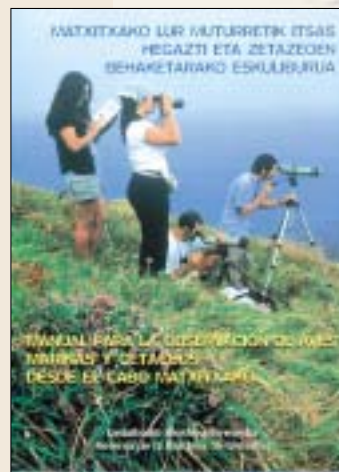
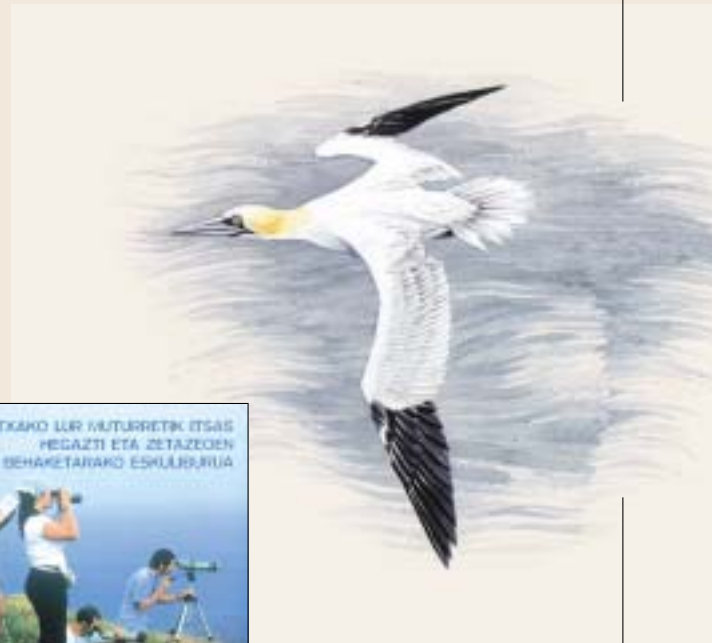
The 'Cabildo' of the Island of La Palma, the body representing the municipalities of the island, has published a booklet¹ entitled 'The Network of Protected Natural Areas of La Palma' (Red de Espacios Naturales Protegidas de la Palma) as part of its 'Plan on Awareness-raising and Environmental Education'. The booklet is accompanied by a CD-Rom and provides the reader with an informative and attractive introduction to the beauty of this little known treasure of the Canary Islands. Following an overview of the various categories of protected areas and monuments, there are brief descriptions and photographs of all protected areas and other sites of interest. In addition, the reader can familiarize himself or herself with the biosphere reserve concept as applied in La Palma, as well as with various strategies and plans concerning for example environmental education and public use. Finally, the description of the network of hiking trails offers practical tips to discover La Palma. All the information can be found in Spanish, English and German.

1. Cabildo de La Palma. 2001. *Red de Espacios Naturales Protegidas de La Palma*. Area de Educacion Ambiental y Uso Public. Unidad Insular de Medio Ambiente. Web site: www.lapalmabiosfera.com

Manual on Observations of Marine Birds and Cetaceans in Urdaibai

Written in Spanish and Basque, this 45-page manual¹ is a beautiful publication with watercolor pictures of marine birds and cetaceans. It is divided into eight parts with information on: the Urdaibai Biosphere Reserve, the Cabo Matxitxako (which is a good place for observing birds), what you can observe, recommended times and moments for observations, observation materials, threats and conservation, and finally it includes a list of bird and cetacean species that have been observed from 'El Cabo Matxitxako'. The main part is the basic guide for identifying species that you can observe from the Matxitxako. This is one of numerous publications from the Urdaibai Biosphere Reserve on education and public awareness².

1. Urdaibai Biosphere Reserve. 2001. *Manual para la observación de aves marinas y cetáceos desde El Cabo Matxitxako*. Web site: www.l.euskadi.net/vima_urdaibai/
2. See also *Biosphere Reserve Bulletin* No. 6 (pp 22)



■ **Implementing the Convention on Biological Diversity on the Ground: The Example of Biosphere Reserves** ■

At the sixth meeting of the Conference of the Parties (COP 6) to the Convention on Biological Diversity (CBD), the German delegation presented this publication¹. The MAB Secretariat welcomes this spontaneous study, which analyses the convergence of the CBD provisions with the biosphere reserve concept, and particularly in three of the German biosphere reserves. The main contribution of the study is that it provides a basis for the further analysis of how current approaches and action in the area of conservation, sustainable use, and landscape management and planning can assist in implementing the ecosystem approach under the CBD.

COP 6 decided that the theme 'protected areas' would be an item for in-depth consideration by COP at its seventh meeting. It was also agreed that the preparations for the discussion on this theme by COP 7 should take into account the relationship between protected areas and the ecosystem approach, relying on existing examples and case studies. The BfN publication has therefore somehow anticipated this process, to which the MAB Secretariat plans to actively contribute.

1. Gundling, L. 2002. *Implementing the Convention on Biological Diversity on the Ground – the Example of Biosphere Reserves*. BfN Series No. 58. Federal Agency for Nature Conservation of Germany – BfN. Web site: www.bfn.de. Publications in the BfN series can be downloaded from the Internet (www.bfn.de/09/090203.htm).

■ **Brochure on the Biosphere Reserves of Mecklenburg-West Pomerania** ■

This brochure¹ by the Ministry of Mecklenburg-West Pomerania, published in German, introduces the reader to the biosphere reserve concept and its implementation in Germany. It provides maps and overviews of the three biosphere reserves in this 'Land' in North East Germany (Rügen, Schaalsee and a part of Flusslandschaft Elbe, which stretches over several 'Länder'). The overview describes the history and conservation values of the respective areas and explains how biosphere reserves are being used as an innovative instrument for regional development and conservation.

1. Umweltministerium Mecklenburg-Vorpommern. 2000. *Biosphärenreservate in Mecklenburg-Vorpommern*. Schwerin, Germany. For further information contact Umweltministerium Mecklenburg-Vorpommern. Abteilung Naturschutz und Landschaftspflege. Paulshöher Weg 1. 19061 Schwerin, Germany. Tel.: (49) (385) 588-0. Fax: (49) (385) 588-8717. E-mail: klaus-dieter.dahl@um.mv-regierung.de.



Leaflet on the Isle of Vilm in South-East Rügen Biosphere Reserve

This leaflet¹ in English presents the Isle of Vilm, a small island in the Baltic Sea just off the coast of Rügen. The only permanent residents of this island are the staff of the International Academy for Nature Conservation, a branch of Germany's Federal Agency for Nature Conservation. The leaflet briefly describes the surprisingly colourful history of the island, which has been attracting painters for centuries (coining the nickname 'Island of Painters') but also other illustrious visitors. In addition, there are sections on the island's fauna and flora, the multiple activities of the Conservation Academy and useful practical visitor information, including maps.

1. Federal Agency for Nature Conservation. 2002. *Isle of Vilm in the Biosphere Reserve South-East Rügen*. Rügen – Druck Putbus. For further information contact Federal Agency for Nature Conservation. Branch Office: International Academy for Nature Conservation. D-18581 Putbus/Rügen., Germany. Tel.: (49) (38) 301860. Fax: (49) (38) 30186150. E-mail: bfn.ina.vilm@t-online.de. Web site: www.bfn.de/06/index.htm

Science letter of the Luberon Regional Nature Park

Number 4 in this series¹ contains 13 articles under three headings: Human sciences; natural sciences; and scientific news. Subjects include the changes in landscapes and dry grasslands on the ridges of the Grand Luberon: a preliminary study of the selaciens of the Miocene of South Luberon (Vaucluse): monitoring of photochemical pollution by ozone in the Luberon. Jean Grégoire, Director of the PNRL and Gilles Bonin, President of the Scientific Council of the PNRL are the editors of his 168 page booklet.

1. *Courrier scientifique du Parc naturel régional du Luberon* No 4-2000. Contact: Parc naturel régional du Luberon, 60 place Jean Jaurès, BP 122, 84404 Apt, France.

Contribution of the French MAB Committee to the scientific goals of Johannesburg

The Chair of MAB France, Mr Robert Barbault, and the Vice-Chair and Director of the French Biodiversity Institute, Mr Jacques Weber, contributed papers to the publication 'Johannesburg 2002 - World Summit on Sustainable Development. What is at stake? What contribution of scientists to the debate?'¹.

This document of 179 pages plus annexes is published by the French Ministry of Foreign Affairs and the ADFP (Association for diffusion of French thought) and is available in three languages (English, French and Spanish). There are five main chapters: Economic and social issues in sustainable development (Jacques

Weber); Biodiversity: a heritage under threat, a ruthless pursuit of resources and the very essence of life (Robert Barbault); Desertification and its relationship to environment and development: a problem that effects us all (Antoine Cornet); Climate change (Gérard Mégie and Jean Jouzel); and Johannesburg: an opportunity that must be seized (Ignacy Sachs).

A final section is devoted to an annotated bibliography of the key publications examining the issues inherent in sustainable development. The contribution of biosphere reserves and the MAB Programme to conservation and the sustainable use of biodiversity is specifically mentioned.

1. Roberts Barbault, Antoine Cornet, Jean Jouzel, Gérard Mégie, Ignacy Sachs and Jacques Weber. Johannesburg 2002. *World Summit on Sustainable Development. What is a stake? What contribution of scientists to the debate?* 179 pp. ISBN 2-914935-00

For more information and to obtain copies, contact ADFP, 6 rue Ferrus, 75014 Paris, France. Tel.: (33) (1) 43131100. The French, English and Spanish versions can be downloaded from the web site: www.adpf.asso.fr

Sierra del Manantlán, Mexico: Conservation Requirements of a Wild Relative of Maize

Zea diploperennis is a wild relative of maize that is endemic to the Sierra de Manantlán Biosphere Reserve in Mexico. Discovery of the species in the mid-1970s was a major stimulus to the subsequent nomination and designation in 1987 of Sierra del Manantlán as a biosphere reserve. Given the potential economic importance of *teosintes* - the wild relatives of maize - for the improvement of cultivated maize, research on the habitat and management requirements of *Z. diploperennis* have been a continuing feature of the research programme of Las Joyas Field Station within the core area of the reserve, which is close to large populations of *Z. diploperennis*.

Recently reported research findings by Lazaro R. Sánchez-Valásquez and colleagues¹ have described population changes over a five-year period in plots under different disturbance regimes. The number of ears and fruits produced were significantly higher when disturbances were applied. One conclusion is that if populations are not disturbed at least once every five years, then the species will go locally extinct in the wild. The study also suggests that simple slashing without burn could be the most suitable management factor to maintain the populations of this *teosinte*.

1. Sánchez-Valásquez, L.R.; Ezcurra, E.; Martínez-Ramos, M.; Alvarez-Buylla, E.; Lorente, R. 2002. Population dynamics of *Zea diploperennis*, an endangered perennial herb: effect of slash and burn practice. *Journal of Ecology* 2002, 90: 684-692. Contact point of lead author: lasanchez@uv.mx.

27 September - 9 October 2002

3rd ASPACO meeting. Okinawa, Japan.
UNESCO-MAB, UNU, ISME, MAB-Japan.

Contact: Dr Shigeyuki BABA, Executive Secretary, (ISME) International Society for Mangrove Ecosystems c/o Faculty of Agriculture, University of the Ryukyus, Nishihara, Okinawa 903-0129, Japan.
Fax: (81) (98) 8956602.
E-mail: mangrove@ii-okinawa.ne.jp.
Web: www.unesco.org/mab/aspaco/index.htm

1-5 October 2002,

International Workshop for CEE Countries "Tourism in Mountain Areas". Sucha Beskidzka, Babia Gora Biosphere Reserve, Poland

Contact: Michael Meyer, Ecological Tourism in Europe - ETE. Tel.: (49) (228) 359008.
Fax: (49) (228) 359096.
E-mail: OeTE-Bonn@t-online.de.
Web: www.unesco.org/mab/ecotourism/news.htm

7-11 October 2002

EuroMAB 2002 Meeting. Rome, Italy

Contact: Dr Maria Raffaella Benvenuto, Italian UNESCO National Commission, Rome, Italy.
Tel.: (39) (06) 6873713 / 23. Fax: (39) (06) 6873684. E-mail: maria.benvenuto@esteri.it. Web: www.unesco.org/mab/networks.htm#Euromab

13-20 October 2002

EuroMAB Workshop on the Role of Wetlands in Biosphere Reserves. Palava Biosphere Reserve, Czech Republic

Contact: Eva Jelinkova, MAB National Committee, Czech Republic.
Fax: (420) (2) 24220531. E-mail: mab@kav.cas.cz.

15-18 October 2002

South and Central Asia MAB Meeting of Experts on Environmental Conservation, Management and Research. Hikkaduwa, Sri Lanka

Contact: Anusha Amarasinghe, Sri Lanka MAB National Committee, Colombo, Sri Lanka.
E-mail: anuama@nsf.ac.lk

24-26 October 2002

La Palma International Conference - Innovation and Information Society in Island Biosphere Reserves. Santa Cruz de la Palma, Canary Islands, Spain.

Contacts: Antonio San Blas Álvarez, Biosphere Reserve Manager, La Palma Biosphere Reserve.
Tel.: (34) (922) 423399. Fax: (34) (922) 423281.
E-mail: asanblas@lapalmabiosfera.com.
Web: www.lapalmabiosfera.com

24-26 October 2002

Workshop with the Focus Group Members of the Task Force on Quality Economies in Biosphere Reserves. Berlin, Germany

Contacts: Engelbert Ruoss.
E-mail: e.ruoss@biosphaere.ch
and Peter Dogse, MAB Secretariat.
E-mail: p.dogse@unesco.org.
Web: www.unesco.org/mab/qualityEconomies/qualityNews.htm.

29 October - 1 November 2002

Bishkek Global Mountain Summit. Bishkek, Kyrgyzstan.

Contact: Thomas Schaaf, MAB Secretariat.
Fax: (33) (1) 45685804.
E-mail: t.schaaf@unesco.org.
Web: www.mediantics.com/mountainsummit/Home Page.html.

4-9 November 2002

Swiss-Canadian-Cuban event on Natural Medicine and Ecology. Ciénaga de Zapata Biosphere Reserve, Cuba.

Contacts: Dr Ulises Viart Mojeron, President Organizing Committee, and Dr Leon F. Perez Perera, Vice President CITMA Ciénaga de Zapata.
E-mail: smatanz@infomed.sld.cu.

6-8 November 2002

MAB Bureau Meeting. UNESCO Headquarters, Paris, France.

Contact: Salvatore Arico, MAB Secretariat.
Tel.: (33) (1) 45684090.
Fax: (33) (1) 45685804.
E-mail: s.arico@unesco.org.
Web: www.unesco.org/mab/bureau.htm.

9-13 November 2002

REDBIOS 5 Meeting. Nouakchott, Mauritania

Contacts: Miguel Clüsener-Godt, MAB Secretariat.
Tel.: (33) (1) 45684146.
Fax: (33) (1) 45685804.
E-mail: m.clusener-godt@unesco.org
or Prof. Abderrahmane Ould Limane, BP 2050 Nouakchott, Mauritania.
Fax: (222) 5251276/5253997.
E-mail: ABDARAHMANE@avu.org.
Web: www.unesco.org/mab/redbios/index.htm

13-15 November 2002

World Forum of UNESCO Chairs. UNESCO HQ, Paris, France

Contact: UNITWIN/UNESCO Chairs Programme Management Team, Mr D. Beridze, Chief of the Section for Networking and Institutional Development. Tel.: (33) (1) 45680987.
Fax: (33) (1) 45685620.
E-mail: d.beridze@unesco.org

14-15 November 2002

Developing sustainable economies: biosphere reserves in the UK: stakeholders' workshop. Branton Burrows Biosphere Reserve, UK

Contact: UK MAB.
E-mail: moira.anderson@defra.gsi.gov.uk

5-7 December 2002

Regional Workshop, Tourism and Conservation in Mountain Wetlands.

San Salvador de Jujuy, Argentina - Under the auspices of the UNESCO Regional Office in Montevideo, Uruguay (ORCYT)

Contacts: Prof. Rodolfo Tecchi, Regional Ecology Programme Institute for Highlands Biology University of Jujuy, Argentina.
E-mail: tecchi@inbial.unju.edu.ar or Unidad de Coordinación del Programa MAB, Comité MAB Argentino. E-mail: atoribio@medioambiente.gov.ar

11-14 December 2002

Workshop on Social Monitoring for BRIM. Rhön Biosphere Reserve, Germany.

Contact: Lucilla Spini, MAB Secretariat, Paris, France. Tel.: (33) (1) 45683736.
Fax: (33) (1) 45685804.
E-mail: l.spini@unesco.org.
Web: www.unesco.org/mab/brim/index.htm

Early 2003 (dates to be confirmed)

Workshop on the GRASP (Great Apes Survival Project) Project. Brazzaville, Congo

Contacts: Ian Redmond, Head of Technical Support Team GRASP, Tel/Fax: 0117 924 6489. E-mail: ele@globalnet.co.uk and Sami Mankoto, GRASP-Focal Point UNESCO. MAB Secretariat.
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Fax: (33) (1) 45685804.
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17-20 February 2003

International workshop on 'The Importance of Natural Sacred Sites for Biodiversity Conservation'. Kunming and Xishuangbanna Biosphere Reserve, China

Contact: Thomas Schaaf, MAB Secretariat.
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24-26 February 2003

Training Workshop for Directors and Rangers of Biosphere Reserves in the Arab Countries 'Ecosystem Approach in Biosphere Reserves and Protected Areas Management'. Amman, Jordan

Contact: Shatha Al-Monthri, UNESCO Cairo Office. Tel.: (20) (2) 7945559.
Fax: (20) (2) 7945296.
E-mail: shatha@mail.unesco.org.eg; uhshsh@unesco.org

2-4 July 2002

Advisory Committee for Biosphere Reserves. UNESCO Headquarters, Paris, France.

Contact: Jane Robertson, MAB Secretariat.
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E-mail: j.robertson@unesco.org.

7-10 July 2002

MAB Bureau Meeting. UNESCO Headquarters, Paris, France.

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Web: www.unesco.org/mab/bureau.htm.

8-17 September 2003

World Parks Congress. Durban, South Africa

Contacts: Peter Shadie, 2003 World Parks Congress, IUCN, Programme on Protected Areas, Rue Mauverney 28, 1196 Gland, Switzerland.
Tel.: (41) (22) 999 0159. Fax: (41) (22) 999 0025.
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