



ACTION PLAN

for the Network of MaB National Committees and Biosphere Reserves of Ibero-America and The Caribbean





Background

- I. The IberoMaB Network
- II. The IberoMaB Action Plan Objectives

III. The emerging challenges for the IberoMaB network

- a. Climate change
- b. The services provided by the ecosystems
- c. The process of urbanisation
- d. Natural disasters

IV. Limitations and strengths of the Ibero-American and Caribbean Biosphere Reserves

- V. The IberoMaB network's mission
- VI. The IberoMaB network's vision

VII. IberoMaB Actions 2010–2020

- a. Cooperation, management and communication, the key to adaptive management
- b. Zonation, Linking Functions to space
- c. Sciences and the Development of capacities
- d. Partnerships , joint of experiences and skills

VIII. Approval, implementation and evaluation of the IberoMaB Action Plan

Acronyms

Background

UNESCO's Man and the Biosphere Programme (the MaB programme) came into being in 1971 to facilitate international cooperation in research, experimentation and training in natural resource management, its main tool of action being the Biosphere Reserves. The statutory framework of the MaB programme has not been weakened over time, however like any regulatory and guiding instrument, some concepts and actions do need to be taken further, to consolidate its positive effects in the regions related with the Biosphere Reserves and their populations.

The aim with the establishment of the Madrid Action Plan (MAP) is to give a new impulse to the Programme as this new century begins, focusing effort to ensure that the Biosphere Reserves are treated internationally as the main areas dedicated to sustainable development, making them learning spaces where political decisionmakers, scientific and research communities, management professionals and the groups involved work collectively to convert the global principles of sustainable development into appropriate local practices.

Significant and interesting challenges have been established in the MAP, making it possible to foresee the great potential of the Biosphere Reserves in confronting existing major global problems. In that context, the MAP's Vision identifies the immediate importance of the World Network of Biosphere Reserves (WNBR) as "one of the main international instruments for developing and applying sustainable development focuses in a wide variety of contexts", encouraging the genuine integration of their populations.

This means that each of the regional networks making up the RMRB draws up its own action plan following PAM guidelines and the statutory framework of the MaB Programme, according to the peculiarities of each region and based on its strengths and limitations. This document is the Action Plan for the Network of National MaB Committees and Biosphere Reserves of Ibero-America and the Caribbean (IberoMaB).

^{1.} Ibero-America (i.e. all countries where Spanish and Portuguese are spoken in the Americas, as well as Spain and Portugal)

I. The IberoMaB Network

The Biosphere Reserves together with the National MaB Committees form the Network of National MaB Committees and Biosphere Reserves of Ibero-America and the Caribbean (IberoMaB). This network was set up in 1992 and since then has pursued joint activities which have enabled it to recognise the similarities and differences between reserves and committees and identify the present and future challenges and threats to the conservation of diversity and sustainable development.

IberoMaB has published books and technical catalogues of general interest; it has facilitated collaboration agreements among committees, reserves and managers; it is constantly incorporating countries into the network and has promoted the creation of new reserves; likewise, it has recently created standing working commissions, it has held numerous meetings on a variety of subjects, fomenting manager training action through workshops and seminars and designing a procedure to guarantee fulfilment of the Madrid Action Plan (2008) and the Seville Strategy (1995).

This is the right moment for prioritising efforts and consolidating strengths in the face of the sudden, sharp changes in environmental, social, economic and general cultural conditions and those peculiar to the region. Conditions have altered drastically in the last thirty years because of the incidence of natural events linked to climate and geology and of human activities linked to natural resources; given that, the model of the biosphere reserve can be adjusted to mitigate the new conditions, in this way remaining at the forefront of the generation of knowledge in the planning and management of the environment.

That was one of the reasons why, from 9 - 13 November 2010, in Puerto Morelos, Quintana Roo, Mexico, the Ibero-American Biosphere Reserve Congress was held, organised basically around four subjects: 1) cooperation, management and communication, the key to adaptive management; 2) zoning: linking functions to the space; 3) science and capacity enhancement, knowledge for development; and 4) associations, linking experiences and capacities. These had been agreed at the Thirteenth Meeting of the Network of National MaB Committees and Biosphere Reserves of Ibero-America and the Caribbean held in El Salvador from 1 - 6 February 2009. The Congress made it possible to conclude agreements on 154 Biosphere Reserves in the 25 countries forming part of the Network and to identify the limitations to be overcome and the strengths to be exploited, drawing up an Action Plan giving cohesion to IberoMaB and facilitating joint participation.

The event brought together managers or directors of the Biosphere Reserves in Ibero-America and the Caribbean, the Focal Points and representatives of National MaB Committees, as well as the authorities entrusted with policy and the administration of protected natural areas in several countries, who agreed that the changing world panorama is a challenge for the Man and Biosphere Programme and in particular for the Biosphere Reserves facing sustainable development on the basis of the enormous biological and cultural diversity they conserve.

This challenge has to be faced through the Action Plan for the IberoMaB network (PAI), linking reserves and committees seeking the conservation of biodiversity and sustainable development based on their possibilities, necessities and perspectives in the framework of global change and the social and economic situation of Ibero-America and the Caribbean.

II. The IberoMaB Action Plan Objectives

- To claim the role of the Ibero-American and Caribbean Biosphere Reserves in sustainable development at a regional scale.
- To recover the premises of the Biosphere Reserves: a sustainable balance between conserving biological diversity, promoting economic development and maintaining the associated cultural values and adaptive territorial organisation to preserve biological and cultural diversity and the services provided by ecosystems and landscapes, to strengthen the main lines of work which make the Biosphere Reserves laboratories for sustainable development and adaptation to global change in Ibero-America and the Caribbean.
- To begin a new phase for the network with a shared goal of sustainable development based on biodiversity at a regional scale.

It must be pointed out that each IberoMaB member country is completely independent in adopting the measures considered necessary to improve management of the Biosphere Reserves in its territory. It must also be highlighted that the MaB Programme, through the IberoMaB network, must orientate the Biosphere Reserves so that they will prosper with their contribution to people's sustainable development and the conservation of the existing natural and cultural heritage, reinforcing coordinated work and networking between all countries' Biosphere Reserves.

III. The emerging challenges for the IberoMaB network

a. Climate change

Climate change currently represents one of the most serious demands on society and ecosystems worldwide. The volume of CO2 and other greenhouse gases emitted mostly by industrialised nations combines with the existing demand for energy resources and the exploitation of natural resources from other less industrialised parts of the world and with the rate of deforestation in tropical areas, raising temperatures and entailing loss of the ecosystems' functions.

The increased mean global temperature will mean that millions of people all round the world will confront water shortages and the effects on health. Climatic phenomena such as drought and flooding will become more extreme, implying a greater incidence of natural disasters. Changes to rainfall patterns will transform agricultural systems, while driving people away from inhospitable areas and into more favourable regions.

The role of the Biosphere Reserves is fundamental in the rapid search for solutions to the problems of climate change. The Biosphere Reserves may point to the measures for adapting human and natural systems, while supporting the development of practices and strategies of resilience. The buffer and transition zones in the Biosphere Reserves can also be analysed to test mitigation strategies and tactics. In many reserves, carbon can be fixed, as in the ecosystems of wetlands and woods, and in coastal and marine ecosystems. At the same time, the Reserves may develop low-carbon-consuming economies, setting up enterprises based on technology and manpower, while examining the political dimensions of changes to lifestyles.

b. The services provided by the ecosystems

The evaluation of the Millennium Ecosystems (EM) recognises four different categories of ecosystem services: support (nutrient recycling, soil formation and primary production); provision (food, fresh water, wood, fibre and fuel); regulation (climate, regulation of disease and flooding, and water purification) and culture (aesthetic, spirituality, educational and recreational).

These services are subject to great pressure. Thirty per cent of all species are in danger of extinction; desertification will increase and the positive feedback mechanisms in the climate will reduce the tropical forests even further. Rising sea level and heating will have an impact on the survival capacity of coastal ecosystems such as mango swamps and marshlands. The distribution of fishing will change and coastal ecosystems will become increasingly fragile.

The services provided by ecosystems provide a useful conceptual framework in relation to the superimposition of multiple functions of the Biosphere Reserves, ranging from protection to production in land and marine landscapes. The essence of the Biosphere Reserves as places of sustainable development can be considered in terms of the effort to design and develop a specific combination of ecosystem services (support, supply, regulation and culture) for each place, allowing for the environmental, economic and social wellbeing of the resident communities and those concerned. For example, the different zones of the Biosphere Reserves might be used as places to attract new investments in services not so far taken into account (climate regulation, water purification, conservation of biodiversity) and to enhance the environmental and social performance of the supply services (agriculture, forestry and fishing) and of culture (tourism) which could have been the main beneficiaries of investment to date.

c. The process of urbanisation

Urbanisation is a multidimensional global process that is taking form in densities of population which develop swiftly and change location (in particular migrating from the country to urban areas); in the way in which the territory is occupied and resources are used, and in the variety of associated cultural practices. Half the current population inhabits urban landscapes and this is expected to increase to 66-67% during the coming 50 years. Most of this growth will occur in countries with emerging market economies and which are the world's least industrialised. It is calculated that in 2030 more than two billion people will live in precarious areas with limited access to basic services and extremely vulnerable to natural disaster. The rapid increase in the large cities and the continuous transformation of urban landscapes represent enormous challenges to guaranteeing the basic wellbeing of humans and a more habitable environment.

Urban landscapes probably demonstrate the most complex mosaic of land occupation and of multiple uses in all countries. The EM recently identified urbanisation and the urban landscapes as priority areas of study. These landscapes offer major, large-scale experiences of the effects of global change on ecosystems. Considerable heating and increasing nitrogen deposits are already apparent, providing extreme, visible and quantifiable examples of human domination in the processes of the "natural" ecosystems. Cities are however also seen as the places which offer solutions to people and their surroundings as main focuses of knowledge, capital and innovation.

The Biosphere Reserves are an alternative to the disordered urban growth model of Ibero-American and Caribbean cities. The zones (core, buffer and transition) adapt to the different environmental and territorial conditions, their location and functions organise the city and redefine the relation between the surrounding conditions, cultural values and the economic prospects.

d. Natural disasters

Natural phenomena occur frequently in Ibero-America and the Caribbean, affecting coasts and inland areas on both the islands and the continent. These are climatic phenomena such as hurricanes and storms, and geological phenomena like earthquakes and volcanic activity. Likewise, the frequency of extreme flooding and drought is on the increase.

Hurricanes and storms arise on the Atlantic ocean and in the Pacific, affecting Central America, Mexico, the Caribbean and the southern United States. Volcanic activity and earthquakes are linked to the socalled ring of fire around the Pacific and cause damage in Mexico and Central and South America (Colombia, Ecuador, Peru and Chile). These events have positive effects on the region's biodiversity and on the quality and fertility of soils respectively.

However, the use made of the territory and the land, particularly the distribution of human settlements on vulnerable sites like coasts, river banks and beds make the impact of these events negative, with major economic losses and of human life. Natural disasters are frequent in the regions, so that the MaB programme should participate actively and in an organised manner in the detection of phenomena, in preventing the impact of natural events and in mitigating their effects, by an evaluation and environmental restoration of the sites affected. This is a line of work requiring the Network's attention.

IV. Limitations and strengths of the Ibero-American and Caribbean Biosphere Reserves

During the Ibero-American Biosphere Reserves Congress, some shortcomings or inconsistencies were identified in the information available for each region, reserve or country, limiting integrated analysis and coordination as well as joint action because of the lack of shared and equivalent data bases:

• The nomenclature for the ecosystems, landscapes or biomass used in each country or region differs, preventing a comprehensive diagnosis and evaluation of regional advances.

- Map scales and formats are different and cannot be compared, limiting the use of comparative cartography.
- The inventory of biological and cultural diversity is incomplete or has been drawn up according to different protocols, making an overall evaluation impossible.
- Periodic reports from each reserve (every 10 years) are a mere formality for remaining in the World network. They represent an invaluable tool for sharing reserve management experience.
- Public opinion is unaware of the work and the achievements of the Biosphere Reserves.

However, the following stand out among the strengths identified:

- The power of the model and concept of biosphere reserve: core, buffer and transition adapt to the different conditions where they are located.
- Each reserve stands out because of some activity, condition or achievement, giving it a distinctive character which, overall, is a wealth of characteristics and possibilities.
- The intimate relation between conservation, sustainable development, regional development and planning opens up a broad range of possibilities.
- The Biosphere Reserves highlight the landscape as a unit of work, probably the only class of landscape-based international protected natural area conceived as a scenario combining biological and cultural diversity and which accumulates the changes induced by natural phenomena and human activities throughout its history.
- The Biosphere Reserves sustain a high or special diversity of biological species and of cultural characteristics in their landscapes which are conserved, while targeting agricultural output in local communities where they contribute to a region's food security, an important factor in conserving biodiversity.

V. The IberoMaB network's mission

To reinforce aspects of environmental, economic and social, cultural and spiritual sustainability based on biological and cultural diversity through:

- Development and coordination of a regional network of locations for research, demonstration and learning, in order to maintain and develop ecological and cultural diversity and guarantee the services provided by the ecosystems for people's wellbeing.
- The generation and integration of knowledge, including science, to further our understanding of the interaction between the population and the rest of nature.
- Training in the management of complex socioecological systems, especially by promoting greater dialogue between the science-policy interface, environmental education and multimedia diffusion of scope for the general community.
- The promotion of productive activities which guarantee the adequate and sustainable use of biodiversity and natural resources.

VI. The IberoMaB network's vision

The IberoMaB network in the Man and Biosphere Programme will consolidate as a dynamic, interactive network of sites of "excellence". IberoMaB will foment the harmonic integration of society and nature, to achieve sustainable development by means of participative dialogue, exchange of know-how, a reduction of poverty, enhanced wellbeing, respect for cultural values and society's increased capacity to adapt to change. Thus the IberoMaB network will be a regional instrument to promote and apply new approaches for sustainable development in a wide variety of contexts.

VII. IberoMaB Actions 2010–2020

In the framework of the objectives and actions provided for in the Madrid Action Plan (PAM), the Ibero-American Biosphere Reserves Congress dealt with specific definition of actions, and of those responsible for them, to be developed in the IberoMaB framework between 2010 and 2020. An action is considered to be a set of activities which must be implemented at the local level (individual Biosphere Reserves), nationally (Committees MaB/UNESCO National Commissions) and internationally (regional and subregional networks).

The actions identified in this plan related to specific activities for the implementation of the PAM, taking account of the environmental, social, economic, cultural and historical peculiarities of the Ibero-American and Caribbean Biosphere Reserves. These actions and those responsible for carrying them out are described under the following headings, in the same order as in the PAM.

a. Cooperation, management and communication, the key to adaptive management

The PAM's vision requires those managing each biosphere reserve to use tools which make it possible to enhance the exchange of information, experience and know-how and to standardise procedures, while assessing the effectiveness of the management as part of the new momentum emerging from the MaB Programme. Hence the concept of adaptive management clearly adjusts, even when the great heterogeneity of the Ibero-American Biosphere Reserves is obvious.

The contribution of the Biosphere Reserves to a territory's socioeconomic development and its conservation require integrating planning. To ensure that the Biosphere Reserves fulfil their functions, the biosphere resources must be administered rationally, their conservation assured, and the relation enhanced between man and environment, involving a challenge of the greatest complexity: to ensure their integration into the planning of the territory as a whole.

In the terms of these parameters, the various Ibero-American Biosphere Reserves have contributed to the construction of a concept inherent to adaptive management which acknowledges that they need planning and management which is gradual and transparent in the direction of the social players involved to guarantee the effective involvement of various sectors of society and countries' governments.

This makes it possible to move forward toward efficient Biosphere Reserve management, only achievable when the players are effectively involved and destined to guarantee the development of the territories and to enhance the capacity for innovation, adaptation, modernisation and development of the management tools required.

The contributions from the various Ibero-American countries also point to the need to be able to draw on functional, operational and dynamic national committees where the presence of each country's biosphere reserves is ensured.

On the other hand, the Communication, Capacitation and Cooperation Commission of the Ibero-American Biosphere Reserves Congress particularly emphasised the following points originating from the Madrid Action Plan but which have been adapted to the Ibero-American reality:

- To increase the cooperation and coordination of the Biosphere Reserves with existing international programmes and initiatives both in UNESCO and in other international programmes, for example on climate change, which deal with the international agendas, and participation in them, reinforcing the role of MaB-UNESCO in creating conservation and sustainable development policies in an international setting.
- To urge the MaB Secretariat, UNESCO and governments to draw up an integrated joint information and communication strategy shared at a variety of levels as a priority for implementation by 2013.
- To promote participative regional Networks run in such a way as to guarantee the adequate representation of Biosphere Reserve managers/coordinators. To foment and propose direct and priority action by managers in decision-making in the BR territories and National MAB Committees.
- To improve cooperation between experts and professionals in matters of shared interest, especially through seminars, meetings and thematic or global visits between the various BRs.
- To create IberoMaB International BR Day to disseminate their information.

- To generate and apply communication strategies for each Biosphere Reserve, integrated at the national and international levels.
- To draw up a project for IberoMaB of a corporate virtual social Network as a platform for communication, transfer of actions, and understanding.
- To strengthen the links between BR activities and sustainable development initiatives at multiple scales, making participation a key component in the production of activities and contents.
- To communicate the experiences of the Biosphere Reserves on social participation and management of the services provided by ecosystems to the relevant political bodies in the UN, to regional development banks and to governments.
- To prioritise BR manager training and that of other relevant groups involved, creating a common knowledge base, and promoting the creation of training centres.
- To participate in the Decade of Education for Sustainable Development programme (DESD) with educational and research institutions. To use environmental and research observatories to transfer know-how and work to maintain and enhance collaboration with UNESCO seminars.
- To exchange educational resources for greater adaptation and application, creating collaboration between the scientific world, managers and the population, to transform scientific language into one which is understandable for all.
- To enlarge cooperation to increase the financial mechanisms for the Biosphere Reserves and the regional networks. To involve the private and business sectors in decision-making, committing them in the financing of action.
- To strengthen cooperation between the IberoMaB region BR.

In order to develop this plan, the following actions and responsibles will be defined:

Notes:

The numbering of PAI objectives and actions is the same as in the PAM. Come of these do not appear in the PAI as they are not applicable on a regional scale.

Effective implementation of the Seville Strategy

1.1 ACTION

Asses the achievements of the Seville Strategy.

IberoMaB ACTIONS

1.1.1 A report, written by National Committees every five years, based on a system of indicators, on the degree of effective application of the Seville Strategy.

1.1.2. Preparation of a guide to evaluate the degree of fulfilment of the Seville Strategy.

1.1.3 Identification and mapping of the reserve zones (core, buffer and transition) and defining the status of each.

1.1.4 Guarantee of the preservation of the core zone and design of the buffer and transition zones in line with sustainable development requirements.

RESPONSIBLE

MaB National Committees and Focal Points

1.2 ACTION	Compile and synthesize first-hand information on the functioning of BRs, which should then be shared inter-regionally and globally with the help of the MAB Secretariat.
---------------	--

IberoMaB ACTIONS

1.2.1 Design of a System of Indicators on the functioning of the Biosphere Reserves of IberoMaB.

1.2.2 Completion every five years of the system of indicators on the operability of the Biosphere Reserves.

1.2.3 Compilation, systematisation and dissemination of information on the operability of the Biosphere Reserves.

RESPONSIBLE

Each Biosphere Reserve and MaB National Committees.

	1		л		
	1		4		
X	AT	10	יוכ	v	

Update the nomination and periodic review forms for Biosphere Reserves.

IberoMaB ACTIONS

1.4.1 To promote IberoMaB's active involvement in the process of revision of forms.

RESPONSIBLE

IberoMaB Secretariat.

.....

Increased cooperation and coordination of biosphere reserves with existing international programmes and initiatives

2 TARGET



Utilizes BRs in Intergovernmental Scientific Programmes (ISPs).

IberoMaB ACTIONS

2.1.1 To establish cooperation links between UNESCO programmes (e.g. MaB-Cultural and Natural Heritage) and its application in BR.

RESPONSIBLE

IberoMaB Secretariat, IberoMaB Executive Council, MaB National Committees and UNESCO office in the country.



Work closely with the authorities responsible for the implementation of relevant biodiversity and environmental multilateral agreements to ensure coordination between international designations at the national level.

IberoMaB ACTIONS

2.2.1 To develop a strategy of political positioning of BRs at the international, regional and local levels as management models for sustainable development.2.2.2 To make the programmes and international initiatives known.

RESPONSIBLE

IberoMaB Secretariat, IberoMaB Executive Council, MaB National Committees.

 	•••
 	•••

Integrated information and communication strategy



Creation of a web-centre of information exchange to share technology, research & cooperation opportunities.

IberoMaB ACTIONS

3.1.1. To include social networks favouring the exchange of information.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves.

3.2 ACTION

3.1

ACTION

Produce regional, sub-regional, country- and ecosystemspecific publications on biosphere reserves, MAB and other related themes.

IberoMaB ACTIONS

3.2.1 Including the making of videos.

3.2.2 To publish successful BR examples.

RESPONSIBLE

IberoMaB Secretariat, IberoMaB Executive Council, MaB National Committees, Biosphere Reserves



Elaboration of a map presenting the WNBR according to ecosystem types, including human-impacted ecosystems such as rural and urban areas.

IberoMaB ACTIONS

3.3.1 To prepare the Ibero-American map with the IberoMaB network.3.3.2 Periodic updating of the Geographical Information System (GIS), containing marine and land ecosystem strata, impacts, new reserves, among others.

RESPONSIBLE

IberoMaB Secretariat, IberoMaB Executive Council, MaB National Committees Biosphere Reserves

3.4 ACTION

3.5

ACTION

Creation of a journalism award directed at the mass communication media for their role on promoting the importance of BRs.

IberoMaB ACTIONS

3.4.1 To create an IberoMaB Network prize to acknowledge successful examples of BR management.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees

Develop an integrated International promotion and Communications strategy targeting the general public

IberoMaB ACTIONS

3.5.1 With the participation of experts, to design a communication, diffusion and awareness campaign at the local, regional, national and world levels.

RESPONSIBLE

IberoMaB Secretariat, IberoMaB Executive Council, MaB National Committees and Focal Points, Biosphere Reserves.

Participatory regional networks that are managed in a manner assuring adequate representation of biosphere reserve managers/ coordinators



Develop a structure, strategy and action plan for each regional network to meet their responsibilities within the MAB Programme and regularly report to MAB National Committees and individual BRs.

IberoMaB ACTIONS

4.1.1 To foment networking between Biosphere Reserves, by the IberoMaB Network.

4.1.2 To prepare a data base on support and financing programmes the Biosphere Reserves may use.

4.1.3 To create a virtual network for BR managers including data on thematic networks among others.

4.1.4 On the website, to update BR Manager directories, and significant information from each area.

RESPONSIBLE

IberoMaB Secretariat, MaB National Committees and Focal Points.



4.1

ACTION

Ensure that each network has partnerships and long-term financing mechanisms from within its membership to ensure sustainability of its operations and activities.

IberoMaB ACTIONS

4.2.1 To foment the involvement of companies and multilateral funds for financial backing to the operation of the regional networks.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves.

Enhanced cooperation between experts and practitioners in relevant key issues

5.1

ACTION



Create and strengthen existing regional and interregional thematic networks formed around key issues:

such as mountains, freshwater, oceans, drylands, forests, urban areas, small islands.

IberoMaB ACTIONS

5.1.1 To identify common problems and, by exchanging of experiences, to support managers in resolving them.

5.1.2 To identify BRs and promote their incorporation into thematic Networks to strengthen their management.

5.1.3 To create a directory of experts according to the thematic networks **5.1.4** To set up biannual workshops by thematic network, with experts in each subject.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves.

5

Communication strategies for each biosphere reserve, national and higher levels

6.1

ACTION

6 TARGET

Implement a communication strategy on environmental, economic, social, spiritual, cultural and political importance and benefits of BRs and the WNBR, directed to national governments, policy makers, journalists, local communities and

other target groups.

IberoMaB ACTIONS

6.1.1 To include the key players from each BR in the design, application and evaluation of the communication strategy.

6.1.2 To train BR managers in implementing the strategy.

6.1.3 To create International IberoMab BR Day to spread information.

6.1.4 To exploit initiatives such as the MAB-Star Alliance to make the BRs known.

6.1.5 To increase awareness among decision-makers in the various sectors of successful sustainable development experiences in the Biosphere Reserves.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees and Focal Points, Biosphere Reserves, MaB-UNESCO Secretariat.

Functional MAB National Committees in each country, managed in a manner assuring adequate representation of biosphere reserve coordinators and other key stakeholders



7.1 ACTION	Create or restructure MAB National Committees.	
2010 C	IberoMaB ACTIONS	
7.1.1 To prepare	e a diagnosis of the state of each MaB National Committee and	
Focal Points.		
	chnical assistance and based on the results of the diagnosis to	
strengthen the recommendation to governments to conform and upgrade MaB		
National Committees.		

7.1.3 To foment the creation of National MaB Committees with their Strategy and Action Plan, and guaranteeing Biosphere Reserve representation there.

RESPONSIBLE

IberoMaB Council, IberoMaB Secretariat, the countries involved.

Increased linkages between biosphere reserve activities and sustainable development initiatives at multiple scales

8.1

ACTION

0

8 TARGET

Encourage and enable individual BRs to collaborate with UN-led policies, strategies and action plans towards sustainable

development, as well as other initiatives outside the UN-system.

IberoMaB ACTIONS

8.1.1 To study the various inter-governmental and Development Cooperation Programmes, to disseminate them to the Biosphere Reserves and facilitate their possible inclusion.

8.1.2 To provide the Biosphere Reserves with the capacity to join the Programmes.

8.1.3 Through the Website, to share successful experiences in sustainable development.

RESPONSIBLE

MaB National Committees, IberoMaB Secretariat, Biosphere Reserves.

 •
 •
 •
 •
 •

Open and participatory procedures and processes for sharing authority in the designation, planning and implementation of their biosphere reserves

10.1

ACTION

10 TARGET

Every BR should carry out a participatory planning process, such as Local Agenda 21, to guide BR implementation assuring "participatory management" especially for traditional, local and indigenous communities.

IberoMaB ACTIONS

10.1.1 Preparation of a Guide to Public and Citizen Participation from traditional, local and indigenous Communities in relation to the designation, planning and implementation of the Biosphere Reserves, taking as a base among others the International Labour Organisation (ILO)'s Agenda 21 and Convention 169.

10.1.2 Enhancement of the participative processes in the Biosphere Reserves by means of accompaniment and technical assistance.

RESPONSIBLE

MaB National Committees, Biosphere Reserves.

10.2 ACTION	stakeholders representing different sectors of all three zones of	
	IberoMaB ACTIONS	
10.2.1 To c	ompile and publish different management models in Biosphere	
Reserves wit	hin the IBeroMaB sphere.	

10.2.2 Creation of the figure of Goodwill Ambassador.

RESPONSIBLE

MaB-UNESCO Program, IberoMaB Secretariat, MaB National Committees or Focal Point s and governments.

b. Zonation, Linking Functions to space

According to the Statutory Framework, biosphere reserves must comprise one or more core zones, buffer zones and a transition zone to house their multiple functions. In confronting new challenges, greater integration of zoning is important. In this way, the transition zone may, in addition to the development function, also consider conservation and environmental objectives and elements. Similarly, as well as its conservation function, the core area contributes to a series of services provided by the ecosystems which, in terms of the functions of development, can be calculated financially (e.g. carbon fixing, land stabilisation, supply of drinking water and air, etc.). Job opportunities may also complement the conservation objectives (e.g. environmental education, research, environmental and conservation rehabilitation measures, recreation and eco-tourism). While education, research, monitoring and capacity enhancement are seen as components of the logistic or knowledge generation function of biosphere reserves, they are also integral to the conservation and development functions.

Particular attention must be paid to buffer zones, whose function is to minimise the negative and external effects of human activities in the core zones. Moreover, the buffer function associated with the core zones may have its own, "independent" function in maintaining cultural, biological and anthropological diversity. The buffer zones may also fulfil a significant function of connectivity in a broader spatial context, by connecting components of core zone biodiversity with those in the transition zones. The feature of the transition zones is the multiple land uses employed by their populations, from which they secure their sustenance. Their function relative to socioeconomic development is essential. In the past, one deficiency of the transition zone was that it was not required to be delimited or defined in space. However, the creation of concepts and cooperation plans, the implementation of projects for cooperation and the promotion of committed citizens demand clear borders, simple to accept and understand. Similarly, the inclusion of the total area of the Biosphere Reserve in the WNBR requires its limits to be clearly specified. Thus, even while acknowledging the diffuse or arbitrary nature of transition zone limits, they must be specified. Co-operation may however extend beyond these frontiers to share good practices, solutions and approaches with the region, so fulfilling the role of the Biosphere Reserves as places of learning for sustainable regional development.

For all the reasons, it is decided to take the following actions:

Analysis of zonation of all biosphere

reserves



12.1 ACTION

12

Carry out a survey on the present zoning system of the WNBR (including the proportions of the different zones) and investigate how well they fulfil the three functions in each zone.

IberoMaB ACTIONS

12.1.1 Design of a zoning system form for Biosphere Reserves.

12.1.2 Diagnosis of IberoMaB Biosphere Reserve Zoning.

RESPONSIBLE

Commission of Zonation, the linking of functions with the space, MaB National Committees or Focal Points, IberoMaB Secretariat and MaB-UNESCO Secretariat.

Functional zonation in all biosphere reserves established, particularly with regard to the transition area and the development function

13.2

ACTION



13.1 Develop and apply practical tools and guidelines for zoning at the national level.

IberoMaB ACTIONS

13.1.1 To enhance Biosphere Reserve access to technological tools facilitating the design and updating of exact zoning.

13.1.2 Establishment of guidelines for functional zoning whose fundamental components include the landscape.

RESPONSIBLE

MaB-UNESCO Secretariat, with the backing of IberoMaB, MaB National Committees and Focal Points.

Use BRs to manage large biome as a BR system and for extensive terrestrial and marine areas as a series of units linking up relatively small protected core areas with significantly larger buffer zones and transition areas.

IberoMaB ACTIONS

13.2.1 To connect the BR along corridors with their biological, social, economic and cultural surroundings and the BR of each region among themselves. **RESPONSIBLE**

RESPONSIBLE

MaB National Committees, Thematic Networks, Biosphere Reserves.



explain the rationale behind that determination in the

nomination/ periodic review forms).

IberoMaB ACTIONS

13.4.1 To draw up a glossary of terms and concepts for developing accurate zoning for common use.

RESPONSIBLE

Adaptative Management Commission, MaB National Committees, Focal Points and governments.



Encourage national recognition of BR zonation schemes as an important planning tool for programmes linked to protected areas in production landscapes.

IberoMaB ACTIONS

13.5.1 To develop tools to favour functional zoning of the Biosphere Reserves and for them to be treated as guiding elements of territorial organisation and the development of productive systems.

RESPONSIBLE

MaB National Committees, Focal Points, IberoMaB Secretariat, IberoMaB Executive Council.

13

Co-operative conservation and development strategies for biosphere reserves

14.1

ACTION



Use appropriate tools such as the Ecosystem Approach, gap analysis, the concept of corridors, ecological networks, etc. for: a) a better connectivity of ecologically-important sites and elements in the landscape, b) a better inter-linkage of areas/zones and enhanced buffering, and c) a better consistency in planning.

IberoMaB ACTIONS

14.1.1 Elaboration of a catalogue of tools applicable to the ecosystem approach, analysis of shortfall and risk, such as landscape, and to develop exchange of experiences among Biosphere Reserves for the application of those tools.

RESPONSIBLE

IberoMaB Secretariat, MaB National Committees and Focal Points.

1

c. Sciences and the Development of capacities

The mission of the Biosphere Reserves is the sustainable use of the ecosystems' assets and services and the creation of an understanding of their functioning, the services they provide and their socioeconomic context. It is necessary to reinforce significantly the scientific aspects and the capacities of the BRs to apply scientific knowledge to their management and conservation. Scientific research is a strength which has made them stand out among the world's various categories of protected spaces. Indeed, a good number of Biosphere Reserves have been planned by research institutions, together with their management programmes which explain why there have been key scientific contributions in the reserves to explaining the distribution of biodiversity and its causes, and for its conservation. This scientific know-how and the traditional knowledge developed by indigenous peoples and local communities are indispensable to an understanding of the landscape and to move forward in the rational use of nature.

The BRs must play an active role as places of learning for sustainable development. Many questions remain to be answered, so that matters and problems of management must be fomented as subjects for investigation.

As a synthesis, the specific objectives proposed for IberoMaB under the heading of research and the development of capacities are as follows:

- To help to make the Biosphere Reserves an ideal environment for conservation and sustainable development.
- To promote the best conditions in the BR for evaluating regional biological and cultural diversity.

- To transform the Biosphere Reserves into specific environments for evaluating all the impacts of global change, including those on biodiversity.
- To enhance the capacity for influencing the change in the region's economic and social situation.
- To study traditional uses of resources and contribute to maintaining them.
- To secure adequate training of BR managers and all those involved in them at the local, regional and national levels.

To attain the objectives, the BR model must be adapted to the new environmental, social and economic conditions produced by constant changes of land use, invasion of species, climate and socioeconomic models. Thus, the strategy for research and the development of capacities must focus on:

- Increasing the significance of each BR and its evaluation by those living in it.
- Within each BR, to identify what we need to know and do to reach the objectives desired.
- To link BRs to their regional socio-environmental surroundings.
- To review the Management Plans and incorporate best practices from other BRs, in order to enhance the Management of each.
- To increase cooperation and collaboration among BRs.

For all the reasons, it is decided to take the following actions:

Site-based policy-relevant research programmes



16.1 ACTION

Coordinate with UNESCO Intergovernmental Science Programmes (ISPs) and other relevant international, regional and national authorities to promote policy and implementation programmes.

IberoMaB ACTIONS

16.1.1 To establish the bases of know-how for evaluating the impact of global change and, in particular, of climate change; invasion of species; and human migration, on landscapes; the socioeconomic and territorial framework; ecosystems and the displacement of native species in the region.

RESPONSIBLE

IberoMaB Network.

16.2

ACTION

Mobilize scientific and non-scientific actors combining all knowledge systems, including traditional knowledge, in order to strengthen the scientific functions of BRs

IberoMaB ACTIONS

16.2.1 To use institutions such as museums, visitors' centres, science establishments and universities to disseminate the scientific research carried on in the BRs, with the participation of researchers in lectures, among others.

16.2.2 To create exchange workshops between scientific researchers and promoters.

16.2.3 BR research conventions or agreements must be made conditional upon the release of their results, understandably, at least at the local and regional scale.

RESPONSIBLE

IberoMaB Executive Conucil, Biosphere Reserves, universities, researchers, Biosphere Reserves managers, MaB National Committees, national environment institutions.

16	
16.3 ACTION

Improve access to information and new ways to communicate knowledge to a large variety of non-scientific target groups.

IberoMaB ACTIONS

16.3.1 To promote financing through accords, concerts or research programmes, agreements with institutions, and organise an on-going relation and collaboration with research institutions, NGOs, UNESCO leaders and social sectors.

16.3.2 To move forward in the classification of biological and cultural diversity in the BRs, promoting research accords/ agreements.

16.3.3 To foment research programmes which take account of the effects on the BRs of tourism and the diversification of productive activities. **16.3.4** To promote research programmes considering the effects of rising energy prices on the BRs and evaluating the energy efficiency of traditional communities and their possible application to the current situation.

RESPONSIBLE

MaB National Committees, Biosphere Reserves, governments, researchrelated institutions in countries and the International sphere.

Trained biosphere reserve managers and other stakeholders

17.1

ACTION



Provide training to BR managers on science-policy-practice interaction and participatory management for science and other relevant areas.

IberoMaB ACTIONS

17.1.1 To design a BR manager training programme at various levels, in both BR questions and in other related initiatives.

17.1.2 To establish training and collaboration programmes among researchers and BR managers so that the results of research on BRs can be used to enhance BR management.

17.1.3 To enhance managers' capacity to act efficiently in the case of a natural disaster, incorporating the management of the risks involved in each BR.

RESPONSIBLE

MaB-UNESCO secretariat, IberoMaB secretariat, MaB National Committees and Focal Points.

17.2	Promote capacity enhancement programme for BR
1/.2	administrators and managers, such as on adaptive management,
ACTION	conflict resolution and negotiation skills.
	IboroMap ACTIONS

IberoMaB ACTIONS

17.2.1 To train Biosphere Reserve managers and directors in Adaptive Management.

17.2.2 A comprehensive, permanent training plan must be created for each BR, whose dimension may be individual, regional or national.

17.2.3 BR managers must be trained in participative management based on dialogue and agreement with the various agents and stakeholders. Research must collaborate in the search for efficient forms of participation.

RESPONSIBLE

MaB-UNESCO programs, IberoMaB secretariat, MaB National Committees and Focal Points, governments, Biosphere Reserves.

17

UNESCO Member States use BRs in their work with other ISPs, including the IOC and MOST



 18.1
 Work with other ISPs to include the use of BRs as research and demonstrations sites in their programmes.

 IberoMaB ACTIONS

 18.1.1 To generate protocols for a description of practical case studies.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, IberoMaB secretariat, Biosphere Reserves.

Biosphere Reserve to have research programmes on analyses of ecosystem services and their management through stakeholder participation

19.1

ACTION



Mobilize scientific and non-scientific actors combining all knowledge systems in order to strengthen the scientific functions of BRs.

IberoMaB ACTIONS

19.1.1 BR managers must use the results of research to generate benefits for local communities.

19.1.2 To make the information generated in the BR available to scientists and the public in general.

19.1.3 To create mechanisms enabling local authorities to understand the essence and operation of BRs, the advances in scientific knowledge they produce, and to agree on solutions to possible conflicts in local decision-making.

19.1.4 To promote research programmes making it possible to incorporate indigenous and peasant culture and know-how and other traditional knowledge, to improve BR management..

19.1.5 As far as possible identify and to value the natural and cultural heritage and the environmental services provided by the BRs, identifying their beneficiaries.

19.1.6 To promote and combine the best scientific and local know-how to improve the prevention of the effects of natural or deliberate disasters in BRs.

RESPONSIBLE						
Biosphere	Reserves	Managers,	research	institutions,	MaB	National
Committee	s.					

Biosphere reserves have research programmes linked to the development of the management plan and zoning

20.1

ACTION

20.2

ACTION

20 TARGET

20

Ensure stakeholder involvement in the production of a research agenda to be incorporated in the management plan for the whole BR.

IberoMaB ACTIONS

20.1.1 To update and review BR management Plans, to adapt them to MAP objectives, based on the scientific and traditional knowledge available.20.1.2 To form committees to define priorities in research and action, and monitoring and controls on the fulfilment of objectives.

20.1.3 Creation of Voluntary Work aimed at the management of knowledge.

RESPONSIBLE

MaB National Committees, Biosphere Reserves Managers, research institutions.

Use BRs as sites for applied research, oriented to the sustainable development linked to the zoning and the management plan. Incorporate the results of applied ecological and socio-economic research, into ecosystem management of all areas and link educational activities of the DESD to the different functions in all zones of BRs.

IberoMaB ACTIONS

20.2.1 To strengthen BR research infrastructure.

20.2.2 To prioritise research related to activities linked to local needs.

20.2.3 To promote research programmes fomenting creation of ecological, cultural and socioeconomic corridors between BRs.

RESPONSIBLE

Institutions responsible for Biosphere Reserves, research institutions, MaB National Committees.

Decade of Education for Sustainable Development (DESD) programmes with educational and research institutions



21.1 ACTION

21

Promote the BR as a learning site of excellence for sustainable development, for demonstrating trade-offs and balance amongst ecosystem services and functioning, human-environment interactions and well-being, in the framework of DESD.

IberoMaB ACTIONS

21.1.1 To foment existing UNESCO seminars and create new headquarters in model BRs.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves. FLACAM.

 •
 •

22.1

ACTION



Improve capacity of the WNBR with the aim of building strong learning organizations, alliances and empowering all stakeholders at each BR.

IberoMaB ACTIONS

22.1.1 To compile existing educational material and use it to prepare a catalogue and disseminate over the IberoMaB Network.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves., NGO, universities.







23

Facilitate the integration of urban areas into BRs.

IberoMaB ACTIONS

23.1.1 To investigate the extent to which urban areas may be integrated into the BRs to generate an environment and natural landscape incorporated into citizens' daily life.

RESPONSIBLE

MaB National Committees, Biosphere Reserves Managers.

Biosphere reserves used as learning sites for
research, adaptation, mitigation in relation
to climate change

24 TARGET

24.3 ACTION

Develop strategies for other ecosystems in collaboration with relevant national and international organizations.

IberoMaB ACTIONS

24.3.1 To investigate the energy forms of traditional communities and their balance in greenhouse gas emissions, and the effects of the energy and greenhouse gas emission balances in the BRs.

24.3.2 To develop projects to measure the impact of global change and, particularly, of Climate Change, invasion of species and land use on BRs, especially on their biodiversity and ecosystem services.

2022			1000		100
- К	ES	PU	INS	IВ	12.3

UNESCO, MaB National Committees.

Х	

d. Partnerships, joint of experiences and skills

The strength and validity of associations should at all times serve for the joint development of Biosphere Reserve functions. Similarly, efforts must focus on the creation and enhancement of existing associations and alliances, defending new initiatives and creating new associations and projects involving the various groups concerned. On the other hand, the long-term functionality of a model requires financing both for the planning phase and for its application.

The following actions are proposed in that connection:

Improved financial mechanisms for biosphere reserves and regional networks

25.1

ACTION



25

Establish partnership agreements with relevant institutions/organizations to carry out Payment for Ecosystem Services (PES) projects.

IberoMaB ACTIONS

25.1.1 To request to governments that priority be given to payment of environmental services in BRs.

25.1.2 To foment the identification and appraisal of the assets and services of ecosystems in the Biosphere Reserves.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves., NGO, universities.

Increased involvement, support and buy-in of private sector





27

Create or strengthen partnerships with businesses to identify, develop and promote markets and fair trade for goods and services in BRs and to support management and communication relating to BRs, national and international.

IberoMaB ACTIONS

27.1.1 To collaborate with companies in promoting BRs.

27.1.2 To share experiences in registration of brands and certifications for products created in the BRs, including tourism.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves.

Exchanges between Biosphere Reserves

TARGET

28

28.1 ACTION

Support study tours/site visits between stakeholder groups in BRs.

IberoMaB ACTIONS

28.1.1 To generate an exchange plan between national BRs and then between countries, to address shared problems.

28.1.2 To run exchanges of MaB Committee representatives or BR managers in the form of visits to other countries to see how they implement and fulfil the MAP and the IberoMaB Action Plan. (UNESCO could provide financing and the recipient country attention on the ground).

28.1.3 To create a protocol for incentives, and the establishment of a system of Grants.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves.

28.2 ACTION	Encourage and enable twinning programmes between BRs sharing specific issues.
	IberoMaB ACTIONS

28.2.1 To foment twining and networking among Biosphere Reserves.

28.2.2 To create a twinning protocol with priorities including a work plan, funding.

28.2.3 To record successful examples of twinning, and use them as models.

28.2.4 To strengthen twinning administratively and financially through a fund created for the purposes.

28.2.5 To identify and invite companies to participate in the funding of twinning programmes and exchange of experiences.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves, NGO

28.3 ACTION Encourage South-South cooperation and triangular South-North-South cooperation.

IberoMaB ACTIONS

28.3.1 To track and monitor cross-border BR management and identify the actions needed to consolidate it.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees.

.....

.....

Partnerships



29.1

ACTION

Establish partnerships with local governments and sectors, such as education, to champion cooperative activities ranging from education and research to sustainable use of environmental goods and services.

29

TARGET

IberoMaB ACTIONS

29.1.1 To strengthen cooperation among the different players participating in Biosphere Reserves.

RESPONSIBLE

IberoMaB Executive Council, MaB National Committees, Biosphere Reserves.

VIII. Approval, implementation and evaluation of the IberoMaB Action Plan

This Action Plan was proposed in El Salvador (2009) at the Thirteenth Meeting of the Network of National MaB Committees and Biosphere Reserves in Ibero-America and the Caribbean; it was debated, reported on and approved in Puerto Morelos, Mexico (2010) during the Network's Fourteenth Meeting and will be adopted at the Network's Fifteenth Meeting in Tumbes, Peru, on 24 and 25 November 2011.

The IberoMaB Action Plan is to be implemented in a Guide to be called the IberoMaB Action Plan Guide, which will set out the targets for each action, the deadlines established for their implementation and performance indicators; countries shall, via their National MaB Committee or Focal Point, participate in each objective and action. The Guide will include the needs and possibilities required or offered by each country and will be drafted and tabled for consideration by committees and focal points ahead of the Fifteenth IberoMaB Network Meeting where it will be approved for its application as of that moment. The IberoMaB Network's Monitoring and Evaluation Commission will assess the results.

BR	Biosphere Reserve.
CO,	Carbon dioxide.
DESD	UN Decade of Education for Sustainable
	Greenhouse gases.
EM	The evaluation of the Millennium Ecosystems.
FLACAM	Latin-American forum of Environmental Sciences.
GEI	Greenhouse gases.
GIS	Geographic information system.
IAP (PAI)	IberoMaB Action Plan.
ILO (OIT)	International Labour Organisation.
IOC (COI)	Intergovernmental Oceanographic Commission.
IPCC	Intergovernmental Panel on Climate Change.
ISP	UNESCO's Intergovernmental Scientific.
MAB	UNESCO's Man and the Biosphere Programme.
MDG (ODM)	Millennium Development Goals.
NGO	Non-Government Organizations.
MAP (PAM)	Madrid Action Plan.
PES	Payments for Ecosystem Services.
MOST	Program of Management of the Social
	transformations.
UNESCO	United Nations Educational, Scientific and
	cultural Organization.
UNO (ONU)	United Nations Organization.
UNFCCC	United Nations Framework Convention on
(CMCCNU)	Climate Change.
WNBR (RMRB)	World Network of Biosphere Reserves.

For further information on the IberoMaB Network

IBEROMaB

http://proyectos.inecol.edu.mx/iberomab/

UNESCO http://www.unesco.org/mab

> Directed by IberoMaB Presidency Sergio Guevara S.

Coordinated by IberoMaB President's assistant Catalina Carbonell Peña and IberoMaB Secretariat Antonia Agama Cristina Herrero

Partners IberoMaB Vice-presidency and UNESCO

Design Instituto Literario de Veracruz, S.C.

IBEROMaB









Programme





MINISTERIO LE MEDI CAMPE EN 15. MINED CONDRACT MARINO

GOB ERNO DE 2534 Que

CONABIO

Douby Cro All Origina Marka Rok Dalo



INSTITUTO DE ECOLOGÍA, A.C.

INECOL





