



ACTION PLAN

2010-2020

IBEROMaB



ACTION PLAN

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

2010-2020



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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 decision-makers, 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 so-called 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 responsables 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 TARGET
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1.1 ACTION	Asses the achievements of the Seville Strategy.
IberoMaB ACTIONS	
<p>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.</p> <p>1.1.2. Preparation of a guide to evaluate the degree of fulfilment of the Seville Strategy.</p> <p>1.1.3 Identification and mapping of the reserve zones (core, buffer and transition) and defining the status of each.</p> <p>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.</p>	
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	
<p>1.2.1 Design of a System of Indicators on the functioning of the Biosphere Reserves of IberoMaB.</p> <p>1.2.2 Completion every five years of the system of indicators on the operability of the Biosphere Reserves.</p> <p>1.2.3 Compilation, systematisation and dissemination of information on the operability of the Biosphere Reserves.</p>	
RESPONSIBLE	
Each Biosphere Reserve and MaB National Committees.	

1.4 ACTION	Update the nomination and periodic review forms for Biosphere Reserves.
IberoMaB ACTIONS	
<p>1.4.1 To promote IberoMaB's active involvement in the process of revision of forms.</p>	
RESPONSIBLE	
IberoMaB Secretariat.	

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Integrated information and communication strategy	3 TAGERT
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3.1 ACTION	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	Produce regional, sub-regional, country- and ecosystem-specific 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	

3.3 ACTION	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	

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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:

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

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TARGET

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 Council, Biosphere Reserves, universities, researchers, Biosphere Reserves managers, MaB National Committees, national environment institutions.

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Trained biosphere reserve managers and other stakeholders

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TARGET

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
ACTION

Promote capacity enhancement programme for BR administrators and managers, such as on adaptive management, conflict resolution and negotiation skills.

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.

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Biosphere reserves have research programmes linked to the development of the management plan and zoning	20 TARGET
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20.1 ACTION	Ensure stakeholder involvement in the production of a research agenda to be incorporated in the management plan for the whole BR.
IberoMaB ACTIONS	
<p>20.1.1 To update and review BR management Plans, to adapt them to MAP objectives, based on the scientific and traditional knowledge available.</p> <p>20.1.2 To form committees to define priorities in research and action, and monitoring and controls on the fulfilment of objectives.</p> <p>20.1.3 Creation of Voluntary Work aimed at the management of knowledge.</p>	
RESPONSIBLE	
MaB National Committees, Biosphere Reserves Managers, research institutions.	

20.2 ACTION	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	
<p>20.2.1 To strengthen BR research infrastructure.</p> <p>20.2.2 To prioritise research related to activities linked to local needs.</p> <p>20.2.3 To promote research programmes fomenting creation of ecological, cultural and socioeconomic corridors between BRs.</p>	
RESPONSIBLE	
Institutions responsible for Biosphere Reserves, research institutions, MaB National Committees.	

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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:

Exchanges between Biosphere Reserves		28 TARGET
28.1 ACTION	Support study tours/site visits between stakeholder groups in BRs.	
IberoMaB ACTIONS		
<p>28.1.1 To generate an exchange plan between national BRs and then between countries, to address shared problems.</p> <p>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).</p> <p>28.1.3 To create a protocol for incentives, and the establishment of a system of Grants.</p>		
RESPONSIBLE		
IberoMaB Executive Council, MaB National Committees, Biosphere Reserves.		
28.2 ACTION	Encourage and enable twinning programmes between BRs sharing specific issues.	
IberoMaB ACTIONS		
<p>28.2.1 To foment twining and networking among Biosphere Reserves.</p> <p>28.2.2 To create a twinning protocol with priorities including a work plan, funding.</p> <p>28.2.3 To record successful examples of twinning, and use them as models.</p> <p>28.2.4 To strengthen twinning administratively and financially through a fund created for the purposes.</p> <p>28.2.5 To identify and invite companies to participate in the funding of twinning programmes and exchange of experiences.</p>		
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		
<p>28.3.1 To track and monitor cross-border BR management and identify the actions needed to consolidate it.</p>		
RESPONSIBLE		
IberoMaB Executive Council, MaB National Committees.		

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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.
CO₂	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 (CMCCNU)	United Nations Framework Convention on Climate Change.
WNBR (RMRB)	World Network of Biosphere Reserves.

For further information on the IberoMaB Network

IBEROMaB

<http://proyectos.inacol.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



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Educational, Scientific and
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Man and
the Biosphere
Programme



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