

BIOSPHERE RESERVES

THE SEVILLE STRATEGY
&
THE STATUTORY FRAMEWORK OF THE WORLD NETWORK



MAN AND THE BIOSPHERE PROGRAMME

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UNESCO, 1996. *Biosphere reserves: The Seville Strategy and the Statutory Framework of the World Network.* UNESCO, Paris

Biosphere reserves are designed to deal with one of the most important questions the world faces today: How can we reconcile the conservation of biodiversity, the quest for economic and social development and the maintenance of associated cultural values? Biosphere reserves are areas of terrestrial and coastal/marine ecosystems which are internationally recognized under UNESCO's Man and the Biosphere (MAB) Programme. In March 1995, an international conference of experts was organized by UNESCO in Seville (Spain). The strategy that was elaborated there, known as the 'Seville Strategy', recommends the action to be taken for the future development of biosphere reserves in the 21st century. The Seville Conference also helped to finalize a Statutory Framework setting out the conditions for the functioning of the World Network of Biosphere Reserves. Both these documents were adopted under 28 C/Resolution 2.4 of the UNESCO General Conference in November 1995 and are presented in this brochure. One of the highlights of these documents is the new role that biosphere reserves can play in serving to respond to some of the concerns of Agenda 21, which resulted from the United Nations Conference on Environment and Development (Rio, 1995). At the same time, they underline the important contribution that biosphere reserves can play in the implementation of the Convention on Biological Diversity.

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UNESCO

MAN AND THE BIOSPHERE PROGRAMME

28 C/RESOLUTION 2.4 OF THE UNESCO GENERAL CONFERENCE (November 1995)

The General Conference,

Emphasizing that the Seville Conference has confirmed the special importance of the biosphere reserves established within the framework of the programme on Man and the Biosphere (MAB) for the conservation of biological diversity, in harmony with the safeguarding of the cultural values associated with them,

Considering that biosphere reserves constitute ideal sites for research, long-term monitoring, training, education and the promotion of public awareness while enabling local communities to become fully involved in the conservation and sustainable use of resources,

Considering that they are also demonstration sites and hubs of action in the context of regional development and land-use planning,

Considering that the World Network of Biosphere Reserves thus makes a major contribution to the implementation of the goals set by Agenda 21 and by the international conventions adopted at and after the Rio Conference, in particular the Convention on Biological Diversity,

Believing that it is necessary to expand and improve the present Network and to encourage regional and world-level exchanges, in particular by providing support for the efforts of the developing countries to establish, strengthen and promote biosphere reserves,

1. *Approves* the Seville Strategy and invites the Director-General to deploy the resources necessary for its effective implementation and to ensure that it enjoys the widest possible dissemination to all parties concerned;
2. *Invites* Member States to implement the Seville Strategy and to muster the resources necessary for that purpose;
3. *Invites* international and regional intergovernmental organizations and the appropriate non-governmental organizations to co-operate with UNESCO to ensure the operational development of the World Network of Biosphere Reserves and appeals to the funding bodies to mobilize the corresponding resources;
4. *Adopts* the Statutory Framework of the World Network of Biosphere Reserves, annexed hereto, and invites:
   (a) Member States to have regard to it in determining and implementing their policies in respect of biosphere reserves;
   (b) the Director-General to provide the secretariat of the World Network of Biosphere Reserves in accordance with the provisions of the Statutory Framework and thus contribute to the smooth functioning and strengthening of the Network.

BIOSPHERE RESERVES: THE FIRST TWENTY YEARS

Biosphere reserves are designed to deal with one of the most important questions the World faces today: How can we reconcile conservation of biodiversity and biological resources with their sustainable use? An effective Biosphere reserve involves natural and social scientists; conservation and development groups; management authorities and local communities – all working together on this complex issue.

The concept of biosphere reserves as originated by a Task Force of UNESCO's Man and the Biosphere (MAB) Programme in 1974. The biosphere reserve network was launched in 1976 and, as of March 1995, had grown to include 324 reserves in 82 countries. The network is a key component in MAB's objective of achieving a sustainable balance between the sometimes-conflicting goals of conserving biological diversity, promoting economic development, and maintaining associated cultural values. Biosphere reserves are sites where this objective is tested, refined, demonstrated and implemented.

In 1983, UNESCO and UNEP jointly convened the First International Biosphere Reserve Congress in Minsk (Belarus), in cooperation with FAO and IUCN. The Congress's activities gave rise in 1984 to an 'Action Plan for Biosphere Reserves.' which was formally endorsed by the UNESCO General Conference and by the Governing Council of UNEP. While much of this Action Plan remains valid today, the context in which biosphere reserves operate has changed considerably as was shown by the UNCED process and, in particular, the Convention on Biological Diversity. The Convention was signed at the 'Earth Summit' in Rio de Janeiro in June 1992, entered into force in December 1993 and has now been ratified by more than 100 countries. The major objectives of the Convention are: conservation of biological diversity; sustainable use of its components; and fair and equitable sharing of benefits arising from the utilization of genetic resources. Biosphere reserves promote this integrated approach and are thus well placed to contribute to the implementation of the Convention.

In the decade since the Minsk Congress, thinking about protected areas as a whole and about the biosphere reserves has been developing along parallel lines. Most importantly, the link between conservation of biodiversity and the development needs of local communities – a central component of the biosphere reserve approach – is now recognized as a key feature of the successful management of most national parks, nature reserves and other protected areas. At the Fourth World Congress on National Parks and Protected Areas, held in Caracas, Venezuela, in February 1992, the world's protected-area planners and managers adopted many of the ideas (community involvement, the links between conservation and development, the importance of international collaboration) that are essential aspects of biosphere reserves. The Congress also approved a resolution in support of biosphere reserves.

There have also been important innovations in the management of biosphere reserves themselves. New methodologies for involving stakeholders in decision-making processes and resolving conflicts have been developed, and increased attention has been given to the need to use regional approaches. New kinds of biosphere reserves, such as cluster and transboundary reserves, have been devised, and many biosphere reserves have evolved considerably, from a primary focus on conservation to a greater integration of conservation and development through increasing cooperation among stakeholders. And new international networks, fuelled by technological advances, including more powerful computers and the Internet, have greatly facilitated communication and cooperation between biosphere reserves in different countries.

In this context, the Executive Board of UNESCO decided in 1991 to establish an Advisory Committee for Biosphere Reserves. This Advisory Committee considered that it

was time to evaluate the effectiveness of the 1984 Action Plan, to analyse its implementation, and to develop a strategy for biosphere reserves as we move into the 21st century.

To this end, and in accordance with Resolution 27/C/2.3 of the General Conference, UNESCO organized the International Conference on Biosphere Reserves at the invitation of the Spanish authorities in Seville (Spain) from 20 to 25 March 1995. This Conference was attended by some 400 experts from 102 countries and 15 international and regional organizations. The Conference was organized to enable an evaluation of the experience in implementing the 1984 Action Plan, a reflection on the role for biosphere reserves in the context of the 21st century (which gave rise to the vision statement) and the elaboration of a draft Statutory Framework for the World Network. The Conference drew up the Seville Strategy, which is presented below. The International Co-ordinating Council of the Man and the Biosphere (MAB) Programme, meeting for its 13th session (12-16 June 1995) gave its strong support to the Seville Strategy.

THE BIOSPHERE RESERVE CONCEPT

Biosphere reserves are 'areas of terrestrial and coastal/marine ecosystems or a combination thereof, which are internationally recognized within the framework of UNESCO's Programme on Man and the Biosphere (MAB)' (*Statutory Framework of the World Network of Biosphere Reserves*). Reserves are nominated by national governments; each reserve must meet a minimal set of criteria and adhere to a minimal set of conditions before being admitted to the Network. Each biosphere reserve is intended to fulfil three complementary functions: a conservation function, to preserve genetic resources, species, ecosystems and landscapes; a development function, to foster sustainable economic and human development, and a logistic support function, to support demonstration projects, environmental education and training, and research and monitoring related to local, national and global issues of conservation and sustainable development.

Physically, each biosphere reserve should contain three elements: one or more core areas, which are securely protected sites for conserving biological diversity, monitoring minimally disturbed ecosystems, and undertaking non-destructive research and other low-impact uses (such as education); a clearly identified buffer zone, which usually surrounds or adjoins the core areas, and is used for co-operative activities compatible with sound ecological practices, including environmental education, recreation, ecotourism and applied and basic research; and a flexible transition area, or area of co-operation, which may contain a variety of agricultural activities, settlements and other uses and in which local communities, management agencies, scientists, non-governmental organizations, cultural groups, economic interests and other stakeholders work together to manage and sustainably develop the area's resources. Although originally envisioned as a series of concentric rings, the three zones have been implemented in many different ways in order to meet local needs and conditions. In fact, one of the greatest strengths of the biosphere reserve concept has been the flexibility and creativity with which it has been realized in various situations.

Some countries have enacted legislation specifically to establish biosphere reserves. In many others, the core areas and buffer zones are designated (in whole or in part) as protected areas under national law. A number of biosphere reserves simultaneously encompass areas protected under other systems (such as national parks or nature reserves) and other internationally recognized sites (such as World Heritage or Ramsar sites).

Ownership arrangements may vary, too. The core areas of biosphere reserves are mostly public land but can be also privately owned or belong to non-governmental organizations. In many cases, the buffer zone is in private or community ownership, and this is generally the case for the transition area. The Seville Strategy for Biosphere Reserves reflects this wide range of circumstances.

THE VISION FROM SEVILLE FOR THE 21ST CENTURY

What future does the world face as we move towards the 21st century ? Current trends in population growth and distribution, increasing demands for energy and natural resources, globalisation of the economy and the effects of trade patterns on rural areas, the erosion of cultural distinctiveness, centralization and difficulty of access to relevant information, and uneven spread of technological innovations – all these paint a sobering picture of environment and development prospects in the near future.

The UNCED process laid out the alternative of working towards sustainable development, incorporating care of the environment and greater social equity, including respect for rural communities and their accumulated wisdom. Agenda 21, the Conventions on Biological Diversity, Climate Change, and Desertification, and other multilateral agreements, show the way forward at the international level.

But the global community also needs working examples that encapsulate the ideas of UNCED for promoting both conservation and sustainable development. These examples can only work if they express all the social, cultural, spiritual and economic needs of society, and are also based on sound science.

Biosphere reserves offer such examples. Rather than forming islands in a world increasingly affected by severe human impacts, they can become theatres for reconciling people and nature, they can bring knowledge of the past to the needs of the future, they can demonstrate how to overcome the problems of the sectoral nature of our institutions. In short, biosphere reserves are much more than just protected areas.

Thus biosphere reserves are poised to take on a new role. Not only will they be a means for the people who live and work within and around them to attain a balanced relationship with the natural world, they will also contribute to the needs of society as a whole by showing a way to a more sustainable future. This is at the heart of the vision for biosphere reserves in the 21st century.

The International Conference on Biosphere Reserves, organized by UNESCO in Seville (Spain) from 20-25 March 1995, adopted a two-pronged approach:

- to examine past experience in implementing the innovative concept of the biosphere reserve;
- to look to the future to identify what emphases should now be given to their three functions of conservation, development and logistical support.

The Seville Conference concluded that in spite of the problems and limitations encountered with the establishment of biosphere reserves, the programme as a whole had been innovative and had had much success. In particular, the three basic functions would be as valid as ever in the coming years. In the implementation of these functions and in the light of the analysis undertaken, the following ten key directions were identified by the Conference and are the foundations of the new Seville Strategy.

1. Strengthen the contribution which biosphere reserves make to the implementation of international agreements promoting conservation and sustainable development, especially to the Convention on Biological Diversity and other agreements such as those on climate change, desertification and forests.
2. Develop biosphere reserves that include a wide variety of environmental, biological, economic and cultural situations, going from largely undisturbed regions and spreading towards cities. There is a particular potential, and need, to apply the biosphere reserve concept in the coastal and marine environment.
3. Strengthen the emerging regional, interregional and thematic networks of biosphere reserves as components within the World Network of Biosphere Reserves.
4. Reinforce scientific research, monitoring, training and education in biosphere reserves since conservation and rational use of resources in these areas require a sound base in the natural and social sciences as well as the humanities. This need is particularly acute in countries where biosphere reserves lack human and financial resources and should receive priority attention.

5. Ensure that all zones of biosphere reserves contribute appropriately to conservation, sustainable development and scientific understanding.
6. Extend the transition area to embrace large areas suitable for approaches such as ecosystem management, and use biosphere reserves to explore and demonstrate approaches to sustainable development at the regional scale. For this, more attention should be given to the transition area.
7. Reflect more fully the human dimensions of biosphere reserves. Connections should be made between cultural and biological diversity. Traditional knowledge and genetic resources should be conserved and their role in sustainable development should be recognized and encouraged.
8. Promote the management of each biosphere reserve essentially as a 'pact' between the local community and society as a whole. Management should be open, evolving and adaptive. Such an approach will help ensure that biosphere reserves – and their local communities – are better placed to respond to external political, economic and social pressures.
9. Bring together all interest groups and sectors in a partnership approach to biosphere reserves both at site and network levels. Information should flow freely among all concerned.
10. Invest in the future. Biosphere reserves should be used to further our understanding of humanity's relationship with the natural world, through programmes of public awareness, information and formal and informal education, based on a long-term, inter-generational perspective.

In sum, biosphere reserves should preserve and generate natural and cultural values through management that is scientifically correct, culturally creative and operationally sustainable. The World Network of Biosphere Reserves, as implemented through the Seville Strategy, is thus an integrating tool which can help to create greater solidarity among peoples and nations of the world.

THE STRATEGY

The following Strategy provides recommendations for developing effective biosphere reserves and for setting out the conditions for the appropriate functioning of the World Network of Biosphere Reserves. It does not repeat the general principles of the Convention on Biological Diversity nor Agenda 21, but instead identifies the specific role of biosphere reserves in developing a new vision of the relationship between conservation and development. Thus, the document is deliberately focused on a few priorities.

The Strategy suggests the level (international, national, individual biosphere reserve) at which each recommendation will be most effective. However, given the large variety of different national and local management situations, these recommended levels of actions should be seen merely as guidelines, and adapted to fit the situation at hand. Especially note that the 'national' level should be interpreted to include other governmental levels higher than the individual reserve (e.g., provincial, state, county, etc.). In some countries, national or local NGOs may also be appropriate substitutes for this level. Similarly, the 'international' level often includes regional and inter-regional activities.

The Strategy also includes recommended Implementation Indicators, *i.e.* a check-list of actions that will enable all involved to follow and evaluate the implementation of the Strategy. Criteria used in developing the Indicators were: availability (Can the information be gathered relatively easily?); simplicity (Are the data unambiguous?), and usefulness (Will the information be useful to reserve managers, National Committees, and/or the Network at large?). One role of the Implementation Indicators is to assemble a database of successful implementation mechanisms and to exchange this information among all members of the Network.

GOAL I: USE BIOSPHERE RESERVES TO CONSERVE NATURAL AND CULTURAL DIVERSITY

Objective I.1: Improve the coverage of natural and cultural biodiversity by means of the World Network of Biosphere Reserves.

Recommended at the international level:

1. Promote biosphere reserves as means of implementing the goals of the Convention on Biological Diversity.
2. Promote a comprehensive approach to biogeographical classification that takes into account such ideas as vulnerability analysis, in order to develop a system encompassing socio-ecological factors.

Recommended at the national level:

3. Prepare a biogeographical analysis of the country as a basis, *inter alia*, for assessing coverage of the World Network of Biosphere Reserves.
4. In light of the analysis, and taking into account existing protected areas, establish, strengthen or extend biosphere reserves as necessary, giving special attention to fragmented habitats, threatened ecosystems, and fragile and vulnerable environments, both natural and cultural.

Objective I.2: Integrate biosphere reserves into conservation planning.

Recommended at the international level:

1. Encourage the establishment of transboundary biosphere reserves as a means of dealing with the conservation of organisms, ecosystems, and genetic resources that cross national boundaries.

Recommended at the national level:

2. Integrate biosphere reserves in strategies for biodiversity conservation and sustainable use, in plans for protected areas, and in the national biodiversity strategies and action plans provided for in Article 6 of the Convention on Biological Diversity.
3. When applicable, include projects to strengthen and develop biosphere reserves in programmes to be initiated and funded under the Convention on Biological Diversity and other multilateral conventions.
4. Link biosphere reserves with each other, and with other protected areas, through green corridors and in other ways that enhance biodiversity conservation, and ensure that these links are maintained.
5. Use biosphere reserves for *in situ* conservation of genetic resources, including wild relatives of cultivated and domesticated species, and consider using the reserves as rehabilitation/re-introduction sites, and link them as appropriate with *ex situ* conservation and use programmes.

GOAL II: UTILIZE BIOSPHERE RESERVES AS MODELS OF LAND MANAGEMENT AND OF APPROACHES TO SUSTAINABLE DEVELOPMENT

Objective II.1: Secure the support and involvement of local people.

Recommended at the international level:

1. Prepare guidelines for key aspects of biosphere reserve management, including the resolution of conflicts, provision of local benefits, and involvement of stakeholders in decision-making and in responsibility for management.

Recommended at the national level:

2. Incorporate biosphere reserves into plans for implementing the sustainable use goals of Agenda 21 and the Convention on Biological Diversity.
3. Establish, strengthen or extend biosphere reserves to include areas where traditional life styles and indigenous uses of biodiversity are practiced (including sacred sites), and/or where there are critical interactions between people and their environment (e.g., peri-urban areas, degraded rural areas, coastal areas, freshwater environments and wetlands).
4. Identify and promote the establishment of activities compatible with the goals of conservation through the transfer of appropriate technologies which include traditional knowledge and which promote sustainable development in the buffer and transition zones.

Recommended at the individual reserve level:

5. Survey the interests of the various stakeholders and fully involve them in planning and decision-making regarding the management and use of the reserve.
6. Identify and address factors that lead to environmental degradation and unsustainable use of biological resources.
7. Evaluate the natural products and services of the reserve and use these evaluations to promote environmentally sound and economically sustainable income opportunities for local people.
8. Develop incentives for the conservation and sustainable use of natural resources, and develop alternative means of livelihood for local populations when existing activities are limited or prohibited within the biosphere reserve.
9. Ensure that the benefits derived from the use of natural resources are equitably shared with the stakeholders, by such means as sharing the entrance fees, sale of natural products or handicrafts, use of local construction techniques and labour, and development of sustainable activities (e.g., agriculture, forestry, etc.).

Objective II.2: Ensure better harmonization and interaction among the different biosphere reserve zones.

Recommended at the national level:

1. Ensure that each biosphere reserve has an effective management policy or plan and an appropriate authority or mechanism to implement it.
2. Develop means of identifying incompatibilities between the conservation and sustainable use functions of biosphere reserves and take measures to ensure that an appropriate balance between the functions is maintained.

Recommended at the individual reserve level:

3. Develop and establish institutional mechanisms to manage, co-ordinate and integrate the biosphere reserve's programmes and activities.
4. Establish a local consultative framework in which the reserve's economic and social stakeholders are represented, including the full range of interests (e.g., agriculture, forestry, hunting and extracting, water and energy supply, fisheries, tourism, recreation, research).

Objective II.3: Integrate biosphere reserves into regional planning.

Recommended at the national level:

1. Include biosphere reserves in regional development policies and in regional land-use planning projects.
2. Encourage the major land-use sectors near each biosphere reserve to adopt practices favouring sustainable land use.

Recommended at the individual reserve level:

3. Organize forums and set up demonstration sites for the examination of socio-economic and environmental problems of the region and for the sustainable utilization of biological resources important to the region.

GOAL III: USE BIOSPHERE RESERVES FOR RESEARCH, MONITORING, EDUCATION AND TRAINING

Objective III.1: Improve knowledge of the interactions between humans and the biosphere.

Recommended at the international level:

1. Use the World Network of Biosphere Reserves to conduct comparative environmental and socio-economic research, including long-term research that will require decades to complete.
2. Use the World Network of Biosphere Reserves for international research programmes that deal with topics such as biological diversity, desertification, water cycles, ethnobiology, and global change.
3. Use the World Network of Biosphere Reserves for co-operative research programmes at the regional and inter-regional levels, such as those existing for the Southern Hemisphere, East Asia and Latin America.
4. Encourage the development of innovative, interdisciplinary research tools for biosphere reserves, including flexible modelling

systems for integrating social, economic and ecological data.
5. Develop a clearing house for research tools and methodologies in biosphere reserves.
6. Encourage interactions between the World Network of Biosphere Reserves and other research and education networks, and facilitate the use of the biosphere reserves for collaborative research projects of consortia of universities and other institutions of higher learning and research, in the private as well as public sector, and at non-governmental as well as governmental levels.

Recommended at the national level:

7. Integrate biosphere reserves with national and regional scientific research programmes, and link these research activities to national and regional policies on conservation and sustainable development.

Recommended at the individual reserve level:

8. Use biosphere reserves for basic and applied research, particularly projects with a focus on local issues, interdisciplinary projects incorporating both the natural and the social sciences, and projects involving the rehabilitation of degraded ecosystems, the conservation of soils and water and the sustainable use of natural resources.
9. Develop a functional system of data management for rational use of research and monitoring results in the management of the biosphere reserve.

Objective III.2: Improve monitoring activities.

Recommended at the international level:

1. Use the World Network of Biosphere Reserves, at the international, regional, national and local levels, as priority long-term monitoring sites for international programmes focused on topics such as terrestrial and marine observing systems, global change, biodiversity, and forest health.
2. Encourage the adoption of standardized protocols for meta-data concerning the description of flora and fauna, to facilitate the interchange, accessibility and utilization of scientific information generated in biosphere reserves.

Recommended at the national level:

3. Encourage the participation of biosphere reserves in national programmes of ecological and environmental monitoring and development of linkages between biosphere reserves and other monitoring sites and networks.

Recommended at the individual reserve level:

4. Use the reserve for making inventories of fauna and flora, collecting ecological and socio-economic data, making meteorological and hydrological observations, studying the effects of pollution, etc., for scientific purposes and as the basis for sound site management.
5. Use the reserve as an experimental area for the development and testing of methods and approaches for the evaluation and monitoring of biodiversity, sustainability and quality of life of its inhabitants.
6. Use the reserve for developing indicators of sustainability (in ecological, economic, social and institutional terms) for the different productive activities carried out within the buffer zones and transition areas.
7. Develop a functional system of data management for rational use of research and monitoring results in the management of the biosphere reserve.

Objective III.3: Improve education, public awareness and involvement.

Recommended at the international level:

1. Facilitate exchange of experience and information between biosphere reserves, with a view to strengthening the involvement of volunteers and local people in biosphere reserve activities.
2. Promote the development of communication systems for diffusing information on biosphere reserves and on experiences at the field level.

Recommended at the national level:

3. Include information on conservation and sustainable use, as practiced in biosphere reserves, in school programmes and teaching manuals, and in media efforts.

4. Encourage participation of biosphere reserves in international networks and programmes, to promote cross-cutting linkages in education and public awareness.

Recommended at the individual reserve level:

5. Encourage involvement of local communities, schoolchildren and other stakeholders in education and training programmes and in research and monitoring activities within biosphere reserves.
6. Produce visitors' information about the reserve, its importance for conservation and sustainable use of biodiversity, its socio-cultural aspects, and its recreational and educational programmes and resources.
7. Promote the development of ecology field educational centres within individual reserves, as facilities for contributing to the education of schoolchildren and other groups.

Objective III.4: Improve training for specialists and managers.

Recommended at the international level:

1. Utilize the World Network of Biosphere Reserves to support and encourage international training opportunities and programmes.
2. Identify representative biosphere reserves to serve as regional training centres.

Recommended at the national level:

3. Define the training needed by biosphere reserve managers in the 21st century and develop model training programmes on such topics as how to design and implement inventory and monitoring programmes in biosphere reserves, how to analyze and study socio-cultural conditions, how to solve conflicts, and how to manage resources co-operatively in an ecosystem or landscape context.

Recommended at the individual reserve level:

4. Use the reserve for on-site training and for national, regional and local seminars.
5. Encourage appropriate training and employment of local people and other stakeholders to allow their full participation in inventory, monitoring and research in programmes in biosphere reserves.
6. Encourage training programmes for local communities and other local agents (such as decision-makers, local leaders and agents working in production, technology transfer, and community development programmes) in order to allow their full participation in the planning, management and monitoring processes of biosphere reserves.

GOAL IV: IMPLEMENT THE BIOSPHERE RESERVE CONCEPT

Objective IV.1: Integrate the functions of biosphere reserves.

Recommended at the international level:

1. Identify and publicize demonstration (model or illustrative examples of) biosphere reserves, whose experiences will be beneficial to others, at the national, regional and international levels.
2. Give guidance/advice on the elaboration and periodic review of strategies and national action plans for biosphere reserves.
3. Organize forums and other information exchange mechanisms for biosphere reserve managers.
4. Prepare and disseminate information on how to develop management plans or policies for biosphere reserves.
5. Prepare guidance on management issues at biosphere reserve sites, including, *inter alia*, methods to ensure local participation, case studies of various management options, and techniques of conflict resolution.

Recommended at the national level:

6. Ensure that each biosphere reserve has an effective management policy or plan and an appropriate authority or mechanism to implement it.
7. Encourage private sector initiatives to establish and maintain environmentally and socially sustainable activities in appropriate zones of biosphere reserves and in surrounding areas, in order to stimulate community development.
8. Develop and periodically review strategies

and national action plans for biosphere reserves; these strategies should strive for complementarity and added value of biosphere reserves with respect to other national instruments for conservation.
9. Organize forums and other information exchange mechanisms for biosphere reserve managers.

Recommended at the individual reserve level:
10. Identify and map the different zones of biosphere reserves and define their respective status.
11. Prepare, implement and monitor an overall management plan or policy that includes all of the zones of biosphere reserves.
12. Where necessary, in order to preserve the core area, re-plan the buffer and transition zones according to sustainable development criteria.
13. Define and establish institutional mechanisms to manage, co-ordinate and integrate the reserve's programmes and activities.
14. Ensure that the local community participate in planning and management of biosphere reserves.
15. Encourage private sector initiatives to establish and maintain environmentally and socially sustainable activities in the reserve and surrounding areas.

Objective IV.2: Strengthen the World Network of Biosphere Reserves.

Recommended at the international level:
1. Facilitate provision of adequate resources for implementation of the Statutory Framework of the World Network of Biosphere Reserves.
2. Facilitate the periodic review by each country of its biosphere reserves, as required in the Statutory Framework of the World Network of Biosphere Reserves, and assist countries in taking measures to make their biosphere reserves functional.
3. Support the functioning of the Advisory Committee for Biosphere Reserves and fully consider and utilize its recommendations and guidance.
4. Lead the development of communication among biosphere reserves, taking into account their communication and technical capabilities, and strengthen existing and planned regional or thematic networks.
5. Develop creative connections and partnerships with other networks of similar managed areas, and with international governmental and non-governmental organizations with goals congruent with those of biosphere reserves.
6. Promote and facilitate twinning between biosphere reserve sites and foster transboundary reserves.
7. Give biosphere reserves more visibility by disseminating information materials, developing communication policies, and highlighting their roles as members of the World Network of Biosphere Reserves.
8. Wherever possible, advocate the inclusion of biosphere reserves in projects financed by bilateral and multilateral aid organizations
9. Mobilize private funds, from businesses, NGOs and foundations, for the benefit of biosphere reserves.
10. Develop standards and methodologies for collecting and exchanging various types of data, and assist their application across the Network of Biosphere Reserves.
11. Monitor, assess and follow up on the implementation of the Seville Strategy, utilizing the Implementation Indicators, and analyze the factors that aid in attainment of the indicators, as well as those that hinder such attainment.

Recommended at the national level:
12. Facilitate provision of adequate resources for implementation of the Statutory Framework of the World Network of Biosphere Reserves.
13. Develop a national-level mechanism to advise and co-ordinate the biosphere reserves; and fully consider and utilize its recommendations and guidance.
14. Prepare an evaluation of the status and operations of each of the country's biosphere reserves, as required in the Statutory Framework, and provide appropriate resources to address any deficiencies.
15. Develop creative connections and partnerships with other networks of similar

managed areas and with international governmental and non-governmental organizations with goals congruent with those of the biosphere reserves.

16. Seek opportunities for twinning between biosphere reserves and establish transboundary biosphere reserves, where appropriate.
17. Give biosphere reserves more visibility by disseminating information materials, developing communication policies, and highlighting their roles as members of the Network.
18. Include biosphere reserves in proposals for financing from international and bilateral funding mechanisms, including the Global Environment Facility.
19. Mobilize private funds, from businesses, NGOs and foundations, for the benefit of biosphere reserves.
20. Monitor, assess and follow up on the implementation of the Seville Strategy, utilizing the Implementation Indicators, and analyze the factors that aid in attainment of the indicators, as well as those that hinder such attainment.

Recommended at the individual reserve level:

21. Give biosphere reserves more visibility by disseminating information materials, developing communication policies, and highlighting their roles as members of the Network.
22. Mobilize private funds, from businesses, NGOs and foundations, for the benefit of biosphere reserves.
23. Monitor, assess and follow up on the implementation of the Seville Strategy, utilizing the Implementation Indicators, and analyze the factors that aid in attainment of the indicators, as well as those that hinder such attainment.

IMPLEMENTATION INDICATORS	CROSS REFERENCE
International level	
Biosphere reserves included in implementation of the Convention on Biological Diversity	I.1.1
Improved biogeographical system developed	I.1.2
New trans-boundary biosphere reserves developed	I.2.1; IV.2.6
Guidelines developed and published	II.1.1; IV.1.4 ; IV.1.5
Comparative research programmes implemented	III.1.1
Biosphere reserves incorporated into international research programmes	III.1.2
Regional and inter-regional research programmes developed	III.1.3
Interdisciplinary research tools developed	III.1.4
Clearing house for research tools and methodologies developed	III.1.5
Interactions developed with other research and education networks	III.1.6
Biosphere reserves incorporated into international monitoring programmes	III.2.1
Standardized protocols and methodologies adopted for data and for data exchange	III.2.2; IV.2.10
Mechanism developed for exchanging experiences and information between biosphere reserves	III.3.1
Biosphere reserve communication system implemented	III.3.2; IV.2.4; IV.2.7
International training opportunities and programmes developed	III.4.1
Regional training centres identified and developed	III.4.2
Demonstration biosphere reserves identified and publicized	IV.1.1
Guidance provided on elaboration and review of strategies and national action plans for biosphere reserves	IV.1.2
Mechanisms developed for information exchange among biosphere reserve managers	IV.1.3
Statutory Framework of the World Network of Biosphere Reserves is implemented at the international and national levels	IV.2.1;IV.2.2
Advisory Committee for Biosphere Reserves is functional and effective	IV.2.3
Regional or thematic networks developed or strengthened	IV.2.4
Interactions developed between biosphere reserves and similar managed areas and organizations	IV.2.5
Mechanisms developed to foster twinning between biosphere reserves	IV.2.6
Information and promotional materials developed for the World Network of Biosphere Reserves	IV.2.7
Strategies developed for including biosphere reserves in bilateral and multilateral aid projects	IV.2.8
Strategies developed for mobilizing funds from businesses, NGOs and foundations	IV.2.9
Data standards and methodologies applied across the World Network	IV.2.10
Mechanisms developed for monitoring and assessing the implementation of the Seville Strategy at national level	IV.2.11

IMPLEMENTATION INDICATORS	CROSS REFERENCE
National level	
Biogeographical analysis prepared	I.1.3
Analysis of need for new or extended biosphere reserves is completed	I.1.4 ; II.1.3
Biosphere reserves included in national strategies and other responses to the Convention on Biological Diversity and other conventions	I.2.2; I.1. 3
Links developed between biosphere reserves	I.2.4
In situ conservation plans for genetic resources in biosphere reserves	I.2.5
Biosphere reserves incorporated into sustainable development plans	II.1.2
Biosphere reserves developed or strengthened to include traditional life styles and in areas of critical people-environment interactions	II.1.3
Conservation and sustainable use activities identified and promoted	II.1.4
Effective management plans or policies in place at all biosphere reserves	II.2.1; IV.1.6
Mechanisms developed for identifying incompatibilities between conservation and sustainable use functions and to ensure an appropriate balance between these functions	II.2.2
Biosphere reserves included in regional development and land-use planning projects	II.3.1
Land-use sectors near biosphere reserves are encouraged to adopt sustainable practices	II.3.2; IV.1.7
Biosphere reserves are integrated into national and regional research programmes which are linked to conservation and development policies	III.1.7
Biosphere reserves are integrated into national monitoring programmes and are linked to similar monitoring sites and networks	III.2.3
Principles of conservation and sustainable use, as practiced in biosphere reserves, integrated into school programmes	III.3.3
Biosphere reserves participate in international education networks and programmes	III.3.4
Model training programmes for biosphere reserve managers are developed	III.4.3
Mechanisms developed to review national strategies and action plans for biosphere reserves	IV.1.8
Mechanisms developed for information exchange among biosphere reserve managers	IV.1.9
Statutory Framework of the World Network of Biosphere Reserves are implemented at the national level	IV.2.12; IV.2.14
National-level mechanism developed to advise and co-ordinate biosphere reserves	IV.2.13
Interactions developed between biosphere reserves and similar managed areas and organizations with congruent goals	IV.2.15
Mechanisms developed to foster twinning between biosphere reserves	IV.2.16
Information and promotional materials developed for Biosphere Reserves	IV.2.17
Strategies developed for including biosphere reserves in bilateral and multilateral aid projects	IV.2.18
Strategies developed for mobilizing funds from businesses, NGOs and foundations	IV.2.19
Mechanisms developed for monitoring and assessing the implementation of the Seville Strategy	IV.2.20

IMPLEMENTATION INDICATORS	CROSS REFERENCE
Individual reserve level	
Survey made of stakeholders' interests	II.1.5
Factors leading to environmental degradation and unsustainable use are identified	II.1.6
Survey made of the natural products and services of the biosphere reserve	II.1.7
Incentives identified for sustainable use by local populations	II.1.8
Plan prepared for equitable sharing of benefits	II.1.9
Mechanisms developed to manage, co-ordinate and integrate the biosphere reserve's programmes and activities	II.2.3; IV.1.10; IV.1.12
Local consultative framework implemented	II.2.4
Regional demonstration sites developed	II.3.3
Co-ordinated research and monitoring plan implemented	III.1.8; III.2.4
Functional data management system implemented	III.1.9; III.2.7
Biosphere reserve is used for developing and testing of monitoring methods	III.2.5
Biosphere reserve is used for developing indicators of sustainability relevant to local populations	III.2.5 ; II.2.6
Local stakeholders are included in education, training, research and monitoring programmes	III.3.5; III.4.5
Information for visitors to the biosphere reserve developed	III.3.6
Ecology field centre developed at the biosphere reserve	III.3.7
Biosphere reserve is used for on-site training activities	III.4.4
A local educational and training programme is in place	III.4.6
Different zones of biosphere reserves identified and mapped	IV.1.10.
Buffer and transition zones replaned to promote sustainable development and preserve the core area.	IV.1.12
Local community involved in planning and managing the biosphere reserve	IV.1.14
Private sector initiatives to establish and maintain environmentally and socially sustainable activities are encouraged.	IV.1.15
Information and promotional materials developed for individual biosphere reserves	IV.2.21
Strategies developed for mobilizing funds from businesses, NGOs and foundations	IV.2.22
Mechanisms developed for monitoring and assessing the implementation of the Seville Strategy at individual level	IV.2.23

THE STATUTORY FRAMEWORK OF THE WORLD NETWORK OF BIOSPHERE RESERVES

Introduction

Within UNESCO's Man and the Biosphere (MAB) programme, biosphere reserves are established to promote and demonstrate a balanced relationship between humans and the biosphere. Biosphere reserves are designated by the International Co-ordinating Council of the MAB Programme, at the request of the State concerned. Biosphere reserves, each of which remains under the sole sovereignty of the State where it is situated and thereby submitted to State legislation only, form a World Network in which participation by the States is voluntary.

The present Statutory Framework of the World Network of Biosphere Reserves has been formulated with the objectives of enhancing the effectiveness of individual biosphere reserves and strengthening common understanding, communication and co-operation at regional and international levels.

This Statutory Framework is intended to contribute to the widespread recognition of biosphere reserves and to encourage and promote good working examples. The delisting procedure foreseen should be considered as an exception to this basically positive approach, and should be applied only after careful examination, paying due respect to the cultural and socio-economic situation of the country, and after consulting the government concerned.

The text provides for the designation, support and promotion of biosphere reserves, while taking account of the diversity of national and local situations. States are encouraged to elaborate and implement national criteria for biosphere reserves which take into account the special conditions of the State concerned.

Article 1 - Definition

Biosphere reserves are areas of terrestrial and coastal/marine ecosystems or a combination thereof, which are internationally recognized within the framework of UNESCO's programme on Man and the Biosphere (MAB), in accordance with the present Statutory Framework.

Article 2 - World Network of Biosphere Reserves

1. Biosphere reserves form a worldwide network, known as the World Network of Biosphere Reserves, hereafter called the Network.
2. The Network constitutes a tool for the conservation of biological diversity and the sustainable use of its components, thus contributing to the objectives of the Convention on Biological Diversity and other pertinent conventions and instruments.
3. Individual biosphere reserves remain under the sovereign jurisdiction of the States where they are situated. Under the present Statutory Framework, States take the measures which they deem necessary according to their national legislation.

Article 3 - Functions

In combining the three functions below, biosphere reserves should strive to be sites of excellence to explore and demonstrate approaches to conservation and sustainable development on a regional scale:

(i) conservation - contribute to the conservation of landscapes, ecosystems, species and genetic variation;

(ii) development - foster economic and human development which is socio-culturally and ecologically sustainable;

(iii) logistic support - support for demonstration projects, environmental education and training, research and monitoring related to local, regional, national and global issues of conservation and sustainable development.

Article 4 - Criteria

General criteria for an area to be qualified for designation as a biosphere reserve:

1. It should encompass a mosaic of ecological systems representative of major biogeographic regions, including a gradation of human interventions.
2. It should be of significance for biological diversity conservation.
3. It should provide an opportunity to explore

and demonstrate approaches to sustainable development on a regional scale.

4. It should have an appropriate size to serve the three functions of biosphere reserves, as set out in Article 3.
5. It should include these functions, through appropriate zonation, recognizing:
   (a) a legally constituted core area or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives;
   (b) a buffer zone or zones clearly identified and surrounding or contiguous to the core area or areas, where only activities compatible with the conservation objectives can take place;
   (c) an outer transition area where sustainable resource management practices are promoted and developed.
6. Organizational arrangements should be provided for the involvement and participation of a suitable range of *inter alia* public authorities, local communities and private interests in the design and carrying out the functions of a biosphere reserve.
7. In addition, provisions should be made for:
   (a) mechanisms to manage human use and activities in the buffer zone or zones;
   (b) a management policy or plan for the area as a biosphere reserve;
   (c) a designated authority or mechanism to implement this policy or plan;
   (d) programmes for research, monitoring, education and training.

Article 5 - Designation procedure

1. Biosphere reserves are designated for inclusion in the Network by the International Co-ordinating Council (ICC) of the MAB programme in accordance with the following procedure:
   (a) States, through National MAB Committees where appropriate, forward nominations with supporting documentation to the secretariat after having reviewed potential sites, taking into account the criteria as defined in Article 4;
   (b) the secretariat verifies the content and supporting documentation: in the case of incomplete nomination, the secretariat requests the missing information from the nominating State;
   (c) nominations will be considered by the Advisory Committee for Biosphere Reserves for recommendation to ICC;
   (d) ICC of the MAB programme takes a decision on nominations for designation.

   The Director-General of UNESCO notifies the State concerned of the decision of ICC.
2. States are encouraged to examine and improve the adequacy of any existing biosphere reserve, and to propose extension as appropriate, to enable it to function fully within the Network. Proposals for extension follow the same procedure as described above for new designations.
3. Biosphere reserves which have been designated before the adoption of the present Statutory Framework are considered to be already part of the Network. The provisions of the Statutory Framework therefore apply to them.

Article 6 - Publicity

1. The designation of an area as a biosphere reserve should be given appropriate publicity by the State and authorities concerned, including commemorative plaques and dissemination of information material.
2. Biosphere reserves within the Network, as well as the objectives, should be given appropriate and continuing promotion.

Article 7 - Participation in the Network

1. States participate in or facilitate co-operative activities of the Network, including scientific research and monitoring, at the global, regional and subregional levels.
2. The appropriate authorities should make available the results of research, associated publications and other data, taking into account intellectual property rights, in order to ensure the proper functioning of the Network and maximize the benefits from information exchanges.
3. States and appropriate authorities should

promote environmental education and training, as well as the development of human resources, in co-operation with other biosphere reserves in the Network.

Article 8 - Regional and thematic subnetworks

States should encourage the constitution and co-operative operation of regional and/or thematic subnetworks of biosphere reserves, and promote development of information exchanges, including electronic information, within the framework of these subnetworks.

Article 9 - Periodic review

1. The status of each biosphere reserve should be subject to a periodic review every ten years, based on a report prepared by the concerned authority, on the basis of the criteria of Article 4, and forwarded to the secretariat by the State concerned.
2. The report will be considered by the Advisory Committee for Biosphere Reserves for recommendation to ICC.
3. ICC will examine the periodic reports from States concerned.
4. If ICC considers that the status or management of the biosphere reserve is satisfactory, or has improved since designation or the last review, this will be formally recognized by ICC.
5. If ICC considers that the biosphere reserve no longer satisfies the criteria contained in Article 4, it may recommend that the State concerned take measures to ensure conformity with the provisions of Article 4, taking into account the cultural and socio-economic context of the State concerned. ICC indicates to the secretariat actions that it should take to assist the State concerned in the implementation of such measures.
6. Should ICC find that the biosphere reserve in question still does not satisfy the criteria contained in Article 4, within a reasonable period, the area will no longer be referred to as a biosphere reserve which is part of the Network.
7. The Director-General of UNESCO notifies the State concerned of the decision of ICC.
8. Should a State wish to remove a biosphere reserve under its jurisdiction from the Network, it notifies the secretariat. This notification shall be transmitted to ICC for information. The area will then no longer be referred to as a biosphere reserve which is part of the Network.

Article 10 - Secretariat

1. UNESCO shall act as the secretariat of the Network and be responsible for its functioning and promotion. The secretariat shall facilitate communication and interaction among individual biosphere reserves and among experts. UNESCO shall also develop and maintain a worldwide accessible information system on biosphere reserves, to be linked to other relevant initiatives.
2. In order to reinforce individual biosphere reserves and the functioning of the Network and subnetworks, UNESCO shall seek financial support from bilateral and multilateral sources.
3. The list of biosphere reserves forming part of the Network, their objectives and descriptive details, shall be updated, published and distributed by the secretariat periodically.

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