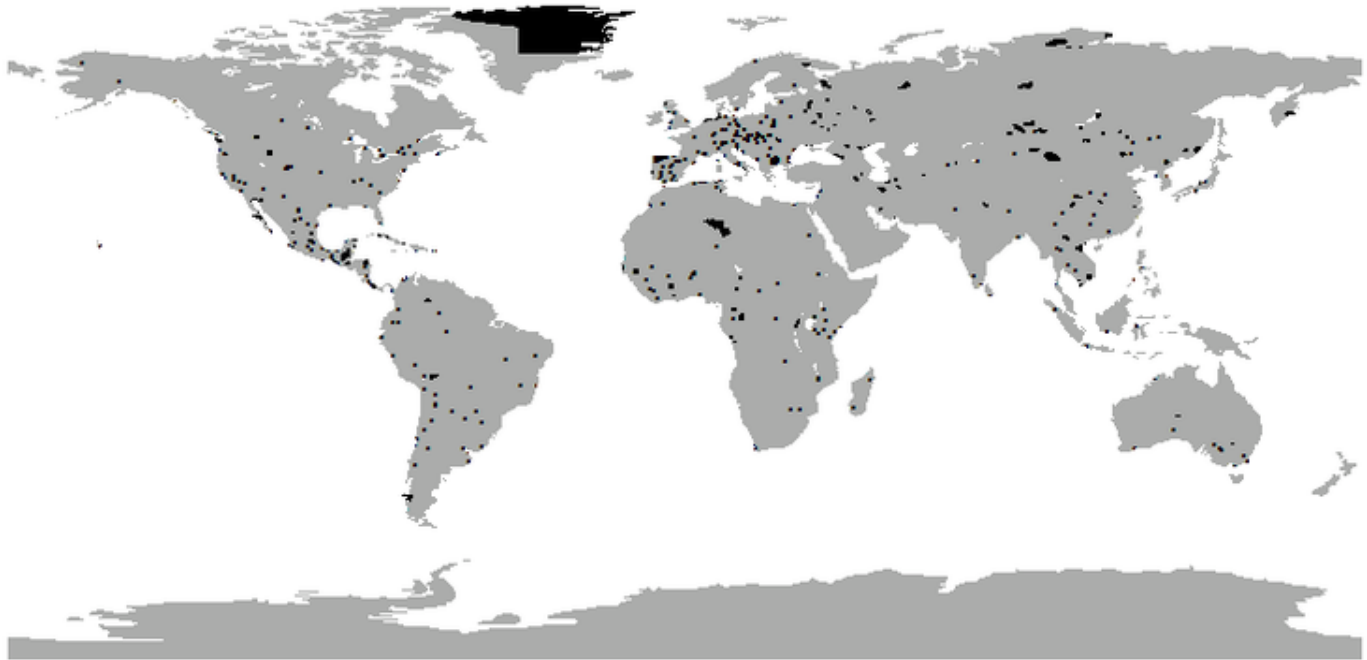


## MAB Biosphere Reserves

A global network of internationally recognized places dedicated to demonstrating innovative approaches to sustainable development



**Protected Areas**

**■ UNESCO-MAB  
BIOSPHERE RESERVES**

IUCN and UNEP-WCMC (2010) The World Database on Protected Areas (WDPA) 15 October 2010. Cambridge, UK: UNEP-WCMC

### Description

Biosphere reserves are areas of terrestrial and coastal marine ecosystems, internationally recognized under UNESCO's Man and the Biosphere Programme, which innovate and demonstrate approaches to conservation and sustainable development. Biosphere Reserves are designed to promote and demonstrate a balanced relationship between people and nature. They are nominated by national governments and remain under the sovereign jurisdiction of the States where they are situated.<sup>1</sup> The Man and the Biosphere programme was launched in the early 1970s for the improvement of the relationship between people and their environment. The concept of biosphere reserves was originated in 1974 by a Task Force of UNESCO's Man and Biosphere Programme, and the Biosphere reserve network was launched two years later. This World Network of Biosphere Reserves (WNBR) serve three different functions 1) conservation- to contribute to the conservation of landscapes, ecosystems, species and genetic variation; 2) development- to foster economic and human development which is socially, culturally and ecologically sustainable; and 3) logistic- to provide support for research, monitoring, education and information exchange related to local, national and global issues of conservation and development. Physically, each biosphere reserve should contain three zones: one or more core zones that are securely legally protected and clearly identified buffer and transition zones; the transition zone often may be referred to as an area of co-operation.<sup>2</sup>

### Supported by

The United Nations Educational, Scientific and Cultural Organization (UNESCO) Man and the Biosphere (MAB) Programme

## Year of Creation

1974 (launch of MAB programme)

## Coverage

Global network of 564 marine and terrestrial sites covering 109 countries (Year: 2010).<sup>3,4</sup>

## Criteria

According to the 1995 Statutory Framework for the World Network of Biosphere Reserves, for an area to be qualified for designation as a biosphere reserve it should:<sup>2</sup>

1. Encompass a mosaic of ecological systems representative of major biogeographic regions, including a gradation of human interventions;
2. Be of significance for biological diversity conservation;
3. Provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale;
4. Have an appropriate size to serve the three functions of biosphere reserves;
5. Include appropriate zonation of core area(s), buffer zone(s) and an outer transition area;
6. Provide organisational arrangements 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; and
7. Make provisions for a) mechanisms to manage human use and activities in the buffer zone(s), 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, and d) programmes for research, monitoring, education or training.

## Management

Biosphere reserves are nominated for inclusion in the World Network by national governments and remain under the sovereign jurisdiction of the States where they are situated.<sup>2</sup> 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. 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. These sites mainly seek to promote biodiversity conservation by combining both productive and conservation activities. For instance, testing and developing business models that can provide ecosystem services, such as improved access to clean water, carbon sequestration or minimizing carbon emissions through avoided deforestation or no-till agriculture that can preserve soil etc, are encouraged in Biosphere reserves.<sup>2</sup> Although there are a variety of different national and local management situations, the Seville Strategy developed in 1995 provides recommendations for developing effective biosphere reserves, which include guidelines at the international and national level.<sup>5</sup>

## Business Relevance

**Legal and compliance:** Protection under national law is not a requirement for designation of an area as a biosphere reserve. The core areas of many are however included within national protected area

networks affording them legal protection. The Task Force on criteria and guidelines for the choice of establishment of Biosphere reserves in 1974 recommended that ‘both core and buffer zones was expected to have adequate long-term legal protection’ (UNESCO, 1974: 16).<sup>6</sup> The Madrid Action Plan for Biosphere Reserves (2008-2013)<sup>7</sup> also has a target of ‘enhanced legal recognition of biosphere reserves where appropriate’. As internationally designated places with a UNESCO label they may be attractive for green economic development and other such pro-environmental sustainable development pathways for the profit making sectors.

They have been included in a range of international safeguard standards of institutions the Inter-American Development Bank<sup>7</sup> where the core areas are regarded as the same as legally protected areas, as well the Global Tourism Sustainability Criteria<sup>8</sup> and the and the Climate and Community and Biodiversity Alliance<sup>10</sup>, as areas where biodiversity benefits can be delivered.

**Biodiversity:** While these areas are of significance for biodiversity conservation, the criteria for identification are not specific towards biodiversity values and do not specifically include vulnerability or irreplaceability. Nonetheless both vulnerable and/or irreplaceable species and habitats may be present at individual sites. As site-scale areas of biodiversity importance, biosphere reserves are of high relevance for business in terms of mitigating and avoiding risk from biodiversity loss and identifying opportunity associated with promoting conservation.

**Socio-cultural:** One of the principal objectives of biosphere reserves is to foster sustainable human and economic activities, and therefore a range of social and economic values are likely to be present within these areas. These sites are open to experiments in developing enterprises and new business models in productive (agriculture, forestry, mining, fisheries) as well as service-oriented (tourism, education, health etc.) sectors that can minimize threats to conservation and enhance their respective socio-cultural values.

## Tools

Protected Planet is a tool for visualizing, mapping and contributing to information on protected areas. This includes information on Biosphere Reserves. Protected Planet brings together spatial data, descriptive information and images from the World Database on Protected Areas, the Global Biodiversity Information Facility (GBIF), Wikipedia™, Panoramio™, Flickr™, and Google Maps™. The Integrated Biodiversity Assessment Tool (IBAT) for business provides a visualisation and GIS download tool for protected areas, including Biosphere Reserves.

## Reference/Websites

1. UNESCO. 2010. World Network of Biosphere Reserves, United Nations Educational, Scientific and Cultural Organisation, Paris.
2. Information on the MAB programme can be found on the official UNESCO website
3. The world network of biosphere reserves (list of sites) as of June 2010
4. Information on individual Biosphere Reserves can be accessed via the MAB biosphere reserves directory
5. UNESCO. 1996. Biosphere Reserves. The Seville Strategy and the Statutory Framework of the World Network. United Nations Educational, Scientific and Cultural Organisation, Paris.
6. UNESCO. 1974. Task Force on: Criteria and Guidelines for the Choice and Establishment of Biosphere Reserves. Organized jointly by UNESCO and UNEP, Final Report. UNESCO-MAB Report Series No. 22, Paris, France.
7. UNESCO. 2008. Madrid Action Plan for Biosphere Reserves (2008-2013). UNESCO-MAB, Paris, France.
8. IDB (2006) Environment and Safeguards Compliance Policy. Inter-American Development Bank , Washington, DC.
9. GSTC (2008) The Partnership for Global Sustainable Tourism Criteria. Global Sustainable Tourism

Criteria.

10. CCBA. (2008) Climate, Community & Biodiversity Project Design Standards Second Edition. The Climate, Community and Biodiversity Alliance, Arlington, VA.