

Man and Biosphere Programme (MAB)

United Nations Educational, Scientific and Cultural Organization
(UNESCO)



United Nations
Educational, Scientific and
Cultural Organization



Man and
the Biosphere
Programme

What is the Man and Biosphere Programme?

- UNESCO Biosphere Conference, 1968.
- NGO's and Governments.
- Held in response to perceived biosphere threats by UN Member States.
- Emphasis on preserving “genetic resources” (George Wright Society, 2006) and “life-support potential” (Fletcher, 1997).
- First session of the International Coordinating Council was held in 1971.
- UN Conference on the Human Environment in 1972 – MAB was formally endorsed.
- Aim: protecting areas representing the “main ecosystems of the planet” (George Wright Society, 2006).

“UNESCO’s Man and the Biosphere Programme (MAB) is an Intergovernmental Scientific Programme that aims to establish a scientific basis for the improvement of relationships between people and their environments.”
(UNESCO, 2016[d])

What is a Biosphere Reserve?

“The Biosphere Programme is in many ways the operational branch of MAB where scientific research, public education, and planning are used to promote sustainable use of the environment...rather than protectionism.” (Agardy, 1993 p. 75)

- 1992 Convention on Environment & Development (Rio de Janeiro), Agenda 21: reinforced importance MAB and Biosphere Reserves (Berce-Branko, 1997).
- Biosphere Reserves are not funded by MAB, and are not governed by them (Fletcher, 1997) – so they remain the responsibility and property of the host country(s).
- Areas are only considered for Biosphere Reserve status at the request of the host country and will be stripped of such recognition if requested by the countries government (Fletcher, 1997).
- Biosphere reserves have slowly been moving away from conservation for primarily medicinal benefit to humans, and new items for discussion include education for sustainable development, the economic viability of nature conservation systems, human migrations and protection of natural resources (4th World Congress Of Biosphere Reserves[a], 2015).
- UNESCO MAB Programme do not directly govern the reserves, they encourage responsible governance from others .

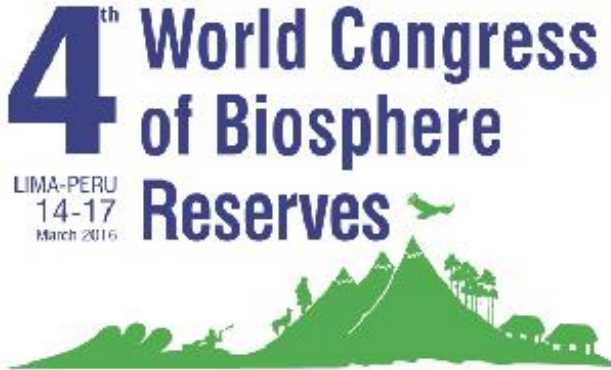
National Committees and Regional Networks



“Biosphere Conference”
–Paris, 1968



United Nations
Educational, Scientific and
Cultural Organization



- EuroMAB
- Pacific Biosphere Reserve Network (PacMAB)
- South and Central Asia MAB Network (SACAM)

ArabMAB **AfriMAB**

Regional
Interregional

East Atlantic Biosphere Reserve Network (REDBIOS)

Global Change in Mountain Regions (GLOCHAMORE)

Ecosystem and theme-specific networks
World Network of Island and Coastal Biosphere Reserves (WNICBR)

And more...



United Nations Educational, Scientific and Cultural Organization

National Committees and Regional Networks

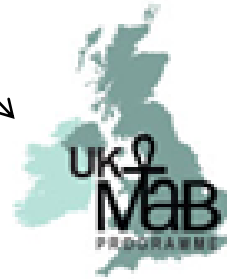


EuroMAB



REPUBLIC OF ESTONIA ENVIRONMENTAL BOARD

And 49 more...



UK National Committee of Man and the Biosphere Programme



Beinn Eighe Biosphere Reserve





United Nations
Educational, Scientific and
Cultural Organization



Ecosystem and Theme-Specific Networks

Natural environments

Human habitats

Agro-Cultures Programme

World Network of Island and Coastal
Biosphere Reserves (WNICBR)

Global Change in
Mountain Regions
(GLOCHAMORE)

Regional School on Integrated
Management of Tropical Forests
and Territories (ERAIFT)

Sustainable Management
of Marginal Drylands
(SUMAMAD) Project

United Nations Convention
to Combat Desertification
(UNCCD)

Sustainable Use of Biodiversity in Dryland Biosphere Reserves
in West Africa Regional Project (co-financed by the UNEP
(United Nations Environment Programme) and the GEF (Global
Environmental Facility))

International
Expert Group
for the Urban
Futures
Programme

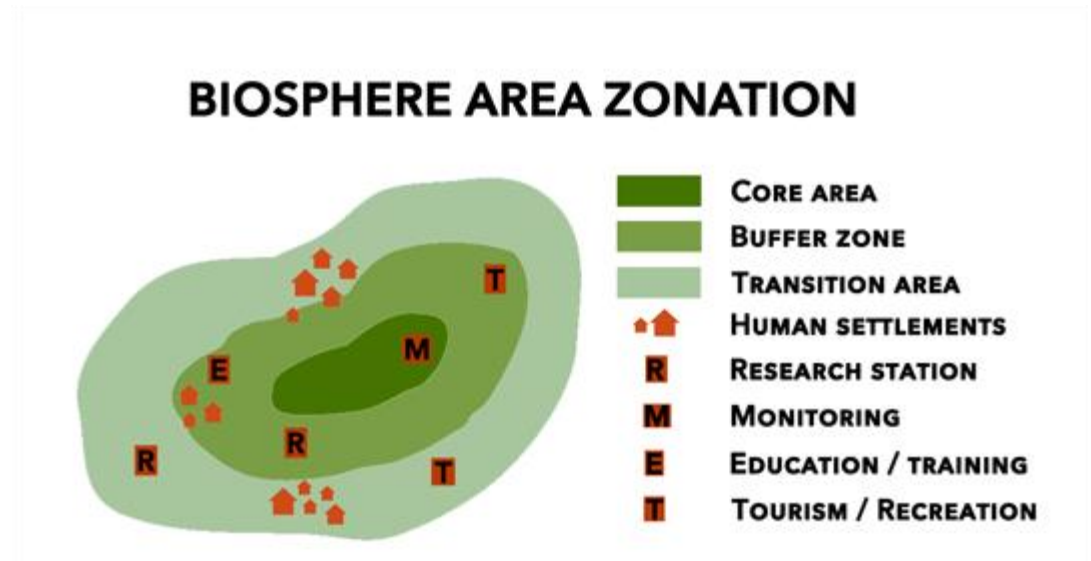
MAB ad hoc Working Group to
Explore the Application of the
Biosphere Reserve Concept to
Urban Areas and their Hinterlands
(The MAB Urban Group)

International
Symposium on Urban
Futures and Human
and Ecosystem
Wellbeing

Shanghai Declaration on
Urban Futures and Human
and Ecosystem Wellbeing

What does MAB actually do?

- The benefits of seeking Biosphere Reserve status link largely with advice in brokering projects or setting up “durable financial mechanisms” (UNESCO, 2005) for the Reserve to be self-sustaining and of economic benefit to the host country (UNESCO, 2005).
- “Zonation” design popularised by the Biosphere Reserve Programme. Integrating a “Core Area” (very limited human activity and development), “Buffer Zone” (increased but still limited and monitored human activity and development. The area where activities compatible with the core area may take place e.g. education, research and low-impact leisure) and the “Transitional Area” (where industries and settlements are permitted to exist, provided they minimise their impacts on the Core Area) (George Wright Society, 2006) (Batisse, 2007) (UNESCO, 2016[a]).



The Zoning Technique has been adopted in many other land-use strategies, environmental and otherwise (notably in UNESCO World Heritage Sites across the globe, though in many cases World Heritage Properties are already embedded in Biosphere Reserves (Engels, 2015)) such as the Monarch Butterfly Reserve in Mexico (UNESCO, 2007), where inscription led to a bold collaborative action plan between Mexico, Canada and the USA (Commission for Environmental Cooperation, 2008).

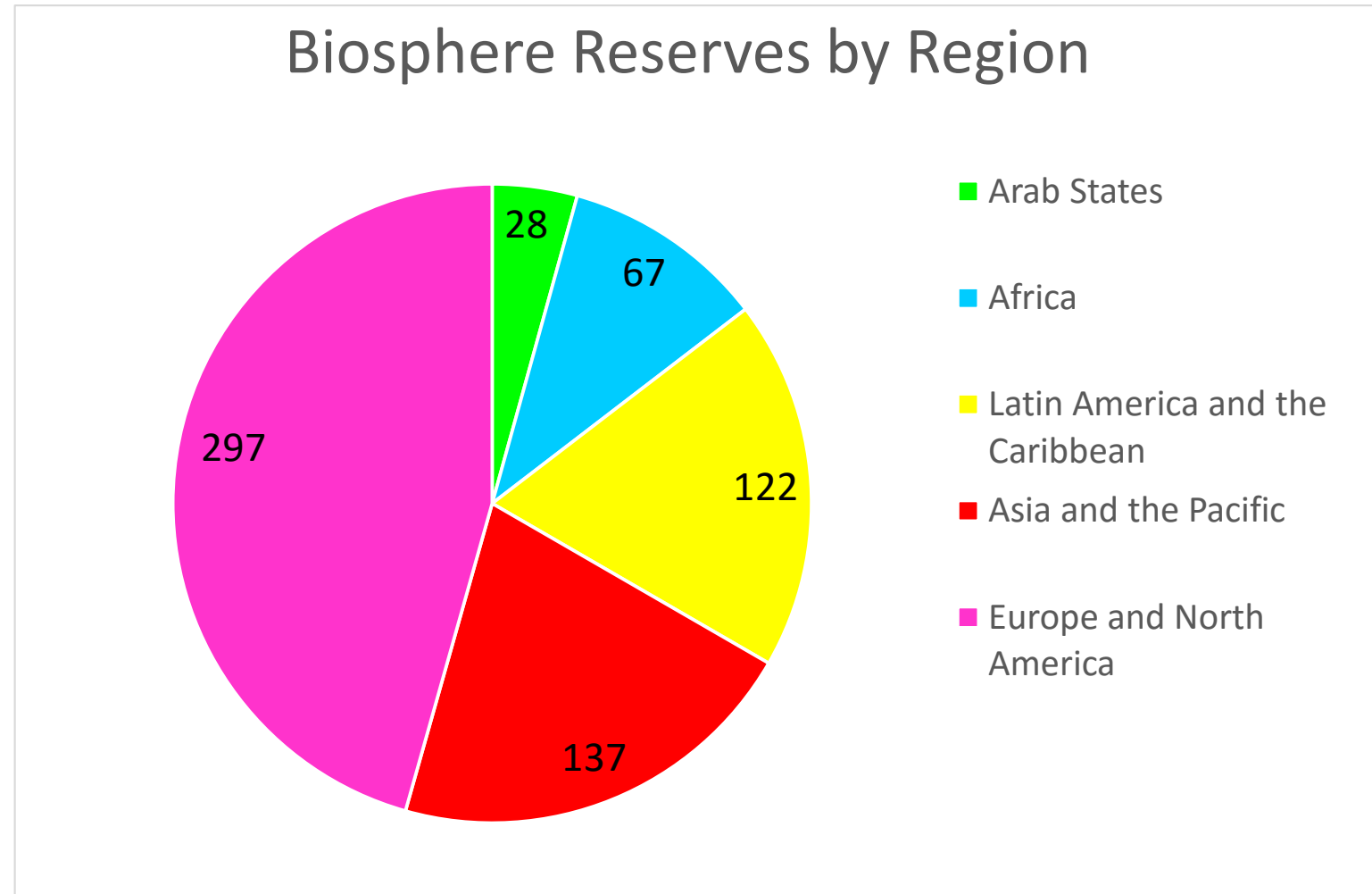
Vague, but effective...

“Designation of a site as a biosphere reserve can raise awareness among local people, citizens, and government authorities on environmental and development issues. It can help attract additional funding from different sources” (George Wright Society, 2006).

- The International Biosphere Trust, formed in 2011, aims to “support information sharing and collaboration among biosphere reserves” (Gilbert, 2014, p. 31)
- MAB Urban Group: “Having evolved from traditional protected area approaches, in particular national parks, the biosphere reserve concept and the World Network have usually been associated with more pristine, scarcely populated environments than what urban areas and their hinterlands offer. However, the biosphere reserve concept is an evolving one and...more emphasis is now put on sustainable development objectives and on more large scale, regional, conservation and development concerns.” (UNESCO, 2016[c])

Distribution linked to Affluence...

“There are currently 651 biosphere reserves in 120 countries, including 15 transboundary sites. The total surface of biosphere reserves worldwide covers 616,708,840.23 hectares. They are distributed as follows”: (4th World Congress Of Biosphere Reserves[b], 2015)



Are Biosphere Reserves Effective?

Effective

- In developing countries: Biosphere Reserves created from “scratch” (George Wright Society, 2006) – following zonation design.
- After 1974, when a dedicated Task Force drew up a set of objectives and characteristics for Biosphere Reserves which covered a wide variety of criteria (with no hierarchy or priorities) for selection, more developing countries began to come forward with suggestions for their own Biosphere Reserves (Batisse, 2007).
- “The reality is that nature must pay for itself in a tangible and direct way. Those entrusted with its protection should not only be obliged by law to protect, they must also have the will and the desire to do so. This philosophy is at the heart of UNESCO’s World Biosphere Program” (Stevens, 2011).
- “Because biosphere reserve planning fosters a man-in approach, effective reserves are those in which users participate not only in the administration of the reserve but also in its initial design. The geographical limits of the reserve and its management regime are a reflection of the needs of the people who rely on its resources.” (Agardy, 1993 p. 76)

Ineffective

- In developed countries: Biosphere Reserves are often “superimposed” (Agardy, 1993 p. 76) on an existing, protected National Park (or similar) designated area. Just another name for the same thing?
- No legal obligation – can leave at any time.
- No direct funding in most cases – can make it difficult for poorer or corrupt countries to participate.
- Money goes to organising large conferences and publishing documents rather than benefitting the area directly?

View Online Journal

Governance Of The Natural Environment

University of Wales Trinity St David, Environmental Conservation and
Renewable Energy Programmes

<https://governanceofthenaturalenvironment.wordpress.com/>

Works Cited (Pictures)

- 4th World Congress of Biosphere Reserves (2015). Via: <http://www.ivcongresomundialreservabiosfera.pe/index.php/en/> (Date accessed: 03 Mar. 2016)
- Logo Database (2015). Via: <http://logodatabases.com/unesco-logo.html/unesco-wallpaper> (Date accessed: 03 Mar. 2016)
- Nedre Dalaväven (c.2015). Biosphere Reserve River Landscape. Via: <http://www.nedredalalven.se/index.php/en/biosphere> (Date accessed: 03 Mar. 2016)
- Wikipedia.org (2015). Man and the Biosphere Programme. Via: https://en.wikipedia.org/wiki/Man_and_the_Biosphere_Programme (Date accessed: 03 Mar. 2016)
- IBEROMaB (c. 2013). Via: http://proyectos.inecol.edu.mx/iberomab/modules.php?name=News&new_topic=1 (Date accessed: 03 Mar. 2016)
- A View on Cities (2016). Eiffel Tower. Via: <http://www.aviewoncities.com/paris/eiffeltower.htm> (Date accessed: 03 Mar. 2016)
- North Devon Biosphere (2016). Via: <http://www.northdevonbiosphere.org.uk/unesco-mab.html> (Date accessed: 03 Mar. 2016)
- North Devon Biosphere (2016). Via: <http://www.northdevonbiosphere.org.uk/> (Date accessed: 03 Mar. 2016)
- Biosffer Dyfi Biosphere (2016. Hafan. Via: <http://www.biosfferdyfi.org.uk/> (Date accessed: 03 Mar. 2016)
- Brighton and Lewes Downs Biosphere (2013-2016). Via: <http://biospherehere.org.uk/> (Date accessed: 03 Mar. 2016)
- Galloway and Southern Ayrshire Biosphere (2016) <http://www.gsabiosphere.org.uk/> (Date accessed: 03 Mar. 2016)
- Vattenriket (c.2011). Kristianstads Vattenrike welcomes EuroMAB 2011 visitors! Via: <http://www.vattenriket.kristianstad.se/eng/euromab2011.php> (Date accessed: 03 Mar. 2016)
- Estonian Environmental Research Centre (c. 2016). Estonian marine strategy; Partners. Via: <http://www.klab.ee/merestrategia/en/partners/> (Date accessed: 03 Mar. 2016)
- Market Wired (2009). Media Advisory: Canadian Biosphere Reserves Seeks Collaboration With Agriculture. Via: <http://www.marketwired.com/press-release/media-advisory-canadian-biosphere-reserves-seeks-collaboration-with-agriculture-960760.htm> (Date accessed: 03 Mar. 2016)
- Netherlands National Commission for UNESCO, 2014. Nationale UNESCO Commissie; Man and Biosphere: will the Netherlands become more active?. [Online] Available at: <https://www.unesco.nl/en/node/2683> [Accessed 19 February 2016].

Works Cited (Content)

- 4th World Congress Of Biosphere Reserves[a], 2015. 4th World Congress Of Biosphere Reserves Lima, Peru from March 14-17 in 2016. [Online] Available at: <http://www.ivcongresomundialreservabiosfera.pe/index.php/en/> [Accessed 13 February 2016].
- 4th World Congress Of Biosphere Reserves[b], 2015. Statistics of Biosphere Reserves. [Online] Available at: <http://www.ivcongresomundialreservabiosfera.pe/index.php/en/reservas-de-biosfera/estadisticas-sobre-reservas-de-biosfera> [Accessed 13 February 2016].
- Agardy, T., 1993. Draft Guidelines for Biosphere Reserve Planning. In: A. Price & S. Humphrey, eds. Application of the biosphere reserve concept to coastal marine areas : papers presented at the Unesco/IUCN San Francisco Workshop of 14-20 August 1989: s.l.:IUCN, Marine Conservation Programme, pp. 75-88.
- Batisse, M., 2007. Developing and Focusing the Biosphere Reserve Concept. In: B. Thakur, ed. Perspectives in resource management in developing countries, Volume 2, Part 1. New Delhi: Concept Publishing Company, pp. 160-177.
- Berce-Branko, B., 1997. Bioregional Management And Local Agenda 21 A Viable Solution To Environmental Problems. In: M. Veziak, E. A. Stuhler & M. Mulej, eds. Environmental Problem Solving From Cases and Experiments to Concepts, Knowledge, Tools and Motivation: Proceedings of the 12th International Conference on Case Method Research and Case Method Application. Munich and Mering: Rainer Hampp Verlag, pp. 17-20.
- Commission for Environmental Cooperation, 2008. North American Monarch Conservation Plan, Montréal: Commission for Environmental Cooperation.
- Engels, B., 2015. Natural Heritage and Sustainable Development - A Realistic Option or Wishful Thinking?. In: M. Albert, ed. Perceptions of Sustainability in Heritage Studies (Volume 4). Berlin and Boston: Walter de Gruyter, pp. 49-58.
- Fletcher, S. R., 1997. CRS Report for Congress, Biosphere Reserves: Fact Sheet, Washington DC: Congressional Research Service · The Library of Congress.
- George Wright Society, 2006. The UNESCO Man and the Biosphere Program: What's It All About?. [Online] Available at: <http://www.georgewright.org/mab.html#Anchor-Why-11481> [Accessed 13 February 2016].
- Harman, G., 2015. Agenda 21: a conspiracy theory puts sustainability in the crosshairs. The Guardian, pp. <http://www.theguardian.com/sustainable-business/2015/jun/24/agenda-21-conspiracy-theory-sustainability>.
- UNESCO, 2005. Biosphere Reserves Benefits and Opportunities, Paris: UNESCO.
- UNESCO, 2007. Monarch Butterfly Biosphere Reserve World Heritage Site Nomination Document, Mexico: UNESCO.
- UNESCO, 2016[a]. Zoning Schemes. [Online] Available at: <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/main-characteristics/zoning-schemes/> [Accessed 13 February 2016].
- United Nations, 1992. United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992 , Rio de Janeiro: United Nations.
- Netherlands National Commission for UNESCO, 2014. Nationale UNESCO Commissie; Man and Biosphere: will the Netherlands become more active?. [Online] Available at: <https://www.unesco.nl/en/node/2683> [Accessed 19 February 2016].
- Stevens, G., 2011. Save Our Seas Foundation; Baa Atoll, Maldives – A UNESCO World Biosphere Reserve. [Online] Available at: <http://saveourseas.com/update/baa-atoll-maldives-a-unesco-world-biosphere-reserve/> [Accessed 19 February 2016].
- AfriMAB Network, 2010. African Biosphere Reserves Network AfriMAB Charter, Nairobi: UNESCO Man and Biosphere Programme.
- Gilbert, V. T., 2014. Biosphere Reserves: A New Look at Relevance to Meet Today's Challenges. In: S. Weber, ed. Protected Areas in a Changing World: Proceedings of the 2013 George Wright Society Conference on Parks, Protected Areas, and Cultural Sites. Hancock: George Wright Society, pp. 31-34.
- UNESCO, 2016[b]. MAB Networks. [Online] Available at: <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/man-and-biosphere-programme/networks/> [Accessed 28 February 2016].
- UNESCO, 2016[c]. Urban Systems. [Online] Available at: <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/specific-ecosystems/urban-systems/> [Accessed 28 February 2016].
- UNESCO, 2016[d]. Man and the Biosphere Programme. [Online] Available at: <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/man-and-biosphere-programme/> [Accessed 03 March 2016]