



KAMARAJ IAS ACADEMY
Only IAS Academy by Grandson of "Perunthalaivar Kamarajar"

Expanding World's Biosphere Footprint

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In News: November 3 will be the first 'The International Day for Biosphere Reserves', to be celebrated beginning in 2022. The World Network of Biosphere Reserves (WNBR) was formed in 1971, as a backbone for biodiversity conservation, ecosystem restoration, and living in harmony with nature. There are now 738 properties in 134 countries, including 12 in India, four in Sri Lanka, and three in the Maldives.

What is a Biosphere Reserve?

The Biosphere Reserve is a large protected area for the conservation of wildlife, plant and animal resources, and traditional tribal life in the area.

At present India has 18 biosphere Reserves. Panna National Park is India's latest declared Biosphere Reserve.

A biosphere reserve contributes to the preservation of a region's biodiversity and culture.

Biosphere reserves are areas of terrestrial and coastal ecosystems which promote conservation of biodiversity with its sustainable use. They serve in some ways as 'living laboratories' for testing out and demonstrating integrated management of land, water and biodiversity.

Reserves are designated under the intergovernmental MAB Programme by the Director-General of UNESCO following. The decisions of the MAB International Coordinating Council (MAB ICC).

Their status is internationally recognized. Member States can submit sites through the designation process.

- **Core Areas:** It comprises a strictly protected zone that contributes to the conservation of landscapes, ecosystems, species, and genetic variation
- **Buffer Zones:** It surrounds or adjoins the core area(s), and is used for activities compatible with sound ecological practices. That can reinforce scientific research, monitoring, training, and education.
- **Transition Area:** The transition area is where communities foster socio-culturally and ecologically sustainable economic and human activities.

The three zones that characterise a Biosphere Reserve are



- Core area
- Buffer zone
- Transition area
- 🏠 Human settlements
- 🔬 Research station
- 👤 Monitoring
- 📖 Education / training
- 📷 Tourism / recreation

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World Network of Biosphere Reserves (WNBR): The World Network of Biosphere Reserves (WNBR) was formed in 1971. As a backbone for biodiversity conservation, ecosystem restoration, and living in harmony with nature. There are now 738 properties in 134 countries, including 12 in India, four in Sri Lanka, and three in the Maldives.

Bangladesh, Bhutan, and Nepal do not have biospheres as yet, but help is on its way: The 'South and Central Asia MAB Reserve' Networking Meeting (where MAB stands Man and the Biosphere) is planned for 2023, to advance biosphere reserve establishment and management. In addition, an expert mission has been planned for spring 2023 — to Bhutan, India's northeast, and the Sundarbans in Bangladesh.

Biosphere Reserves in India: At present India has 18 biosphere Reserves and 12 of the 18 biosphere reserves are part of the World Network of Biosphere Reserves which is based on the UNESCO Man and the Biosphere (MAB) Programme list.

Biosphere reserves help ensure the environmental, economic, and social sustainability of the region, by encouraging the wise use of natural and human resources. They provide practical ways to resolve land use conflicts to protect biological diversity. A biosphere reserve area gains access to information, expertise, support, and funding through national and international networks. Biosphere reserves encourage diverse local economies to revitalize rural areas. The biosphere concept can be used as a framework to guide and reinforce projects that enhance people's livelihoods.

In South Asia, over 30 biosphere reserves have been established. The first one was the Hurulu Biosphere Reserve, in Sri Lanka, with 25,500 hectares of tropical dry evergreen forest. In India, the first biosphere reserve was designated by UNESCO in 2000, namely, the blue mountains of the Nilgiris stretching over Tamil Nadu, Karnataka, and Kerala.

UNESCO-MAB(Man and Biosphere) Program

It is an intergovernmental scientific programme launched in 1971 by UNESCO to establish a scientific basis for enhancing the relationship between people and their environments. Under the programme, UNESCO has established the World Network of Biosphere Reserves(WNBR). Biosphere reserves are nominated by national governments. If selected by UNESCO, they are included in the WNBR. There are 18 biosphere reserves of India which have been recognized internationally under Man and Biosphere(MAB) Reserve program.