Khangchendzonga To Be Included In The World Network of Biosphere Reserves

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The Khangchendzonga Biosphere Reserve has become the 11th Biosphere Reserve from India that has been included in the UNESCO designated World Network of Biosphere Reserves (WNBR).

- The decision was taken at the 30th Session of International Coordinating Council (ICC) of Man and Biosphere (MAB) Programme of UNESCO held at Palembang, Indonesia.
- India has 18 Biosphere Reserves and with the inclusion of Khangchendzonga, the number of internationally designated WNBR has become 11, with 7 Biosphere Reserves being domestic Biosphere Reserves.

List of Biosphere Reserves in India

Name	State	Geography
Great Rann of Kutch	Gujarat	Desert
Gulf of Mannar	Tamil Nadu	Coasts
Sundarbans	West Bengal	Gangetic Delta
Cold Desert	Himachal Pradesh	Western Himalayas
Nanda Devi	Uttarakhand	Western Himalayas
Nilgiri Biosphere Reserve	Tamil Nadu, Kerala and Karnataka	Western Ghats
Dihang-Dibang	Arunachal Pradesh	Eastern Himalaya
Pachmarhi Biosphere Reserve	Madhya Pradesh	SemiArid

Seshachalam Hills	Andhra Pradesh	Eastern Ghats
Simlipal	Odisha	Deccan Peninsula
Achanakamar Amarkantak	Madhya Pradesh, Chhattisgarh	Maikala Hills
Manas	Assam	East Himalayas
Khangchendzonga	Sikkim	East Himalayas
Agasthyamalai Biosphere Reserve	Kerala, Tamil Nadu	Western Ghats
Great Nicobar Biosphere Reserve	Andaman and Nicobar Islands	Islands
Nokrek	Meghalaya	East Himalayas
Dibru-Saikhowa	Assam	East Himalayas
Panna	Madhya Pradesh	Ken River

Khangchendzonga Biosphere Reserve

- Khangchendzonga Biosphere Reserve which is located in Sikkim is one of the highest ecosystems in the world, reaching elevations of 1, 220 metres above sea-level.
- It includes a range of ecoclines (a gradation from one ecosystem to another, with no abrupt boundary between the two), varying from sub-tropic to Arctic, as well as natural forests in different biomes, that support an immensely rich diversity of forest types and habitats.
  Khangchendzonga National Park (KNP) was designated **a World Heritage Site in 2016 under the 'mixed' category** (Mixed heritage sites contain elements of both natural and cultural significance).
- World's third highest peak, **Mt. Khangchendzonga,** is situated within the Park. Numerous lakes and glaciers, including the 26 km long **Zemu Glacier** are a part of the Biosphere reserve.
- Many of the mountains, peaks, lakes, caves, rocks, Stupas (shrines) and hot springs function as pilgrimage sites.
- Over 118 species of the large number of medicinal plants found in Dzongu Valley in north Sikkim are of ethno-medical utility.
- The transition zone of the Biosphere Reserve is targeted for eco-development activities, afforestation, plantation of medicinal herbs and soil conservation measures.
- The core area of the Biosphere Reserve is a major transboundary Wildlife Protected Area and is largely situated in the Greater Himalayas.
- The northern part of the area is characterized by trans-Himalayan features.
- Buffer zones are being developed in the Park to promote eco-tourism activities.

Cultural Significance of Khangchendzonga National Park

- KNP is home to a sacred site of one of the **world's leading religious traditions**. The **notion of beyul or hidden sacred land,** which extends to all of Sikkim, but has its heart in the territory of Khangchendzonga National Park, is important in Tibetan Buddhism, not only intrinsic to Sikkim, but in the neighbouring countries and beyond.
- The multi-layered sacred landscape of Khangchendzonga and the cultural and religious relevance of the hidden land (beyul in Tibetan Buddhism and Mayel Lyang, in Lepcha tradition) is specific to Sikkim and is a **unique example of co-existence and exchange between different religious traditions and people.**
- The **indigenous religious and cultural practices of the Lepcha** with regard to the ecology and the specific properties of local plants, stands as an example of traditional knowledge and environmental preservation.

Biosphere Reserves

- Biosphere Reserves (BRs) are representative parts of natural and cultural landscapes extending over large areas of terrestrial or coastal/ marine ecosystems or a combination thereof and representative examples of bio-geographic zones/provinces.
- The idea of the biosphere reserve was initiated by UNESCO in 1974 under the Man and Biosphere Programme (MAB). The objective of the programme was to obtain international cooperation for the conservation of the biospheres.

Core Area, Buffer Zone and Transition Zone

- The **transition area** is the **outermost part** of a biosphere reserve. This is usually not delimited one and is a zone of cooperation where conservation knowledge and management skills are applied and uses are managed in harmony with the purpose of the biosphere reserve.
- The **core area is kept free from human pressures** external to the system. It contains suitable habitat for numerous plant and animal species, including higher order predators and may contain centres of endemism. Core areas often conserve the wild relatives of economic species and also represent important genetic reservoirs having exceptional scientific interest.
- The **buffer zone, adjoins or surrounds core zone**, activities are managed in this area in the ways that help in protection of core zone in its natural condition.
- These activities include restoration, demonstration sites for enhancing value addition to the resources, limited recreation, tourism, fishing, grazing, etc; which are permitted to reduce its effect on core zone. Research and educational activities are also encouraged.

Man and Biosphere Programme

- Launched **in 1971**, 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.

- MAB combines the natural and social sciences, economics and education to improve human livelihoods and the equitable sharing of benefits, and to safeguard natural and managed ecosystems, thus promoting innovative approaches to economic development that are socially and culturally appropriate, and environmentally sustainable.