



Biodiversity Hotspots in India

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Variety and variability among the different organisms is known as biodiversity. Biodiversity is classified into 3 different types. Biodiversity is very important aspect in the particular ecosystem. India is mega biodiverse nation accounts for 10% of total world species. India comes under the 17 megadiverse countries at global level. The biodiversity conservation act was formulated during year of 1999. In particular ecosystem all the species should be balanced. In this article we see in detail about the biodiversity hotspots in India.

Importance of biodiversity

- It represents the almost infinite variety of plant and animal life.
- It enables humans to survive in adverse conditions.
- Biodiversity is the very stuff that supports the evolution and differentiation among the varying species.
- It is responsible for the differences among groups within the larger species.
- Without biodiversity we would be (if we existed at all) a homogeneous population.
- It provides us with nourishment, housing, fuel, clothing and several other resources

Types of biodiversity

Species diversity: It measures the number of species in a given community and also distribution of each species within the community. The variety and abundance of different species within a specific area or ecosystem. Species is distinct unity of diversity refers to the variety of species with in a region. The loss of one species has the consequences for the ecosystem.

Community /ecosystem diversity: Community and ecosystem diversity is a group of population of different species in a given area. It includes population of plants, animals and micro-organisms in that particular area. Depending upon the availability of abiotic resources is a condition of the environment on ecosystem develops its own characteristic community of living organisms. Different types of forest, grass lands, lakes, ponds, rivers represent diverse ecosystem each with a characteristics biotic community.

Genetic diversity: Genetic diversity is the genetic makeup of a species. The minute difference found within a species is between the varieties, races strains are due to slight variations in the genetic organization. There minute differences may be in shape, size, quality of the product resistance to insect, pest and diseases, etc. If a species has more genetic diversity, it would be better in the changed environment. Lower diversity in a species leads to uniformity (monoculture).

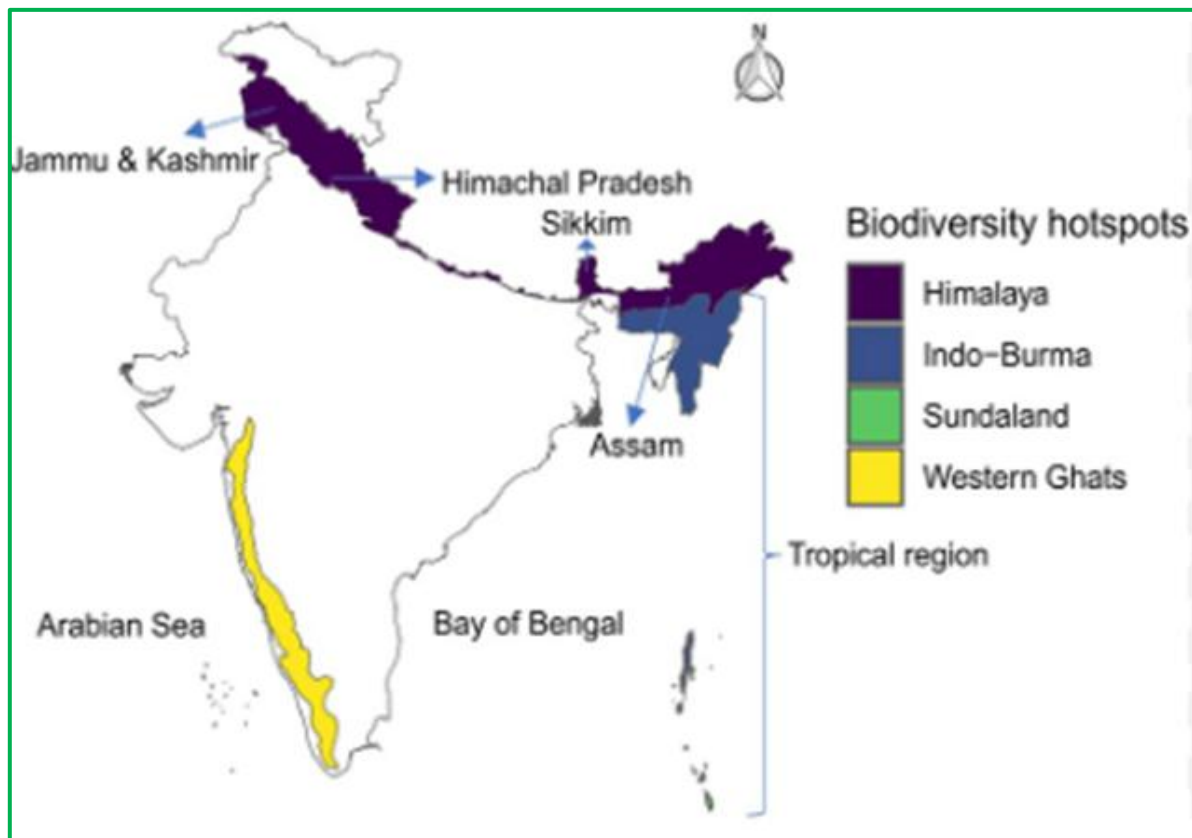
Biodiversity of India

In India there are four mega evidence centers. (4 out of 36 global biodiversity)

- **Himalayas** – Includes Nepal, Bhutan, Northeast India.
- **Western Ghats and Sri Lanka** – One of the world's top biodiversity hotspots.

- **Indo-Burma Region** – Includes north eastern states and Andaman Islands.
- **Sundaland** – Includes Nicobar Islands

India ranks 8th in the world in terms of total biodiversity (species richness). India comes under - 17 megadiverse countries globally by Conservation International. In India 45,000 plant species and 100,000 animal species were present all over the area.



Conservation of biodiversity

Conservation of Biodiversity is simply the act of protecting all the different types of life on Earth, plants, animals, insects, and even tiny Micro organisms. This includes providing us with clean air, food, water, and medicine. Human actions like pollution, deforestation and climate change are putting this rich variety of life at risk. Affect the food, the climate, and the health of the planet.

Types

In-situ conservation: Conserving the species within the ecosystem is known as in-situ conservation. In these conservation the ecosystem is not disturbed. The system remains undisturbed so that the ecosystem is maintained. Eg: Bio sphere reserves, National park, Wildlife sanctuary.

Ex-situ conservation: Conserving the species outside the ecosystem is known as ex-situ conservation. It is manmade ecosystem. The entire system is completely disturbed. Eg: Zoo, seedbank, cryopreservation.

Conclusion

By conserving the biodiversity of the India the microbial population is enhanced so that the fertility status of the soil is increased. It act as the biodiversity laboratories for enhancement of scientific research and development of genetic diversity. So we need to conserve the biodiversity to sustain the environment.