

⑥ 13) Biosphere Reserves

The Concept of Biosphere Reserves has been evolved by UNESCO's Man and Biosphere Programme (MABP). A biosphere reserve is a ~~specialised~~ specified area in which multiple use of the land is permitted by dividing it into zones. Each zone is for a particular activity. ~~Reserve~~

A biosphere reserve is divided into three zones :-

- Core Zone
- Buffer Zone. and
- Manipulation Zone.

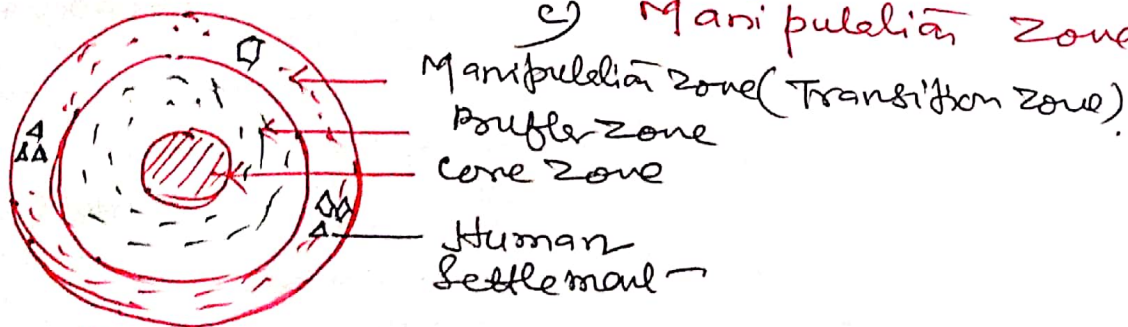


Fig- Biosphere reserve
in Terrestrial area

- Core Zone :- No human activity is allowed in the Core Zone
- Buffer Zone :- ~~limited~~ Limited human activity is permitted in this zone.
- Manipulation Zone :- Several human activities can occur in the manipulation zone.

Biosphere reserve are used to protect species for a long time. Currently, there are 18 Bio-sphere Reserve in India.

(7) (11)

Reserve

(20)

Some of the Biosphere Reserves of India are —

1. Mandla 'Sani'
2. Manas Biosphere Reserve
3. Achanakumbha Biosphere Reserve
4. Sunderbans B.R.
5. Nilgiri B.R.
6. Greenhills B.R.
7. Kanha Biosphere Reserve
8. Panchmukhi
9. Simlipal B.R. etc.
10. Agastya Agastya malai etc.

Role of Biosphere Reserve.

Biosphere Reserve Preserves:—

- i. wild population
- ii. life style of tribals and
- iii. genetic resources of domesticated plants & animals

④ Sacred Grooves & Lakes.

Sacred grooves are the sacred, forest patches around place of worship. These are held in high esteem by tribal communities & State or Central Government. These are most undisturbed forest patches. eg. Island of Pristine forest. which is surrounded by degraded landscapes. Such sacred grooves are found in several regions in India & such as Khasi & Jaintia hills of Meghalaya, Sarguja, Chanda & Buxar areas of M.P. Western Ghats regions of Maharashtra, and Karnataka etc. Tribals have built temples in such patches eg. deodar forest in Munim.

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region, Jaintia & Khasia in Meghalaya. Tribals don't allow to cut even a single branch of tree in these Sacred grooves. That is why many endemic species (Rare species) are seen to flourish in these Sacred grooves. Many Paishnais tribes of Rajasthan protect Prosopis cineraria & black buck religiously. Many flora & fauna are naturally preserved.

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(B) Ex-situ conservation:-

Ex-situ conservation literally means, ^{holding of} off-site conservation. It is the process of protecting an endangered species, extinct species, vulnerable species, different variety or breed of plants or animal outside its natural habitat. For example, by removing part of the population from a threatened habitat and placing it in a new location, wild area or within the care of humans.

Ex-situ conservation may include:-

- 1/ Botanical Gardens & Arboreta.
- 2/ Zoo & Aquarium
- 3/ Seed Banks
- 4/ Gene Banks
- 5/ Cryopreservation

1) Botanical garden & Arboreta

A botanical garden is a place where the different plant species especially Endangered ones can be preserved for the research purposes.

An arboretum is a botanical collection composed exclusively of trees. An Arboretum is an area devoted to specimens. It is plantings of trees and shrubs. It is a place where many varieties of trees are grown for research, education and ornamental purposes, where trees and shrubs are cultivated for exhibition.

There are botanical gardens & arboreta in the world containing more than 80,000 species. In India, 35 botanical

There are some botanical parks in India.

<u>Name</u>	<u>State</u>
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1. Botanical garden, — Assam
Guwahati
2. Sanjay Gandhi, — Bihar
Jai Vikram Udyan,
Patna
3. Hyderabad Botanical — Telangana
Garden
4. Botanical Garden — Chandigarh.
(Punjab University)
5. Botanical garden — Gujarat.
Vaghai, Saputara