

08

TNPSC GROUP II / IIA MAINS SCERT - SCIENCE & TECHNOLOGY QUESTION WITH ANSWER

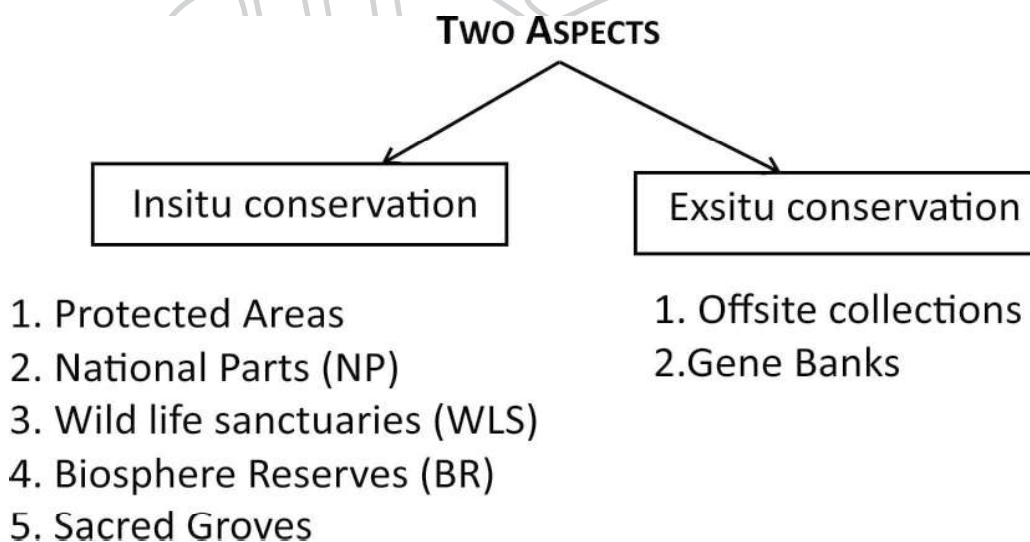
8. Biodiversity & its conservation

Biodiversity

- According to UN Rio Earth summit, 1992 - Biodiversity is defined as variability among living organisms from all sources - terrestrial, marine & other aquatic ecosystems & the ecological complexes of which they are a part.

Conservation

- Safeguarding the biodiversity for the benefit of the present and future generations through careful planning & management. Principle of stockholm declaration 1972.



Insitu conservation

- Conservation of genetic resources through protection within a natural / manmade ecosystem in which they occur.
- Conservation & Protection of whole ecosystem and its biodiversity at all levels.

a) Protected Areas

- Biological diversity along with natural & cultural resources is protected, maintained and managed through legal measures
- Protected Areas includes
 - a) National Parks
 - b) Wildlife sanctuaries
 - c) Community reserves
 - d) Biosphere reserves
- 37,000 - Worldwide; 771-India

b) National Parks (NP)

- Natural habitat notified by state government
- No human activity is permitted
- Exception - Activities permitted by Chief wildlife warden, state
- Chapter IV - WPA, 1972
- Eg. Guindy NP, Anaimalai NP, Muturthi NP
- India - 104 National Parks
- Development, Poaching, Hunting, Grazing - not permitted

c) Wildlife sanctuaries (WLS)

- Any area other than reserve forest / territorial water
- Notified by state government
- Some restricted human activities are allowed - Biotourism
- India - 544 WLS
- Eg. Vedanthangal Lake birds WLS, Point Calmery WLS.

d) Biosphere Reserve (BR)

- It is an international designation by UNESCO

- For representative parts of natural & cultural landscapes extending over large area of terrestrial / coastal / marine ecosystems or combination thereof.
- Guided by UNESCO's Man and Biosphere (MAB) Programme
- BR - special environments for both people and nature.
- India - Implemented in 1986; 18 Biosphere reserves
Eg. Agasthyamalai, Gulf of Mannar - TN

e) Sacred groves

- Any grove of trees that are of special religious importance of a particular culture
Eg. Alagar hills, Solai Andavar kovil, Kandanur - TN

2) Ex-site conservation

- Conservation of selected rare plants / animals in places outside their natural homes.

a) Offsite collections

- Live collections of wild & domesticated species in Botanical gardens, zoological parks, wildlife safaris, Arboreta (Gardens with trees & shrubs)
- Maintained for captive breeding programmes
- After increase in number selectively released in wild
Eg. Indian crocodile, Gangetic dolphin - saved from extinction

b) Gene banks

- Type of biorepository which preserve genetic materials.
- It is not economically feasible to conserve all biological wealth & ecosystems.

Insitu conservation		Exsitu conservation	
1.	Onsite conservation in natural population of plant / animal species	1.	Placing of threatened animals & plants in special care locations
2.	Protecting / restoring the habitat itself or defending the species from predators	2.	Recovering population / preventing their extinction under simulated conditions
3.	National parks, Biosphere reserve, wildlife sanctuaries	3.	Zoological parks & Botanical gardens