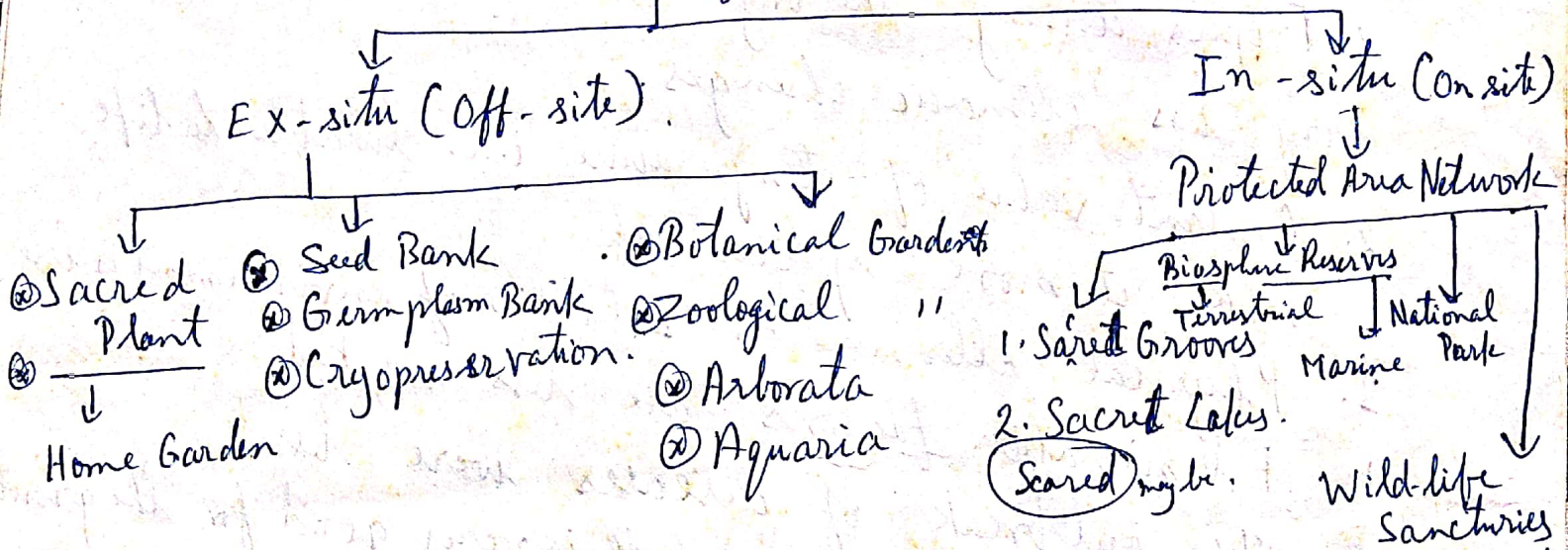


# Conservation of Bio-diversity

Biodiv. contd (8)

The entire conservation strategies may be depicted as:

## Bio-diversity Conservation



The steps for conservation of biodiversity are as →

- Expansion of protected area
- ~~Survey of population and assessment~~
- Population survey and assessment for creation of database.
- Mapping of forest type, protected area and national forest.
- In-situ conservation.
- Regular population habitat, viability and risk simulations.
- Captive breeding and species reintroduction.
- Information Net-working.
- Geographical Information System in planning and monitoring.
- Network beyond the protected area.
- Community oriented approaches.
- Harvesting voluntary action.
- Involvement of private sector.



# BIO SPHERE RESERVES

The organisms (animals and plants) living in their natural condition are known as wild. Wild life is very essential for the maintainance of ecological balance.

In the entire world wild life is under constant threat mainly due to human activities such as

— Destruction of forest and their natural abode for construction of dams, roads, and agricultural fields and, factories and industries.

— Hunting  
— Poaching etc.

There is need for their preservation. It has found very difficult to make the shift the man kind living in deep forest since long. A solution came was sought out in 1971 by UNESCO in the form of Man and Biosphere (MAB) programme, for the mutual co-existence of both men and wild ones. Protected areas were deployed such as

- Biosphere Reserves
- National Parks
- Sanctuaries etc.

- |   |            |
|---|------------|
| 1. Nilgiri Biosphere Reserve. Spruce → Core → 3538 Sq. K.M. Buffer. | <b>Box</b> |
| 2. Nanda Devi " " III Manipulative → 335 Sq. K.M.                   |            |
| 3. Kanha IV Restoration → 706 Sq. K.M.                              |            |
| 4. Kaziranga  |            |
| 5. Great Nicobar  |            |
| 6. North Andaman  |            |
| 7. Thar Desert  |            |
| 8. Sundarban  |            |
| 9. Uttarakhand (Valley of Flowers)                                  |            |
| 10. Nokrek  |            |
| 11. Little Rann of Kutch. 13. Manas                                 |            |
| 12. Gulf of Mannar  |            |



# BIO SPHERE RESERVES

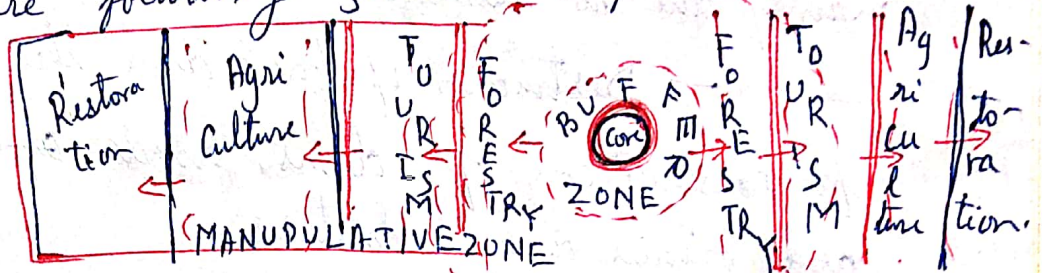
Are legally defined area where the wild animals are left to live in their own habitat with restricted interference of human beings.

It is a new concept, a part of conservation of ecosystem, bio-diversity and in-situ conservation.

The boundary of Biosphere reserves are demarcated by legislation and it cannot be changed.

There are following zones in Biosphere reserves.

- Core.
- Buffer
- Manipulative
- Restoration



- A CORE ZONE** → The innermost zone. Here human activities are completely prohibited.
- B BUFFER ZONE** → It surrounds the core zone. Here limited human activities are allowed with prohibition of residency either temporary or permanent.
- C MANIPULATIVE ZONE** → Here human activities of tribal ones are allowed. It is sub-divided as:
  - i) **Manipulative Forestry zone** → Here afforestation is done. Plantation of trees and their commercial products may be harvested.
  - (ii) **Manipulative Tourism zone** → Here tourism is allowed. It is also used for education and training. It earns revenue for maintenance.
  - (iii) **Manipulative Agriculture zone** → Here tribal people may do agriculture for their food, fodder and some other uses.

**D RESTORATION ZONE**: It is the outermost zone where all kinds of activities for restoration of forest can take place.

Biosphere reserves cover a vast area which may include many types of ecosystems and more than one national parks & sanctuaries. In the world there are 412 Biosphere Reserves.

In India there are 12 Biosphere Reserves:

1st is Nilgiri Biosphere reserve set up in 1986. It includes two national parks Bandipur & Nagarhole.   
 Govt. N. Park.   
 P.T.O. DBR.



## Hot Spots

Norman Mayer in 1988 coined the word Hot Spots. Hot spots are the main area for the plant and animal species. A/c to UNEP/UNDP the biological diversity is unevenly distributed. Some area harbour greater biodiversity than other. The species rich area are known as Hot spots. In other words the area of the world rich in species and under greater threat of extinction of species are known as Hot Spots.

There are about 25 Terrestrial hot spots in the world, which covers about 1.4% of the total land area. In tropics there are 12 Hot spots.

- ① Eastern Himalayas.
- ② Western Ecuador
- ③ Western Uplands of America
- ④ Queensland Australia
- ⑤ New Caledonia
- ⑥ Brunsilia.
- ⑦ Hawaii.
- ⑧ Californian floral Province.
- ⑨ Malayan Archipelago.
- ⑩ Madagascar
- ⑪ Choco of Canada
- ⑫ New Chile

Objectives

Some of the main objectives are

- Maintain essential process and life support system (air, water and soil).
- Ensure that any material of world's organism.
- Preserve the biodiversity of species or the range genetic material of world's organism.