6. Cubbon Park, Bangalore — Karnataka
7. Curzon Park, Mysore — Karnataka.
8. Jawaharlal Nehru Tropical Botenical Garden & Research — Kerala.
9. Jawaharlal Nehru Tropical Botenic Garden & Research, Institute, Trivendrum — Kerela
10. Odisha State Botenical Garden, Nandankanan, Bhubaneswar — Odisha

There are 80,000 plant species are grown in B.G. This is about 30% of worlds plants. Kew Garden has is about 25000 species, about 10% of which are globally threatened. Most plant lack the complex behaviors their many making it easier to keep them alive & breeding.

(2) Zoo & Aquarium

Zoo and Aquarium are the restricted area for the conservation of animals in out side the natural habitats. There are 800 managed zoos. ~~which~~ having 7000 Vertebrate species. eg. Amphibians, reptiles, birds, mammals. Majority of these zoos here well developed Capative breeding programmes. In India 275-Zoo, deer parks, Safari parks and aquaria are there. It is involved for rearing of threatened animals,

Zoos are relatively good places for maintaining species in captivity & for captive breeding programme.

In human, artificial insemination or embryo transfer to surrogate mother is creating hybrid closely related species the whooping crane is an endangered bird that breeds in Canada & winters in Texas. less than 200 species are left in the wild.

In many species, the reproductive rate can be increased by taking young (or eggs) away from their parents, so that the parent start to breed again more rapidly.

Some places, like the San Diego Zoo, have made the breeding of endangered species a major part of their mission & have devoted considerable resources to captive breeding programs.

The zoological society of San Diego has established a frozen zoo to store more than 355 species of different animals including reptiles, birds & mammals.

(3) Seed Banks

Rare plants and rearing of threatened animal species in Botanical & Zoological gardens preserved the former is the form of seed banks by means of tissue culture techniques.

In seed banks, the seeds are kept in cold, dark conditions, which slow down the metabolism & prevent the seeds from germination. In this state, they can be preserved for many years (even decades)

Currently about 10,000 – 20,000 of The worlds plants are ~~p~~ represented in seed Banks. Some seed banks (one at Kew – England) have a goals of obtaining not only a high representation of the worlds.

Recalcitrant seeds are seeds that donot survive drying and freezing during ex-situ conservation & vice-versa. These seed cannot resist the effects of drying & temperatures less than 10°C, thus, they cannot be stored for long periods like orthodox seeds, because, they ~~total~~ lose their viability. eg – Mango, lychee, cocoa, Rubber tree, Nymphaea, Sengal medicinal plant

Orthodox seeds are long lived seeds & can be successfully dried to moisture contents as low as 5% without injury & are able to tolerate freezing. In fact, the life span of orthodox seeds can be prolong with low moisture content & freezing temperature. Ex-situ-conservation of orthodox seeds is therefore, not problematic. eg – Citrus aurantifolia, Capsicum annum, Hamelia patens, Lantana camara, guava (Psidium guajava), cashew (Anacardium occidentale) & most grains & legume type.

A seed bank stores seeds to preserve genetic diversity, hence, it is a type of gene bank. There are many reasons to store seeds. One is to preserve the genes that plant Breeders needs to ~~yi~~ increase yield, disease resistence, drought tolerance, nutritional quality, taste, etc of crops.

(4) Gene banks :- A collection of seeds, plants or animals, maintained as a repository of genetic material, typically to preserve genetic diversity.

Gene banks are a type of bio-repository which preserve genetic material. For Plants, this is done by in-vitro storages, freezing cuttings from the plant or stocking the seeds. For animals, this is done by the freezing of sperms & eggs in Zoological freezes until further need.

Genetic material in a gene bank is preserved in a variety of ways, such as freezing at $-196^\circ c$ in liquid nitrogen, being placed in artificial ecosystems & put them in controlled nutrient mediums.

National Bureau of Plant Genetic Resources (NBPGR) is located in New Delhi. Here, ~~origr~~ agricultural & horticultural crops & their wild relatives are preserved by Cryo-preservation of seeds, pollen & etc- by using liquid nitrogen at low temp $-196^\circ C$. this process is called Cryopreservation. eg. Brassica, turnip, Radish, Tomato, onion, Carrot, Chilli, tobacco, Poppy etc can be preserved successfully in liquid nitrogen for several years without losing seed viability.

NBAGR ~~are~~ is located at Karnal, Haryana. It preserves the semen of domesticated bovine animals (is the networking co-ordinator country).

G-15 countries have also resolved to set-up a network of gene banks to facilitate the conservation of various varieties of aromatic & medicinal plants for which India

(5) Cryopreservation — It is in vitro- ~~pro~~ conservation. It is useful technique for preserving vegetatively propagated crops eg- Potato, seeds of plants, preserving sperms & eggs, embryonic tissues of animals also ... technique. Endangered animals can be preserved by this technique.