In-situ and ex-situ conservation methods

In-situ conservation, the conservation of species in their natural habitats, is considered the most appropriate way of conserving biodiversity. Conserving the areas where populations of species exist naturally is an underlying condition for the conservation of biodiversity. That's why protected areas form a central element of any national strategy to conserve biodiversity. Ex Situ Conservation Methods Ex-situ conservation is the preservation of components of biological diversity outside their natural habitats.

This involves conservation of genetic resources, as well as wild and cultivated or species, and draws on a diverse body of techniques and facilities. Some of these include: * Gene banks, e. g. seed banks, sperm and ova banks, field banks; * In vitro plant tissue and microbial culture collections; * Captive breeding of animals and artificial propagation of plants, with possible reintroduction into the wild; and * Collecting living organisms for zoos, aquaria, and botanic gardens for research and public awareness.

Ex-situ conservation measures can be complementary to in-situ methods as they provide an " insurance policy" against extinction. These measures also have a valuable role to play in recovery programmes for endangered species. The Kew Seed Bank in England has 1. 5 per cent of the world's flora – about 4, 000 species – on deposit. In agriculture, ex-situ conservation measures maintain domesticated plants which cannot survive in nature unaided.

Ex-situ conservation provides excellent research opportunities on the components of biological diversity. Some of these institutions also play a central role in public education and awareness raising by bringing members

of the public into contact with plants and animals they may not normally come in contact with. It is estimated that worldwide, over 600 million people visit zoos every year. Ex situ conservation measures should support in-situ conservation measures (in-situ conservation should be the primary objective)