

Subject: Zoology

Paper : Biology of Wild life

Strategies of Conservation (Policies & Programme)

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Strategies for Conservation:

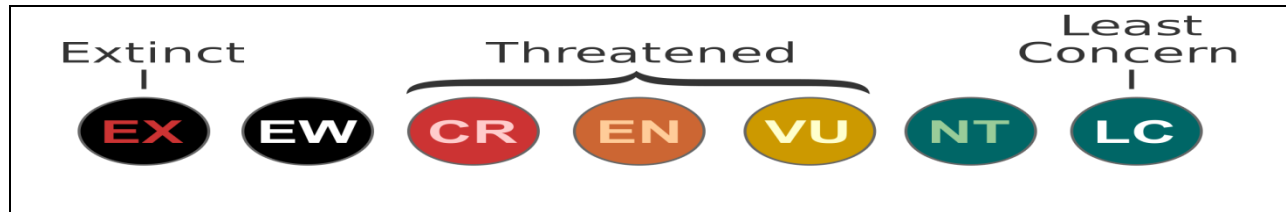
There are various traditions of nature and wildlife conservation in Indian history and culture. India has played an important role in the protection of various wild animals like elephants, monkeys, snakes etc. There was some strict supervision in the protected areas and some animals, birds and fish were fully protected. Wildlife conservation has been executed in India under the Indian Forest Act and the legal framework of protected areas focused on species and wildlife protection act. Under this approach, schemes like National Wildlife Action Plan, National Biodiversity Action Plan, Project Tiger, and Project Elephants etc. are being implemented. India is one of the largest biodiversity areas in the world and home to 90,000 animal species and 50,000 species of plants. To maintain ecosystem stability, this biological diversity should be preserved. In India, the population of elephants, tigers and lions is rapidly decreasing, the cheetah is already extinct. Asian lions, which were very common in Asia, have disappeared from Asia, except in some hundred square kilometers of area in India. In the last 100 years in India,

four types of mammals and three species of birds have become extinct. Another 40 species of forests, 20 species of birds, and 12 species of reptiles are considered highly threatened due to overexploitations, of habitat.

1. International Union for Conservation of Nature (IUCN): Established 1948 in Morges (Switzerland), it maintains a **red data book** or **red list** which is catalogue of taxa facing risk of extinction. IUCN represents those who are concerned at modification of natural environment by humankind through the rapid growth of urban and industrial development and the excessive exploitation of the earth's natural resources. They convene their meeting every third year. The IUCN is also the scientific advisor to world wild life fund. The IUCN Red List is used by government agencies, wildlife departments, conservation-related non-governmental organisations (NGOs), natural resource planners, educational organisations, students, and the business community. The Red List process has become a massive enterprise involving the IUCN Global Species Program staff, partner organisations and experts in the IUCN Species Survival Commission and partner networks who compile the species information **to make The IUCN Red List the indispensable product it is today.**

To date, many species groups including mammals, amphibians, birds, reef building corals and conifers have been comprehensively assessed. As well as assessing newly recognized species, the IUCN Red List also re-assesses the status of some existing species, sometimes with positive stories to tell. For example, good news such as the downlisting (i.e. improvement) of a number of species on the IUCN Red List categories scale, due to conservation efforts. **Currently, there are more than 116,000 species on The IUCN Red List, with more than 31,000 species** threatened with extinction. Increased assessments will help to build The IUCN Red List into a more complete 'Barometer of Life'. To do this we need to increase the number of species assessed to at least 160,000 by the end of 2020. This will improve the global taxonomic

coverage and thus provide a stronger base to enable better conservation and policy decisions. The IUCN Red List is crucial not only for helping to identify those species needing targeted recovery efforts, but also for focusing the conservation agenda by identifying the key sites and habitats that need to be protected. Ultimately, The IUCN Red List helps to guide and inform future conservation and funding priorities.



EX-Extinct; EW-Extinct in the wild; CR- Critically Endangered; EN- Endangered; VU- Vulnerable; NT- Near threatened and LC- Least Concern.

- **Threatened species** is the one which is liable to become extinct if not allowed to realize its full biotic potential by providing protection from exotic species/ human exploitation/ habitat deterioration/ depletion of food. Red data book was initiated in 1963-64. The purpose of preparation of red list is-
 - Provide awareness to the degree of threat to biodiversity.
 - Provide global index about already decline of biodiversity
 - Identification and documentation of species at high risk of extinction.
 - Preparing conservation priorities and help in conservation action.
- **Extinct (EX):** The Texan has completely eliminated or died out from earth. Eg, *Dodo*. (*Atherenella callida*)-this Mexican freshwater fish has not been seen since 1957. Declared it extinct in 2019
- **Extinct in the Wild (EW):** The Texan is absent in any of its natural or expected habitats in the wild. A number of domesticated animals and plants have become extinct in the wild.

- **Critically Endangered (CR):** The Texan is facing very high risk of extinction in the wild and can become extinct any moment in the immediate future. As of 2014, there are 2,464 animal and 2,104 plants species with this assessment. E.g. *Gibbans*, *Great appes* etc. *Berberis nilgiriensis* (shrub); *Podophyllum* (plant).
 - **Endangered (EN):** It is facing a high risk of extinction in the wild in the near future due to decrease in habit, excessive predation. Percentage number of endangered species in the list of threatened ones is 41% of amphibians, 34% of conifers, 33% of reef building corals, 25% of mammals and 14% of birds. e.g. Red panda, Blue whale, Asiatic wild ass, lion tailed macaque etc.
 - **Vulnerable (VU):** Presently the population is sufficient but is undergoing depletion due to some factor or factors so that it is facing risk of extinction in medium term in future. Out of total threatened species 35-50% is vulnerable. e.g. Black bug, Indian gazelle etc.
 - **Least Concern (LC):** They are threatened species which have lower risk of extinction and therefore, require only a small attention to become normal flourishing species. (does not qualify for a more at risk category; widespread and abundant taxa are included in this category).
 - **Data Deficient (DD):** The data for making direct or indirect assessment of risk of extinction is deficient.
 - **Not Evaluated (NE):** The Texan has not been evaluated for risk of extinction.
- Out of these, four categories of species are included **under threatened species- critically endangered, endangered, vulnerable and lower risk species**. Two more categories are also added to them. They are-

- a) **Rare species (R)**- They are species with naturally small populations, either localized or thinly scattered, which are always at risk from pests/ pathogens/ predators/ exotic species. Clouded leopard (*Neotelis nebulosa*) of Himalayan is a rare species because of poaching and loss of habitat.
- b) **Intermediate species**- The species are in danger of extinction but the reason is not known, e.g. 3 banded Armadillo of Brazil, short eared rabbit of Sumatra, Mexican Prairie dog.

2. WWF-India:

World Wide Fund for Nature-India (WWF India) was founded with the express objective of ensuring the conservation of the country's wildlife and natural habitats. It was set up as a Charitable Public Trust on 27 November 1969 and its head quarter at Mumbai. It was then known as the World Wildlife Fund India, much before the terms 'wildlife' and 'environment' had caught the attention of the government or the public. Throughout the seventies and eighties, WWF India kept its focus primarily on wildlife and nature conservation. Whilst our conservation initiatives for the tiger and other priority species continue to be a core area of our work, our programmes move ahead on education, sustainable agriculture, marine conservation, engaging with businesses to adopt better environmental practices, inspiring citizens to take positive action for the planet, among many others. This year, we mark 50 years of WWF in India, and here's to another 50 years of staying true to our mission of building a future where humans live in harmony with nature. The important project taken over by them are- Andaman pig study; Crane conservation project; Crocodile breeding project; Ecological survey of Western Ghats, Sloth bear project; Status survey of sea turtle; Wild life Protection Act was promulgated in the year 1972 and then amended in 1991.

3. World Wild life Fund (WWF)-

The World Wide Fund for Nature is an international non-governmental organization founded in **1961 at Gland in Switzerland and the giant Panda (*Alluropoda melanoleuca*) was chosen its symbol.** WWF working in the field of wilderness preservation, and the reduction of human impact on the environment. It was formerly named the World Wildlife Fund, which remains its official name in Canada and the United States. For nearly 60 years, WWF has worked to help people and nature thrive. As the world's leading conservation organization, WWF works in more than 100 countries.

4. Wild Life preservation Society of India:

Wildlife Preservation Society (India) Dehradun is a non-profit NGO registered under the Societies Registration Act XXI of 1860 with Registration number 2730 of 1960-61. Current renewal number 329/2011-12 (File no. 100291).

History: The idea of framing a non official organization to serve the cause of Wildlife was first floated in 1954 by Wildlife lovers and enthusiasts like PD Stracey and JN Onial who assembled under the able leadership of Late His Highness Maharaja Sir Pratap Singh of Nabha. The foundation of the “Wildlife Preservation Society of North India” was laid in April 1958. The Society expanded and changed into “Wildlife Preservation Society of India” in 1960. The main objectives of this society are-

- A. To promote interest and impart knowledge regarding the preservation and conservation of all forms of Wildlife, particularly among the youth of the country.
- B. To conduct research into the problem of Wildlife Management in India, and in pursuance of this, to initiate, encourage and, where possible assist in the projects of the study of

threatened species and related objects and to provide reference and research facilities for such work.

5. Bombay Natural History Society (BNHS):

Bombay Natural History Society is one of India's biggest Non-Governmental Organizations (NGO) that was founded in 1883. The main aim of this organization is to conduct research activities and observations on natural history and displaying rare specimens. The BNHS specializes in the conservation of nature and natural resources as well as organizing education activities and exploration of natural history. Interesting specimens are exhibited in the Bombay Natural History Museum (BNHS). Naturalists, ornithologists and other qualified scientists within the country and all over the world, make visits to this museum in order to conduct their researches and observations. BNHS is a chief point of attraction for all tourists who ensure to visit all the sections of the museum and the various galleries as well. More than 30 countries are active members of this organization.

6. Indian Board for Wild life (IBWL):

In 1952, Central Government of India Constituted the Indian Board for Wild Life (IBWL) for conserving the wildlife. Following this, many Indian states have setup wild life boards. As per the amendment of the Act in year 2002, a provision was incorporated for the constitution of the National Board for Wildlife, replacing the Indian Board for Wildlife. National Board for Wildlife (NBWL) is a statutory Board constituted on 22nd September 2003 under Section 5 of the Wild Life (Protection) Act, 1972.

National Board for Wild Life is a Statutory Organization. Theoretically, the board is advisory in nature and advises the Central Government on framing policies and measures for conservation of wildlife in the country. However, it is a very important body because it serves as apex body to

review all wildlife-related matters and approve projects in and around national parks and sanctuaries. Primary function of the Board is to promote the conservation and development of wildlife and forests. It has power to review all wildlife-related matters and approve projects in and around national parks and sanctuaries. No alternation of boundaries in national parks and wildlife sanctuaries can be done without approval of the NBWL. The NBWL is chaired by the Prime Minister. It has 47 members including the Prime Minister. Among these, 19 members are ex-officio members. Other members include three Members of Parliament (two from Lok Sabha and one from Rajya Sabha), five NGOs and 10 eminent ecologists, conservationists and environmentalists.