IUCN
International Union for Conservation
of Nature & Natural Resources

INTRODUCTION

IUCN

- It is an international organization working in the field of nature conservation and sustainable use of natural resources.

- Founded in 1948, IUCN is the world's oldest and largest global environmental organization.

- It is involved in data gathering and analysis, research, field projects and education.

- Best known for compiling and publishing Red List based upon assessment of the conservation status of species worldwide.

- Its main goal is to influence, encourage and assist societies throughout the world to conserve nature and to ensure use of natural resources in equitable and ecologically sustainable ways.

MILESTONES

1947 International conference on protection of nature in Brunnen

1948 IUPN formed

1949 IUPN and UNESCO jointly organized conference on protection of nature

1956 Name changed to International Union for Conservation of Nature and Natural Resources

1961 Involved in setting of World Wild Life Fund (now WWF)

1964 Red Data Book was published

1990 IUCN started using World Conservation Union as official name

2008 Reverted back to name as IUCN

2012 IUCN publishes the list of Worlds 100 most threatened species

Present status...

IUCN

HEADQUARTERS:
Gland, Switzerland

217 States and Govt. agencies

1066 NGOs

16151 experts in 6 commissions

161 countries

IUCN INDIA

- India: a megadiverse country- accounts for 7-8% of all recorded species including over 45,000 species of plants and 91,000 species of animals.

- Four of 34 globally identified biodiversity hotspots are in India: The Himalayas, the Western Ghats, The North-East and the Nicobar Islands.

- India became a state member of IUCN IN 1969, through the Ministry of Environment, Forest and Climate Change.

- The IUCN India Country Office was established in 2007 in New Delhi.

- IUCN India works with Members and Commissions to reduce ecosystem and species loss by providing the necessary tools and knowledge to value, conserve and use biodiversity sustainability; enhance governance and policy for better management of ecosystems and habitats, including protected areas.

MEMBERS

- As defined in Articles 4 and 5 of the IUCN statutes members of IUCN is divided into three categories:
- Category A: (a) States and government agencies
  - (b) Political and/or economic integration organizations.
- Category B: (c)National non-governmental organization
  - (d) International non-governmental organization
- Category C:(e)Indigenous people's organization
- Category D: (f) Affiliates

PRINCIPLES

IUCN's work is guided by 3 core principles:

- Valuing and conserving nature.
- Effective and equitable governance of natural resources.
- Developing nature-based solutions to environmental and developmental challenges both on the global and local level.
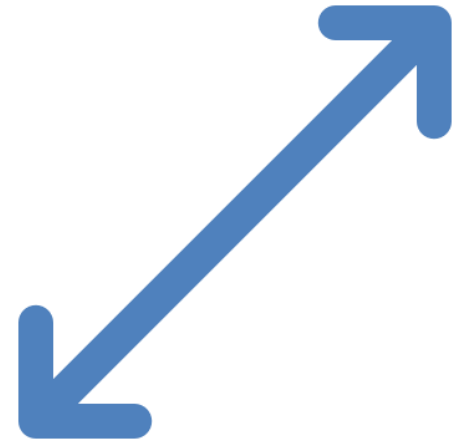
FUNCTIONS

1. **LIVELIHOOD SECURITY AND SUSTAINABILITY**

Experts and various stakeholder groups unanimously agree that ecosystem cannot be conserved in a long run without addressing the two critical issues of securing livelihoods of communities dependent on these ecosystem and at the same time ensuring that this is done in a sustainable manner.

The following steps have been taken by IUCN India under its MFF Programme:

a. Providing supplementary livelihood options and associated skill development to mangrove dependent communities in coastal states, thus reducing the anthropogenic pressure on mangroves as well as increasing income levels at project sites.

b. Establishment and capacity building of Disaster Response Teams in Odisha and West Bengal.

2. EDUCATION AND AWARENESS BY IUCN

- Development of field-based curriculum on marine and coastal ecosystems for schools along the western and southern coasts of India.

- Development of education and knowledge products in partnership with local communities.

3. ECOSYSTEM RESEARCH AND RESTORATION

Apart from livelihood security and sustainability, it is equally important to promote & support new scientific research for a better understanding of these complex ecosystem.

IUCN RED LIST

- First published in 1964

- IUCN Global species programme working with IUCN Species Survival Commission (SSC).

- Access the conservation status of species, sub-species, varieties and even selected sub-populations on global scale.

- Highlight the taxa threatened with extinction and thereby promote their conservation.

- A series of regional red lists are produced by countries or organizations, which assess the risk of attention.

- The IUCN Red list is set upon precise criteria to evaluate the extinction risk of thousands of species and sub-species.

IUCN Red List Criteria

CRITERIA

A Population reduction

B Restricted geographic range

C Small population size & decline

D Very small or restricted population

E Quantitative analysis
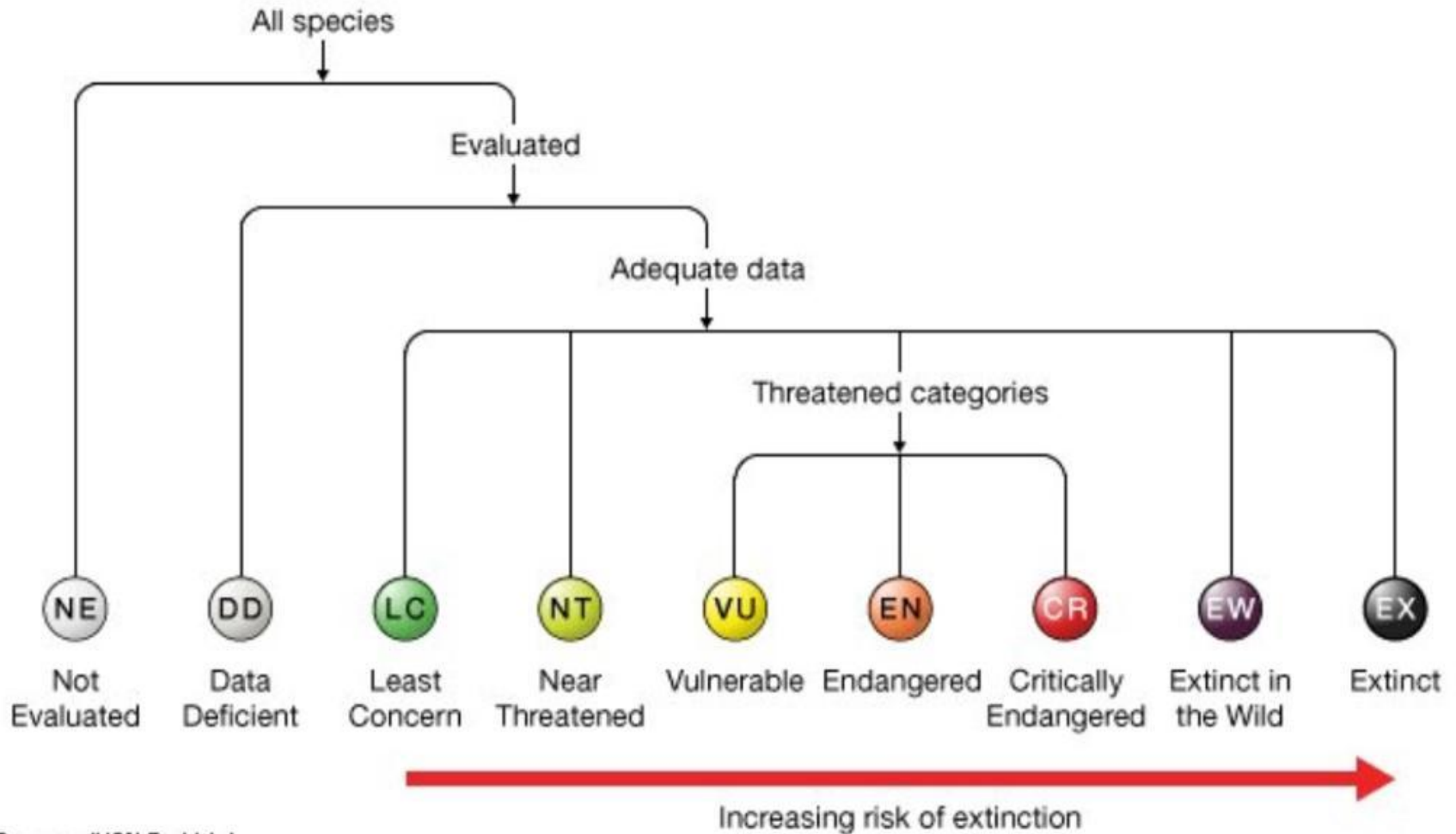
Quantitative thresholds →

THREATENED CATEGORIES

Critically Endangered (CR)

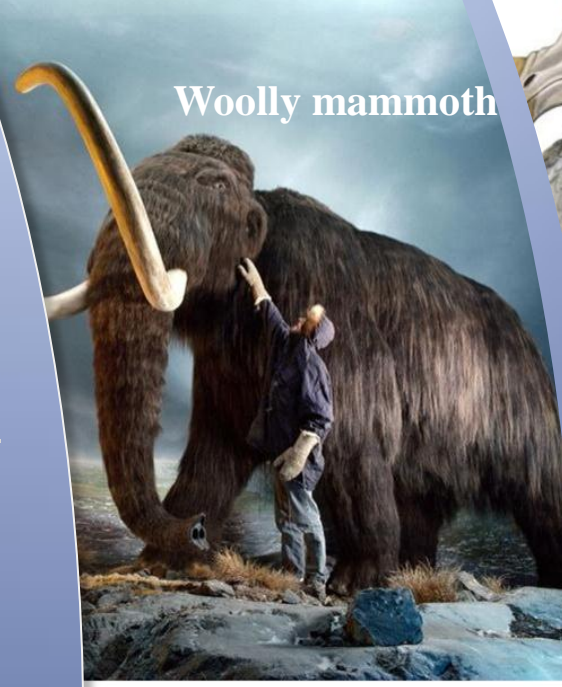Endangered (EN)

Vulnerable (VU)

IUCN Red List Categories

Source: IUCN Red List

NINE CATEGORIES OF IUCN RED LIST

1. EXTINCT

- A taxon is Extinct when there is no reasonable doubt that the last individual has died.

- The moment of extinction is generally considered to be the death of the last individual of the species.

- Total 868 species Extinct in the world.

Woolly mammoth

Clouded Leopards Declared Extinct in Taiwan

2. EXTINCT IN WILD(EW)

- A taxon is Extinct in the Wild when it is known only to survive in cultivation, in captivity or as a naturalized population (or populations) well outside the past range.

- When possible, modern zoological institutions try to maintain a viable population for species preservation and possible future reintroduction to the wild, through use of carefully planned breeding programs.

- Total 78 species (39 animal, 39 plant) extinct in the wild species, subspecies and varieties, stocks and sub-poulations

Pere David's Deer

Golden Toad

3. CRITICALLY ENDANGERED (CR)

1. A Critically Endangered species is one which has been categorized by the IUCN as facing a very high risk of extinction in the world.

2. Total 5176 species critically endangered in the world.

The important criteria are:

a. An observed estimated, inferred or suspected reduction of at least 10 year or 3 generation.

b. Population estimated to number less than 250 mature individuals.

Chinese Alligator

Amur Leopard

4.ENDANGERED (EN)

- A taxon is Endangered when it is not critically endangered but it is facing a very high risk of extinction in the wild in a near future.

- 7705 species are endangered worldwide.

The important criteria are :

a. An observed, estimated, inferred or suspected reduction of at least 50% over at least 10 years or 3 generation.

b. Population estimated to number less than 2,500 mature individuals.

5. VULNERABLE

- A taxon is Vulnerable when it is not critically endangered or endangered but is facing a high risk of extinction in the wild in the medium-term future.

- Total 11654 species are Vulnerable world -wide.

The important criteria are :

a. An observed, estimated, inferred, or suspected reduction of at least 20% over at least 10 year or 3 generation.

b. Population estimated to number less than 10,000 mature individual.

Blackbuck

One Horned Rhinoceros

Olive Ridley Turtle

NINE CATEGORIES OF IUCN RED LIST CONTINUED…

6.NEAR THREATNED(NT)
A taxon is Near Threatened when it has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in near future.

7.LeastConcern(LC)
A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened.

8.DATA DEFICIENT(DD)
A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status.

9. NOT EVALUATED (NE)
A taxon is Not Evaluated when it is has not yet been evaluated against the criteria.

IUCN PROTECTED AREAS CATEGORIES

IUCN protected area categorization are used to classify protected area in a system developed by the IUCN.

The enlisting of such areas is part of a strategy being used toward the conservation of the world's natural environment and biodiversity.

Category IA- Strict Nature Reserve

Category IB- Wilderness Area

Category II- National Park

Category III- Natural Monument or Feature

Category IV-Habitat Species Management Area

CategoryV-Protected Landscape/ Seascape

Category VI- Protected Area with Sustainable use of Natural Resources

List of Critically Endangered Species in India as per IUCN Red List 2019

Pygmy hog

A. Critically Endangered Mammals

1. Pygmy hog
2. Andaman white-toothed shrew
3. Jenkin's Andaman spiny shrew
4. Nicobar white tailed shrew
5. Kondana rat
6. Elvira rat
7. Namdapha flying squirrel
8. Malabar civet
9. Sumatran rhinoceros
10. Javan rhinoceros

Andaman white-toothed shrew

B. Critically Endangered Birds

1. Aythya baeri
2. Forest owlet
3. Great Indian bustard
4. Bengal florican
5. Siberian crane
6. Spoon-billed sandpiper
7. Sociable lapwing
8. Jerdon's courser
9. White-backed vulture
10. Red-headed vulture
11. White bellied heron
12. Slender billed vulture
13. Indian vulture
14. Pink headed duck
15. Himalayan quail

Pink headed duck

Siberian crane

C. Critically Endangered Reptiles

Hawksbill turtle

1. Gharial
2. Hawksbill turtle
3. Leatherback turtle
4. River terrapin
5. Bengal roof turtle
6. Sispara day gecko

Gharial

D. Critically Endangered Fishes

Ganges shark

1. Pondicherry shark
2. Ganges shark
3. Knife-tooth sawfish
4. Large-tooth sawfish
5. Narrow-tooth sawfish

Knife-tooth sawfish

THANKS