

Wild life and Forest Conservation

Introduction

Wildlife include all plants, animals and microorganisms other than the cultivated plants and domesticated animals. Wildlife is a valuable resource. Wildlife feeds us and shapes our culture; it has immense value as gene bank for breeding programmes in agriculture, animal husbandry and fishery. Six values of wildlife are commercial, recreational, biological, aesthetic, scientific and social.

19.1 Cause of extinction of species

- (i) Man-made forest fires have caused the extinction of several species in the past.
- (ii) The most serious threat to wildlife comes from **habitat destruction**.
- (iii) The introduction of exotic species affects native species by competition, predation, habitat destruction and degradation, transmission of diseases and parasites.
- (iv) Over-exploitation is a serious threat to wildlife.
- (v) Elimination of wild species has become extremely rapid recently owing to human activities.
- (vi) Large scale destruction of the wildlife for security, food and sport has assumed dangerous proportions.

19.2 Concept of threatened species

Red Data Book (RDB) are directories and schemes compiled by IUCN providing upto date informations of all endangered animals and plants. The IUCN (**International Union for conservation of Nature and Natural Resources**), an independent international agency with head quarters at **Morges** (Switzerland), was established in 1948. The main objective of IUCN is to promote and support the conservation of wildlife and natural resources. The rare species of plants and animals have been categorised for conservation purposes by IUCN as follows :

- (i) **Endangered (E)** : Species whose numbers have been reduced to a critical level and are in immediate danger of extinction.
- (ii) **Vulnerable (V)** : Species which are likely to move into endangered category in the near future if the casual factors continue operating.
- (iii) **Rare (R)** : Species with small populations in the world. These are not at present endangered and vulnerable, but are at risk.

(iv) **Threatened (T)** : Species which are in one of the categories 'endangered', 'vulnerable' and 'rare', but sufficient information is not available to say which of these three categories is more appropriate.

(v) **Out of danger (O)** : Formerly included in one of the above four categories but now considered relatively secure because of effective conservation measures.

19.3 Wild life in India

Indian wildlife comprises about 75,000 species of animals including about 350 species of mammals, 2100 species of birds, and plenty of reptiles like lizards, snakes and turtles. **Hoolock gibbon** is the only ape in India. The most peculiar trait of **Sunderban tiger** is its tendency to **man-eating**. Sunderban tiger competes with salt water crocodile for survival.

Important Indian wild animals

Common name	Scientific name	Site of conservation
Musk deer	<i>Moschus chrysogaster</i>	Kedarnath sanctuary
Nilgiri tahr	<i>Hemitragus hylocrius</i>	Periyar wildlife sanctuary
Peacock	<i>Pavo cristatus</i>	North and central India
Pigmy hog	<i>Sus suluensis</i>	Bhutan and Western Assam
Rhinoceros	<i>Rhinoceros unicornis</i>	Kaziranga
Snow leopard	<i>Panthera uncia</i>	Dachigam national park
Swamp deer (Barasingha)	<i>Cervus duvauceli</i>	Kanha national park

19.4 National Park and Sanctuaries

(i) **National Park** : The first national park in the world, the Yellowstone national park, was founded in 1872 in USA. In 1935, the first National park in India was established in the foothills of the Himalayas (Hailey National park/Ramganga national park) presently known as Corbett national park. Some of the national parks such as the corbett national park (UP) and Kanha national park (MP) are famous for the richness and diversity of their wildlife. A national park is an area strictly reserved for the protection and welfare of wildlife; it also maintains the ecosystem. No private ownership rights are allowed in national parks. Cutting of trees, grazing of livestock, plantation, cultivation or habitat manipulation in any form are prohibited. In India, there are about 86 national parks covering an area of 35,000 sq kms (about 3% of the country).

(ii) **Sanctuaries** : Sanctuaries are notified for the protection of wild animal fauna. Private ownership right, harvesting of timber, collection of fodder and minor forest products, grazing of livestock etc., are allowed without disturbing the welfare of the animals. In India there are about 421 sanctuaries in different states covering one lac square kilometres (about 35% of the country).

Important national parks and sanctuaries of India

Name	Location	State
Nagarjuna sagar sanctuary	Nalgonda (Guntur)	Andhra Pradesh
Coringa sanctuary	East Godavari	Andhra Pradesh
Pulicat (Lake) sanctuary	Nellore	Andhra Pradesh
Namdapha national park	Tirap	Arunachal Pradesh
Kaziranga national park	Sibsagar	Assam
Manas National park	Barpeta	Assam
Palamau national park	Daltongunj	Jharkhand
Valmiki nagar sanctuary	Champanan	Bihar
Sukhna lake sanctuary	Chandigarh	-
Dhrangadhra sanctuary	Rann of Kutch	Gujarat
Gir national park	Junagarh	Gujarat
Velavader national park	Bhavnagar	Gujarat

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Sultanpur (lake) bird sanctuary	Gurgaon	Haryana
Govind sagar bird sanctuary	Bilaspur	Himachal Pradesh
Dachigam national park	Srinagar	Jammu & Kashmir
Bandipur national park	Mysore	Karnataka
Ranganathittu (Bird) sanctuary	Mysore	Karnataka
Periyar national park	Idukki	Kerala
Silent Valley national park	Palaghat	Kerala
Indravati national park	Bastar	Chhattisgarh
Kanha national park	Mandla and Balaghat	Madhya Pradesh
Pench national park	Seoni	Madhya Pradesh
Melhat national park	Ghaurilagarh	Maharashtra
Keibul Lamjao national park	Lokhtak	Manipur
Nokrek national park	West Garo hills	Meghalaya
Chilka lake bird sanctuary	Balagaon	Orissa
Similipal national park	Mayurbhanj	Orissa
Desert national park	Jaisalmer and Barmer	Rajasthan
Keoladeo Ghana Bird sanctuary	Bharatpur	Rajasthan
Ranthambore national park	Savai Madhopur	Rajasthan
Sariska national park	Alwar	Rajasthan
Kalakad sanctuary	Tiruenelveli	Tamil Nadu
Marine national park	Gulf of Mannar	Tamil Nadu
Corbett national park	Nainital	Uttanchal
Dudhwa national park	Lakhimpur Kheri	Uttar Pradesh

19.5 Project tiger

The '**Project Tiger**' is so named because the tiger is an animal which symbolises the biological diversity of the Indian subcontinent. Project Tiger was launched on **April 1, 1973** following the recommendations of a special task force of the **Indian Board of Wildlife (IBWL)**.

Sites of project tiger

Buxa (West Bengal)	Bandipur (Karnataka)	Sanjay (M.P. and C.G.)
Dudhwa (Uttar Pradesh)	Corbett (Uttar Pradesh)	Bandhavgrah (M.P.)
Kanha (Madhya Pradesh)	Indravati (Madhya Pradesh)	Suderban (W.B.)
Manas (Assam)	Kalakad (Tamil Nadu)	
Nagarjuna sagar (Andhra Pradesh)	Namdapha (Arunachal Pradesh)	
Palamau (Bihar)	Periyar (Kerala)	
Pench (Madhya Pradesh)	Ranthambore (Rajasthan)	
Sariska (Rajasthan)	Similipal (Orissa)	

19.6 Biosphere reserves

Biosphere reserve programme was started in India in 1986. The first biosphere reserve established in 1986 was Nilgiri biosphere reserve. Each biosphere reserve consists of core area, buffer zone and manipulation zone.

The core area is strictly protected in order to maintain its ecological integrity and diversity. MAB stands for Man and Biosphere Programme.

(i) **Man and the Biosphere** : Programme was launched by the UNESCO in 1971. The main objects of MAB programme are as follows.

- Conserve representative samples of ecosystems.
- Provide long-term *in situ* conservation of genetic diversity.

- (c) Provide opportunities for education and training.
- (d) Provide appropriate sustainable managements of the living resources.
- (e) Promote international cooperation.

Biosphere reserves of India

Site	States	Area in sq. km.
Kaziranga	Assam	760
Sunderban	West Bengal	–
Thar Desert	Rajasthan	–
Manas	Assam	600
Kanha	Madhya Pradesh	–
Nokrek (Tura range)	Meghalaya	80
Great Nicobar	Andaman and Nicobar	–
Rann of Kutch	Gujarat	5000
Nilgiri	Karnataka, Kerala and Tamil Nadu	5520
Namdapha	Arunachal Pradesh	4500
Nanda Devi	Uttaranchal	2000
Uttarakhand (Valley of Flowers)	Uttaranchal	3940
North Andamans	Andaman and Nicobar	1375
Gulf of Mannar	Tamil Nadu	10500

19.7 Forest conservation and management

- (i) Indian institute of forest management is situated at Bhopal.
- (ii) Van Mahotsav : Tree plantation week carried out in India since 1950 during February & July every year.
- (iii) Chipko Movement started by Sunderlal Bahuguna in the Tehri Garhwal district of U.P for preservation of environment both habitat and wild life.
- (iv) World forest Day – 21st March.
- (v) Jhoom cultivation or shifting cultivation is traditional system of agroforestry which allows regrowth of forests after clearing and cultivation in an area for a few years.