**Introduction**

Our Earth is home for millions of living beings, starting Microorganisms and Bacteria, Lichens to Banyan trees, Elephants and Blue Whales.

**What is Biodiversity or Biological Diversity?**

Biodiversity is the variety of life in a given area, including the different types of plants, animals, and ecosystems. It also includes the differences in genes between individuals of the same species

Eco-system :-

An ecosystem is a community of living and non-living things that interact with each other in a specific area. Ecosystems can be large or small, and every part depends on every other part

**Flora and Fauna in India**

Flora – The species of Plants of a particular area.

Fauna – The species of Animals of a particular area.

• India is one of the world’s richest countries in terms of its vast array of biological diversity, and has nearly 8 per cent of the total number of species in the world (estimated to be 1.6 million).

**Causes of depletion of the flora and fauna**

• Human beings transformed nature into a resource obtaining directly and indirectly from the forests and wildlife such as wood, barks, leaves, rubber, medicines, dyes, food, fuel, fodder, manure, etc. which depleted our forests and wildlife.

• The various other factors that cause depletion of the flora and fauna are:

→ Large-scale development projects

→ Shifting cultivation

→ Mining

→ Grazing and fuel-wood collection

→ Over-population

• Factors responsible for decline in India’s biodiversity:

→ Habitat destruction

→ Hunting

→ Poaching

→ Over-exploitation

→ Environmental pollution

→ Poisoning

→ Forest fires

**What are the steps taken for the conservation of forest and wildlife in India**?

• The **Indian Wildlife Protection Act** was implemented in **1972**.

• An **all-India list of protected species** was also Published.

• Protecting the remaining population of certain endangeredspecies by **Banning hunting, giving legal protection to the**

**their habitats, and restricting trade in wildlife.**

• Central and many state Government established **Nationalparks and wildlife Sanctuaries.**

• The Central Government also announced several projects for protecting specific animals, including the Tiger, the one horned rhinoceros, the Kashmir stag or hangul, three types of crocodiles – fresh water crocodile, Salt water crocodile and the Gharial, the Asiatic lion and others.

• The Indian Elephant, Black buck(Chinkara), the Great Indian bustard (godawan) and the snow leopard, etc. have been given full or partial legal protection.

• **Under Wildlife Act of 1980 and 1986,** several hundred butterflies, moths, beetles, and one dragonfly have been added to the list of protected species.

• **In 1991**, for the first **time plants were also added to the list,** starting with six species

• **Project Tiger**

Project Tiger is a wildlife conservation program that was launched in 1973 by the Government of India to protect the Bengal tiger. The project's goal is to ensure the survival of tigers in their natural habitats.

**Objectives**

* Create and maintain a network of tiger reserves
* Protect tigers from extinction
* Preserve areas of biological importance
* Address issues like poaching and habitat destruction
* Ensure the long-term survival of tigers

**History**

* The project was launched in Corbett National Park in Uttarakhand
* The first all India-Tiger census was conducted in 1972
* The initial reserves covered Jim Corbett, Manas, Ranthambore, Simlipal, Bandipur, Palamau, Sundarbans, Melghta and Kanha national parks

**Current status**

* As of March 2025, there are 57 tiger reserves across India
* These reserves cover just over 2% of the country's landmass
* Project Tiger is one of the success stories of wildlife conservation in the world

As of 2025, India had a tiger population of more than 3,600, which is 75% of the world's tiger population.

Why the increase?

* **Conservation efforts**: India has protected tigers from poaching and habitat loss.
* **Protected areas**: India has created protected areas where tigers can breed and roam freely.
* **Community involvement**: India has involved local communities in conservation efforts.
* **Laws and forest guards**: India has strict laws and forest guards to prevent hunting.
* **Protecting prey**: India has protected deer and other animals that tigers hunt

The forests are classified under the following categories:

**1. Reserved Forests:**

• More than half of the total forest land has been declared

reserved forests.

• Managed by the Government.

• This is the Most Valuable Forest.

• Found in Jammu Kashmir, Andhra Pradesh, Uttarakhand,

Keral, Tamil Nadu, west Bengal and Maharashtra.

**2. Protected Forests:**

• Almost one-third of the total forest area is protected forest, asdeclared by the Forest Department.

• Managed by the Government.

• Found in Bihar, Haryana, Panjab, Himachal Pradesh, Odisha

and Rajasthan.

**Points to Remember**

• Reserved and Protected forest are also referred to as Permanent Forest.

• Madhya Pradesh has the Largest area under Permanent Forests Constituting 75% of its total Forest Area.

**3. Unclassed Forests:**

• Managed by both government and private individuals and

communities.

• FoundinNorth-Easternstates,Gujarat.

**Community and Conservation**

• The forests are also home to some of the traditional communities.

Communities took major steps for conservation of Forest and Wildlife.

• Sariska Tiger Reserve

• Alwar District of Rajasthan

• Chipko Movement

• Beej Bachao Andolan and Navdanya

• Joint Forest Management(JFM)

• Sacred Groves

**In Sariska Tiger Reserve, Rajasthan,** villagers have fought against mining by citing the Wildlife Protection Act.

In many areas, villagers themselves are protecting habitats and also rejecting government involvement.

**Alwar District Rajasthan**

The inhabitants of five villages in the Alwar district of Rajasthan have declared 1,200 hectares of forest as the **Bhairodev Dakav ‘Sonchuri**’, declaring their own set of rules and regulations which do not allow hunting, and are protecting the wildlife against any outside encroachments.

**Chipko movement**

This Movement is Started by The indigenous communities of the Himalayan region.

Main Objective:

• Conservation of Forest in India.

• Save trees from Deforestation • Afforestation.

**Beej Bachao Andolan and Navdanya**

Beej Bachao Andolan means save our seeds.

This movement is Started by the Farmers in Tehri (Uttarakhand).

Vijay Jardhari → Founder of Beej Bachao Andolan.

Main Objective

• Protecting and promoting traditional crop Varieties.

• Preserve Traditional Seeds and Forest

**Joint Forest Management (JFM)**

.Joint Forest Management was introduced by the government of India.

.Government give Responsibility to Communities to manage and Protect the Forest.

.This programme is first started in 1988 When the state of **Odisha** Passed the First resolution For JFM.

**Main Aim of Join Forest Management**

• To Protect the Biodiversity in a sustainable manner.

• To improve the lifestyle of the local people by allowing them tobenefit from products like medicines, fruits, etc

**Sacred Groves**

Those Forests which we have not been told to protect but still we save them because in those forest we find some trees and Plants which we worship like gods and goddesses.

Example –

o The Mundas and Santal of Chota Nagpur region worshipMahua and Kadamba Trees.

o The Tribals of Odisha and Bihar Worship the Tamarind andMango Trees during Weeding.

o To many us peepal and banyan trees are considered

**Definition**

**Wildlife sanctuary** (**WLS**),

protected area where animals and their habitats are conserved with some human activities allowed.

**National park**

A highly protected area aimed at conserving wildlife, where no human activities like grazing or hunting are permitted.

**Objective**

( WLS)To provide a safe habitat for wildlife while allowing limited human interference.,

(NP)To protect and preserve wildlife, plants, and the entire ecosystem with strict regulations.

**Human Activities,**

(WLS)Limited human activities like grazing, tourism, and research may be permitted with restrictions.

(NP),No human activities like agriculture, grazing, or hunting are allowed.

**Ownership & Management**

( WLS)Can be owned by the government, individuals, or communities.,

(NP)Completely owned and managed by the government.

* Examples in India,Ranthambore Wildlife Sanctuary (Rajasthan), Pachmarhi Wildlife Sanctuary (Madhya Pradesh),Jim Corbett National Park (Uttarakhand), Kaziranga National Park (Assam)