



NOTES

SOCIAL SCIENCE

(GEOGRAPHY)

NATURAL VEGETATION AND WILDLIFE



**REVISION NOTES
CHAPTERWISE &
TOPICWISE**

Chapter 5: Natural Vegetation and Wildlife

Concepts Covered:

1. **Introduction**
 - Natural Vegetation
 - Endemic and Exotic Species
 - Flora and Fauna
2. **Climate**
 - Temperature
 - Photoperiod
 - Precipitation
3. **Ecosystem**
 - Biome
4. **Types of Vegetation**
 - Introduction
 - Tropical Evergreen Forests
 - Tropical Deciduous Forests
 - The Thorn Forests and Scrubs
 - Montane Forests
 - Mangrove Forests
 - Medicinal Plants
5. **Wildlife**
 - Importance of Vegetation and Wildlife
 - Birds life found in India
6. **Importance of Vegetation and Wildlife**
 - Threats to Flora and Fauna
 - Steps taken to Protect the Flora and Fauna
7. **Mind Map**
(Colourful & Interactive/ Complete All Concept Covered)
Practice Questions (All Topics Available)

INTRODUCTION

Natural Vegetation



Imagine the variety of natural vegetation and wildlife throughout the country. This huge diversity of **Natural vegetation and wildlife make them a matter of study.**

Plant Community but not all plant community can be said Virgin Vegetation. The vegetation which grows naturally without human aid and has been left undisturbed by humans for a long time, also known as Natural Vegetation. We can say that cultivated crops and fruits, orchards are the part of vegetation but not natural vegetation.

Endemic and Exotic Species

Endemic or Indigenous species

The virgin vegetation which are purely Indian.

Exotic species

The species which have come from outside India are termed a exoctic plants.

Flora and Fauna

Flora

Plant of the particular region.

Fauna

The species of animals.

The diversity in flora and fauna is due to the following factor.

- Relief
- Climate



NATURAL VEGETATION AND WILDLIFE**INTRODUCTION****Endemic plant-Alpine flower****Exotic plant - Siroi Lily****Land**

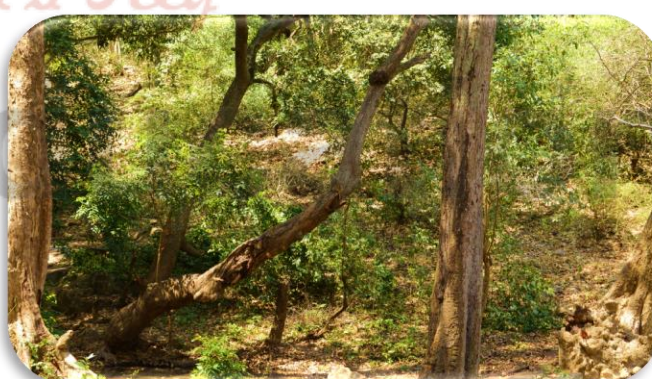
- Mountains
- Plateau
- Plain area

The nature of land influences the type of vegetation.

Soil

- Varies according to different areas.
- Vegetations and wildlife depends on that.

These two components of the Relief plays a major role in influencing Flora and Fauna of an area.



CLIMATE

Temperature



Temperature



Climate influences the Natural vegetation and Wildlife.

Elements of the climate

Temperature along with humidity in the air, precipitation and soil influences the vegetation of an area.



Atacama desert



Amazon forest

| Vegetation Zone | Mean Annual Average Temp. (in degree C) | Mean Temp. In January (in degree C) | Remarks |
|-----------------|---|-------------------------------------|-----------------|
| Tropical | Above 24°C | Above 18° | No Frost |
| Subtropical | 17°C to 24°C | 10°C to 18°C | Frost is rare |
| Temperate | 7°C to 17°C | -1°C to (- 10)°C | Frost Some Snow |

NATURAL VEGETATION AND WILDLIFE

CLIMATE

| | | | |
|--------|-----------|------------|------|
| Alpine | Below 7°C | Below -1°C | Snow |
|--------|-----------|------------|------|

Photoperiod

The variation in the amount of sunlight at different places depends on –

- Latitude
- Altitude
- Season
- Duration of Day

The parts receiving longer duration of sunlight have dense vegetation.



Sun And Earth Reference of Solar insulation

Precipitation

Precipitation rainfall areas of heavy rainfall have more dense vegetation.

Importance of forest

- Modify local climate
- Control soil erosion
- Regulate stream flow
- Support a variety of industries
- Provide livelihood
- Panoramic or scenic view for recreation
- Provide humus to the soil and shelter to wildlife



Forest plays a very important role, but India's natural vegetation has undergone many changes due to several factors, such as-

- The growing demand for cultivated land.
- Development of Industries and Mining.
- Urbanisation and overgrazing of pastures.

Changes in the vegetation

The vegetation cover of India in large parts is no more natural in real sense. It has been notified, replaced or degraded.

Except some inaccessible region like the Himalayas, hilly regions of Central India and the Marestail.

ECOSYSTEM

Biome

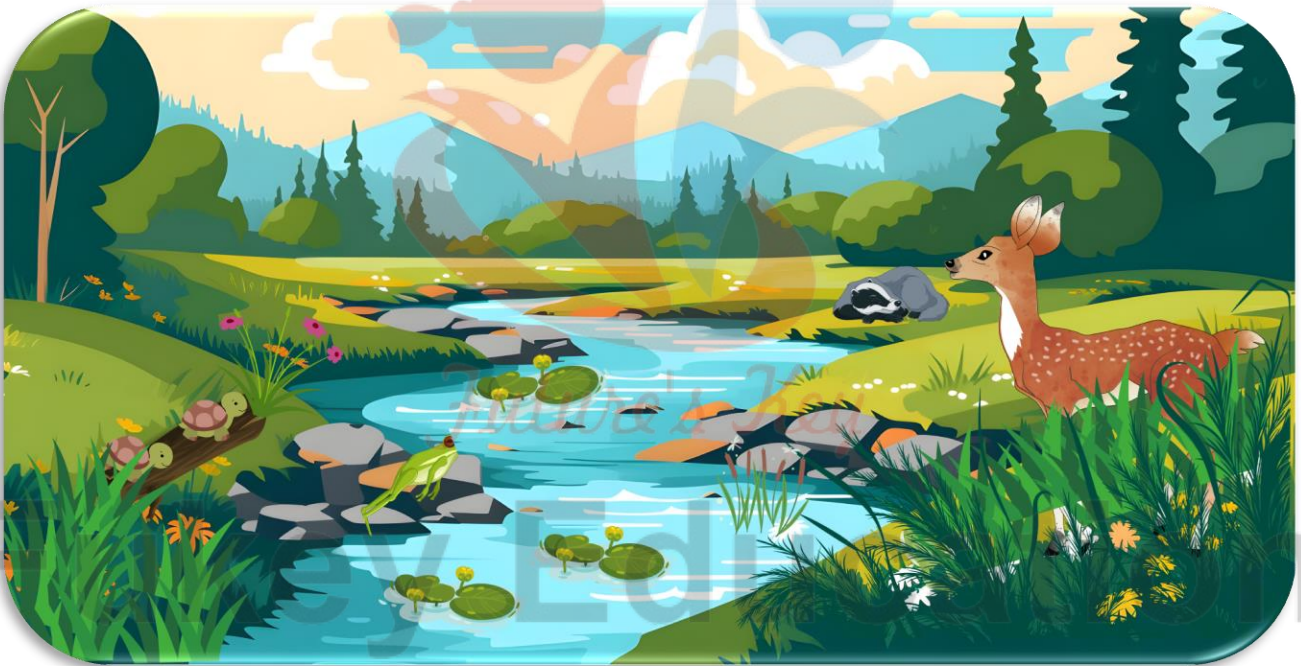
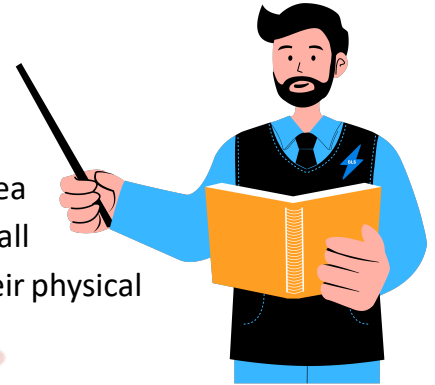
Climatic conditions

- Plant
- Animal

The system created when all the plants and animals living in a area interact together with their surrounding is known as ecosystem. all plants and animals in an area are independent and interrelated in their physical environment. human beings are an integral part of the Ecosystem.

Issues related to it.

- Needs
- Impact



Large Ecosystem on land having distinct types of vegetation and animal life is called a Biome.

TYPES OF VEGETATION

Introduction

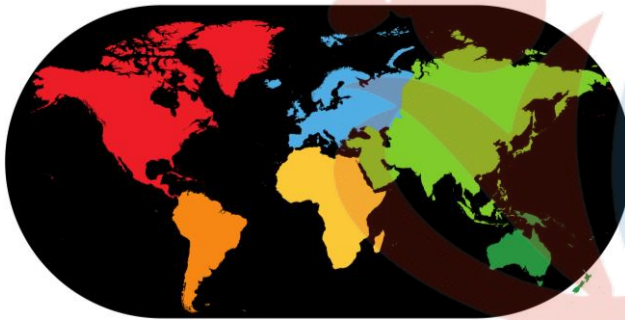
Vegetation Plant life

- It depends on many factors.
- According to these factors the vegetation also varies all over country.

Tropical Evergreen Forests

Understand the heading.

- Forest area lying in the Tropical region.
- Are evergreen.
- Rainfall



Tropical region of world

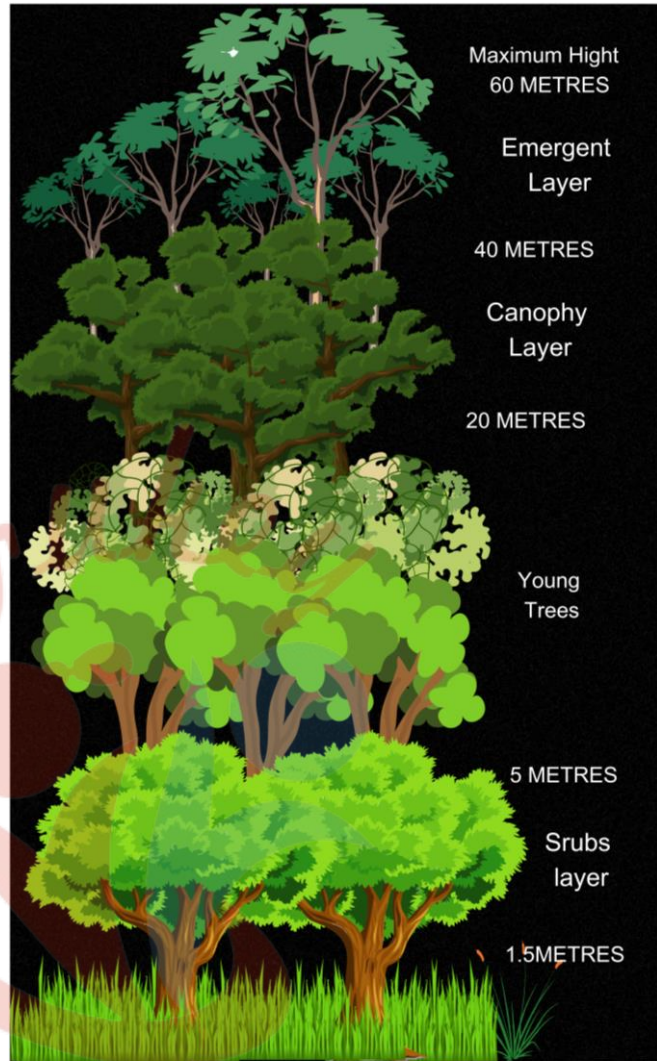


tropical region of world

| Characteristics | Tropical Evergreen Forest |
|-----------------|---|
| Height of Tree | Trees Reach great Height up to 60 Metres or even above and densely vegetated. [Trees, Shrubs, and creepers gave a multilayered Structure] |
| Trees | Ebony, Mahogany, Rosewood, Rubber and Cinchona. |
| Area of India | Western Ghats, Eastern Coastal area, and Northeastern States. |

NATURAL VEGETATION AND WILDLIFE

TYPES OF VEGETATION



Tropical Evergreen Forest



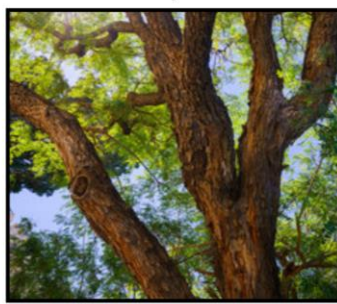
Sloth



Ebony tree



Mahogany tree



Rosewood Tree



Tropical Deciduous Forests

Most widespread forest of India, also known as Monsoon forest.

On the basis of the availability of water these forests can be divided into two -

- Moist deciduous
- Dry deciduous



Mulberry tree



Sal tree



| Characteristics | Tropical Deciduous Forest |
|-----------------|--|
| Rainfall | Between 200cm 70cm <ul style="list-style-type: none"> • Moist Deciduous – 100cm - 200cm |

NATURAL VEGETATION AND WILDLIFE

TYPES OF VEGETATION

| | |
|-----------------------------|--|
| | <ul style="list-style-type: none"> Dry Deciduous – 70cm - 100cm |
| Moist Deciduous Forest Area | Exist In the Northeastern states, on the foothills of Himalayas Jharkhand, west Odisha, Chhattisgarh and Eastern slopes of western Ghates |
| Dry Deciduous Forest Area | Exist in the Rainer parts of peninsular plateau and plains of Bihar and Uttar Pradesh. |
| trees | Moist Deciduous: Teak, bamboos, Sal, Shisham, Sandalwood, Khaire, Kusum, Arjun and Mulberry. Dry Deciduous: Teak, Sal, People and neem used for Agriculture also. |
| Leaves shedding Time Period | During Summer. |
| Animals | Lion, Tiger, pig, deer and Elephant, Verity of irds, lizards, snake, etc are found here. |

The Thorn Forests and Scrubs

Low vegetation Thorny trees and bushes.

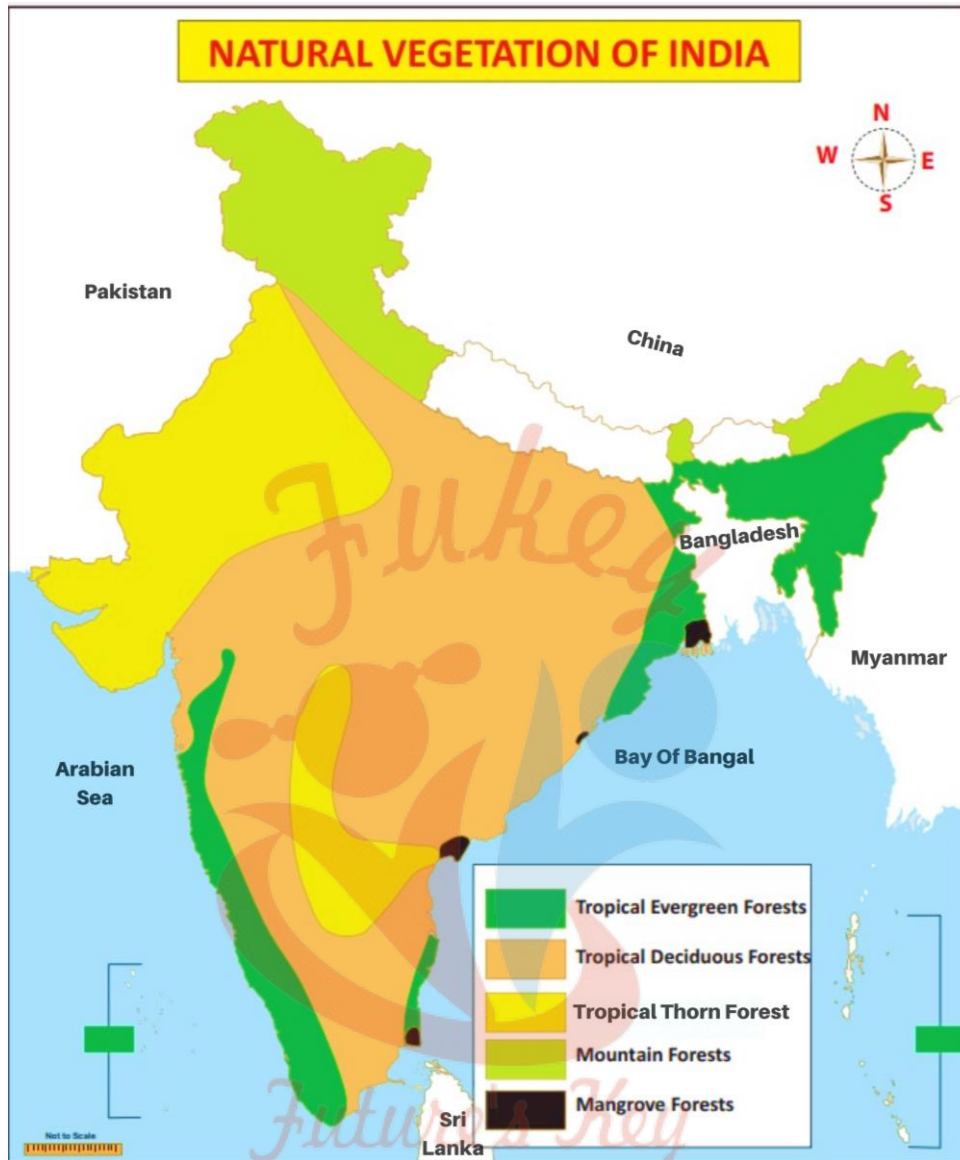
Vegetation is very much adaptive to the area -

- Trees are scattered and have long roots.
- The stems are succulent to conserve water.
- Leaves are mostly thick and small.

| Characteristics | The Thorn forests and Scrubs |
|-----------------|--|
| Rainfall | Less Than 70cm. |
| Area | The Vegetation Is found in North – Western part of Country Including Semi-Arid Area Of Gujrat, Rajasthan, M.P., Chhattisgarh, Uttar Pradesh and Haryana. |
| trees | Acacias, palms, euphorbias, and cacti are Found here. |
| Animals | Animals such as rats, mice, rabbits, Fox, Wolf, tiger, Llion, Wild, ass, horse, and camels. |

NATURAL VEGETATION AND WILDLIFE

TYPES OF VEGETATION



Montane Forests

Vegetation found in the Mountains areas.

- Decrease in the Temperature
- Increase in the Altitude

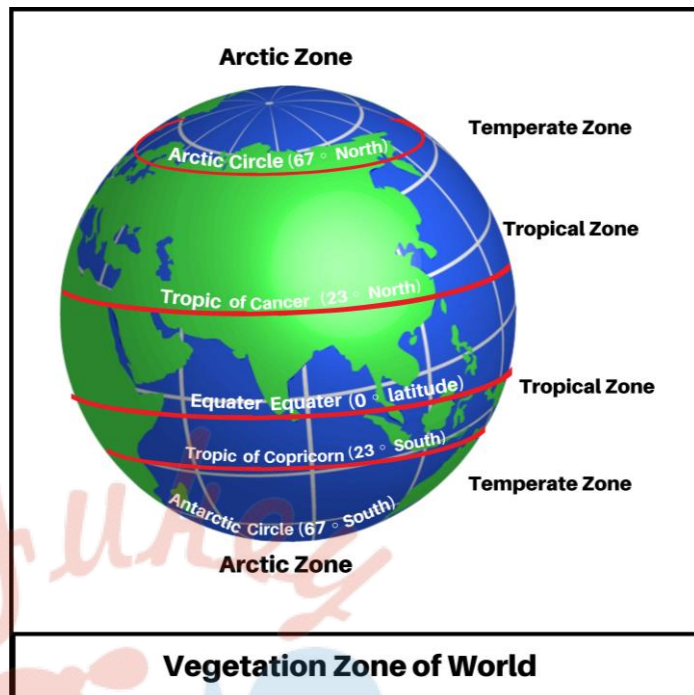
Leads to the corresponding change in natural vegetation. The change is same as in the succession of natural vegetation from tropical to the tundra region.

On the basis of Height, Vegetation can be divided into these groups.

- The wet temperate forests. [1000-2000 metres]
- The temperate forests. [1500-3000 metres]
- Alpine vegetation. [Above 3,600 metres]

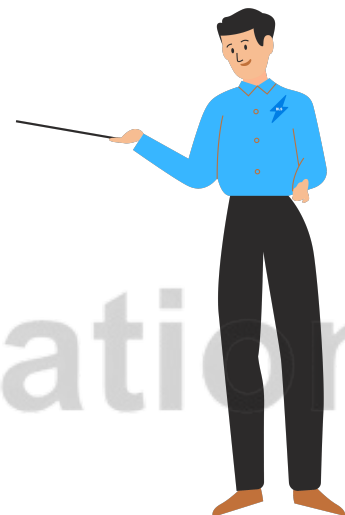
NATURAL VEGETATION AND WILDLIFE

TYPES OF VEGETATION



Wet temperate forests:

Found between a height of 1000 and 2000 metres.



- Evergreen broadleaf trees like oaks and chestnuts are found.
- Found on low hill [Shiwaliks].

Temperate forests

- Found between a height of 1500 and 3000 metres.
- Trees such as pine, deodar, Silver fir, Spruce and Cedar, which are coniferous are found here.

NATURAL VEGETATION AND WILDLIFE

TYPES OF VEGETATION



- Southern slopes of Himalayas, high altitude of South India and
- North Eastern part have this type of vegetation.

Alpine vegetation

- Found 3,600 metres above the sea level. Both temperate vegetation and grassland makes up the Alpine vegetation.



- Silver fir, Junipers, pines, and birches are common trees.
- They get progressively stunted near snowline. Through shrubs and scrubs, they merge into the Alpine grassland. These grasslands are used by Gujjars and Bakarwals for grazing.

NATURAL VEGETATION AND WILDLIFE

TYPES OF VEGETATION

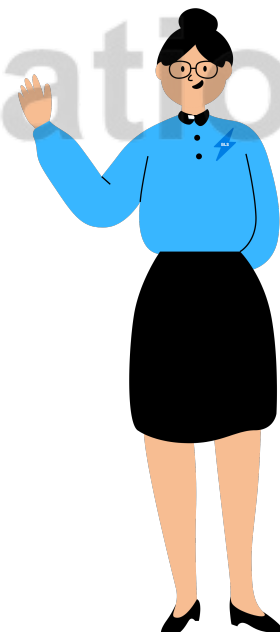
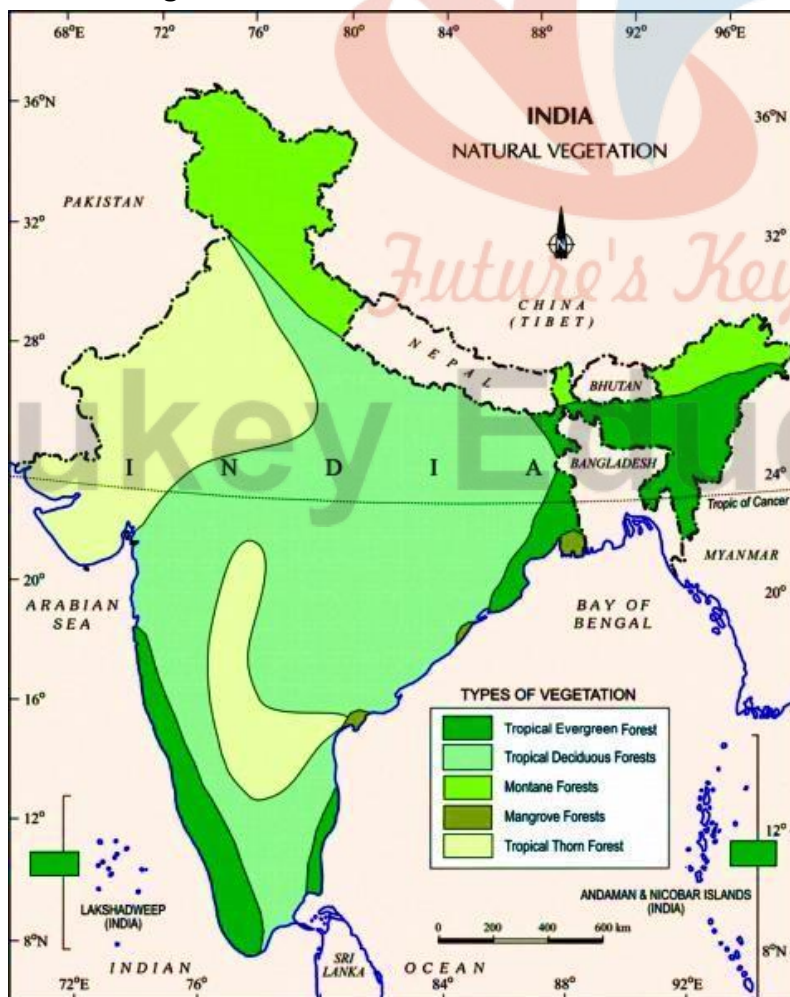


- At Higher Altitudes, Mosses and lichens forms part of tundra vegetation.

Mangrove Forests

The tidal forests found in the areas of coast influenced by tides. Type of vegetation found in the area with mud and silt, roots of mangroves tree are submerged under water. Found on the deltas of rivers.

Example. - The Ganga, the Mahanadi, the Krishna, the Godavari, the Kaveri.



NATURAL VEGETATION AND WILDLIFE**TYPES OF VEGETATION****Sundarban delta**

- Delta formed on the mouth of Ganga-Brahmaputra [Meghna]
- Sundari trees are found here. [Durable hard timber]
- Tree such as palm, coconut, keora, agar also grows in some part of delta.
- Animals such as Royal Bengal Tiger, turtles, crocodiles, gharials, and snakes are found in this area.

**Medicinal Plants**

- Sarpagandha - Used to treat blood pressure.
- Jamun - Used for controlling diabetes.
- Arjun - Used to regulate blood pressure.
- Babool - Used as a cure for eye sores. Its gum is used as a tonic.
- Neem - Has high antibiotic and antibacterial properties.
- Tulsi Plant - Used to cure cough and cold.
- Kachnar - Used to cure asthma and ulcers.



Fukey Education

WILDLIFE

Like its flora, India is also rich in its Fauna.

- 90,000 animal species and 2,000 species of birds. (Constitute 13% of the world's total).
- 2,546 species of fish [Nearly 12% of the world's stock].
- 5-8 percent of world's amphibians, reptiles and mammals.



Elephants in hot wet forests of Assam, Karnataka and Kerala



One-horned Rhinoceros in swampy and marshy lands of Assam and West Bengal



Royal Bengal Tigers



Asiatic lion of Gir National Park

Importance of Vegetation and Wildlife

Flora and Fauna help us in many way

- We get our crops from bio-diverse environment.
- Many medicinal plants are obtained from flora.
- Milching animals provide us milk.
- Animals provide us Drought Power, transportation, meat, and egg.
- Fish provide nutritious food.
- Insects help in pollination of crops and fruit trees.



Birds' life found in India

Peacocks, pheasants, ducks, parakeets, cranes, and pigeon are some birds found in India.

**Pheasants****Parakeets**

Fukey Education

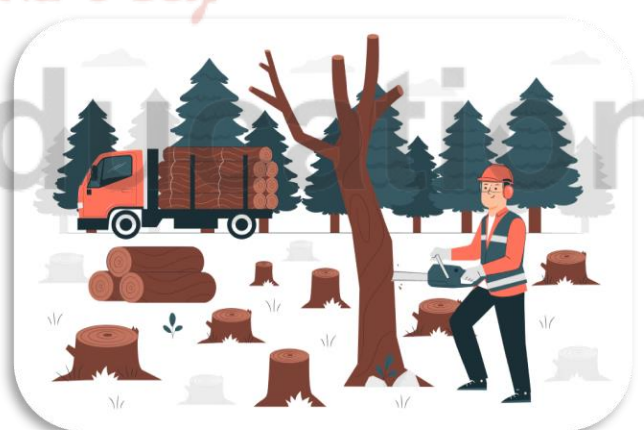
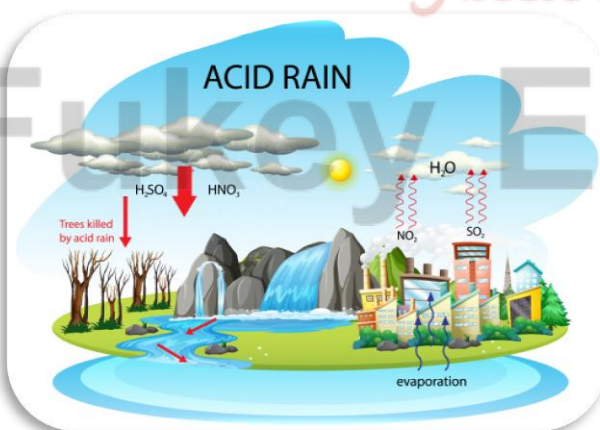
IMPORTANCE OF VEGETATION AND WILDLIFE

Threats to Flora and Fauna

Every species is important in an Ecosystem. Conservation is essential. But due to excessive exploitation of Plant and animals by human beings, they are continuously under the threat.

Some of the causes for threat are

- Hunting by greedy hunter's commercial purpose.
- Pollution due to chemical and industrial waste, Acid deposits.
- Introduction of alien species.
- Reckless cutting of the forests for cultivation and habitation.



Steps taken for Protecting Flora and Fauna

Government has take many steps to protect the flora and fauna.

- Eighteen Biosphere reserves have been set up in the country to protect flora and fauna.

NATURAL VEGETATION AND WILDLIFE**IMPORTANCE OF VEGETATION AND WILDLIFE**

- Financial and technical assistance is provided to many botanical gardens by government since 1992.
- Project Tiger, Project Rhino, Project Great Indian Bustard, and many other eco-developmental projects have been introduced.
- 103 National Park, 535 Wildlife Sanctuaries and Zoological gardens are set up to take care of Natural heritage.
- Initiatives should also be taken on the part of citizens.



Fukey Education

NATURAL VEGETATION AND WILDLIFE

MIND MAP

