

Natural vegetation and wild life

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Notes Chapter - 5

- India is one of the twelve mega biodiversity countries of the world. They are a group of countries that have the majority of the Earth's species and therefore, considered extremely bio-diverse.
- Being a vast country, India having 47000 plant species (out of which 15000 were flowering plants i.e. 6 percent in the world) occupies 10th position world wide and 4th in Asia. Non flowering plants such as ferns, algae and fungi also grow here. It also has around 90,000 species of animals, (including marine and water fishes) and insects.

Natural vegetation

Natural or virgin vegetation means the plant community which has grown naturally without any human intervention for a long time.

That natural vegetation ~~means~~
the ~~plant~~ which are left un-
disturbed over a long period of
time are called ~~virgin~~ vegetation.

Virgin ~~vegetation~~ vegetation are of
two types.

- Endemic species. These plants species
which originated from the country,
are termed as endemic species.
- Exotic species. These plants species
which ~~are~~ originated outside the
country are termed as
exotic species.

Factors affecting Diversity

Factors which influence the variety
of flora and fauna include relief
(land and soil), climate (temperature
, photo period and precipitation)
and the ecosystem. These are
as follows.

Relief

It includes land and soil.

Land

It affects the natural vegetation both directly and indirectly. The nature of the land, i.e. whether it is plain, hilly or a plateau, determines the kind of vegetation, which will grow in it. Fertile lands are used for growing crops, vegetables and fruits.

Undulating and rough surfaces generally develop either into grass lands or wooded lands. Different types of land accordingly sustain and provide shelter to different kinds of wildlife.

Soil

The soils also vary place to place. Different kinds of soil sustain different kind of vegetation. For example alluvial or deltaic soil of a river delta near the sea will sustain

mangrove forests on the slopes of hills have conical trees. The sandy soils of desert sustain thorny bushes.

Note Animals and birds also in many localities based on relief. For example, migratory birds like the Siberian swans and flamingos are found to nest in the wetlands of the Rann of ~~Kutch~~ Kutchch, where the desert merges with the sea.

Climate

It includes temperature, photoperiod and precipitation.

Temperature

The temperature along with the humidity in the air and precipitation determines the character of vegetation and its extent. As the climate gets colder, either dry

increase in altitude. (above 915 m) by
digging away from the equator
~~either~~ the vegetation will change
from tropical to subtropical
temperate and then alpine.

For example, on the slopes of the
Himalayas and hills of the Penin-
sula, fall in temperature affects
the type of vegetation and its
growth.

Photo period (Sunlight)

The amount and duration of sunlight
is known as photo period. The
difference in latitude, altitude
and season bring variation in
duration of sunlight in different
places. In warmer regions and
climate, plant growth is fast,
due to longer duration of sunlight,
especially with availability
of adequate moisture. An instance
is the fact that the southern
slopes of the Himalayas are

Covered with thick vegetation than the Northern slopes.

Precipitation

Advancing South - West monsoon (June to September) and retreating North - East monsoon bring almost all the rainfall in India. Area of heavy rainfall always have denser vegetation than other areas with lesser rainfall. The South-west monsoon rain on the windward side of the Western Ghats, thus cause of a heavy growth of tropical evergreen forest there, whereas the leeward side does not have any such forests.

Ecosystem

Various species of plants occur in areas having similar climatic conditions. To a large extent its nature determines the animal

life in that area. All the plants and animals in an area are interdependent on each other in their physical environment and form an ecosystem.

Thus, an ecosystem is a biological environment consisting of all the organisms living in a particular area, as well as all the non-living, physical components of the environment with which the organisms interact, such as air, soil, water and sunlight.

Biome

It is a major community of plants and animals having similar life forms existing under similar environmental conditions. A biome is identified on the basis of plants existing there. It is also termed as 'major life zone'.

Human influence in an Ecosystem

- ~~Forests~~ Human beings influence ecosystems in the following manner,
 - They utilise the vegetation and wildlife
 - They ~~prevent~~ of human beings lead to over utilisation of natural resources
 - Human beings cut the trees and kill the animals creating ecological imbalance.
 - Due to the activities of human beings, some of the plants and animals have reached the verge of extinction.

Importance of Forest

Forests are advantageous for the environment. They influence climate, reduce soil erosion, regulate ~~the~~ stream flow, provide raw materials for industries and cause rainfall. They also provide shelter to various animal species.

Change in Natural vegetation in India

Factors like growing demand for cultivated land development of

industries and mining, urbanisation have changed natural vegetation. This vegetation cover of India in large parts is no more natural in the real sense, except in some ~~accessibility~~ inaccessible regions like the Himalayas, the hilly region of central India and Marusthal. In most of the places, it is either modified, replaced or degraded by human interference.

Types of vegetation

Relief and climatic ~~conditions~~ factors develop different types of vegetation. Based on the Major forest types, India has following types of vegetation.

1. Tropical Evergreen Forests
2. Tropical Deciduous Forest
3. Tropical thorn Forests and Scrubs
4. Montane Forest
5. Mangrove forests

1. What is Natural vegetation

Ans. Natural vegetation refers to a plant community, which has grown naturally without human aid and has been left undisturbed by human for a long time.

2. What is flora and Fauna ?

Ans. The plants that grow naturally in a particular area are called flora. The animals which live naturally in a particular area are called fauna.

3. Land and Soils affects the natural vegetation directly and indirectly ?

Ans. Land and Soil affects the natural vegetation directly and indirectly because the nutrient in the soil affects the growth of the vegetation. More the nutrients mean the more will be fertility which means more vegetation.

- 4. An ecosystem is a community of plants, animals and smaller organisms that live, feed, reproduce and interact in the same area or environment.
- 5. The two non-flowering plants are ferns, liverworts and horse tail.
- 6. The two factors that form the flora and the fauna are soil, relief and climate.
- 7. A biome is a very large ecosystem having distinct types of vegetation and animal life.
- 8. India possess a great variety of flora and fauna due to latitude, altitude and climatic position along with other relief features like mountains, plains, deserts etc.