

Study notes

DATE 8/11/2021

Natural vegetation and wild life

India is one of the countries with bio-diversity countries of the world. They are a group of countries that have the majority of the Earth's species and habitats. Considered extremely bio-diverse.

Being a vast country, India having 47,000 plant species (out of which 15,000 are flowering plants, 5 percent in the world), occupies 10th position worldwide 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 mammals and water fishes) and insects.

Natural vegetation:

Original or virgin vegetation means the plant community which has grown naturally without any human intervention for a long time. The natural vegetation, which are left undisturbed over a long period of time are called virgin vegetation.

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Virgin vegetation are of two types :-

- Endemic species Those plant species which originated from the country, are termed as endemic species.
- Exotic species Those plant species which 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 and the ecosystem. These are as follows.

Relief :-

includes land and soil.

Land :-

It affects the natural vegetation both directly and indirectly. The nature of the land, whether it is plain, hilly or 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 grasslands or woodlands. 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 soils provide different kinds of vegetation. For example, alluvial or ~~deltaic~~ deltaic soil of a river delta near the sea will sustain mangrove forests while slopes of hills have conical trees. The sandy soils of desert sustain thorny bushes.

Note Animals and birds also inhabit locations based on relief. For example, migratory birds like the Siberian cranes and flamingoes are found to nest in the wetlands of the Rann of Kutchh, 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 determine the characters of vegetation and its extent.

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

Temperature characteristics of the vegetation zones

Vegetation zones	Mean Annual Average temp. (in degree c)	mean temp. in January (in degree c)	Remark
Tropical	Above 24°C	Above 18°C	No frost
Sub-tropical	17°C to 24°C	10°C to 18°C	Frost is rare
Temperate	7°C to 17°C	-1°C to $(-10)^{\circ}\text{C}$	Frost + some snow
Alpine	Below 7°C	Below -1°C	Snow

Biome's

It is a major community of plants and animals having similar life forms existing under similar environmental conditions.

Types of vegetation:-

- (1) Tropical Evergreen forests
- (2) Tropical Deciduous forests
- (3) Tropical thorn forests and scrubs
- (4) Montane forests
- (5) Mangrove forests