

Hanshal

This is to certify that this project has been

completed by Hanshal J.M. of

Class..... 9 Sec.... I

for the year 2021 - 2022

Subject Teacher

Signature of Evaluator

Date :

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A Natural Region is a group of areas the conditions of relief, temperature rainfall and Natural vegetation are more similar. The equatorial region covers only 8% of the Earth surface. It contains more than 1/2 of the world's plant and animal species. It is also known as Rainforest, Selvas or the evergreen forest. It has a thick layer of forest, which are evergreen in nature.

Also known as the tropical wet climate or tropical rainforest climate.

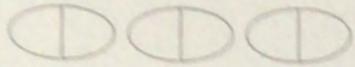
It should be noted that there are no fixed or well defined boundaries between the major types of climate. All climatic boundaries are transitional in nature. They exist in the form of broad transitional in nature. They exist in the form of broad transitional in nature.



• However, a careful study of climate type gives a generalised idea of associated aspects like vegetation, animal life, soils or landforms of a region.

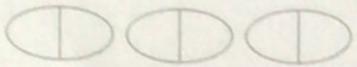
• The world climate types have been classified on the basis of world's climate/temperature zones. It is observed that all places located, on particular latitude would experience similar type of climate, although the local factors/factors may play a certain role.

• There exists a close relationship between climate and vegetation of a place. The places having heavy rainfall would have evergreen rainfall forest as in equatorial region and places located in deserts would have scanty vegetation.



They can be divided into equatorial topics and the temperate zones and Polar zones such as the tropical virgin forest and the deserts and the grasslands and the Mediterranean regions and others the Mid-latitude deserts and highlands and the grasslands.

From ecological point of view, the naturally occurring flora and fauna of the region are likely to be influenced by its geographical and geological factors such as soil and water availability, in a significant manner. Thus most tropical regions are homogeneous ecosystem. Human impact can be an important factor in the shaping and density of particular natural region.



Latitudinal Extent Of The Region

As the name suggests, this region is located in and around the Equator in both the hemispheres. The equatorial region is located between 0° and 10° latitude on either side of the Equator. It stretches in the Amazon lowlands in South America, Congo Basin in Africa and the East Indies, this region spans across the continent of South America, Africa and Asia. It is located between 5° to 10° latitudes on either side of the Equator.

INDIA : GEOGRAPHICAL FEATURES



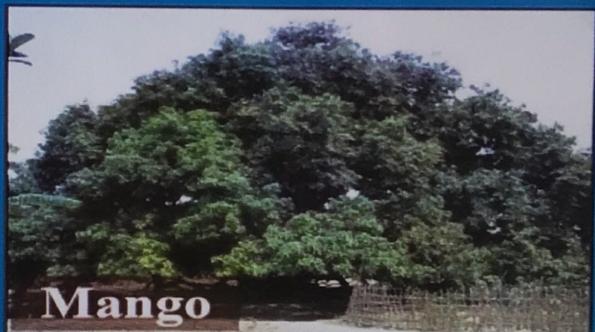
Khair



Neem



Palash



Mango

Mansoon Forests

Location Areas On World Map

The equatorial type of climate regions are found along the equator at $5^{\circ}N$ to $5^{\circ}S$ on either side. The typical equatorial climatic features are experienced between 2° and $8^{\circ}N$ while swinging of pressure belt affects the Rain Belt between $10^{\circ}N$ to $10^{\circ}S$.

The following regions have equatorial types of climate - The Amazon river basin in south America. The Congo river basin and Guinea coast in Africa, Malaysia, Indonesia and Philippines island in South-East Asia, Western Colombia and some areas in West Indies.

Brief Description On the Climatic conditions

- The location of a place gives insights about the climate of that region. Considering this, can you now analyze the climatic conditions prevalent in equatorial region. As the name suggests, this region is located near the equator. You might have read in the school that the Sun rays fall perpendicular/straight throughout the year on the equatorial region. Therefore, it is characterised by high temperature throughout the year. This is the reason for which, the region does not have the presence of witness. In fact, the seasonal and diurnal variation in temperature is not considerable.
- Temperature are uniform throughout the year. The mean monthly and mean annual temperature of the region is settled close to 27°C .



The high amount of evaporation in the region result in heavy convivial rainfall in block titled climatology in course on physical geography. Thus the region is characterised by high precipitation. The rainfall reaches as high as 2500 mm annually. Till now you might have understood the climate of equatorial region. If we summarise the climate of equatorial region then it can be expressed as hot and wet climatic condition.

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Rainforest are located in the equatorial region. They are hot and wet all year round - this creates a humid climate.

The annual rainfall is high as it rains almost everyday. The temperatures are constant all year-round - the temperature range is usually only a few degrees. There are no seasons.

The climate graph shows average ^{rain} falls and temperature in Manaus, located in the Amazon rainforest in Brazil. The highest monthly rainfall is in March with over 300 mm and lowest rainfall occurs in August with under 50 mm.

Temperature vary little throughout the year. The highest monthly temperature is 29°C which occurs in September. The lowest monthly temperature is 26°C which occurs in December and January. The annual temperature range is 2°C .

equatorial region are located mostly within 5° to 10° North and South. The sun is overhead throughout the year and the areas experience equal day and night.

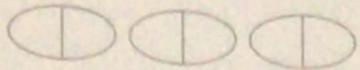
This belt receives maximum amount of incoming radiation. The average monthly temperature is 18°C . However, many places record the average monthly temperature of 24°C to 28°C .

The annual range of temperature is very small, being hardly 2°C to 3°C . The diurnal range of temperature is 5° to 8°C which is greater than annual temperature.

Equatorial climate regions lie under the Doldrums low pressure belt. Since the temperature is highly throughout the year, they are characterised by belts of calm. In this region the air after being heated expands and convectional currents set up. The upward moving air gets cooled adiabatically and there is cloud condensation and heavy precipitation.

The equatorial areas are known for heavy convectional rainfall. Terrestrial rain is experienced in the afternoon at 4 o' clock and is generally accompanied by lightning and thunders. Many areas about 200 cm rainfall annually.

Equatorial type regions experience average temperature of 26°C throughout the year with a belt low pressure. Extensive cloud cover and heavy rainfall prevent any rise in temperature.



' The annual range of temperature is about 3°C and diurnal temperature range is about 6°C to 8°C .

- There was vapour in many torrential rainfall accompanied by lightning and thunder often in the afternoons.
- Humidity is always high.

TYPES OF VEGETATION

The following major types of vegetation may be identified in our Country:-

- (i) Tropical Evergreen Forests
- (ii) Tropical Deciduous Forests
- (iii) Tropical Thorn Forests and Scrubs
- (iv) Montane Forests
- (v) Mangrove Forests



Natural Vegetation

- High temperature and abundant rainfall in the equatorial regions support a luxuriant type of vegetation. In the Amazon lowlands, the forest is so dense and so complete in its vegetation, extravagant that a special term 'silvas' is used.
- Unlike the temperate regions, the growing season here is all the year round - seedling, flowering, fruiting and decaying do not take place in a seasonal pattern, so some trees may be flowered while others in only a few yards away may be bearing fruit. There is neither drought nor cold to check growth in any part of the year.



- High temperature and heavy rainfall which characterised equatorial regions encourage heavy growth of natural vegetation.
- All the trees are tall and broad leaved and evergreen. Because of the hot and wet climate they grow throughout the year.
- The forest is so dense that the leaves of tall trees form an almost continuous canopy which does not allow the sunlight to reach the ~~the~~ ground. Only about 1% of it reaches the ground.
- Coral swamps and lower valleys of tidal rivers have mangrove forest with stilted roots.



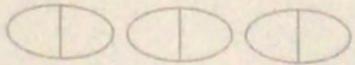


Tropical rainforests have some very valuable trees like Mahogany, ebony, rosewood and green heart used for expensive furniture. Besides this, cinchona, banana, bamboo, palm leaves, coconuts and palm trees of tremendous commercial values are also found here.

Equatorial regions are economically backward regions because they are mostly inhabited by primitive people. They are primarily gatherers and hunters.

Some of the people have started farming but that also of primitive types. It is called shifting agriculture. In various parts of equatorial region, it is known by different names e.g. Milpa in South America, Bang in Africa and Sadaung in Indonesia.

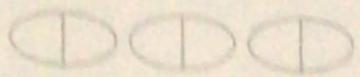
These are not found in pure substance. Plantation crops grown are rubber in Malaysia.



Many parts of the virgin tropical rain have been cleared for lumbering & shifting cultivation. When these clearings are abandoned, less luxuriant secondary forest, called 'blukar' in Malaya, springs up. These are characterised by short trees and very dense undergrowth - in the coastal areas and brackish swamps mangroves form them.

Detail Case Study of Congo Basin

- The Congo basin is the sedimentary basin of the Congo river. The Congo basin is located in Central Africa, in a region known as Equatorial Africa. The Congo Basin region is sometimes known simply as the Congo. It contains some of the largest tropical rainforests in the world and is an important source of water used in agriculture and energy generation.
- The Congo basin of Africa, nowadays the Zaïre basin, is popularly known as the land of Pygmies. The Pygmies are extremely short statured, tiny people. The average height is about a meter, and the weight about 40Kg.



Because of its size and diversity, many experts have characterised the basin forest as many important for mitigating climate change because of its role as a carbon sink. However, deforestation and degradation of the ecology due to the impacts of climate change may increase stress on the forest ecosystem, in turn making the hydrology of basin more valuable. In turn, a 2012 study found that the variability in precipitation due to climate change will negatively affect economic activity in the basin.

The basins brings in the highlands of East African Rift system with input from the Cameroun River, the Vale and Ubangi Rivers in the Upper reaches and Sankofa river draining wet lands in Middle reaches.



- Due to the young age and uplift of the East African Rift at the headland rivers yearly sediment rivers load is very large but the drainage basin occupies long areas of low relief throughout much of its areas. It is delimited largely by swells including the Bie, Mayuge, Adamala, Kilongo, East African and Bambari swell.

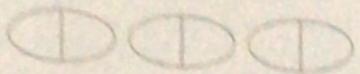
The basin ends where the river empties its load in the Gulf of Guinea on the Atlantic Ocean. The basin is a total of 3.7 million square kilometers and is home to some of the largest undisturbed stands of tropical rain forests on the Planet, in addition to large wetlands.



Congo is the traditional name for the equatorial Middle Africa that lies between Gulf of Guinea and African Great Lakes.

Countries wholly or Partially in the Congo region-

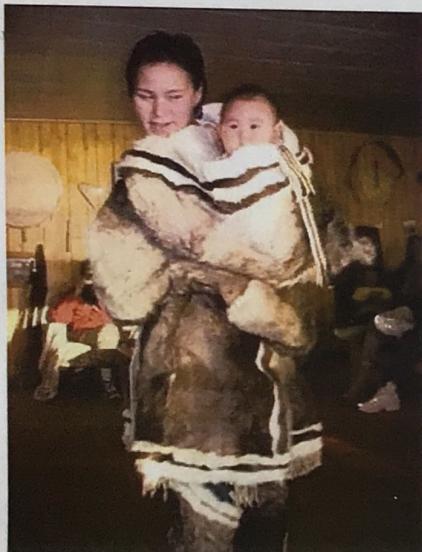
- Angola
- Gabon
- Cameroon
- Central African Republic
- Democratic Republic of the Congo
- Republic of the Congo
- Rwanda
- Tanzania
- Zambia



- Belgium, France and Portugal later established colonial control over the ^{intra}region by the late 19th century. The General Act of Berlin conference of 1885 gave a precise definition to 'conventional basin' of the Congo which include the entire actual basin plus some other areas.
- The General Act basin is signatory to neutrality within the conventional basin, but this was not respected during the first world War.
- The climate is equatorial, with two rainy season including very high rainfall and high temperature throughout the year.

Human Adaptation

- Humans adapt to their environment
- Examples: adapt to climate (shelter, clothes, work hours...)





The forest of Congo basin affect rainfall across the North Atlantic. In other words, these forests are crucial to the future of climate stability, a bulwark against runaway climate.

Human Adaptation in equatorial region.

The Congo basin of Africa, nowadays the jungle basin is popularly known as the land of Pygmies. The pygmies are primitive, short-started tiny people. The average height is about a metre, and weight about 40 kg.

♦

The people were in Minimum dress because of hot and humid climate. They generally cover their bodies with animal skin, barks and branches of leaves from the waist to knees.

They entirely depend upon hunting fishing and gathering wild fruits and roots. They are highly skilled in hunting weapons. They catch fish with strings. Besides the meat of big animals, they like to eat ants, insects, bees and honey. They are also very fond of bananas. Pygmies do not keep domestic animals.

The pygmies are strong, intelligent, fearless and running. They do not believe in life or death, nor do they believe in religion. But they do believe in spirits.

Acknowledgement

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