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WELCOME TO VIRTUAL CLASS-IX

SUBJECT : (GEOGRAPHY)
CHAPTER NUMBER: 4
CHAPTER NAME : CLIMATE

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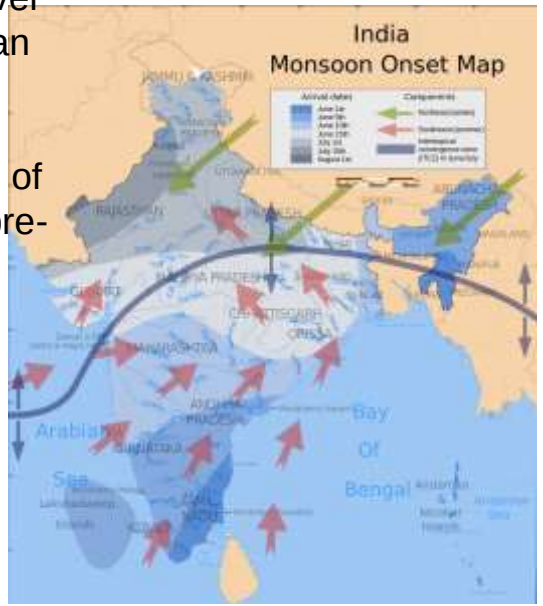
The Indian Monsoon

The Onset and Withdrawal of the Monsoon

The trade winds are steady but the monsoon winds are pulsating in nature. They are affected by different atmospheric conditions encountered by it, on its way over the warm tropical area. Starting from early June in the Southern part of the Indian peninsula, the monsoon lasts between 100 and 120 days, withdrawing by mid-September.

Rainfall increases suddenly and continues for several days at the time of arrival of monsoon. This phenomenon is called as Burst of monsoon. It is different from pre-monsoon showers. Afterwards, it alternates with wet and dry spells.



Onset of Monsoon

Monsoon generally reaches the Southern tip of the peninsula during the first week of June. After striking the Southern tip, it branches into two parts- the Arabian Sea branch and the Bay of Bengal branch; both branches move rapidly.

The Arabian Sea branch advances North along the Western Ghats, reaching Mumbai by about 10th of June and soon covers the Saurashtra-Kuchchh and central most part of the Deccan Plateau also.

- The Bay of Bengal branch reaches Assam in the first week of June and gets deflected towards the West by the mountain ranges, thus giving rainfall to the Ganga plains.

- Both the branches again merge over the North-Western part of the Ganga plains. Delhi receives rainfall from Bay of Bengal branch by the end of June (tentative date is 29th June) and by the first-week of July, monsoon covers Western Uttar Pradesh, Punjab, Haryana and Eastern Rajasthan.

Withdrawal of Monsoon

Withdrawal or the retreat of the monsoon is a more gradual process. The process begins by early September in North-Western states. By mid-October, it withdraws completely from the Northern half of the peninsula.

The withdrawal from the Southern half of the peninsula is fairly rapid. By early December, the » monsoon has withdrawn from the rest of the country.

Onset and Withdrawal of Monsoon in the Indian Islands

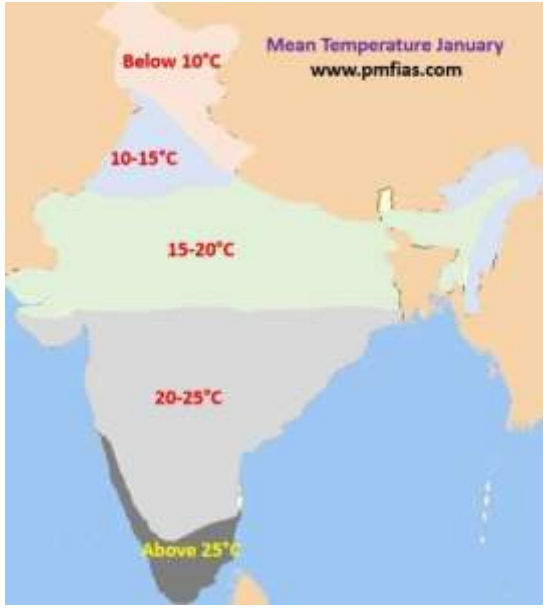
The islands receive the very first monsoon showers from the last week of April to the first week of May. The withdrawal takes place progressively from North to South (in reverse direction) from the first week of December to the first week of January. By this time, the rest of the country is already under the influence of the winter monsoon.

Important Features of Monsoon

The important features of monsoon are as follows

- The monsoon is also known for its uncertainties.
- There is an alteration of dry and wet spells which vary in intensity, frequency and duration.
- While it causes heavy floods in one part, it may be responsible for drought in other parts.
- Its irregular arrival and retreat (sometimes due to the effect of EL Nino), causing disruption .of farming schedules and causing droughts in certain areas of the country.

The Seasons



- The distinct, seasonal pattern is an important characteristic of monsoon type of climate. The weather conditions in India greatly change from one season to another. These changes are particularly noticeable in the interior parts of the country. The coastal areas do not experience much variation in temperature though there is variation in rainfall pattern. There are basically four seasons identified in India. These are

- 1. The Cold Weather Season (Winter)
- The cold weather season begins from mid-November and stays till February in Northern parts of India with December and January as the coldest months. The temperature decreases from South to North.

- For instance, the average temperature of Chennai, on the Eastern coast, is between 24°—25°C while in Northern plains, it ranges between 10°—15°C. During this season, days are warm, and nights are cold. Frost occurs in the Northern plains and snow falls in the high mountainous regions of Himalayas.

- As the North-East trade winds blow during this period, most of the country remains dry as they blow from land towards sea. The only rain occurs in Tamil Nadu and Southern Andhra Pradesh due to these winds picking up moisture from the Bay of Bengal.

- Features of Cold Weather Season
- The characteristic features of cold weather season are
- A feeble (weak) high pressure region develops in the Northern part of the country. Influenced by the relief, the light winds moving outwards from this area blow through the Ganga valley from the West and the North-West.

- Clear sky, low temperature and humidity, and feeble, variable winds are the characteristics of the weather during the period.

- There is an inflow of cyclonic disturbances from the West and the North-West, which have originated over the Mediterranean Sea and Western Asia. They cause winter rains over the plains and snowfall in the mountains. This winter rainfall though in small amount is locally known as Mahawat. It is useful for cultivation of the Rabi crops.

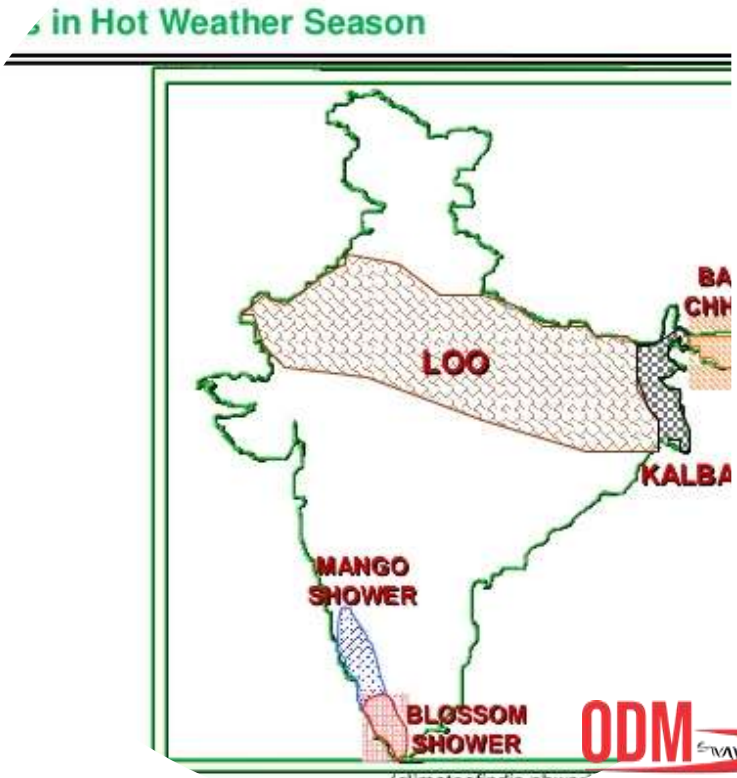
- The peninsular region has moderating effect from sea and hence, it doesn't have well defined cold seasons. Also there is hardly any noticeable change in temperature pattern.

2. The Hot Weather Season(Summer)

- The hot weather season starts with the apparent movement of the sun towards the North. It leads to the Northward movement of global heat belt. The hot weather season starts in March and lasts upto the end of May.

Features of Hot Weather Season

- The characteristic features of hot weather season are
- The temperature of the Northern part of India goes up and the atmospheric pressure comes down.
- The summer months experience rising temperature and falling air pressure. Towards the end of May, an elongated low-pressure area develops in the region extending from Thar Desert in North-West to Patna and Chotanagpur plateau in the East and South-East. This results into beginning of air circulation around this trough.
- A hot gusty and dry wind, locally known as Loo, blows . during this season over the North and North-Western India and can cause even death if persons are exposed to it for a long time.
- Dust storms are very common in North India in the month of May. They bring temporary relief from the heat by lowering the temperature and may also cause light rain and cold breeze.



- Localised thunderstorms also occur during summer, which may have high speed winds and even precipitate hail. Such thunderstorms are called Kaal Baisakhi in West Bengal. Near the end of summer, there may be pre-monsoon showers. These are called Mango Showers in Kerala and Karnataka, as they help in the early ripening of the mango fruit.

- Temperature Variation During Hot Weather
- The influence of the shifting of heat belt can be seen from temperature recordings taken during March to May at different latitudes. In March, the highest temperature is about 38°C, recorded in Deccan Plateau. Temperature in Gujarat and Madhya Pradesh is around 42°C in the month of April. In May, North-Western parts of the country experience temperature around 45°. Due to moderating influence of the oceans, temperature remains lower in peninsular India.

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