

# The Onset and Withdrawal of the Monsoon

The monsoon winds are pulsating in nature. They can cause uncertainties in many parts of India such as floods and drought. At the time of arrival of monsoon, rainfall increases suddenly. It continues for several days.

This phenomenon is called as **Burst of monsoon**. It is different from pre-monsoon showers. Afterwards, it alternates with wet and dry spells which vary in intensity, frequency and duration.

## Onset of Monsoon

Monsoon generally reaches the Southern tip of the peninsula during the first week of June. Then it branches into- the Arabian sea branch and the Bay of Bengal branch which move rapidly.

- The **Arabian sea** branch advances North along the Western Ghats, reaching Mumbai by about 10th of June and soon covers the Saurashtra-Kutch 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 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 By early December, the monsoon has withdrawn from the rest of the country.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.

# The Seasons

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  $24^{\circ}$ – $25^{\circ}\text{C}$  while in Northern plains, it ranges between  $10^{\circ}$ – $15^{\circ}\text{C}$ . During this season. 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 except. Tamil Nadu and Southern Andhra Pradesh where winds picking up moisture from the Bay of Bengal.

### Features of Cold Weather Season

*The characteristic features of cold weather season are*

- Clear sky, low temperature and humidity, and weak 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 locally known as Mahawat (good for rabi crops) over the plains and snowfall in the mountains.
- 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 in March with apparent movement of sun towards North 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.

- 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.
- 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  $38^{\circ}\text{C}$ , recorded in Deccan Plateau. Temperature in Gujarat and Madhya Pradesh is around  $42^{\circ}\text{C}$  in the month of April. In May, North-Western parts of the country experience temperature around  $45^{\circ}\text{C}$ . Due to moderating influence of the oceans, temperature remains lower in Peninsular India.