

INDIA: ITS CLIMATE

Published on: June 22nd, 2020

By Himani Pandey

India has a monsoon type of climate. The whole country has a tropical monsoonal climate since, the greater part of the country lies within tropics. And the climate is influenced by the south-west and North-east monsoons. The position of the mountain ranges and direction of the rain bearing winds are the two main factors that determine the climate of India. Alternating season is the chief characteristic feature of Indian Climate. The climate is about the average weather conditions, which have been measured over many years. The climate of India has broadly been described as monsoon type. Due to India's location in the tropical region most of the rain is brought by monsoon winds.

India's place called as Mawsynram in Meghalaya receives the world's highest rainfall. While in a particular year it might not rain at all in Jaisalmer in Rajasthan. Broadly, the major seasons recognized in India by the Indian Meteorological Department (IMD) are:

Cold weather season known as Winter from December to February. Average temperature around 10-15 degree Celsius in the Northwest. Temperatures rise towards the equator, average around 20-25 degrees Celsius in mainland India's southeast.

Hot weather season known as Summer from March to May. In western and southern regions, the month of April is hottest. For northern regions, month of May is hottest. Average temperature around 32-40 degrees Celsius in major parts of the interior.

South-West monsoon season known as rainy season from month of June to September. In this season humid southwest monsoon moves across the country causing rains.

Season of retreating monsoon known as Autumn in months of October and November in northwestern India, months of October and November are generally cloudless.

Traditionally, India has six seasons with each being two months long in duration. They are based on the astronomical division of 12 months into 6 parts. These seasons are reflected in the ancient Hindu calendar. These are listed with their traditional names below:

Spring (Vasanta)

Summer (Grishma), monsoon (Varsha), Early Autumn (sarada), LateAutumn (Hemanta), Winter (Sisira)

Factors affecting the Climate of India

The Climate in India is affected by following factors

- Latitude
- Himalaya Mountains
- Altitude
- Distance from the sea
- Geographical limits like western disturbances, conditions in the regions surrounding India, conditions over the ocean.
- Jet Streams.

1. The Cold Weather Season

During the winter season, cool and dry winds blow from direction of North towards South. During winter season, the Sun rays do not fall directly, they are slant, as a result, the temperatures are quite low in Northern India.

2. The Hot weather Season

In the Hot weather season, the Sun rays more or less directly fall in this region. Therefore, temperature becomes very high. Hot and dry winds called loo blow during the day.

3. South-west Monsoon Season

This season is marked by the onset and advance of monsoon. The winds blow from the Arabian Sea and Bay of Bengal towards the land. They carry moisture with them. When these winds strike the mountain barriers' rainfall occurs.

4. Season of Retreating Monsoon

When winds move back from the mainland to the Bay of Bengal, this season is known by name of the retreating monsoons. The southern part of India, particularly Tamil Nadu and Andhra Pradesh receive rainfall in this season.

5. Monsoon Special

Monsoons and the Economic Life in India.

Monsoon is that axis around which revolves the entire agricultural cycle of India. It is because about 64 percent people of India depend on agriculture for their livelihood and agriculture itself is based on southwest monsoon.

Except the Himalayas all the parts of the country have temperature above the threshold level to grow the crops or plants throughout the year.

Regional variations in monsoon climate help in growing various types of crops.

Agricultural prosperity of India depends very much on timely and adequately distributed rainfall. If it fails, agriculture is adversely affected mainly in areas where irrigation is not developed.

The sudden monsoon burst creates problem of soil erosion over large areas in India.

6. Global Warming and Monsoon

A drastic change in the monsoon rainfall intensity, duration, frequency and spatial distribution can be attributed to the climate change. However, it is too soon to arrive at a conclusion. If all this is in response to global warming then it can be permanent and might accelerate. If not, then the monsoon system will revert to a more normal state.

More data and reanalysis is needed to get a clear picture on the complete separation of the global warming impact from natural climate variability (such as El Niño).

Way Forward

The population of India is increasing and to provide food security to the population, a large part of the monsoon water which is currently unutilized should be held at suitable locations for irrigation and power generation purposes.

India needs to invest more resources in better prediction of Monsoon forecast in order to achieve reliability and sustainability.

With a warming climate, more moisture will be held in the atmosphere, leading to heavier rainfall, consequently, inter-annual variability of the monsoon will increase in the future. The country needs to prepare for this change.

Thus, to secure and bring sustainability to the climate pattern of India we need to take effective and timely steps not just at the domestic front (National Action Plan on Climate Change) but also at international front (UN Framework Convention on Climate Change), as we live in a shared world with a shared future.

All Articles

[Home](#)[articles](#)[events](#)[supcoming](#)[about](#)[join](#)

Navigated to INDIA: ITS CLIMATE