Syllabus subtopic: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

Prelims and Mains focus: About the monsoon: its features and impact; Southwest and north-east monsoon

News: 2019 was a year of bountiful rain. The year’s Northeast monsoon ended on a high, with the season’s total rainfall recorded remaining 30 per cent surplus.

Northeast Monsoon (Retreating Monsoon)

- India Meteorological Department (IMD) recognizes October to December as the period for Northeast monsoon.

- During this period, where rainfall is experienced over southern states, mainly over Tamil Nadu, Kerala, Andhra Pradesh along with some parts of Telangana and Karnataka.

- In areas around Jammu and Kashmir, Himachal Pradesh, Uttarakhand and along the northeast, precipitation during this period reported is either in the form of rainfall or snowfall (due to Western disturbances).

Monsoon in India

- Monsoon is seasonal changes in atmospheric circulation and precipitation associated with the asymmetric heating of land and sea
- The southwest monsoon brings rains towards the end of summer as the high pressure built in the Indian Ocean pushes the wind masses towards the low pressure formed on land
- Temperature Gradien: It’s the temperature variation between the sea and the landmass

Southwest V/s Northeast monsoon
• The **northeast monsoon**, or winter monsoon, blows from land to sea, whereas **south-west monsoon**, or summer monsoon, blows from sea to land after crossing the Indian Ocean, Arabian Sea, and Bay of Bengal.

• The southwest monsoon brings most of the rainfall in the country - approximately 75 per cent of India’s annual rainfall.