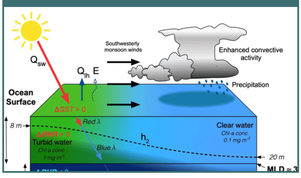
BOREAL SUMMER INTRA SEASONAL OSCILLATION (BSISO)



Why in News?

- Researchers at the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad have found a method to improve wave prediction and BSISO linked oceanic activity that affects behavior monsoon.

What is Boreal Summer Intra-Seasonal Oscillation (BSISO)?

- Boreal Summer Intra-Seasonal Oscillation (BSISO) is the movement of convection (heat) from the Indian Ocean to the western Pacific in roughly every 10–50 days of the monsoon season from June to September.
- BSISOs represent monsoon's 'active' and 'break' periods, in which weeks of heavy rainfall give way to brilliant sunshine before starting all over again.
- The active phase also enhances monsoon winds and hence the surface waves.

Why it is important to predict BSISO

- Some phases of boreal summer intra-seasonal oscillation or BSISO induce high wave activity in the north Indian Ocean and the Arabian Sea, the researchers claimed.
- Wave forecast advisories based on the BSISO would be more useful for efficient coastal and marine management.
- This finding has a great significance in developing seasonal and climate forecast service for waves and coastal erosion for India.

BSISO and ENSO

- BSISO activity over the western Pacific is significantly weakened in El Niño decaying summer.
- Northward propagation (NP) of BSISO (equator to the north of 25° N) attributed to La Nina decaying summer, while the intensity of BSISO NP is rapidly weakened to the north of 15° N in El Niño decaying summer.
- ENSO modulates BSISO activity by regulating circulation and moisture anomalies.
- Large-scale atmospheric circulation undergoes radical changes between El Nino and La Nina decaying summer.