El Niño and La Niña

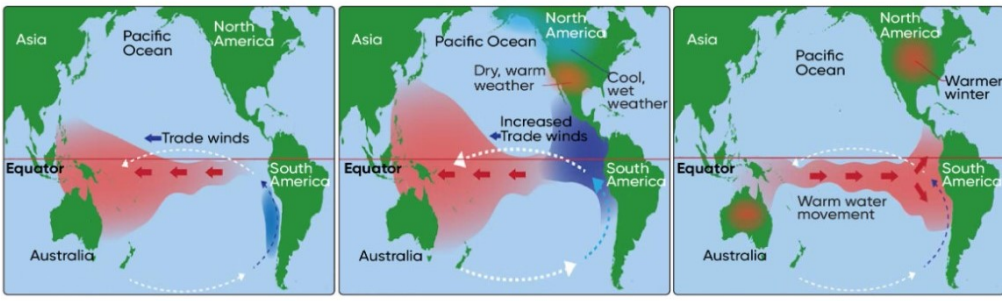
Prelims: *Geography*

Why in News?

Recently, the World Meteorological Organization (WMO) has warned that an El Niño event is highly likely to develop, with an 80% chance during June–August.

El Nino (Warm Phase)

- **El Niño –** It is a natural climate pattern characterized by the *warming of ocean surface temperatures in the central and eastern tropical Pacific Ocean.*
- Trade winds weaken or reverse.
- Warm water shifts eastward toward South America.
- **Effects on India –** Often associated with weaker southwest monsoon rainfall.
- Can increase the likelihood of drought conditions and heat waves.
- **Global Effects –** Droughts in Australia and parts of Southeast Asia.
- Increased rainfall in western South America.
- Warmer global temperatures.



La Niña (Cool Phase)

- **La Niña** – Sea surface temperatures in the central and eastern tropical Pacific become cooler than normal.
- Trade winds strengthen.
- Warm water is pushed further west toward Asia and Australia.
- **Effects on India –** Generally linked to stronger monsoon rainfall.
- Can increase the risk of floods in some regions.
- **Global Effects –** Wetter conditions in Australia and Southeast Asia.
- Drier conditions in western South America.
- Slight cooling of global temperatures.

To know more about El Niño click *here*

Recent warnings of WMO

- Noted that unusually warm subsurface ocean temperatures—more than 6°C above average in some areas—are fueling the warming trend.
- Recent sea surface temperatures are rising toward El Niño thresholds, indicating the phenomenon is approaching.
- 80% chance of El Niño developing between June and August.
- El Niño can last from a few months to two years.
- It increases the likelihood of extreme weather worldwide.
- Warm Pacific Ocean temperatures are driving its development.
- The UN warns it could intensify the impacts of climate change.

Reference

The Indian Express| El Nino

