



Cyclone Gaja

A deep depression in the bay of Bengal has intensified into a cyclonic storm and is likely to hit the coasts of Tamil Nadu.

- There is **long sea travel** ahead for Gaja, along with that **sea surface temperatures** are also warm and **low vertical wind shear**.
- Besides this, **Madden-Julian Oscillation (MJO)** is also in the favourable zone. All these factors would be responsible in providing more strength to the system.
- The **cyclone Gaja means elephant in Sanskrit language** and has been **named by Sri Lanka**. It will be the second cyclone to hit the coastal area in a month after [Cyclone Titli](#) wreaked havoc in Odisha and Andhra Pradesh.

Madden-Julian Oscillation

- The Madden-Julian Oscillation is a major fluctuation in tropical circulation and rainfall that moves eastward along the equator, and circles the entire globe in a span of 30–60 days on an average.
- The MJO, therefore is not static and is a moving system of wind, cloud and pressure that brings rain as it circles around the equator.
- The phenomenon takes its name from the two scientists who identified it in 1971 — Roland Madden and Paul Julian.
- In the active phase, MJO results in more than average rainfall for that time of the year, while in the suppressed phase, the area receives less than average rainfall.
- The effect of the MJO is witnessed mainly in the tropical region, in the band between 30 degrees North and 30 degrees South of the equator, even though the mid-latitude regions in both hemispheres also feel its impact.

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