

More cyclones in Arabian Sea in recent years

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The frequency of “very severe cyclonic storms” has increased in recent years over the Arabian Sea.



[Ref: The Hindu]

Cyclone Intensification in Arabian Sea:

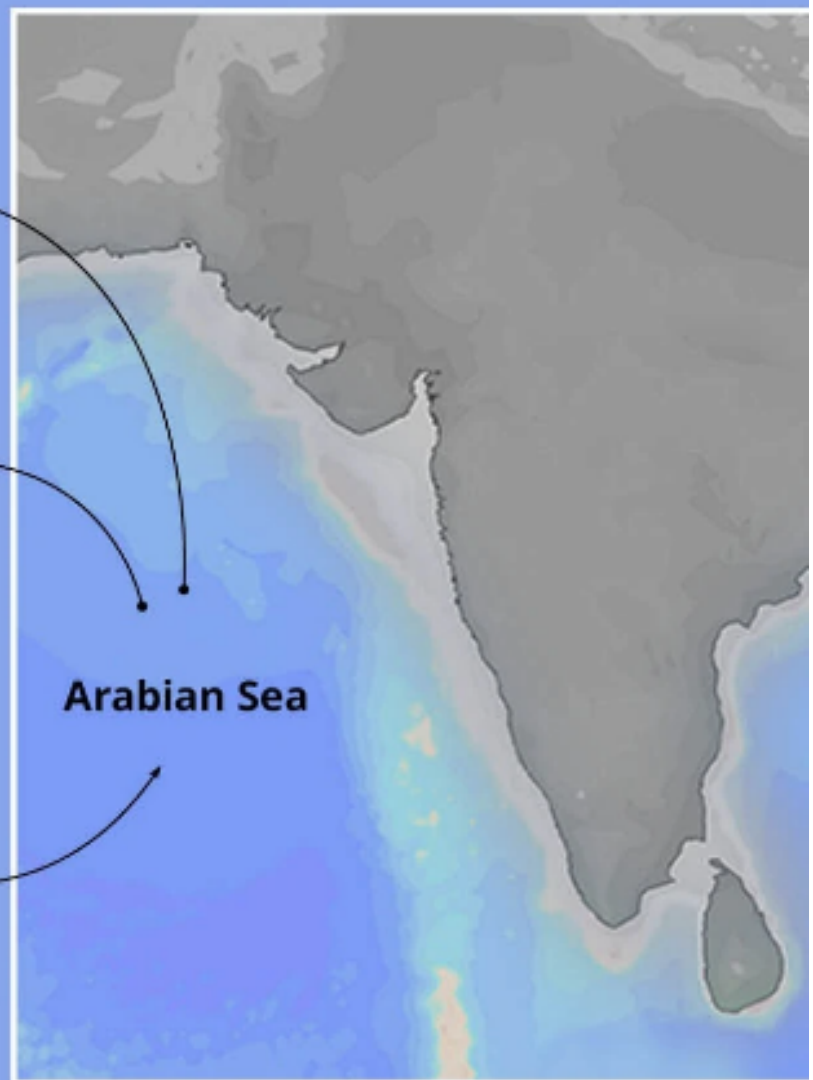
- **Ocean warming** is the major reason for increased number of cyclones in Arabian Sea
 - The **Arabian Sea** is one of the **fastest warming basins** across the global oceans.
 - A **52%** increase was noticed in the **frequency of cyclones over the Arabian Sea** between 2001 and 2019.
- The **intensity and duration** for which a cyclonic storm lasts over the Arabian Sea is on a **rise**.

CLIMATE CHANGE AND ARABIAN SEA

Scientists say climate change has warmed Arabian Sea

Warmer Arabian Sea is producing more cyclones

In 2019, 5 cyclones in Arabian Sea, 3 in Bay of Bengal



India Today Group Digital

[Ref: India Today]

Cyclone:

- It is a **large-scale air mass** that rotates **around a strong centre of low atmospheric pressure**.
- It rotates **counter clockwise in the Northern Hemisphere** and **clockwise in the Southern Hemisphere** as viewed from above (opposite to an anticyclone).
- Cyclones are characterized by **inward-spiralling winds** that rotate about a zone of low pressure.

- The process of cyclone formation and intensification is known as **Cyclogenesis**.

Conditions necessary for Tropical Cyclone:

- Sufficiently **warm sea surface** temperatures
- Atmospheric instability
- **High humidity** in the lower to middle levels of the troposphere
- Enough **Coriolis force** to develop a low-pressure centre
- A pre-existing **low-level focus** or disturbance
- **Low vertical wind shear**