

INDIAN OCEAN DIPOLE (IOD):

QUICK FACTS



1. WHAT IS IOD?

A climate phenomenon characterized by temperature differences between the western and eastern Indian Ocean.

2. TYPES OF IOD:

A. POSITIVE IOD:

- Warmer waters in western Indian Ocean (near Africa)
- Cooler waters near Sumatra (Indonesia)
- Leads to good monsoon in India
- Less rainfall in SE Asia & Australia

B. NEGATIVE IOD:

- Cooler waters in western Indian Ocean
- Warmer waters near Sumatra
- Leads to weaker Indian monsoon
- More rainfall in SE Asia & Australia

3. KEY FEATURES:

- Occurs in the Indian Ocean, unlike ENSO (Pacific)
- Influences monsoons, agriculture, and climate events
- Can enhance or weaken El Niño/La Niña effects



4. IMPACT ON INDIA:

- **Positive IOD:** Strengthens monsoon, beneficial for crops
- **Negative IOD:** Weakens monsoon, risk of droughts

5. MONITORING:

- Tracked by IMD and international climate agencies
- Measured using Dipole Mode Index (DMI)

