

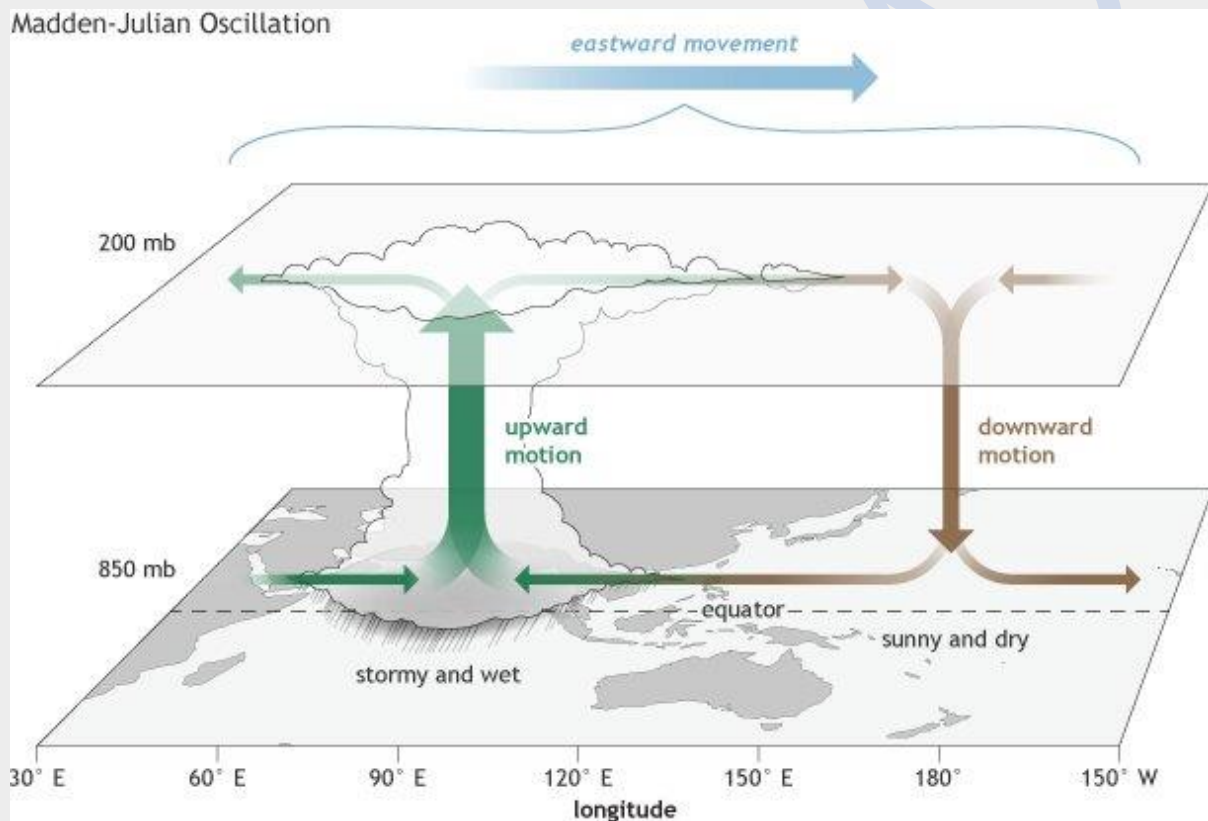
1. Early Monsoon in India: What Happened?

Introduction

This year, the southwest monsoon reached Kerala on May 24, which is 8 days earlier than usual. It also arrived in Mumbai on May 26, which is 2 weeks early—the earliest ever recorded for the city.

One of the main reasons behind this early arrival was a special weather pattern called the Madden-Julian Oscillation (MJO).

Madden-Julian Oscillation



What is the Madden-Julian Oscillation (MJO)?

The Madden-Julian Oscillation (MJO) is a natural weather pattern in the atmosphere that moves around the tropical part of the Earth, close to the equator.

Think of it as a wave of clouds, rain, and winds that travels around the planet from west to east. This wave can change the weather in the places it passes over — especially by bringing more or less rainfall.

Why is it called "Madden-Julian"?

It's named after Roland Madden and Paul Julian, two American scientists who first described this phenomenon in 1971. They noticed that a pattern of clouds and storms kept moving around the Earth every 30–60 days — and that it was connected to rainfall and storms in the tropics.

How Does the MJO Move?

The MJO is not fixed in one place. It moves eastward (from places like Africa toward the Pacific Ocean) and takes about 30 to 60 days to circle the Earth once. Sometimes, it moves more slowly and can take up to 90 days.

As it moves, it changes the weather in the tropical regions it passes over — like India, Southeast Asia, Australia, Africa, and South America.

Two Phases of MJO (with examples)

The MJO has two main phases, and each affects the weather differently:

1. Active Phase (Rainy Phase)

- Brings thick clouds, rising air, low pressure, and heavy rainfall.
- Winds carry moisture upward, forming clouds and storms.
- For example, if the MJO is active over India during June, it can help the monsoon arrive early or bring more rain.

2. Suppressed Phase (Dry Phase)

- Brings clear skies, sinking air, high pressure, and dry weather.
- Stops clouds from forming.
- If this phase is over India during the monsoon, it can weaken the rain or delay the season.

As the MJO moves, these phases shift across the globe—so one region may get rain while another stays dry.

Where is MJO Felt?

The MJO mostly affects countries and oceans in the tropical belt — the area between 30° North and 30° South latitude.

India is right in this belt, which is why monsoon rains are closely linked to the MJO.

Relevance: GS Prelims & Mains Paper I; Geography

Source: Indian Express

2. CPM Named in Money Laundering Case: Can a Political Party Be an Accused?

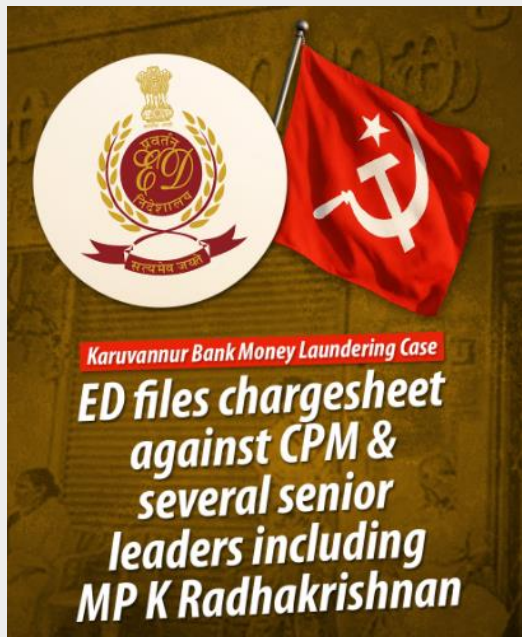
Introduction

The Enforcement Directorate (ED) has named the Communist Party of India (Marxist) — or CPI(M) — as an accused in a major money laundering case linked to the Karuvannur Cooperative Bank. This raises an important legal question: Can an entire political party be held responsible for a crime?

What Has the ED Done?

On May 27, 2025, the ED submitted a chargesheet (a formal legal document listing those accused of a crime) in a special court in Kochi, Kerala.

In this case, the CPI(M) has been listed as the 68th accused out of a total of 83.



Who Else Has Been Accused?

Among the 83 people accused:

- Seven are leaders or former members of CPI(M).
- Three senior leaders — K Radhakrishnan (MP), A C Moithen (former minister), and M M Varghese — are accused of using their positions as district secretaries of the party between 2011 and 2021 to help others get illegal loans.

Under Which Law Was CPI(M) Booked?

The CPI(M) was charged under Section 70 of the Prevention of Money Laundering Act (PMLA).

What Does Section 70 Say?

- This section deals with crimes committed by "companies".
- According to the law, a company doesn't just

mean a business — it can also mean a group or association of people.

- The ED argued that the CPI(M), as a registered political party, qualifies as an association of individuals and can therefore be treated like a company under this law.

What Is the Karuvannur Cooperative Bank Case?

The case began in 2021 when the Kerala Crime Branch investigated the Karuvannur Cooperative Bank.

What Was Found?

- Around ₹300 crore (₹3 billion) was allegedly illegally withdrawn or siphoned off from the bank.
- The ED took over the case under the PMLA, which focuses on investigating and punishing money laundering.

How Is CPI(M) Allegedly Involved?

According to the ED:

- The three CPI(M) leaders helped people get illegal loans from the bank.
- Some of the money was diverted into the party's fund.
- A bank employee, Biju M K, who later became a witness, told the court that party leaders pressured bank staff to approve the loans.
- The party reportedly maintained five illegal accounts at the bank where money from these loans was deposited.

Can a Political Party Be Accused of a Crime?

Usually, individuals within a party are held responsible for crimes — not the party itself.

But in this case, the ED is treating the CPI(M) as an entire organisation responsible for the crime, based on Section 70 of the PMLA.

This is only the second time ever the ED has done this.

What Was the First Time?

In 2023, the ED named the Aam Aadmi Party (AAP) as an accused in the Delhi liquor policy case — making that the first such instance.

Why Is This Case Important?

- It raises new legal questions about accountability of political parties as organisations.
- If proven in court, it could set a legal precedent — meaning other parties could also be held responsible in similar cases.
- It also highlights the influence political figures can have on cooperative banks and financial institutions.

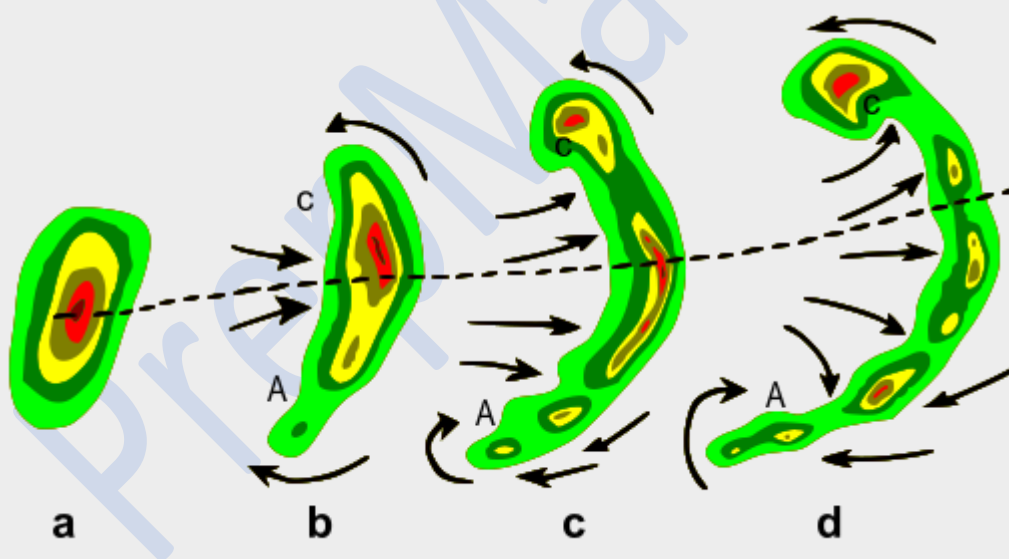
Relevance: GS Prelims & Mains Paper II; Governance

Source: Indian Express

3. What Is a Bow Echo and How Did It Signal Delhi's Fierce Storm?

Introduction

During the recent heavy storm in Delhi, weather experts spotted a special radar pattern known as a "bow echo". This helped explain why the winds were so strong — reaching up to 100 km/h.



What Is a Bow Echo?

A bow echo is a line of thunderstorms that curves forward on weather radar, looking like an archer's bow or crescent shape.

- It usually means strong straight-line winds are hitting the region.
- These storms are often dangerous and can lead to severe weather events like powerful windstorms or flash floods.

How Big Is a Bow Echo?

- It can stretch over 20 to 100 km in length.
- It usually lasts between 3 to 6 hours.
- Sometimes, a bow echo can be part of a larger storm system called a squall line (a long line of intense storms).

Who Coined the Term?

The term "bow echo" was created in the 1970s by Ted Fujita, a well-known meteorologist who also developed the Fujita Scale used to measure the strength of tornadoes.

How Does a Bow Echo Form?

1. Rain-cooled air (cold air that falls with rain) hits the ground and spreads out sideways.
2. This creates a gust front — the boundary where the cool air meets the warm, moist surface air.
3. The gust front pushes the warm air upward, forming new thunderstorms.
4. These new storms produce more rain and more cold air — continuing the cycle.
5. Eventually, the storm line bends forward like a bow as more air flows into the back of the storm.

This bending shape is what we see on the radar and call a bow echo.

Why Are Bow Echoes Important?

According to the India Meteorological Department (IMD):

- Bow echoes are a sign of severe weather.
- They often bring damaging straight-line winds, unlike tornadoes, which have rotating winds.
- In Delhi's case, the bow echo warned of wind speeds up to 100 km/h.

Have Bow Echoes Happened in India Before?

Yes, India has seen bow echoes before:

- On May 31, 2022, one formed over Delhi and Noida, but lasted only about an hour.
- In May 2025, another squall line (like a bow echo) was seen in Odisha during a thunderstorm.

These are not everyday events, but they are not rare either, especially during the pre-monsoon season when thunderstorms are more common.

Relevance: GS Prelims & Mains Paper I; Geography

Source: Indian Express

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