

## ECONOMY

PRE-CONTEXT

### INFLATION

THE HINDU, PG.NO: 13.

**News:** "Why inflation will matter more in 2025."

#### Context:

- Meanwhile, though consumer price inflation remained under 6% through most of the year, it didn't get near the RBI's goal till July when it hit a five-year **low of 3.5%**, starting in September, lifting the headline inflation closer to **6% again**.

#### Inflation:

- **A rise in general level of prices.**
  - **Note:** If the price of one good has gone up, it is not inflation.
- **Inflation** =  $\frac{\text{current period price index} - \text{last period price index}}{\text{last period price index}} \times 100$

#### Measuring Inflation:

- **Consumer Price Index (CPI):**
  - Also called **Retail Inflation**.
  - CPI **measures the average change in prices of fixed basket of goods and services** that households purchase for purpose of consumption.
  - Used for **inflation targeting and micro-level policy making**.
  - **Current base year** for CPI calculation is **2011-12**.
  - **Weights (High to Low):** Food and Beverages, Services, Fuel and Light etc.
  - **CPI is released by CSO** under Ministry of Statistics and Program Implementation.
- **Wholesale Price Index (WPI):**
  - Measures inflation at wholesale level, used for **macro level policy making**.
  - **Current base year** for WPI calculation is **2011-12**.
  - **Weights (High to Low):** Manufactured goods, WPI food, Primary Articles, Fuel and Power.
  - WPI serves as an important determinant in policy formulation of trade, economical and fiscal policies of Govt.
  - **WPI index data is published by Office of Economic Advisor** under **Ministry of Commerce and Industry**.

#### Core inflation:

- Some goods & services are either included or excluded during calculation of core inflation.
- It **excludes food, fuel & light, transport & communication**.

#### Base Effect:

- Nothing to do with base year.
- **Shows the impact of the rise in price level in the previous year over the current year.**
- **Formula:**  $\text{Current inflation rate} = \frac{\text{Current Price Index} - \text{Last year price index}}{\text{Last year price index}} \times 100$ .

#### GDP Deflator:

- Measures GDP at **current prices** to that of the constant prices.
- Provides **comprehensive view** compared to inflation indicators.
- **Phillips Curve:** shows relationship between Inflation & unemployment.

#### About Monetary Policy Committee:

- **Type:** **Statutory body** under **RBI Act 1934**. (Established in 2016).
- **Urjit Patel committee** recommended the formation of MPC.

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- **Constituted by:** Central Govt. where 3 members from RBI and 3 nominated by government (nominee must not be a government official).
- **Responsibilities & Functions of MPC:**
  - Entrusted with the responsibility of **deciding the different policy rates**, including **MSF, Repo Rate (RR), Reverse Repo Rate (RRR), LAF** etc.
  - To **ensure price stability** with sustainable growth.
  - **Inflation targeting @ 4% with 2% buffer**.
  - Required to **meet at least four times in a year**.
  - **Decisions are taken by majority**, Governor has a casting vote in case of tie.
  - **RBI must publish half-early MPC report** explaining sources of inflation, forecast of 18 months ahead.
  - In case of failure, it should submit **report to Central Govt**.
- **Instruments of MPC:**
  - **LAF, MSF, MSS, OMO (RR & RRR), CRR, SLR, Bank Rate**.
- **Failure of MPC:** when average inflation is higher or lower than the desired limit for 3 consecutive quarters.

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## ENVIRONMENT

PRE-CONTEXT

### MARINE HEATWAVES

THE HINDU, PG.NO: 12.

**News:** "Marine heatwave killed four million Alaska seabirds."

#### Marine Heatwaves:

- Marine heatwaves — **intense, prolonged, and expansive ocean warming events** — are becoming increasingly common due to climate change.
- They are profoundly **reshaping marine ecosystems globally**.
- These heatwaves lead to **mass mortality of key habitat-forming species** like **kelp and corals**, triggering cascading trophic effects that **alter ecosystem productivity, displace lower-trophic-level species, and amplify food shortages for top predators**.

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**GEOGRAPHY**  
PRE-CONTEXT  
**TROPICAL CYCLONE**  
THE HINDU, PG.NO: 12.

**News:** "Why better prediction of cyclone intensity, heavy rainfall is needed."

**Tropical Cyclone Formation:**

- Large **sea surface with temperatures higher than 27° C** to form and sustain themselves.
  - **Bay of Bengal:** has higher SSTs due to its semi-enclosed nature and shallower depths, making it more conducive to cyclogenesis.
  - **Arabian Sea:** Historically less active than the Bay of Bengal but has shown increased cyclonic activity in recent years due to rising SSTs.
- Presence of the **Coriolis force** enables cyclone rotation: typically present at least 5° latitude away from the equator.
  - **India's geographic location** (approximately 8°N to 37°N) is within the latitude range.
- **Low vertical wind shear:** i.e the change in wind speed and direction with altitude. **High wind shear disrupts the vertical structure** of a developing cyclone.
- **Atmospheric instability:** where warm, moist air near the surface can rise and cool to form clouds and precipitation.
- **Divergence of air at the upper levels of the atmosphere:** allows rising air from below to be efficiently evacuated, **promoting strong updrafts.**

**Colour-Coded weather warning system by IMD:**

- **Green:** No action required. normal weather conditions.
- **Yellow:** Wait and watch. favourable conditions for severe weather.
- **Orange:** Alert. Be prepared; severe weather is likely.
- **Red:** Take action. severe weather is occurring; take immediate action to protect life and property.

**Naming cyclones:**

- Cyclones are named when they reach the cyclonic storm stage (**wind speed ≥ 62 km/h**).
- Names are **selected from a list contributed by countries in the region**, including India, Bangladesh, Myanmar, and others.
  - Cyclone name '**Fengal**' was proposed by **Saudi Arabia**.

**About Project Mausam:**

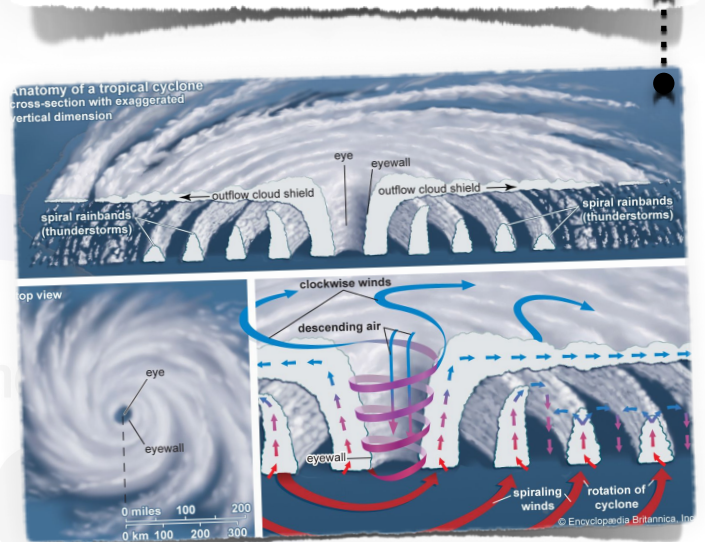
- **Implemented by:** **Ministry of Earth Sciences.**
- **Enhances India's weather and climate research** while addressing extreme weather events and the impacts of climate change.
- **Two critical areas requiring further research are:** the prediction of tropical cyclone intensity, especially rapid intensification, and forecasting of heavy rainfall associated with landfall, shows need for Project Mausam.
- **Key areas of focus:**
  - Improved weather observations and understanding.
  - Accurate and timely forecasts for monsoons, air quality, cyclones etc.
- **Critical Components:**
  - **Next-generation radars and satellite systems** with advanced sensors.
  - High-performance **supercomputers.**
  - Enhanced Earth system models.

- **GIS-based automated Decision Support System** for real-time data.

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**PYQs**

- GS III 2022:** Tropical cyclones are largely confined to South China Sea, Bay of Bengal and Gulf of Mexico. Why?
- GS III 2013:** Account for the The recent cyclone on the east coast of India was called "Phailin".
- GS III 2014:** How are the tropical cyclones named across the world? India Meteorological Department.



**HISTORY**

PRE-CONTEXT  
**LOTHAL PORT**  
THE HINDU, PG.NO: 9.

**News:** "Lothal will become global hub for maritime heritage, says Union Ports Minister."

**About Lothal port:**

- Lothal, a prominent city of the ancient **Indus Valley Civilisation** dating back to **2400 BCE**.
- Holds historical significance for its **advanced dockyard, thriving trade, and renowned bead-making industry.**
- Artefacts such as **seals, tools, and pottery** unearthed by archaeologists reveal a rich cultural and economic history.

**National Maritime Heritage Complex (NMHC):**

- National Maritime Heritage Complex (NMHC) under development **at Lothal, Gujarat.**
- Developed Under the **Sagarmala Programme**, the Ministry of Ports, Shipping, and Waterways.
- This **world-class facility will showcase India's maritime heritage from ancient to modern times**, adopting an **"edutainment" approach.**
- NMHC is poised to become a cornerstone of India's maritime legacy, **harmonising cultural and historical significance with economic and educational development.**

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**Thank you!**