

# Manthan HEADLINES



English

**Weekly Compilation**  
**[13th-19th April, 2025]**

# IIT Kharagpur's new study reveals hidden air pollutant that can decline crop yields

## Context

- Study by IIT Kharagpur highlights that surface ozone pollution is adversely affecting major food crops in Indo-Gangetic Plain and central India.

## What is Ozone Pollution?

- Ozone ( $O_3$ ) is a gas made of three oxygen atoms.
- Found in two layers of the atmosphere:
  - Stratosphere (upper atmosphere): Beneficial – protects from UV rays.
  - Troposphere (ground level): Harmful – acts as a pollutant.

## Formation of Tropospheric Ozone

- Not directly emitted.
- Formed by a reaction between:
  - Nitrogen oxides ( $NO_x$ )
  - Volatile Organic Compounds (VOCs)
  - Sunlight as a catalyst

## Health and Environmental Impact

- Acts as an air pollutant and greenhouse gas.
- Harmful to human health, vegetation, and crop productivity.

## WHO Guidelines

- Recommends max ozone concentration:
- $100 \mu g/m^3$  (8-hour maximum average in a day).



Source: TH



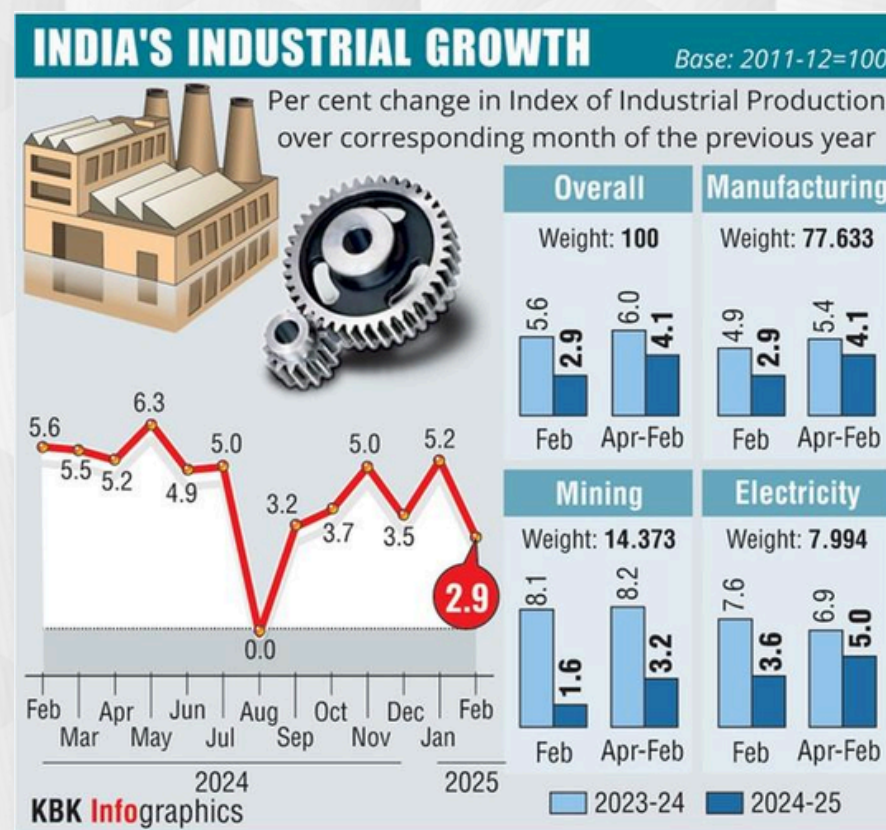
# Industrial production slows, IIP at 6-month low of 2.9% in February 2025

## Context

- Index of Industrial Production (IIP) grew at its slowest rate in six months, clocking a pace of 2.9% in February 2025.

## Index of Industrial Production (IIP)

- The IIP is an index which shows the growth rates in different industry groups of the economy in a stipulated period of time.
- It is a composite indicator that measures the growth rate of industry groups classified under:
- Broad sectors:** Mining, Manufacturing, and Electricity.
- Use-based sectors: Basic Goods, Capital Goods, and Intermediate Goods.
- Released by:** The Central Statistical Organisation (CSO), Ministry of Statistics and Programme Implementation.
- Base year:** 2011-2012
- Periodicity:** Monthly basis



Source: TH

# Atmospheric river storm brought heavy rain, strong winds, and severe thunderstorms across the United States.

## Context

- Atmospheric river caused **heavy rain, strong winds, and thunderstorms** across much of the U.S.

## Overview

### Definition:

- Narrow, fast-moving bands of moisture and wind that transport large amounts of water vapor from tropical oceans to land.
- Span 402 to 606 km in width and over 1,600 km in length.

### Characteristics:

- Often resemble hurricanes in intensity.
- Most common in mid-latitudes.
- **Example:** Pineapple Express – Carries moisture from Hawaii to U.S. and Canadian West Coasts.
- Recent U.S. storm originated from the Caribbean.

### Importance:

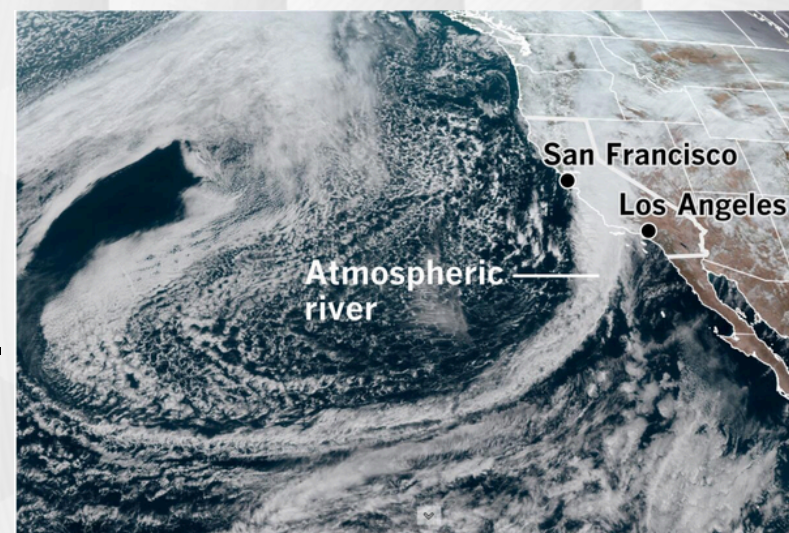
- Most atmospheric rivers are weak and beneficial, providing vital rain and snow.

### Threats:

- Can cause severe weather events like heavy rain, strong winds, flooding, and mudslides.

### Future Projections:

- NASA study predicts atmospheric rivers will become longer, wider, and more intense, increasing the risk of severe flooding.



Source: IE



# Why are ASHA workers protesting in Kerala? | Explained

## Context

- ASHA workers in Kerala have been protesting for better remuneration and retirement benefits.

## Overview

### About ASHAs:

- ASHA stands for Accredited Social Health Activist.
- They are community health workers appointed under the **Ministry of Health and Family Welfare (MoHFW)**.
- ASHAs are a key part of the **National Rural Health Mission (NRHM)**, launched in 2005.
- The mission aimed for full implementation by 2012.

### Roles and Objectives:

- Act as a bridge between the community and public health system, especially in rural and marginalized areas.
- Promote awareness and ensure access to health and family welfare services.
- Serve as first responders in areas with limited access to medical care.

### Remuneration:

- ASHA workers earn an average of ₹6,000–₹10,000 per month.
- Earnings include a monthly honorarium from both Central and State governments, plus performance-based incentives.



Source: TH

# Justice BR Gavai To Be the Next CJI

## Context

- On April 17, 2025, CJI Sanjiv Khanna recommended Justice B.R. Gavai to be the 52nd Chief Justice of India (CJI).

## Overview

### Constitutional Provisions

- Article 124(1):** Mentions the existence of a Supreme Court with a Chief Justice.
- Article 124(2):** Judges, including the CJI, are appointed by the President.
- No specific constitutional procedure for appointing the CJI is mentioned.

### Appointment Convention

- The outgoing CJI recommends the senior-most judge as successor.
- Seniority is based on the date of appointment to the Supreme Court, not age.
- If appointed on the same day:
  - The one sworn in first is considered senior.
  - If both are sworn in together, High Court service length is considered.
  - Judges from the Bench are senior to appointees from the Bar.



Source: TH



# India and International Big Cat Alliance sign agreement to host its headquarters

## Context

- India signs deal to host IBCA headquarters, boosting global big cat conservation.

## About

- India will host the IBCA Headquarters and Secretariat.
- Government will provide ₹150 crore support from 2023–24 to 2028–29.
- Funds will cover infrastructure, recurring costs, and corpus creation to help IBCA meet its goals.

### About IBCA:

- Launched:** In 2023 by the PM during Project Tiger's 50th anniversary event at Mysuru.
- Legal Status:** Became a legal entity after 5 countries (India, Nicaragua, Eswatini, Somalia, Liberia) signed the framework.
- Membership:** 27 countries have agreed to join.
- Goal:** Global conservation of seven big cats — Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, Puma.

### Objectives:

- Promote cooperation among countries.
- Share successful conservation practices.
- Build global expertise to protect big cats.



Source: TH



**Stay Tuned!**