itok

MAY 2025

The

HINDU & EXPRESS NOTES

EXPLORE. UNDERSTAND. MASTER.

OVER 200 NEWSPAPER ARTICLES DISTILLED INTO 200 PAGES OF CLARITY.
EACH PIECE COMES WITH KEY TAKEAWAYS, SIMPLIFYING THE COMPLEX.
RETAIN BETTER
WITH OUR EASY LANGUAGE SECTION.

Table of Contents

1st May 2025

[The caste census-Indian Express Explained]

Sociology

Easy Explanation

The government has decided to include a **caste census** in the upcoming nationwide **Population Census**. This is a major reversal of its earlier stance from 2021 when it said it would not collect caste-wise data (except for SCs and STs). The demand for a caste census has existed for decades, especially from political parties that represent Other Backward Classes (OBCs). The last time India collected full caste data was in 1931. Since then, only SC and ST data have been collected.

Earlier, in 2011, the UPA government did try something similar through a **Socio-Economic and Caste Census (SECC)**, but the actual caste data from that effort was never released publicly. Now, with growing political pressure—especially after the 2024 elections and state-level surveys—the Modi-led government has decided to conduct this enumeration officially.

The census data will not only impact policymaking but also the **delimitation (redrawing of constituency boundaries)** and **women's reservation in legislatures**, both of which depend on fresh Census data. It may also **strengthen calls for more caste-based reservations** and **sub-categorization within OBCs**.

Key Takeaways

What Is Being Done

- A **caste census** will be conducted along with the upcoming **Census of India**.
- Approved by the Cabinet Committee on Political Affairs headed by PM Modi.
- This reverses the official position taken in 2021 against a caste count.

History of Caste Census

- Full caste data was last collected in **1931**.
- The 1941 data was collected but not released due to World War II.
- Post-independence, only **SC and ST** data have been collected in the Census.
- A partial attempt (SECC 2011) was made under UPA, but caste data was never published.

Political & Legal Pressure

- Political parties (Congress, RJD, SP, DMK, JDU, and even BJP in Bihar) have long demanded caste enumeration.
- **Supreme Court petitions** are pending, asking for caste census.
- **NCBC** also urged the Centre in 2021 to count OBCs.

Why It Matters

- Data will be used for:
  - **Delimitation of constituencies** (frozen till the Census after 2026).
  - **Women's reservation in legislatures** (dependent on updated Census).

- **Policy planning** and possible **sub-categorisation within OBCs**.
- **Revisiting and expanding reservations**.

What Changed

- BJP lost majority in 2024 elections, facing setbacks in OBC-heavy states like UP.
- Congress raised the issue of underrepresentation of OBCs in top posts.
- Many states are conducting their own caste surveys, calling them "surveys" to avoid constitutional conflict.

Logistical Challenge

- Census has two stages: **House Listing** and **Population Enumeration**.
- The process was delayed due to the **Covid-19 pandemic**.
- Census 2021 questionnaire was already prepared, and officials' terms have been extended for its execution.

STORY OF RAGHUJI BHONSLE,WHOSE SWORD IS SET TO RETURN TO INDIA-Indian Express Explained

History

Easy Explanation

The Maharashtra government has bought back a historic sword that belonged to **Raghuji Bhonsle I**, a key Maratha warrior who founded the **Nagpur Bhonsle dynasty**. This sword was recently auctioned in London and purchased for **₹47.15 lakh**.

The sword has a **European-style curved blade** and features **an inscription in Devanagari script**, naming Raghuji Bhonsle as **"Sena Saheb Subah Firang"**, a military title under the Maratha Empire. It's believed this sword was a ceremonial gift from **Chhatrapati Shahu Maharaj** to Raghuji for his successful military campaigns.

Raghuji Bhonsle played an important role in the Maratha expansion into **Odisha, Bihar, Bengal, Uttar Pradesh, Chhattisgarh**, and **Madhya Pradesh**, and he even helped bring the **Jagannath Temple in Puri** under Maratha rule. His sword likely left India after the **Battle of Sitabuldi (1817)** when the British defeated the Nagpur Bhonsles and looted their treasures.

Key Takeaways

1. What Happened

- Maharashtra govt. bought Raghuji Bhonsle I's sword for ₹47.15 lakh at a London auction.

2. About the Sword

- Basket-hilt, single-edged European-style blade.
- Slightly curved with two fullers (grooves).
- Spine has a gold Devanagari inscription naming Raghuji Bhonsle as "Sena Saheb Subah Firang".
- Likely a ceremonial gift from Chhatrapati Shahu Maharaj.

3. Who Was Raghuji Bhonsle I

- Founder of **Nagpur Bhonsle dynasty** (ruled 1730–1755).
- Key Maratha warrior who expanded empire into **Odisha, Bengal, Bihar, MP, UP, Chhattisgarh**.
- Took control of **Jagannath Temple in Puri**; revived temple offerings and priest appointments.

4. About the Nagpur Bhonsles

- A major Maratha clan like the Peshwas and Holkars.
- Claimed descent from **Sisodia Rajputs of Udaipur**.
- Known as "Hinganikars" due to ancestral links to Hingani village near Pune.

5. How the Sword Left India

- After the **1817 Battle of Sitabuldi**, British defeated the Nagpur Bhonsles.
- The sword may have been **looted or gifted** to the British afterward.

Hit hard, hit smart-Indian Express Editorial

Internal security

Easy Explanation

After the brutal terrorist attack in Pahalgam that killed 26 innocent people, India faces a critical moment. The country must respond strongly—but wisely. The goal of the attackers (and their handlers in Pakistan) was to destroy normalcy in Kashmir, damage tourism, stir hatred, divide communities, and provoke an overreaction. India must avoid falling into this trap.

The article suggests a **balanced and multi-dimensional approach**:

- **No blame on innocent Kashmiris or Muslims**, who are also victims.
- **Promote unity and communal harmony**, highlight the local heroes who tried to save lives.
- Maintain **tourism and economic activities** in Kashmir to deny terrorists their objectives.
- Take **targeted military actions**, like **surgical strikes or air raids** on terrorist bases across the LoC.
- Use **diplomacy and international pressure** to expose Pakistan's military-terror nexus.
- Expand into **cyber warfare and covert operations** to keep terrorist groups on the back foot.
- Avoid large-scale war or overreaction that could damage India's own growth and global image.

Key Takeaways

1. What Terrorists Wanted

- Disrupt peace and normalcy in Kashmir.
- Hurt the tourism economy and increase local dissatisfaction.
- Trigger communal divide and turn Indians against each other.
- Shift international attention back to the Kashmir issue.
- Strengthen Pakistan's military image domestically.

2. What India Must Not Do

- Do not blame ordinary Kashmiris or Indian Muslims.
- Avoid actions that create divisions or hate.
- Prevent domestic communal polarization.
- Stop house demolitions linked to terror after the initial crackdown to avoid harming innocents.

3. Immediate Security Actions

- Maintain **highest alert** across all forces.
- Continue anti-militant operations, but shift focus to **security and stability** in Kashmir.
- Promote **tourism** and show Kashmir is safe and functioning.

4. Diplomatic Measures

- Mobilize global opinion to **isolate Pakistan's military**.
- Push for sanctions, block funding in **PoK**, demand extradition of terrorists.
- Revive **FATF scrutiny** and **UN sanctions** on Pakistani terror links.

5. Military Options

- Consider **surgical strikes** across the LoC.
- Possibly conduct **larger airstrikes** than Balakot or use **missile attacks** on terror bases.
- Use **naval pressure** in the Arabian Sea to hurt Pakistan's economy.

6. Covert and Cyber Measures

- Increase **covert ops** targeting key terror leaders inside Pakistan.
- Launch **cyber operations** to disrupt terror communications and logistics.

7. Managing Escalation

- Expect Pakistan to avoid full-scale war due to its weak economy.
- Nuclear threats are more **symbolic** than real; international attention would be unwanted by Pakistan.
- India must **calibrate its response**—strong, smart, but without risking national progress.

8. Final Message

- India must respond with a **multi-pronged, strategic approach**.
- Balance military action, diplomacy, and domestic unity.
- Prevent overreaction that harms India's growth and social fabric.
- Stay united and resolute: **"Never surrender to the murderers."**

Three Chinese astronauts return after six months on space station-The Hindu Science

Science and technology

Easy Explanation

Three Chinese astronauts from the **Shenzhou-19 mission** safely returned to Earth on April 30 after spending **six months** aboard the **Tiangong space station**. They were involved in scientific experiments and set a record for the **longest spacewalk** by a Chinese crew. Their return was delayed by a day due to bad weather.

The **new crew of Shenzhou-20** took over after a formal handover. China's space program, heavily funded and seen as a major national project under President **Xi Jinping**, plans to send astronauts to the **moon by the 2030s** and even build a **moon base**. The current crew will conduct experiments in **physics, life sciences**, and test defense systems against **space debris**. Notably, they'll also observe **planarians**—tiny worms known for regeneration.

China is now the **third country** to send humans into space and operate a long-term space station, alongside the U.S. and Russia.

Key Takeaways

1. Mission Overview

- **Shenzhou-19** astronauts returned after 6 months in space.
- Mission included scientific work and a record-breaking spacewalk.

2. Who Returned

- **Cai Xuzhe** (Commander, former pilot, previous Shenzhou-14 mission).
- **Wang Haoze** (35, only woman flight engineer at the time of launch).
- **Song Lingdong** (34, former pilot).

3. Replacement Team – Shenzhou-20

- Led by **Chen Dong** (46, veteran astronaut with over 200 days in orbit).
- Other crew: **Chen Zhongrui** (40) and **Wang Jie** (35), both on their first mission.
- Launched from **Jiuquan Satellite Launch Center** with full state celebration.

4. Tasks of New Crew

- Conduct experiments in **life sciences and physics**.
- Install **anti-space debris shielding**.
- Study **planarians** (aquatic worms with regenerative ability) in space for the first time.

5. Strategic Significance

- China aims to **send a manned lunar mission by 2030**.
- Part of President Xi's vision for China's **"space dream"**.
- China has already landed robotic missions on **Mars and the Moon**.
- This makes China the **third nation** with human spaceflight capability, after the U.S. and Russia.

Is natural hydrogen the fuel of the future?-The Hindu Text and Context

Economy

Easy Explanation

Hydrogen is often called the **fuel of the future** because it can help **cut carbon emissions** and **decarbonize the global economy**. Until now, hydrogen has mostly been produced using **natural gas** (which pollutes) or via **green hydrogen** (clean but expensive). However, there's growing attention to **natural hydrogen**—hydrogen found naturally underground.

Natural hydrogen is created through geological processes such as:

- Interaction of water with iron-rich rocks (serpentinisation)
- Breakdown of water by radioactive rocks (radiolysis)
- Decomposition of deep organic matter

Historically, it was believed to be too reactive and scarce to exist in large deposits. That changed after a **1987 accidental discovery in Mali**, and now more such underground reserves are being found worldwide.

Natural hydrogen could be a **cheaper and cleaner** alternative to current hydrogen sources. However, exploration is still new and scattered. India shows promising signs of having natural reserves, especially in **Himalayas, Andaman, Deccan cratons**, and areas with **hot springs**.

Though it's early, with big companies investing and more exploration happening, natural hydrogen may emerge as a **key clean energy source**—if it proves **economically and logistically viable**.

Key Takeaways

1. What is Natural Hydrogen?

- Hydrogen found underground due to natural processes.
- Not produced artificially like “grey” (from gas) or “green” hydrogen (from renewable energy).

2. How is it Formed?

- Through **serpentinisation**, **radiolysis**, and **decomposition of organic matter** deep underground.
- Found in gas seeps, volcanic outgassing, and mine areas.

3. Why Was It Long Ignored?

- Scientists believed hydrogen’s **small size and reactivity** prevented large underground deposits.
- It was considered a **geological curiosity**, not a viable energy source.

4. Breakthrough Discovery

- In **1987**, a fire from a borehole in Mali revealed **98% pure natural hydrogen**.
- Sparked global interest and new exploration.

5. Where Is It Found Today?

- Documented in **Australia, U.S., France, Canada, Spain, South Korea**, and more.
- **India has potential**, with formations in **Himalayas, Andaman, Dharwar, Singhbhum**, and **sedimentary basins**.

6. Why Is It Important?

- **Cleaner and cheaper** to extract than green hydrogen.
- If even 2% of geological hydrogen is usable, it could **meet global hydrogen needs for 200 years**.
- Could reduce reliance on polluting fuels and cut hydrogen production costs to **$1/kg or less**.

7. Industry Response

- **Gold rush**: 40+ companies exploring by 2023 (only 10 in 2020).
- Major investments by **Amazon, Bill Gates, BP, Rio Tinto**.
- USGS and global energy bodies now mapping hydrogen zones.

8. Challenges

- Total reserves unknown; may be **scattered** and **hard to mine economically**.
- Requires **new exploration frameworks** and **techniques**.

[India’s shame — the trap of bonded labour-The Hindu Editorial]

Polity

Easy Explanation

Despite being illegal, **bonded labour still traps millions of Indians**, especially among the poor and marginalised. People often fall into this trap when they take small loans or advances during times of crisis—like illness, marriage, or food shortages. Employers use these debts to **exploit workers**, making them work long hours under harsh conditions with little or no pay. Survivors like **Mukesh Adivasi** in Madhya Pradesh and **K. Thenmozhi** in Andhra Pradesh faced brutal violence and lost years of their lives.

Although India banned bonded labour in **1975**, the government's promise in 2016 to rescue **1.84 crore workers by 2030** is far from reality—**only about 12,760** had been rescued as of 2021. Most of India's workforce is in the **unorganised sector**, where people have no job security, legal contracts, or union protection.

The **informal economy**, especially in sectors like brick kilns, agriculture, and construction, continues to **profit off forced labour**. Laws have weakened worker rights in recent years, and **exploitation remains widespread**, highlighting a **major human rights failure**.

Key Takeaways

1. What is Bonded Labour?

- A form of **modern slavery**, where people are forced to work to repay small loans or advances.
- Involves **long hours, physical abuse**, little or no pay, and **no freedom to leave**.

2. How Does It Happen?

- Triggered by **poverty, medical emergencies, dowries, food shortages**, or job loss.
- Deepened by **caste, illiteracy, social discrimination**, and control by **local elites or employers**.

3. Legal and Policy Measures

- Abolished in **1975** under the Bonded Labour System (Abolition) Act.
- In **2016**, the government planned to rescue **1.84 crore** bonded labourers by **2030**.
- **Only 12,760 rescued** between 2016 and 2021 — target looks **unrealistic**.

4. India's Workforce Reality

- **47 crore total workers**, but **39 crore** are in the **unorganised sector**.
- These workers often face **forced labour, no contracts, and poor working conditions**.
- **Lack of unions** weakens their bargaining power and exposes them to exploitation.

5. Systemic Issues

- **Labour Codes of 2019–20** have diluted protections, undermining **Ambedkar's legacy** of union rights and fair conditions.
- Industries profit from **forced, informal labour** while ignoring human rights.

6. Cases Highlighted

- **Mukesh Adivasi**: Beaten and injured on a sugarcane farm in Karnataka.
- **K. Thenmozhi**: Forced to work in a brick kiln from age 13, lost education, abused.

7. Overall Message

- India's economy still **profits from bonded and forced labour**.
- **Urgent systemic reforms** and stronger enforcement are needed to end this injustice.
- The **gap between law and reality** continues to endanger millions of vulnerable workers.

[Secret threats-The Hindu Editorial]

Internal security

Easy Explanation

The Supreme Court has raised concerns about the use of **spyware like Pegasus** by the government, especially against **judges, journalists, politicians, and activists**. While national security is important, the Court made it clear: **the real issue isn't whether the state can surveil, but *who* it can surveil and under *what safeguards***.

The government has not confirmed or denied using Pegasus, a military-grade spyware sold only to governments. Meanwhile, multiple iPhone users continue receiving alerts from Apple about potential surveillance.

The editorial warns that using **national security as an excuse to bypass law, transparency, and due process** is dangerous. Surveillance powers must come with **checks, rules, and accountability**—not be used to silence dissent or label critics as "anti-nationals."

The state must balance **security and democracy**. Unregulated surveillance undermines individual rights, weakens democracy, and leads to **executive overreach**.

Key Takeaways

1. What Sparked the Debate?

- Allegations of **Pegasus spyware** being used against Indian citizens.
- Supreme Court is examining **who can be a legitimate surveillance target**, not just if surveillance is allowed.

2. Government's Stand

- Government has **neither confirmed nor denied** Pegasus use.
- Did **not fully cooperate** with the Supreme Court-appointed technical probe.

3. The Bigger Issue

- National security concerns are real, especially after events like **terror attacks in Pahalgam**.
- But **vague claims of national interest** cannot be used to justify **violating rights or suppressing political opposition**.

4. Risks and Abuse

- Growing trend of **branding dissenters and critics as "anti-nationals"**.
- **No proper legal process or oversight** currently checks surveillance activities.

5. What the Court Emphasized

- Surveillance should follow **clear protocols** and be subject to **oversight**.
- Democratic accountability must prevail even in security operations.
- **Individual rights and dignity** cannot be ignored in the name of protecting the state.

6. Democratic Safeguards Needed

- Any surveillance tool must have:
  - **Defined legal procedures**
  - **Checks from other government branches**
  - **Public transparency wherever possible**

7. Conclusion

- **Surveillance is necessary**, but it must be **lawful, limited, and transparent**.
- Democracy must not be sacrificed under the **guise of protecting it**.

- The **Constitution's values and rights** must remain the guiding compass.

2nd May 2025

SECC 2011,the last time caste data was collected(but not published)-Indian Express Explained

Sociology

Easy Explanation

The **Socio Economic and Caste Census (SECC) 2011** was a massive data collection effort aimed at understanding the economic status and caste details of every household in India. It followed the **Census 2011**, which only collected broad demographic information and did **not** ask for caste names except for SCs and STs.

SECC was conducted mostly between 2011 and 2013, covering **both rural and urban areas**. While parts of the data were released (like economic indicators), **the detailed caste-wise data** (except total SC/ST numbers) **was never made public**.

The last publicly available caste data at a national level is from the **1931 Census**. The **Census 2021** was expected to update this, but has been delayed.

Key Takeaways

1. Purpose and Nature of SECC 2011

- Aimed at capturing *socio-economic* and *caste* data.
- Separate from but followed the Census 2011.
- Conducted by the Ministry of Rural Development and Registrar General of India.

2. Confidentiality and Use

- Census 2011 data is confidential.
- SECC data is accessible to government departments for policy implementation and targeting welfare schemes.

3. Caste Data Specifics

- Census 2011 only asked if a person belonged to SC or ST.
- SECC asked for *caste names* within SC/ST/OBC/Other categories.
- SC identification restricted to Hindus, Sikhs, and Buddhists (as per 1990 government order).

4. Differences in Data Collected

- **Census 2011**: Focused on demographic and language data, migration, number of children, etc.
- **SECC 2011**: Added caste names, housing conditions, disability type, illnesses, income sources, and asset ownership.

5. Rural vs Urban Focus

- **Urban areas**: Focus on source of income (e.g., street vending, domestic work).
- **Rural areas**: Included bonded labor, primitive tribes, land ownership, and type of farming equipment.

SIGNED AND SEALED-Indian Express Editorial

Easy Explanation

In the **first 100 days** of Donald Trump's return as U.S. President, **India has carefully managed its relationship** with the U.S. by engaging early and diplomatically. Prime Minister Modi was one of the first major leaders to visit Trump, aiming to soften his stance on **tariffs** and secure cooperation on **defense and security**. India even lowered tariffs on U.S. goods and accepted deported Indian nationals quietly.

Top U.S. officials like **Tulsi Gabbard and JD Vance** visited India, discussing cooperation on **intelligence, counterterrorism, trade, and defense**. However, the issue of **trade tariffs remains unresolved**, posing a risk to the bilateral momentum.

Separately, the **U.S.-Ukraine deal on critical minerals**—signed despite earlier tensions—shows Washington's attempt to balance **strategic interests (Ukraine's security)** with **economic priorities (access to lithium and rare earths)**, especially as **China dominates global supply chains**.

Key Takeaways

India–U.S. Relations under Trump (First 100 Days):

- **Early engagement:** Modi's quick visit aimed at easing Trump's tariff threats.
- **Tariff tension:** India reduced some tariffs (e.g., Harley-Davidson) and offered to buy U.S. defense gear (e.g., F-35s).
- **Deportation cooperation:** India quietly accepted deported nationals, avoiding political backlash.
- **High-level visits:** Tulsi Gabbard and JD Vance visited India, strengthening strategic dialogue.
- **Key unresolved issue:** U.S.-imposed 27% tariff remains a critical hurdle in trade relations.

U.S.–Ukraine Critical Minerals Deal:

- **Resource deal signed:** U.S. secured access to Ukraine's vast reserves of lithium, cobalt, and rare earths.
- **Strategic challenge:** U.S. seeks minerals for energy transition while avoiding firm security commitments to Ukraine.
- **Geopolitical balancing:** The deal highlights U.S. attempts to counter China's mineral dominance and maintain influence in Eastern Europe.
- **Peace efforts stalled:** Despite mineral agreements and brief ceasefires, broader conflict resolution in Ukraine remains uncertain.

How can India tap its natural hydrogen potential?-The Hindu Text and Context

Economy

Easy Explanation

India aims to reach net-zero emissions by 2070, and naturally occurring underground hydrogen could help achieve that goal more cheaply than manufacturing hydrogen. A preliminary estimate suggests the country might hold about 3,475 million tonnes of this clean fuel—enough to cover projected demand growth from 6 Mt per year today to roughly 50 Mt by 2070. If confirmed, tapping these reserves would bolster energy security and reduce fossil-fuel imports. Challenges remain: locating deposits, extracting hydrogen safely (it diffuses and reacts easily), and building storage and transport infrastructure. A coordinated national survey, public-private partnerships, and adapting oil-and-gas expertise could kick-start exploration and turn natural hydrogen into a major economic advantage for India.

Key Takeaways

- **Natural Hydrogen Potential**: India may possess up to **3,475 million tonnes** of natural hydrogen, offering a massive clean energy source.

- **Rising Demand**: Hydrogen demand in India is expected to rise from **6 Mt/year in 2020 to over 50 Mt/year by 2070**.
- **Energy Independence**: Utilizing natural hydrogen can reduce dependence on imports and support **strategic energy autonomy**.
- **Exploration Challenges**: Accurate detection, safe extraction, and hydrogen's reactivity pose major **technical and safety hurdles**.
- **Infrastructure Needs**: Requires development of **hydrogen-safe pipelines, storage, and extraction technologies**.
- **Policy Action Required**: A national **geological survey**, public-private initiatives, and regulatory frameworks are crucial to unlock this potential.
- **Global Inspiration**: India can learn from **U.S. experimental methods** like water-rock hydrogen production and carbon capture.

[Can the Indus Waters Treaty be suspended unilaterally?-The Hindu text and context]

International relations

Easy Explanation

The **Indus Waters Treaty (IWT) of 1960** divides river water between India and Pakistan—India gets full control over eastern rivers (Ravi, Beas, Sutlej) and limited rights over western rivers (Indus, Jhelum, Chenab). Following the recent terror attack in Pahalgam, India announced the treaty would be held in "abeyance." However, **international law doesn't recognize "abeyance"**—only **suspension or termination**, which must meet strict legal criteria under the **Vienna Convention on the Law of Treaties (VCLT)**. Even though India isn't a signatory, the ICJ considers VCLT provisions as **customary international law**. For a suspension to be lawful, India must prove a **"fundamental change in circumstances,"** a high legal threshold.
If disrupted, Pakistan's agriculture and hydropower—largely dependent on Indus waters—could suffer, even though India lacks the infrastructure to fully block water. But India could still cause disruption through **controlled flow variations**.

Key Takeaways

- **No Unilateral Termination**: IWT can only be changed or ended through **mutual agreement** (Article XII).
- **"Abeyance" Not Legal**: The term isn't recognized in **international law**; India likely meant "suspension."
- **Vienna Convention Conditions**: Article 62 allows suspension only under a **"fundamental change of circumstances"**, a high bar set by ICJ precedents.
- **Legal Relevance**: Even though India hasn't signed the VCLT, its principles apply as **customary international law**.
- **Impact on Pakistan**: Over **80% of Pakistan's agriculture** and significant power rely on Indus waters; sudden disruptions could be damaging.

- **India's Limitations**: Current Indian infrastructure can't withhold large volumes of water but can **manipulate timing and flow**, causing uncertainty.

- **Future Options**: India may explore new strategies like **reservoir redesign, drawdown flushing,** and revising hydropower projects to increase leverage.

[A 'non-contact' wearable that uses skin flux to monitor health-The Hindu Science]

Science and technology

Easy Explanation

A new **non-contact wearable device**, about the size of a smartphone, can measure water vapor, carbon dioxide, and volatile organic compounds (VOCs) released through the skin—**without touching it directly**. It creates a sealed micro-environment near the skin using wireless sensors to track these molecules, which reflect a person's **skin health and general health**, especially useful in **wound monitoring (like in diabetic patients)**. Developed by U.S. and South Korean scientists, this wearable is **cost-effective, wireless, and safe**, even for fragile or injured skin. It could soon be a **new vital sign** for doctors and has potential uses in clinical settings, hazardous industries, and even perfumery.

Key Takeaways

1. Revolutionary Non-Contact Design

- Unlike conventional wearables, this device does **not directly touch the skin**.

- Uses a **sealed microchamber** to monitor the **flux of molecular substances** (e.g., water vapor, CO_2, VOCs) from and into the skin.

- Reduces risk of damaging **sensitive or wounded skin**—especially relevant for conditions like **diabetic ulcers**.

2. Skin as a Window to Health

- The device measures **transcutaneous emissions** to assess **skin barrier integrity** and detect early health anomalies.

- Tracks the **rate of evaporation** to understand water loss, helping detect skin disorders and dehydration risk.

- Also detects chemicals **entering the body**, making it relevant for **occupational safety** in hazardous environments.

3. Multi-Disciplinary Innovation

- Developed through collaboration between **material scientists, dermatologists, engineers, and chemists** from the U.S. and South Korea.

- Integrates **miniature semiconductor sensors**, wireless modules, and microvalves to operate as a **self-contained, smart health monitor**.

4. Clinical and Commercial Applications

- Early studies show potential in **monitoring wound healing**, particularly in diabetes patients.
- Could evolve into a **new vital sign**, alongside heart rate, temperature, and oxygen saturation.
- Gaining interest from sectors like **dermatology, internal medicine, and even the perfume industry**.

5. Data-Driven Health Insights

- By comparing **valve-open and valve-closed flux readings**, it calculates how much and how quickly substances move through skin.
- Offers **continuous, real-time monitoring** through smartphone integration—ideal for **remote diagnostics and telemedicine**.

6. Affordable and Scalable

- Designed to be **low-cost and reusable**, enabling wide deployment across both **clinical and industrial sectors**.
- Can be placed **anywhere on the body**, allowing personalized tracking based on site-specific health conditions.

7. Future Directions

- Holds potential for use in **burn patients**, **toxic exposure monitoring**, and even **environmental interaction research**.
- Ongoing research may turn **skin flux measurement into a standardized diagnostic marker** in future medicine.

[Reviving a far-sighted but forgotten Bill mechanism-The Hindu Editorial]

Polity

Easy Explanation

Private Member's Bills (PMBs) are laws proposed by MPs who are **not Ministers**, giving them a chance to raise important issues independently, outside of party lines. They are usually discussed on **Fridays**, but in recent years, Parliament has often skipped or replaced these sessions with government work, reducing PMBs to a symbolic gesture.

Since Independence, only **14 PMBs have become law**, and **none have passed both Houses since 1970**. Still, some PMBs have made an impact—like the **Transgender Rights Bill** (2015), which inspired later government law, or the **Right to Disconnect Bill** (2019), which sparked public debate.

Reforms like **protecting Friday sessions**, setting up a **review panel**, or borrowing the UK's **Ten-Minute Rule** could make PMBs more effective. These Bills matter because they allow MPs to reflect **constituency voices** and **raise new ideas**, strengthening democracy.

Key Takeaways

- **Definition & Purpose**: PMBs are proposed by MPs who are not Ministers, allowing them to present independent legislative ideas.
- **Diminished Role**: Frequent disruptions and preference for government business have reduced PMBs to a symbolic exercise.
- **Poor Track Record**: Only **14 PMBs have become law** since Independence; none have passed both Houses since 1970.
- **Democratic Value**: PMBs allow MPs to raise **constituency concerns**, propose **forward-looking ideas**, and act outside party lines.
- **Notable Examples**:
    - *Right to Disconnect Bill* (2019) by Supriya Sule—raised national awareness on work-life balance.
    - *Transgender Rights Bill* (2015) by Tiruchi Siva—paved the way for the government's 2019 law.
- **Structural Challenges**: Anti-Defection Law limits MP independence; Fridays reserved for PMBs are often overridden or disrupted.
- **Suggested Reforms**:
    - Legally protect PMB time in Parliament.
    - Create a **review committee** to screen and prioritize PMBs.
    - Adopt the **UK-style Ten-Minute Rule** to increase visibility and debate.

- Extend Parliament hours instead of cutting into PMB time.

- **Vice President's View**: Jagdeep Dhankhar called PMBs a "**gold mine**" of forward-looking ideas that need to be preserved.

3rd May 2025

The water-sharing dispute between Punjab andHaryana-Indian Express Explained

Polity

Easy Explanation

A **major water-sharing conflict** has erupted between **Punjab and Haryana** over extra water released from the **Bhakra-Nangal dam**. Haryana asked for **4,500 cusecs more** than its usual share, but Punjab strongly opposed it, saying it has **no extra water to spare**. Despite Punjab's resistance, the **Bhakra Beas Management Board (BBMB)**—which manages river water from the **Satluj and Beas rivers**—approved Haryana's request with support from Haryana, Rajasthan, and Delhi.

Punjab refused to release the additional water, calling the BBMB's decision "unprecedented" and said it would **explore legal options**. Haryana, claiming a drinking water crisis in districts like **Hisar, Sirsa, and Fatehabad**, plans to **approach the Supreme Court**.

The BBMB allocates water annually to Punjab, Haryana, Rajasthan, etc. Punjab argues that Haryana has already used **over 100% of its yearly quota**, while water levels in key dams are critically low due to **poor Himalayan snowfall**.

Key Takeaways

- **Dispute Origin**: Haryana requested **8,500 cusecs** from the Bhakra-Nangal dam, **4,500 more** than usual; Punjab rejected the demand.

- **BBMB's Role**: Despite Punjab's protest, BBMB approved Haryana's request with support from Haryana, Rajasthan, and Delhi.

- **Legal Stand-Off**: Punjab refused to open sluice gates and is **exploring legal options**; Haryana plans to **move the Supreme Court**.

- **Water Scarcity**: Dams like **Ranjit Sagar and Pong** are showing **historically low water levels**, with Punjab citing severe shortage.

- **Political Unity in Punjab**: All political parties in Punjab—AAP, Congress, Akali Dal, BJP, BSP—**united to oppose BBMB's decision**.

- **Haryana's Argument**: CM Nayab Saini says Haryana has **not received its rightful share** and urgently needs water for **drinking**.

- **Expert View**: Any extra water must be balanced later; the **fixed annual quota must remain sacrosanct** to avoid further conflict.

[The hot Line of Control-Indian Express Explained]

Easy Explanation

The India–Pakistan ceasefire along the **Line of Control (LoC)** isn't a formal treaty but a **mutual understanding** first codified after the 1971 war (Simla Agreement). It aims to stop cross-border firing and infiltration by clearly marking troops' control lines. Despite this, **skirmishes** resume frequently—especially during crises—because **local commanders** test each other, maintain morale, or probe for weaknesses. When violations spike, both sides use **hotlines and flag meetings** to de-escalate and restore the ceasefire, but there are no legally binding enforcement mechanisms, so pauses in firing depend on mutual interest in stability.

Key Takeaways

- **LoC Background**: Originally the 1949 "Ceasefire Line," renamed "Line of Control" in 1972; not an international border but a military holding line.

- **Nature of the Understanding**: A **politico-military pact**, not a formal treaty—enforced through regular communication, not legal penalty.

- **Reasons for Violations**:
    - **Autonomous Military Factors**: Local commanders "test" each other, seek tactical advantage, or respond in vendetta.
    - **Proxy Infiltration**: Firing to cover or deter militant crossings.
    - **Crisis Response**: Used as a calibrated tool to signal displeasure or impose costs after events like the Pahalgam attack.

- **De-escalation Mechanisms**:
    - **DGMO Hotlines** between New Delhi and Rawalpindi.
    - **Flag Meetings** of local commanders.

- **Impact on Civilians**: Shelling and stray bullets disrupt border villages, harming agriculture and safety.

- **Strategic Context**: Both armies have incentives to uphold the ceasefire when focused on other threats (e.g., China at the LAC) or internal security.

- **Escalation Risk**: While mostly "calibrated," any misstep or lack of control can trigger wider conflict, making the understanding fragile.

As Trump invokes Bagram,story of the strategic air base in Afghanistan-Indian Express Explained

International relations

Easy Explanation

Former President Donald Trump recently claimed that China has taken control of Afghanistan's **Bagram Airfield**, which the U.S. vacated in July 2021. In reality, the base sits under **Taliban control**, not Chinese. Bagram—built by the Soviets in the 1950s and later expanded into the largest U.S. facility in Afghanistan—is strategically located north of Kabul, guarding key road and tunnel links to the country's north. After the U.S. withdrawal, Taliban forces reclaimed the airfield in August 2021. While China has expressed limited engagement with the Taliban and recognized their representatives, there's no evidence that Chinese troops occupy Bagram.

Key Takeaways

- **Trump's Claim vs. Reality**: Trump said China "occupies" Bagram; in fact, it is held by the **Taliban**, with no reports of Chinese military presence.
- **Strategic Location**: Bagram sits ~60 km north of Kabul in Parwan province, near the Salang Tunnel and major highways linking Afghanistan's north, south, and west.
- **Soviet Origins**: Built in the 1950s by the USSR, Bagram hosted Soviet airborne units and Su-25 strikes during the 1979–89 Afghan war.
- **U.S. Expansion**: After 2001, the U.S. transformed Bagram into a 77 sq km base with a 3.5 km runway, medical facilities, and a detention hangar likened to Guantánamo Bay.
- **U.S. Withdrawal**: The 2020 U.S.–Taliban deal led to a full U.S. pullout; the last American aircraft left Kabul Airport on August 30, 2021, and Bagram fell to the Taliban on August 15.
- **China's Role**: Beijing granted Taliban envoys credentials in 2022 to safeguard its Xinjiang border interests but has not deployed troops to Bagram.
- **Ongoing Concerns**: The U.S. and other countries remain wary of **Chinese and Taliban ties**, given regional security and the risk of extremist spill-over into Xinjiang.

RESTORE THE FLOW-Indian Express Editorial

Environment

Easy Explanation

Delhi's 22 km stretch of the Yamuna carries almost no freshwater—downstream of the Wazirabad Barrage it's essentially sewage, polluted by over 20 city drains. The Centre and Delhi government have unveiled a joint action plan focused on boosting sewage-treatment capacity to restore some "environmental flow" (the minimal healthy water volume) below both Wazirabad and Okhla barrages. While upgrading STPs is vital, treated effluent isn't the same as fresh river water. To truly rejuvenate the Yamuna, Delhi must also harvest rainwater, reclaim floodplains, and restore wetlands and catchment areas—measures that past plans overlooked.

Key Takeaways

- **Critical Pollution Hotspot**: Delhi's 22 km stretch accounts for **75% of Yamuna pollution**, with virtually **zero freshwater** flow below Wazirabad.
- **Joint Action Plan**: Emphasizes upgrading **sewage-treatment plants (STPs)** to discharge cleaner water downstream of both Wazirabad and Okhla.
- **STP Performance Gap**: At least **50% of Delhi's STPs** underperform, necessitating major efficiency improvements.
- **Treated vs. Freshwater**: Relying solely on treated effluent **cannot substitute** genuine environmental flows needed for aquatic health.
- **Missing Rainwater Link**: The plan **does not integrate** large-scale rainwater harvesting to reduce the city's dependence on Yamuna water.

- **Floodplain & Wetland Focus**: While encroachment removal is included, **rehabilitating floodplains, wetlands, and catchments** is crucial for long-term river resilience.

- **Past Coordination Failures**: Previous efforts stalled due to **Centre–Delhi misalignment**; the new government appears committed to **course correction**, but execution details will determine success.

Strengthening parliamentary oversight in India-The Hindu Editorial

Polity

Easy Explanation

Parliamentary oversight in India is meant to keep the government accountable through tools like **Question Hour**, **Zero Hour**, and **Standing Committees**. Over time, noisy disruptions, missed debates, and underused committee reports have weakened this scrutiny. While committees draft detailed recommendations—on rail finances, road safety laws, public projects, and more—many never reach the full House or prompt ministerial action. To truly enforce accountability, India needs **post-legislative reviews** (tracking how laws perform), **stronger, well-resourced committees**, and **mandatory debates** on committee findings. Embracing **technology**—AI, data analytics, and digital platforms—can equip MPs to analyze complex policies and ask sharper questions, ensuring governance remains both **efficient and transparent**.

Key Takeaways

- **Oversight Mechanisms**: Question Hour, Zero Hour, and Department-related Standing Committees (DRSCs) are designed for daily and in-depth scrutiny.

- **Current Gaps**: Disruptions cut Question Hour short; committee reports often go undiscussed on the floor.

- **Notable Wins**: Committees have driven reforms in rail dividends, motor-vehicle laws, highway projects, and uranium production.

- **Need for Post-Legislative Scrutiny**: Create subcommittees or a dedicated body to review law implementation, modeled on the UK's 3–5 year review cycle.

- **Committee Empowerment**: Bring select DRSC reports to the floor, require ministerial responses, and provide dedicated research and technical staff.

- **Tech Adoption**: Use AI and data analytics to help MPs flag irregularities, track policy outcomes, and craft evidence-based questions.

4th May 2025

Do public R&D units innovate enough?: TH FAQ

Science Tech

Easy Explanation

A major study was conducted to understand how useful India's public-funded R&D labs (excluding defence, atomic energy, and space) have been in helping India grow through science, technology, and innovation. The study involved 244 government R&D organisations across various ministries. However, research done by universities, colleges, and high-security departments like DRDO or ISRO wasn't included due to the sensitive nature of their work.

The goal was to check whether these labs were doing only academic research out of curiosity or were creating real-world solutions — like new products, technologies, or innovations that the country's industries and people could benefit from. The study also wanted to see how well these labs contributed to big national goals such as the Make in India initiative, Skill India, Swachh Bharat, and whether they supported startups, especially in deep tech.

They used 62 parameters to evaluate the labs, like how much money they spent on R&D, how many young or women scientists they had, how many patents they filed, what technologies they created, and if they worked with industries or supported students and researchers from outside.

The findings were mixed. Only 25% supported startups and just 16% helped deep tech startups. Most didn't open their labs to outside researchers, and very few collaborated with foreign industries. Around half contributed to national policy or Make in India. A worrying trend was that permanent staff was going down, and labs were hiring more on contract. Women scientists' participation didn't grow much either, though the number of young researchers did.

The report suggested big changes: labs should update their goals to match national missions like "Viksit Bharat," focus on critical technologies, collaborate more with industries and universities, open up their labs for others to use, and even set up non-profit organisations (called Section 8 companies) to support startups and innovation.

Key Takeaways

Purpose of the Study

- Evaluated 244 public-funded R&D labs (excluding defence, space, atomic energy).
- Assessed if labs are doing useful, innovation-driven work or only academic research.
- Looked at contribution to national priorities like Make in India, Skill India, etc.

Method

- Used 62 parameters like staff strength, patents, startup support, tech development, and participation of women and young scientists.
- Data was submitted with validation by lab directors.

Findings

- Only 25% of labs support startups; 16% support deep tech startups.
- 15% collaborated with foreign industries.
- 50% contributed to Make in India; 35% to Skill India; 30% to Swachh Bharat.
- Share of young researchers rose to 58% in 2022–23; women's share remained stagnant.
- Budget rose from ₹9,924 cr (2017–18) to ₹13,162 cr (2022–23).
- Increased reliance on contractual staff over permanent employees.

Recommendations

- Labs must realign with national missions like Viksit Bharat.
- Focus on critical tech areas urgently ("war footing").
- Collaborate more with industry, other labs, and educational institutes.
- Open labs to external researchers.
- Establish Section 8 (non-profit) companies to support startups and innovation.

Are vaccine-preventable diseases rising?: THFAQ

Science Tech

Easy Explanation

Diseases like measles, meningitis, and yellow fever — which can be prevented by vaccines — are making a comeback around the world. The World Health Organization (WHO), UNICEF, and Gavi have warned that millions of children are not getting their routine vaccines. This is happening because of funding cuts, conflicts, population growth, and fake news about vaccines.

According to a recent WHO study, about half the countries surveyed are seeing disruptions in vaccination programs. In 2023, around **14.5 million children** missed all their basic vaccine doses — that's more than previous years. Many of these children live in war-torn or poor countries where healthcare is already weak. Even countries like the U.S. are seeing measles outbreaks again.

Vaccines are considered one of the smartest health investments. For every $1 spent on vaccines, there is a return of $54. Over the past 50 years, vaccines have saved at least 154 million lives — that's about six lives every minute! In India, the **Universal Immunization Programme (UIP)** provides vaccines to over 26 million children and 34 million pregnant women each year. India has eliminated polio (2014) and maternal-neonatal tetanus (2015) through such efforts.

However, nearly 1 out of 4 children in India still miss essential vaccines. The WHO, UNICEF, and Gavi are asking countries to act quickly, invest more in vaccines, and not let misinformation or lack of funds undo decades of health progress.

Key Takeaways

Why the Warning?

- Diseases preventable by vaccines are rising again.
- WHO found nearly half of countries face disruptions in vaccine delivery.
- 14.5 million kids missed all vaccine doses in 2023 (more than in 2022 or 2019).
- Even the U.S. has seen over 900 measles cases in early 2025.

Main Reasons

- Drop in funding for vaccines
- Conflicts and instability
- Fake news/misinformation about vaccines
- Delays due to COVID-19 backlog

Importance of Vaccination

- Saves 4.2 million lives every year globally.
- One of the most cost-effective health strategies (returns $54 for every $1 spent).
- Accounts for 40% of improvements in child survival.

- India eliminated polio (2014) and maternal/neonatal tetanus (2015) through vaccines.

India's Immunisation Efforts

- Universal Immunization Programme covers:
    - 26 million newborns
    - 34 million pregnant women
    - 13 million immunisation sessions each year
- Full immunisation rate: 76.1% (NFHS-5)

What's the Way Forward?

- Continue 'Big Catch-Up' campaigns launched after COVID.
- Support Gavi's June 2025 summit to raise $9 billion.
- Urge political leaders and public to give vaccines urgent attention.
- Honour the **Immunisation Agenda 2030** to protect 500 million children and save 8 million lives between 2026–30.

Microgravity increases core body temperature: IIST study- TH Science

Science tech

Easy Explanation

Voyager 1, the farthest human-made object, is 25 billion km away. Someday, astronauts might also travel that far. But such long space journeys come with serious health challenges — one of them is keeping the astronaut's body temperature normal. This process is called **thermoregulation**.

In space, especially in microgravity (zero gravity), the human body behaves very differently. It affects bones, muscles, blood flow, and even body temperature. A team at **Indian Institute of Space Science and Technology (IIST)** has created a **3D computer model** that shows how a human body handles temperature in space.

Their study found that in microgravity:

- **Blood shifts** from the legs to the upper body.
- This **warms the core** (abdomen, head) and **cools the limbs** (hands and feet).
- Astronauts **sweat less** and have **faster metabolism**.
- As a result, their body temperature **increases faster**, especially when they **exercise** in space.

Their model was tested using real data from Russian and international space missions — and it matched perfectly.

This kind of model is also useful on Earth — for designing clothes, air-conditioned buildings, and during surgeries, to safely manage body temperature.

Key Takeaways

What's the Context?

- Voyager 1 is 25 billion km away; future astronauts may travel similarly far.
- Long space travel challenges the body's **temperature control system (thermoregulation)**.

What's Thermoregulation?

- It's how the body **maintains normal temperature**.
- In space, microgravity **messes with normal blood flow and metabolism**.

What Did the IIST Study Find?

- **Microgravity increases core body temperature.**
- **Blood moves upward**, warming the torso and head, while **limbs get cooler**.
- **Sweating drops by 30%**, and **metabolism goes up by 36%**.
- After 2.5 months, core temperature could rise from **36.3°C to 37.8°C**.
- During space **exercise**, body temperature may hit ~**40°C**.

How Did They Do It?

- Built a **3D computer model** that:
    - Simulates heat flow in the body
    - Includes effects of clothing, sweating, metabolism
    - Was tested against real astronaut data — and results matched.

Why Is It Important?

- Helps keep astronauts safe on long missions.
- On Earth, such models are used for:
    - Designing clothes
    - Planning safer surgeries
    - Making buildings more heat-friendly
    - Calculating how hot/cold it **feels** (using a Thermal Climate Index)

Bottom Line

- Human bodies **heat up faster** in space.
- **Thermal safety** is essential for future deep space missions.
- This Indian research could help **space travel, healthcare, clothing, and architecture**.

'Development' at the cost of Nicobar Islands: TH Science

Science tech

Easy Explanation

Shri **Vanajeevi Ramaiah**, a tree lover and Padma Shri awardee from Telangana, passed away recently. He had planted **over one crore trees** across the state and believed in living **in harmony with nature**. Today, his values are being tested.

A dispute is going on between the **Telangana government** and the **University of Hyderabad** over the **Kancha Gachibowli** area. The university wants to preserve it as a **natural forest** full of birds, plants, and animals. The state, on the other hand, wants to use it for **tech parks**. The matter has reached the **Supreme Court**.

Across India, similar issues are happening. Green lands are being cleared for **cities, highways, airports, and industries**. While these are important for development, is it worth **losing forests and the lives of tribal people** who depend on them?

Author and researcher **Pankaj Sekhsaria** has written a book called *The Great Nicobar Betrayal* that raises the same concern. The **Nicobar Islands**, home to rich forests, rare species, and tribal groups like the **Shompen**, are now being planned for massive development — ports, airports, and even a new city to bring in lakhs of people.

Experts worry that:

- **Wildlife like turtles** will be affected.
- **Tribal cultures** will be displaced.
- And **planting trees in Haryana** won't make up for the **destruction of Nicobar**.

Even **former civil servants** have written to the **President of India**, asking for these projects to be stopped.

India has promised to protect biodiversity under international agreements. The question is: will it honour that promise?

Key Takeaways

Who was Vanajeevi Ramaiah?

- A tree crusader from Telangana
- Planted **1 crore+ saplings**
- Deeply committed to **living in tune with nature**
- Would have opposed the ongoing **green land disputes**

What's the Kancha Gachibowli Dispute?

- **University of Hyderabad** wants to preserve it as a **natural sanctuary**
- **State government** wants it for **tech parks**
- Now a matter pending before the **Supreme Court**

What's Happening Across India?

- Green spaces being used for:
    - Highways
    - Airports
    - Industrial zones
- Tribal lives and **natural habitats under threat**

The Great Nicobar Betrayal – What's It About?

- Book by **Prof. Pankaj Sekhsaria**
- Documents planned projects in **Nicobar Islands**:
    - **Mega port**
    - **International airport**
    - **New township to raise population from 8,000 to 3.5 lakh**
- **Threatens 2,000+ animal species, 800+ plant species**
- Tribal groups like the **Shompen** will lose their forest homes

Environmental and Ethical Issues

- **Leatherback turtles**, endemic species, will suffer
- Deforestation will harm **ecological balance**
- Govt promises to **plant forests in Haryana** as compensation — seen as inadequate

Global Promises and Violations

- India is a signatory to **Convention on Biological Diversity**

- Agreed to prevent loss of areas with **high biodiversity**

- Former civil servants urge the **President to intervene**

Bottom Line

- Do we need tech cities at the cost of **trees, animals, and indigenous people**?

- **Balance between development and conservation** is the need of the hour.

5th May 2025

Fuel vs feed debate in maize-Indian Express Explained

Economy

Easy Explanation

Maize (corn) in India is used for **food, animal feed, and now increasingly for making ethanol** — a type of biofuel blended with petrol. Earlier, India produced more maize than it needed. But with the ethanol blending program picking up, a **large portion of maize is being diverted to fuel**, causing a **shortage for poultry and cattle feed**. This has pushed up maize prices sharply. While this benefits **maize farmers**, it hurts **poultry farmers and soyabean growers**. As maize becomes costlier, feed makers are switching to **DDGS** (a protein-rich byproduct from ethanol production) instead of soybean meal. This has **lowered demand and prices for soyabean**, hurting those farmers.

Now, some are asking the government to **allow duty-free imports of genetically modified (GM) maize** — but only for **ethanol production**, not for food or feed — to balance supply and reduce pressure on feed prices.

Key Takeaways

1. Maize Demand Shift

- Maize was earlier used mostly for **livestock feed** and **exports**.

- Ethanol blending program now **consumes over 12.7 million tonnes** of maize.

- This has caused a **shortage for feed use** and reduced exports.

2. Impact on Prices

- Maize prices rose from ₹14,000–₹15,000/tonne to ₹24,000–₹25,000/tonne in 4 years.

- Good for maize farmers (above MSP), but **bad for poultry and dairy producers**.

3. Rise of DDGS (Distiller's Dried Grains with Solubles)

- DDGS is a **protein-rich byproduct** from ethanol-making.

- It is used as a **cheaper substitute** for soyabean meal in animal feed.

4. Hit to Soyabean Farmers

- Demand for soyabean meal (DOC) fell; **prices dropped by 30%**.

- Current prices (₹4,300/qtl) are below the **MSP of ₹4,892**.

5. Import Demands

- Industry wants import of **GM maize only for ethanol**, not food/feed.

- India imported 0.94 MT maize in 2024-25, mainly from non-GM countries like Myanmar & Ukraine.

- Allowing GM maize may **ease feed cost**, but risks affecting local maize and soyabean farmers.

6. Policy Suggestions

- Consider **diverting rice acreage to maize** (less water use, more demand).

- **Balance ethanol, food, and feed needs** through smart planning.

- Develop a **long-term strategy** to prevent feed-vs-fuel conflicts.

Crisis at Kaleshwaram:why Telangana's massive irrigation project is distressed-Indian Express Explained

Economy

Easy Explanation
The Kaleshwaram Lift Irrigation Project (KLIP) was built to pump Godavari river water uphill and spread it across northern Telangana for farming, drinking water, and industries. It uses powerful pumps to lift water through three big barrages—Medigadda, Annaram, and Sundilla—and then moves it through canals. In late 2023, one of Medigadda's pillars sank, triggering a safety check. In April 2025, the National Dam Safety Authority (NDSA) found major cracks, tilting piers, seepage, and design flaws in all three barrages. The project can't safely deliver water until urgent repairs, deeper ground studies, and redesigned structures are done. The high debt repayments and blame game between past and current governments add to the pressure.

Key Takeaways

Structural Issues:
• Medigadda Barrage pillar sank; piers are cracked and tilted.
• Annaram and Sundilla barrages show seepage and piping distress.

NDSA Findings:
• Inadequate soil investigations before construction.

• Defective design and weak quality control.
• Poor operation and maintenance of dam safety systems.

Rehabilitation Measures:
• Immediate shoring up of unstable piers.
• Detailed geotechnical and geophysical studies.
• Hydraulic modelling and structural redesign using advanced software.

Financial Impact:
• Telangana pays around ₹16,000 crore per year in loans and interest for KLIP.

Political Fallout:
• Former government touted KLIP as its flagship; current administration calls it a "man-made disaster."

[Why Maharashtra scrapped agri insurance scheme-Indian Express Explained]

Economy

Easy Explanation

Maharashtra's "Re 1" crop insurance made premiums almost free for farmers, with the state covering nearly the entire cost. However, the scheme led to a flood of bogus applications—claims for land not sown, government or religious property, and even without landowners' consent. Over 3.8 lakh fraudulent claims were flagged in 2023 and another 4 lakh by January 2025. To curb this abuse, an expert committee recommended ending the token-fee model and reverting to the national Pradhan Mantri Fasal Bima Yojana (PMFBY), where farmers pay 2% of sum insured for kharif and higher rates for other seasons. The government also blacklisted fraudulent service centers and barred offenders from subsidies for five years.

Key Takeaways

1. What was the Re 1 Scheme?

- Started in 2023 by Maharashtra government.
- Farmers paid only ₹1 for insurance; the state paid the rest.

2. Why It Failed?

- Massive fraud in claims:
    - Fake land records.
    - Claims on government, temple, or mosque land.
    - Claims made without landowner consent.
- Fake applications submitted through CSCs (digital centers).

3. How Bad Was the Fraud?

- Applications jumped from 1.04 crore (2022) to 2.42 crore (2023).

- Over 3.8 lakh fake claims in 2023, 4 lakh more by Jan 2025.

4. What the Government Did

- Cancelled the Re 1 scheme.

- Returned to PMFBY with standard farmer premiums.

- Blacklisted 140 CSC operators.

- Blocked subsidy benefits for fraudsters for 5 years.

5. Current Situation

- Farmers now pay:

    - 2% of sum insured for **kharif crops**,

    - 1.5% for **rabi crops**,

    - 5% for **commercial/horticultural crops**.

THE STATES WANT MORE-Indian Express Editorial

Polity

Easy Explanation
Many Indian states have asked the 16th Finance Commission to increase their share in the central tax pool from the current 41% to as much as 50%. Their main concern is that while earlier commissions raised states' shares, the central government reduced the overall pool by collecting more revenue through **cesses and surcharges**—which aren't shared with states. So, states are effectively getting a smaller piece of a smaller pie.

However, increasing state transfers poses challenges. The Centre has many financial responsibilities, and states already spend 60% of the total public expenditure. One way to help states is by increasing **untied transfers** (funds without usage restrictions), instead of centrally-controlled schemes. But this also raises concerns—many states have worsening finances and may use untied funds for populist schemes like free electricity or cash transfers, instead of productive investments.

Also, more untied funds might not reduce inequality across states, and may not lead to better funding for local governments (Panchayats and municipalities), which are still underfunded. These complex issues must be addressed by the Finance Commission while deciding how to balance fiscal power between the Centre and the states.

Key Takeaways

1. States' Demand for Higher Share

- States want their share in the **divisible tax pool raised to 50%** (currently 41%).
- The effective share has reduced because the Centre collects more revenue via **cesses/surcharges**, which are **not shared**.

2. Centre's Fiscal Challenge

- The Centre has its own heavy spending burdens.
- Hard to increase state transfers further without reducing its own spending.

3. Need for More 'Untied' Transfers

- States want more **flexible funds** instead of tied centrally-sponsored schemes.
- But this would need **rationalising central schemes**, which is politically sensitive.

4. Risk of Misuse

- Many states have **high revenue deficits**—spending more on salaries, subsidies, and less on capital investment.
- Untied funds may go to **populist schemes** (e.g., free electricity, cash transfers) rather than productive uses.

5. Equity & Federal Concerns

- Will richer states benefit more from untied funds?
- **Poorer states like Bihar** may still struggle, widening inequalities.

6. Neglect of Local Bodies (Third Tier)

- **Panchayats and urban bodies** get very little funding.
- States may still **underfund local governments**, even with more untied transfers.

7. What the Finance Commission Should Consider

- Balance between Centre-state responsibilities.
- Regulate use of **cesses and surcharges**.

- Encourage state-level devolution and fiscal discipline.

- Ensure **equity, efficiency, and accountability** in fund usage.

Shaping the port of the future-The Hindu Text and Context

Economy

Easy Explanation

Vizhinjam, a historic port town in Kerala, has now become home to India's first deep-water transshipment container port. Inaugurated in 2023, Vizhinjam Port is close to global shipping lanes and can handle massive ships due to its natural 20-meter draft depth. Developed under a public-private partnership (PPP) between the Kerala government, Adani Ports, and the Union Government, the port aims to reduce India's dependence on foreign ports like Colombo and Singapore for cargo transfer. It's already exceeded expectations in ship traffic and container handling. The port also promotes women's workforce and automation. Future phases will expand capacity and infrastructure, but challenges like delayed approvals, lack of a check post, and local connectivity issues remain. Vizhinjam could be India's Shenzhen—a global economic hub—if infrastructure is quickly built, businesses invest, and central-state coordination strengthens. A Special Economic Zone and global branding push are also underway.

Key Takeaways

1. Historical & Strategic Location

- Vizhinjam has been a port since Chola-Pandya times (1129 AD).

- Closest Indian port to international shipping lanes (10 nautical miles away).

2. Project Highlights

- India's first **deep-water container transshipment port**.

- Joint project: Kerala Govt (₹5,595 crore), Adani Ports (₹2,454 crore), Centre (₹817.8 crore).

- Natural draft of 20 meters enables docking of **Ultra Large Container Ships**.

3. Operational Achievements

- Began operations in Dec 2023; already handled **6 lakh TEUs**, far above targets.

- Hosted **MSC Claude Girardet**, **MSC Anna**, and will soon receive **MSC Irina**—world's largest container ship.

- India's first **semi-automated port** with a **women-led crane operation team**.

4. Future Expansion Plans

- ₹20,000 crore investment to increase capacity to **4.87 million TEUs**.
- Second and third phases fast-tracked for completion by 2028.
- Infrastructure projects: National Highway-66, railway link, Outer Ring Road.

5. Challenges to Address

- Delay in Integrated Check Post (ICP) and Port Health Office.
- Risk of congestion due to rapid ship arrivals without full infrastructure.
- Debt burden: Union government's viability gap funding (VGF) clause could cost Kerala ₹10,000 crore.

6. Economic & Strategic Vision

- Proposal for **Vizhinjam Special Investment Region (SIR)** Bill.
- Calls to make Vizhinjam a Shenzhen-like economic hub.
- Suggestions to avoid rival transshipment ports within 750–1,000 km to preserve economic viability.

7. Branding & Policy Push

- State and Centre showcasing Vizhinjam globally (WEF, summits, conclaves).
- Proposed renaming to **Trivandrum International Sea Port Limited** for stronger global identity.

8. Allied Development Plans

- Potential shipyard in nearby Poovar.
- Plans to make Vizhinjam a **global clean fuel bunkering hub** using hydrogen and ammonia.
- ANERT exploring wave power and green hydrogen near the port.

[From ploughs to panels, cultivating a solar-powered future for farmers-The Hindu Science]

Economy

Easy Explanation

Agriphotovoltaics (APVs) is the idea of combining **solar energy generation with farming** on the same land. Solar panels are installed at a height (about 2 meters) so that crops can grow underneath or between them. This way, farmers can earn money both from agriculture and by leasing land for solar energy. In India, APV use is

still limited, mostly through small pilot projects. A successful example in Delhi showed that farmers could earn **6 times more** using APVs than with normal farming. However, India lacks clear rules for APVs—unlike countries like Japan and Germany which have strong regulations to protect farming output. For APVs to grow, India needs proper policies, farmer support, and financial incentives (like better solar tariff rates). Programs like PM-KUSUM could be revamped to support APVs and bring more income to small farmers.

Key Takeaways

1. What is Agriphotovoltaics (APV)?

- A dual-use model: crops + solar energy on the same land.
- Panels are elevated to allow crop cultivation underneath.

2. Benefits

- Increases **farmer income** (lease + crops).
- Creates **microclimate**: reduces heat stress, water loss.
- Improves **land-use efficiency** and energy supply.

3. Indian Case Study (Najafgarh, Delhi)

- Traditional income: ₹41,000/acre/year.
- With APV: ₹1 lakh in rent + ₹1.5 lakh (if crops also retained) = **₹2.5 lakh/acre**.

4. Global Standards India Can Learn From

- **Japan**: 2m panel height, ≤20% crop yield loss, review every 3 years.
- **Germany (DIN SPEC 91434)**: Maintain ≥66% original crop yield, limit solar footprint to ≤15% of land.

5. Challenges in India

- **No national APV policy**.
- High initial **cost** (+11% over regular solar).
- Low **feed-in tariff (FiT)** reduces investment appeal.

6. Support Needed

- Stronger FiTs (e.g., ₹4.52/unit instead of ₹3.04/unit).

- **NABARD credit**, grants, and **farmer training**.

- Role of **FPOs/cooperatives** to make APVs accessible for smallholders.

7. Policy Opportunity

- Revise **PM-KUSUM scheme** to include APV-friendly models.

- Promote APV through **existing solarisation policies**.

8. Key to Success

- Two pillars: **Investor incentives** + **Farmer-first policy framework**.

[Not revenge or retaliation, but a paradigm shift-The Hindu Editorial]

International relations

Easy Explanation

The **Pahalgam terror attack** (April 22, 2024), targeting civilians, marks a major shift in the **India–Pakistan conflict dynamic**, similar in scale to the **2008 Mumbai attacks**. The brutality and precision of this assault suggest it was more than a random terror strike — it aimed to destabilize the Kashmir economy and provoke communal tensions in India.

India's past responses — military (Uri strikes, Balakot airstrikes), diplomatic (FATF grey-listing of Pakistan), and legal (UN terror listings) — need to be reviewed to plan a **long-term strategy** that goes beyond short-term revenge. Key challenges include **Pakistan Army's radical posture under General Munir**, China's vested interest in the region, and **global diplomatic pressure** to de-escalate.

India must combine **targeted counter-terrorism measures, global diplomatic lobbying, suspension of the Indus Waters Treaty**, and possibly reactivating **2007 LoC-to-border proposals** to build a lasting regional security framework.

Key Takeaways

1. Scale and Nature of Attack

- Pahalgam attack was **the deadliest since 2008 Mumbai**.

- Civilians were targeted based on religion, showing **deliberate planning and provocation**.

- Exfiltration was **pre-planned**, unlike past fidayeen-style suicide missions.

2. India's Past Responses to Terror Attacks

- **Operation Parakram** (2001): Army mobilization post-Parliament attack.
- **Mumbai 2008**: Global diplomatic push; Pakistan put on FATF grey list.
- **Uri (2016)**: Cross-LoC surgical strikes.
- **Pulwama (2019)**: Balakot airstrikes outside PoK.
- **Pathankot & Samjhauta**: Pakistan invited to investigate, showing restraint.

3. Strategy Must Go Beyond Retaliation

- Need **three-pronged strategy**:
    - **Counter-terrorism** (targeted operations)
    - **Retaliation strategy** (military/diplomatic)
    - **Counter-retaliation management** (anticipating Pakistan's response)

4. Risks and Regional Factors

- **General Asim Munir's radical approach** in Pakistan could escalate tensions.
- **China's interests in PoK (CPEC)** may get involved if India strikes near the corridor.
- Domestic calls in India for war or PoK annexation must be **carefully managed**.

5. Diplomatic Measures and UN Engagement

- India has suspended the **Indus Waters Treaty** as a signal.
- Push for **UN listing of TRF** and **revival of the Comprehensive Convention on International Terrorism (CCIT)**.
- Manage pressure from **U.S., EU, Gulf nations** urging de-escalation.

6. Rethinking the LoC

- Turn the **LoC into a formal international border** to end Pakistan's proxy war.

- Pakistan has already **settled non-Kashmiris in PoK**, changing demography.

- 2007 LoC-border agreement proposals should be **revisited seriously**.

7. Strategic Vision Forward

- India needs a **non-reactionary, long-term doctrine** to secure J&K, neutralize terrorism, and build international support.

- Combine **firm internal security, smart diplomacy**, and **measured military options**.

6th May 2025

AI as 'normal' technology-Indian Express Explained

Science and technology

Easy Explanation

AI researchers Arvind Narayanan and Sayash Kapoor argue that Artificial Intelligence, despite all the hype, is not a magical or instant game-changer. Instead, it's a *normal* or *general-purpose* technology—like electricity or the internet—that will take decades to reshape society. They say most claims about rapid AI revolution or human job extinction are exaggerated. True transformation happens when people and businesses actually adopt AI in the real world, and that adoption is slow because it involves training, trust, and control. The authors emphasize managing AI's *deployment risks* (how it's used) rather than obsessing only over *development risks* (how it's made).

Key Takeaways:

1. Slow Transformation, Not Sudden Revolution

- AI's impact will unfold over decades, not years—just like past technologies (e.g., electricity, internet).

- Adoption needs time due to learning curves and behavioural adjustments.

2. AI is Not Superhuman Magic

- Claims of AI making humans redundant are overblown.

- AI still depends heavily on human supervision and context-sensitive decisions.

3. Innovation-Diffusion Feedback Loop

- AI advances when people use it more, and people use it more as it becomes useful.

- This feedback loop is slow because real-world knowledge (tacit knowledge) isn't written in books or code.

4. Real-World Adoption Patterns Matter

- Safer, well-controlled AI (like Waymo) will succeed.

- Poorly controlled systems (like Cruise) will fail in the market.

5. Focus on Deployment Risks

- The real danger lies not in building AI, but in how and where it's used.

- Different sectors (e.g., healthcare, transport) will need different safety mechanisms.

6. Resilience Over Suppression

- Trying to suppress AI risks through bans or tight controls could backfire.

- A better approach is to build societal "immune systems" by spreading access and awareness gradually.

'triple test' to determine OBC quotas in Jharkhand-Indian Express Explained

Sociology

Easy Explanation

Jharkhand has completed a major data collection exercise to determine how much reservation OBCs (Other Backward Classes) should get in urban local body elections. This is part of the *"triple test"*—a three-step process made mandatory by the Supreme Court in 2021 to ensure OBC quotas are fair, data-driven, and constitutional. Jharkhand has set up an OBC Commission, carried out door-to-door surveys, and gathered data on OBC representation and population in cities. The final report is now awaiting verification and leadership approval. Based on this, the state will fix OBC quotas for municipal elections. This is separate from the national caste census and focuses only on urban areas.

Key Takeaways:

1. What Is the Triple Test?

- **Step 1:** Set up a commission to conduct a detailed empirical study of OBC backwardness.

- **Step 2:** Use the study to determine how much reservation is needed—based on evidence, not assumption.

- **Step 3:** Ensure that the total reservation for SCs, STs, and OBCs does **not** cross the 50% constitutional limit.

2. Supreme Court Mandate

- Originates from the *Vikas Kishanrao Gawali vs State of Maharashtra* case (March 2021).

- Mandates evidence-based reservation, especially in urban local bodies.

3. Steps Taken by Jharkhand

- OBC Commission set up in June 2023.
- Data collection began in December 2024.
- Survey focused only on **urban areas**, not rural regions.
- Final report pending due to vacancy in Commission chairperson post.

4. Scope of the Survey

- Collected OBC population and voter data through door-to-door survey.
- Analyzed political representation over 25 years—mayors, panchayat heads, MLAs, MPs.
- Gathered caste-wise details of candidates in previous urban elections.

5. Classification Within OBCs

- OBCs split into:
  - **BC-I:** More disadvantaged, 127 castes.
  - **BC-II:** Relatively better-off, 45 castes.
- Kudmi (subgroup of Mahato/Mahto) is the largest OBC community—around 15% of electorate.

6. Next Steps

- Data will be analyzed by institutes like IIM or XLRI.
- Final report will be submitted to the government post chairperson appointment.
- Quotas for upcoming urban local body elections will be fixed accordingly.

[Some deported to Pak say they are Indian voters: who gets a Voter ID and how?]

Polity

Easy Explanation

After the Pahalgam terror attack, several Pakistani nationals were deported. Some of them claimed they held Indian documents like Aadhaar and even Voter IDs, despite being non-citizens. One such person, Osama from

Rawalpindi, claimed to have voted in Indian elections. This has raised questions about how such individuals got onto the electoral rolls.

According to Indian law, **only Indian citizens aged 18 or above can vote**. However, while applying for a Voter ID, applicants don't have to provide proof of citizenship—only a signed declaration. If this declaration is false, it's punishable under the law. The responsibility to verify citizenship lies with the **Electoral Registration Officer (ERO)**, but in practice, if there's no objection or suspicion, citizenship may not be closely verified.

Key Takeaways:

1. Legal Criteria for Voting

- Article 326 of the Constitution allows only **Indian citizens** aged 18 or above to vote.
- Section 16 of the **Representation of the People Act, 1950** disqualifies anyone who:
    - Is not a citizen,
    - Is of unsound mind (declared by court),
    - Is disqualified due to corrupt electoral practices.

2. How to Apply for Voter ID

- Form 6 is used to apply, needing:
    - Age proof,
    - Address proof,
    - A **signed declaration** of Indian citizenship.
- No mandatory **documentary proof of citizenship** is required during application.

3. Role of Election Officials

- The **Electoral Registration Officer (ERO)** and **Booth Level Officer (BLO)** verify claims and objections.
- The ERO is expected to independently ensure only citizens are added to the electoral roll.

4. How Citizenship Is Verified

- Normally, no detailed check unless someone objects.

- In cases of doubt, the **onus of proving citizenship lies with the applicant**.

- Objections by others shift the burden of proof to the objector initially.

5. Loopholes in the System

- People with false declarations may slip through if no red flags are raised.

- Some foreign nationals have received Voter IDs in the past—when found, their names are removed and action is taken.

6. Aadhaar Linking Is Not Foolproof

- Although the Election Commission is linking Voter ID with Aadhaar, **Aadhaar is not proof of citizenship**.

- So, foreign nationals with Aadhaar can still exploit this gap to get on the rolls.

CODE IN QUESTION-Indian Express Editorial

Governance

Easy Explanation:

Bhushan Power & Steel (BPSL) was one of India's top defaulters referred to bankruptcy under the **Insolvency and Bankruptcy Code (IBC)** in 2017. JSW Steel won the bid to take over BPSL in 2019, but the resolution was delayed and finally approved in 2021. However, in a surprising move in 2025, the **Supreme Court ordered liquidation of BPSL**, rejecting JSW's takeover, citing misrepresentations and non-compliance with the resolution plan.

The Court also criticized the **resolution professional**, the **Committee of Creditors (CoC)**, and the **overall execution of the IBC process**. It raised major concerns about how resolutions are approved and monitored. Liquidating BPSL may cause a **huge loss in value**, which goes against the basic aim of the IBC—**revival over closure**. This verdict may lead future bidders to price in legal uncertainties, **hurting recovery rates**.

Key Takeaways:

1. What Happened in the BPSL Case?

- BPSL was referred under IBC in 2017.

- JSW Steel's resolution plan approved by NCLT in 2019.

- JSW formally acquired BPSL in 2021 after delays.

- In 2025, **Supreme Court rejected the takeover** and ordered **liquidation**.

2. Supreme Court's Criticism

- **JSW Steel:** Misrepresented facts, delayed compliance for two years.
- **Resolution Professional:** Did not fulfill legal duties under IBC.
- **Committee of Creditors:** Failed in exercising proper commercial judgment.
- **Plan's legality:** Did not meet requirements of **Section 30(2)** of the IBC.

3. Why Liquidation Is Controversial

- Liquidation usually brings **much lower recovery**—only **6.3%** of claims on average.
- JSW's plan offered **41% recovery** (₹19,350 crore against ₹47,157 crore claims).
- Liquidation could **destroy value**, affecting both creditors and economy.

4. Broader Implications for IBC

- Legal uncertainty may **discourage bidders** or push them to bid **lower amounts**.
- Could lead to **longer delays**, **reduced recoveries**, and fewer resolutions.
- Questions raised on institutional integrity of **CoC and Resolution Professionals**.

5. Need for Reform

- The case highlights **gaps in execution and oversight** under the IBC.
- Future policy reform should address:
    - Stronger due diligence in vetting resolution plans.
    - Accountability of resolution professionals.
    - Guidelines for CoC's commercial decisions.

[Samyukta Maharashtra: how a linguistic movement built a State-The Hindu Text and Context]

History(post independence)

Easy Explanation:

The *Samyukta Maharashtra* (United Maharashtra) movement was a powerful people's struggle to create a state for Marathi-speaking people with **Mumbai as its capital**. Despite opposition from the Centre and elite groups, the movement gained momentum due to the efforts of cultural icons like **Annabhau Sathe**, political activists, and support from **Dr. B.R. Ambedkar** and his Scheduled Caste Federation.
The movement was based on **linguistic identity**, cultural pride, and democratic rights. It witnessed large-scale public mobilization, artistic expression, political resolutions, and even sacrifices of lives. Ultimately, **Maharashtra was formed on May 1, 1960**, following years of mass protests and political pressure.

Key Takeaways:

1. Background and Demand

- The demand was for a **linguistically unified Maharashtra**, including regions like Mumbai, Marathwada, Vidarbha, Belgaum, Karwar, and Nippani.

- Committees like the **Dhar Commission**, **JVP**, and **Fazl Ali Commission** did not support this demand.

2. Key Figures and Contributions

- **Lokshahir Annabhau Sathe** used folk art and theatre to mobilize rural masses through the *Lal Bavta Kalapathak*.

- His iconic song *"Majhi Maina Gavavar Rahili"* became the anthem of the movement.

- **Acharya Atre**, through his newspapers and fiery speeches, voiced the movement's spirit.

- **Dr. B.R. Ambedkar** provided early and consistent support, articulating the idea of a linguistic state as essential for **democracy and social justice**.

3. Political Opposition and Turning Points

- Gujarati-speaking elites and RSS leaders opposed the idea.

- Resignation of Finance Minister **C.D. Deshmukh**, death of over 100 protestors, and Congress' poor performance in the 1957 elections forced Nehru to reconsider.

- **Indira Gandhi's push** also played a role in acceptance of the demand.

4. Ambedkar's Theoretical Foundation

- In writings like *"Thoughts on Linguistic States"*, Ambedkar argued that linguistic states foster **social unity and federal democracy**.

- He saw the movement not just as geographical restructuring, but as a **means to social and economic empowerment**.

5. Formation of Maharashtra

- On **May 1, 1960**, Maharashtra was officially formed with **Mumbai as its capital**.

- The movement is commemorated annually as **Maharashtra Day**, reflecting pride in cultural and linguistic identity.

[India's Forest Rights Act stands apart from exclusionary laws globally–The Hindu Science]

Environment

Easy Explanation:

Across the world, many conservation laws still follow the colonial idea of "fortress conservation" — where large forest areas are declared protected zones, and local or indigenous communities are excluded or displaced. This model has led to the displacement of millions globally, despite the fact that these communities have long protected biodiversity.

India's **Forest Rights Act (FRA), 2006**, stands out because it **recognizes the rights of Adivasis and other traditional forest dwellers**, not just to inhabit forests but to *govern, manage, and conserve* them. It empowers **gram sabhas** (village assemblies) to manage forest resources, protecting both ecological and cultural heritage.

FRA aligns with the global push for **inclusive, bottom-up conservation**, especially in light of targets like "30 by 30" under the **Kunming-Montreal Global Biodiversity Framework (KMGBF)**. However, India's biodiversity strategies still lean toward state-controlled models, leaving the democratic potential of the FRA underutilized.

Key Takeaways:

1. Global Trend: Fortress Conservation

- Exclusionary conservation models separate people from nature.

- Indigenous communities (IPLCs) are displaced and criminalized.

- Examples include Masai (Kenya), Batwa (Uganda), and Ashaninka (Peru).

2. India's Legal Shift: FRA 2006

- Recognizes 13 types of rights for forest dwellers, including:

    - Right to manage and conserve community forests.

    - Right to access and protect traditional biodiversity knowledge.

- Shifts forest governance to **gram sabhas**, enabling democratic decision-making.

3. Contrast with Wildlife Laws

- India still follows state-led protection models (e.g., Wildlife Protection Act, Project Tiger).
- These have displaced at least 6 lakh people.
- FRA is an alternative model that combines conservation with **social justice**.

4. Global Agreements and India

- India is a party to the **Convention on Biological Diversity (CBD)**.
- The 2022 **Kunming-Montreal Framework** includes targets like "30 by 30".
- FRA supports these goals **without displacing communities**.

5. Issues with Implementation

- India's updated **National Biodiversity Strategy and Action Plans (NBSAPs)** rely heavily on state forest departments.
- Biodiversity Management Committees (BMCs) are underdeveloped.
- True community governance remains underused.

6. Future Directions

- "Other Effective Area-Based Conservation Measures" (OECMs) are a new global tool.
- India may soon issue OECM guidelines to integrate communities in conservation.
- Risk: Without safeguarding rights, OECMs may become new tools for exploitation.

7. Government Standpoint

- The Ministry of Tribal Affairs has advised aligning all biodiversity initiatives with FRA.
- Suggested that **no biodiversity heritage sites** should be notified **without gram sabha consent**.
- Research shows FRA could protect **4 crore hectares** of forest sustainably.

7th May 2025

[Civil Defence Drill Today:what will happen,why-Indian Express Explained]

Internal security

Easy Explanation:

On May 7, the Indian government is conducting nationwide civil defence mock drills in 244 Civil Defence Districts to test preparedness for potential hostile attacks (like airstrikes or ground assaults). These drills involve air raid sirens, crash blackouts, training civilians (including students), evacuation rehearsals, and camouflaging vital infrastructure. While these exercises are meant to enhance readiness, they may temporarily affect daily life with sudden blackouts or halted transport. The drills are legally backed by the **Civil Defence Act, 1968**, and reflect a wartime-level simulation.

Key Takeaways

1. Purpose of the Drill

- To assess and strengthen the readiness of civil defence systems across 244 identified districts.
- Prompted by rising regional tensions (e.g., the April 22 Pahalgam terror attack).

2. What Will Happen

- Air raid sirens and crash blackouts in select areas.
- Civilians, students, volunteers trained on protection measures.
- Vital facilities camouflaged; evacuation and shelter rehearsals conducted.
- Control rooms, emergency communications with IAF tested.

3. Impact on Public Life

- Brief disruptions: power cuts, halted traffic, evacuation drills.
- Active participation from Home Guards, NCC, NSS, and local authorities.

4. Legal Backing (Civil Defence Act, 1968)

- Government can impose curfews, detain people without trial, requisition services, acquire property, and control communications.

5. Background and Precedents

- Last major drills of such scale were held during the 1971 Indo-Pak war.
- Globally, countries like South Korea, Ukraine, and others also conduct such drills amid security threats.

6. Civil Defence Districts

- Classified into Category I (full implementation), II & III (partial).

- High-risk areas like Delhi, Mumbai, Surat, and Chennai fall under Category I.

7. Evolution of Civil Defence

- Originated in early 20th century during WWI and WWII.

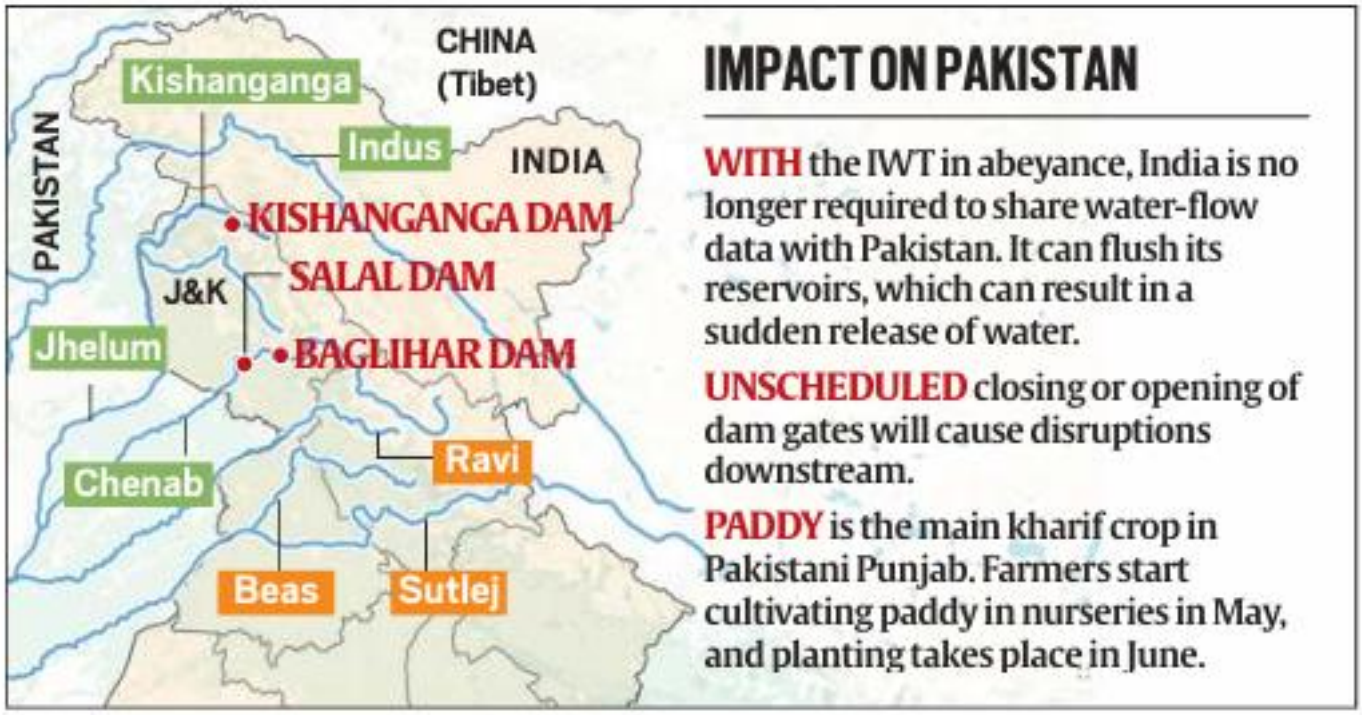
- Focus shifted from war to nuclear threats (Cold War), and now includes terrorism and disasters.

[India's large dams on the Chenab-Indian Express Explained]

Economy

Easy Explanation:

India recently closed the sluice gates of **Salal** and **Baglihar** dams on the **Chenab River** in Jammu & Kashmir, temporarily reducing water flow downstream near the Line of Control. This happened just after India announced it was putting the **Indus Waters Treaty (IWT)** in abeyance following the April 22 terror attack in Pahalgam. Under the IWT, **Chenab is one of the three "Western Rivers" controlled by Pakistan**, but India can still use its waters in limited ways, including **run-of-the-river hydroelectric projects**, like Baglihar and Salal.



credit:Indian Express

Key Takeaways

1. What Happened Recently

- On May 5–6, India closed gates of **Salal** and **Baglihar** dams to desilt them, nearly drying the Chenab in Akhnoor.

- Water flow resumed on May 7.

- Followed India's announcement of suspending the **Indus Waters Treaty (IWT)**.

2. About the Indus Waters Treaty (1960)

- Signed between India and Pakistan with World Bank mediation.

- Western Rivers (Indus, Jhelum, Chenab) go to Pakistan with limited rights to India.

- India can use these for:

    - Domestic and agricultural use (limited cusecs).

    - **Hydropower via run-of-the-river dams** (non-consumptive use).

3. Chenab River and India's Rights

- India can build **run-of-the-river hydroelectric projects**—no storage beyond allowed limits.

- **Baglihar** and **Salal** are permitted projects under these terms.

4. Major Dams on Chenab in J&K

- **Baglihar Dam** (143 m height): 450 MW installed capacity, 31.11 MCM live storage.

- **Salal Dam** (81.38 m height): 690 MW capacity, 271.3 MCM live storage.

- Both are **run-of-the-river** and legally allowed under IWT.

5. Strategic and Political Angle

- IWT seen as limiting India's full water usage rights in J&K.

- Pakistan accuses India of trying to control downstream water flow.

- Suspensions of the treaty signal growing bilateral tensions.

[Between region and world-Indian Express Editorial]

International relations

Easy Explanation:

India today faces a **twin challenge**: responding to **Pakistan's persistent terrorism**, especially after the recent Pahalgam attack, while also **seizing major global opportunities** as it rises economically and diplomatically. Despite India's significant military contributions in both World Wars, it was denied a top role in the post-war global order (e.g., no permanent UN Security Council seat). While India has succeeded in economic growth and global outreach, the **Pakistan army's focus on terrorism** and cross-border hostility continues to limit regional peace.

At the same time, India must navigate a shifting global landscape, with chances to deepen ties with the **US, Europe, UK, and even Russia**. This moment requires delicate **statecraft**—assertive in dealing with regional threats while actively pursuing global alliances and economic growth.

Key Takeaways

1. Enduring Regional Challenge

- India's growth is limited by constant terror threats from Pakistan.
- The **Pakistan army remains focused on terrorism**, not development.
- India has pursued a **twin-track approach**:
    - Tackling terror with political and military tools.
    - Focusing on economic progress.

2. Global Opportunity Window

- India is set to become the **4th largest economy**, overtaking Japan.
- It is negotiating major **trade deals** with the US, EU, and UK.
- Events like the **Moscow WWII anniversary parade** highlight India's historical contributions and global stature.

3. India's WWII Legacy and Injustice

- Over **2.5 million Indian soldiers** served in WWII.
- Despite this, India was **excluded** from key post-war global decision-making (e.g., UNSC permanent seat).
- Modi has worked to restore recognition of this legacy through international visits and memorials.

4. Lessons from Partition and Political Divisions

- Internal divisions during WWII (Congress, League, Communists) weakened India's global bargaining power.

- **Partition and the "Two-Nation Theory"** created long-term regional instability.

5. Strategic Imperative

- India cannot ignore **terrorism from Pakistan** nor miss the **chance to rise globally**.

- Success in containing regional threats will strengthen India's **global rise**.

[A silent solar energy revolution-Indian Express Editorial]

Economy

Easy Explanation:

The **PM Surya Ghar Muft Bijli Yojana** is quietly transforming Jammu & Kashmir's energy landscape. In a once power-deficient and terror-affected region, thousands of households like Pradeep Kumar's in Kishtwar have installed rooftop solar systems. With **75 MW already installed**, the scheme has empowered citizens with reduced electricity bills, cleaner energy, and increased energy independence. By simplifying procedures through the **Surya Ghar 2.0 portal**, the government ensures fast subsidy disbursal without red tape. Beyond households, the scheme is solarising government buildings and irrigation pumps under PM-KUSUM. It is also boosting **employment**, **local economy**, and India's broader vision of **energy atmanirbharta (self-reliance)**.

Key Takeaways

1. What is the Surya Ghar Scheme?

- A centrally sponsored initiative offering heavy **financial subsidies** for rooftop solar panels.

- Subsidy disbursal is **automatic and time-bound**, with minimal bureaucratic hurdles.

- Beneficiaries like Pradeep see it as a **long-term investment** in financial and energy security.

2. Impact in Jammu & Kashmir

- Over **8,000 homes** onboard; **75 MW installed rooftop capacity** so far.

- **30% of 22,500 government buildings** already solarised (added 60 MW).

- PM-KUSUM scheme supports **solarisation of irrigation pumps** across agricultural belts.

3. Administrative Reforms Supporting It

- Post-Article 370, **power sector corporatised** and modernised with smart meters and prepaid billing.

- Improved billing discipline and reduced aggregate losses from 50%+.

4. Economic and Employment Benefits

- Rise of a **solar economy**: vendors, youth employment in panel installation, maintenance, retail.
- Boost to **MSMEs and domestic PV manufacturing**, promoting local industry.

5. Strategic Significance

- Reduces grid stress in hilly regions with **land constraints** for large solar parks.
- Aligns with India's goals for **energy independence** and **sustainable development**.
- Helps **counter China's solar dominance** through local demand and quality production.

6. Broader Message

- Sustainability no longer requires compromise—it is now **cost-effective** and **fashionable**.
- As households invest in solar, they also invest in a **resilient and self-reliant India**.

How the judiciary maintains accountability-The Hindu Text and Context

Polity

Easy Explanation:

The Indian judiciary operates within strict constitutional boundaries. All its powers stem from the Constitution, ensuring checks and balances. Recent comments by the Vice-President alleging judicial overreach—such as calling it a "super parliament" and saying judges aren't accountable—misunderstand constitutional norms. Courts are indeed empowered to direct other authorities, including the President and Governors, especially when delays harm democratic functioning. Judges are accountable under the Constitution, and any violation can lead to **removal for "proved misbehaviour."** Moreover, **Parliament has the power to override judicial rulings** by making new laws, reinforcing popular sovereignty.

Key Takeaways

1. All Judicial Powers Come from the Constitution

- Judiciary derives its authority from the Constitution, not from itself.
- Its independence is protected under the **separation of powers** (Article 50).

2. Judges Are Not Above the Law

- If a judge oversteps, they can be removed for "proved misbehaviour," including **constitutional violations**.
- The process is initiated by Parliament, ensuring democratic oversight.

3. Popular Sovereignty and the Judiciary's Role

- The **President's assent** to Bills is part of upholding people's mandate.

- Judiciary can set time limits on such assents when delays hurt democracy.

4. Misplaced Concerns Over 'Super Parliament'

- Courts ensure no abuse of power and are not replacing the legislature.

- In **L. Chandra Kumar v. Union of India (1997)**, the Supreme Court reiterated that judicial powers are constitutional, not self-proclaimed.

5. Role of Judicial Review and Article 142

- **Judicial review** ensures State actions conform to constitutional principles.

- Article 142 allows the Supreme Court to do **"complete justice"** when no specific law exists.

6. Parliament Can Override Judicial Verdicts

- If necessary, Parliament can pass new laws to nullify court rulings, reflecting **people's supremacy** in a democracy.

What are the challenges faced by the civil services?-The Hindu Text and Context

Governance

Easy Explanation:

The **civil services** are central to Indian democracy, responsible for implementing laws, running welfare programs, and ensuring elections and administration function smoothly—even during political instability. However, the system faces problems like **political interference**, **lack of domain expertise**, and **corruption**. The framework they work under is based on the **merit system**, where independent bodies (like UPSC) select bureaucrats through rigorous exams. In contrast, the **spoils system** (used earlier in the U.S.) allowed elected leaders to appoint loyalists, risking bias. Reforms are needed to improve **neutrality, accountability**, and **efficiency**, including **lateral entry** of experts and **outcome-based evaluation**.

Key Takeaways

1. Frameworks of Bureaucracy

- **Merit System**: Recruitment through competitive exams by UPSC; ensures impartial, skilled administrators.

- **Spoils System**: Appointments made by ruling parties to reward loyalty (mostly abolished).

- Indian bureaucracy follows a **merit-based, career service model**.

2. Role of Civil Services

- Conduct free and fair **elections**, and manage **President's Rule** administration.
- **Advise governments** and **implement policies**.
- Ensure **delivery of essential services**, disaster relief, and law & order.

3. Challenges in Civil Services

- **Erosion of neutrality** due to political interference (especially in postings/transfers).
- **Generalist officers** often lack **domain expertise** for complex modern governance.
- **Corruption** and lack of accountability remain persistent problems.

4. Reform Needs

- Ensure **autonomy** in transfers/postings to protect neutrality.
- Shift from procedure-based to **outcome-based governance**.
- Encourage **lateral entry** of domain experts at higher levels.
- Foster a results-driven, ethical, and transparent administrative culture.

The fragmentation in the global fight against terror-The Hindu Editorial

International relations

Easy Explanation:

The **Pahalgam terror attack** of April 22 has shown that **global unity against terrorism has eroded**. Instead of unequivocal support, countries like the **U.S., EU, and even Russia** have urged "restraint" on **both India and Pakistan**, ignoring the fact that India is the **victim** of cross-border terrorism. While India faces pressure not to escalate, global powers seem unwilling to demand accountability from **Pakistan**, which shelters groups like **LeT** and **JeM**. This selective silence—especially on **Hinduphobic targeting**—exposes a **double standard**. India must now lead efforts to push for **real global accountability**, strengthen **bilateral pressure**, and prepare to act alone if required.

Key Takeaways

1. Global Hypocrisy on Terror

- Many nations condemned the Pahalgam attack but avoided calling it **terrorism**.

- The **EU** didn't use the term "terror attack", and **China** blocks UN blacklisting of Pakistani terrorists.

- The **U.S. and others call for "restraint"**—despite India being the victim.

2. Fragmented Global War on Terror

- Since 9/11, the **global consensus has collapsed**; now it's "your terrorist" vs "my terrorist."

- **U.S. focuses on REMVE**, Europe on right-wing threats, and **Canada defends terrorists** under "free speech."

3. Hinduphobia Ignored Globally

- In Pahalgam, attackers **targeted Hindus**, but most international actors **avoided naming the religious angle**.

- Even when Islamophobia or anti-Semitism are condemned, **Hinduphobic attacks are ignored**.

- **Tulsi Gabbard** was one of the few global figures to call it out.

4. Pakistan's UNSC Role and Manipulations

- Pakistan used its new **UNSC seat (2025–26)** to push anti-India rhetoric.

- Previous efforts post-Article 370 also failed; P5 (except China) consider Kashmir **bilateral**.

5. India's Strategic Challenges

- India has suspended the **Indus Waters Treaty**, keeping diplomatic pressure high.

- Yet, the world worries about "nuclear escalation" only when it comes to India, not Russia or others.

6. The Way Forward for India

- India must press **Gulf partners (Saudi, UAE)** to hold Pakistan accountable.

- It should lead globally on **combating religiophobia**, especially against **non-Abrahamic faiths**.

- If the world won't act, **India must be ready to act alone**—diplomatically, economically, and, if necessary, militarily.

8th May 2025

Precision guided long range weapons in Indian military's arsenal-Indian Express Explained

Science and technology

Easy Explanation

In *Operation Sindoor*, India used high-tech precision weapons to strike terrorist camps inside Pakistan and PoK in retaliation for the Pahalgam civilian killings. Though the exact weapons weren't officially revealed, India has, over the years, developed and acquired a range of **precision-guided long-range weapons** to carry out accurate strikes while avoiding civilian damage. These include **HAMMER bombs**, **SCALP cruise missiles**, **METEOR air-to-air missiles**, **BRAHMOS supersonic missiles**, and **loitering munitions (kamikaze drones)**. These weapons offer accuracy, deep strike capability, stealth, speed, and minimal collateral damage.

Key Takeaways

1.*HAMMER (Highly Agile and Manoeuvrable Munition Extended Range)*

- Air-to-ground weapon used on Rafale jets.
- Range: ~70 km.
- Can strike accurately from low altitudes; resistant to jamming.
- Designed for rough terrain & tactical precision strikes.

2. *SCALP / Storm Shadow*

- Air-launched stealth cruise missile.
- Range: ~450 km.
- Can strike deep targets with high accuracy using GPS and terrain referencing.
- Effective in all weather and low-altitude stealthy flight.

3. *METEOR Missile*

- Beyond Visual Range Air-to-Air Missile (BVRAAM).
- Ramjet-powered, high-speed missile with extended "no escape zone."
- Works well even under heavy electronic warfare conditions.

4. *BRAHMOS Supersonic Cruise Missile*

- Jointly developed by India and Russia.
- Extremely fast (Mach 3) with land, air, and sea variants.
- "Fire and Forget" missile, hard to intercept.
- Range has been enhanced in recent upgrades.

5 *Loitering Munitions (Kamikaze Drones)*

- Drones that hover to identify and strike targets.
- Can be used autonomously or with manual control.
- Useful for both surveillance and targeted precision attacks.

[A measured response-Indian Express Editorial]

International relations

Easy Explanation

India's recent airstrikes in Pakistan and Pakistan-occupied Kashmir (PoK), carried out after the Pahalgam terror attack, are described as a **measured and necessary response**. The editorial argues that these strikes serve two purposes: first, **delivering retribution** for the killing of civilians, and second, **reasserting conventional deterrence** against Pakistan's persistent use of cross-border terrorism.

Despite India's past surgical strikes (2016) and airstrikes (2019), Pakistan continues its proxy war, backed by the **military-ISI complex**. The editorial warns that while such kinetic actions are justified, India must avoid uncontrolled escalation. It also points to the strategic importance of Pakistan's alliance with China and the use of **tactical nuclear weapons**, which has weakened India's conventional advantage.

The piece concludes with a call for **clear, limited objectives**: dismantling Pakistan's terror infrastructure, countering disinformation, and ensuring public unity in the face of provocation.

Key Takeaways

1. Purpose of the Airstrikes

- Response to the **Pahalgam massacre** (26 civilians killed).
- Intended to **assuage public anger** and **send a credible deterrent message**.
- Targets were limited to **terror hubs**, avoiding military installations to prevent escalation.

2. Historical and Legal Context

- India has long mislabelled cross-border attacks as mere **"terrorism"** rather than **"acts of war"**.

- Pakistan exploits "non-state actor" rhetoric; however, global norms (like post-9/11 U.S. actions) treat such attacks as acts of war under **Article 51 of the UN Charter**.

3. Need to Rebuild Conventional Deterrence

- Despite nuclear stability for 26 years, India's **conventional edge is eroding** due to:

    - The **China-Pakistan axis** ("second front").

    - Pakistan's use of **tactical nuclear weapons** and **flexible response doctrine**.

4. Pakistan's Deep State

- True power lies with the **military-ISI nexus**, not its civilian government.

- Uses **proxies and terror groups** as tools of foreign policy.

- Domestic discontent in Pakistan is rising due to military overreach and poor governance.

5. Dangers of Escalation

- India must be prepared for **attrition and loss**, but **avoid escalation**.

- By using **air-launched weapons**, not ballistic missiles, and avoiding military targets, India signals **non-escalatory intent**.

6. Strategic Communication

- India must communicate its goals clearly: to pressure Pakistan into **dismantling terror infrastructure** and **ending cross-border attacks**, not regime change or wider war.

7. Rejecting Nuclear Blackmail

- Pakistan's narrative of "mad generals" with nukes is a **myth to deter Indian response**.

- Any nuclear use would have **global fallout**, prompting early intervention by major powers.

- Pakistan's generals are unlikely to invite destruction through nuclear misadventures.

8. Internal Unity and Vigilance

- ISI's long-standing aim is to **exploit India's internal religious and ethnic divisions**.

- India must guard against such psychological and social warfare.

[Climate change is disrupting the human gut in a new path to illness-The Hindu Science]

Science

Easy Explanation

Climate change isn't just affecting weather and agriculture—it's also silently altering **human gut health**. Due to rising carbon dioxide and temperatures, the **nutrient quality of food** like rice and wheat is falling, leading to **malnutrition**. This, in turn, disturbs the **microbial balance in our gut**—which is crucial for digestion, immunity, and even mental health. The article in *The Lancet Planetary Health* explains how **climate-induced food insecurity, heat stress, and water contamination** could cause "gut dysbiosis" (imbalance in gut microbes), especially in **low- and middle-income countries**.

The **gut microbiome**—with trillions of bacteria and microbes—is being disrupted in multiple ways, often all at once. This may worsen the risk of chronic diseases and infections. Researchers now call for **interdisciplinary studies** and better data to understand and counteract these changes.

Key Takeaways

Climate Change Impacts on Food → Gut Health

- Elevated CO_2 reduces plant nutrients (zinc, iron, protein).

- Poor nutrient content alters human gut microbiota.

- Crop, meat, seafood, and dairy quality all affect microbial diversity.

Gut Microbiota and Health

- Gut houses over 100 trillion microbes—essential for metabolism, immunity, glucose regulation.

- Dysbiosis (imbalance) linked to diabetes, IBD, eczema, and even neurological disorders.

Vulnerable Populations

- LMICs (India, Africa, etc.) face greater exposure to climate-related nutritional stress.

- Indigenous and poor urban communities especially vulnerable due to reliance on local diets and poor sanitation.

Heat and Infection Link

- Heat waves increase malnutrition, waterborne diseases, and infections—further harming the gut.
- The compounding effect of temperature, pollution, and poor nutrition worsens gut disruption.

Research Gaps and Scientific Needs

- Few studies link climate change directly to gut health.
- Urgent need for multi-disciplinary research, combining climate science, microbiology, public health.

Advances and Hope

- Metagenomics and AI are helping decode the gut microbiome.
- Databases like GutBugBD (IISER Bhopal) are mapping how gut bacteria respond to nutrients and drugs.
- Customised probiotic treatments may be a future solution, but gut responses vary per individual.

[Pakistan's complex web of terror networks-The Hindu Text and Context]

Internal security

Easy Explanation

Pakistan's terror infrastructure is not just a fringe problem—it is deeply embedded within its **security and intelligence apparatus**, especially the **Inter-Services Intelligence (ISI)**. Since the 1980s, particularly during the Soviet-Afghan War, Pakistan cultivated jihadi networks with U.S. funding. These networks evolved into global terror threats like **Lashkar-e-Taiba (LeT)** and **Jaish-e-Mohammed (JeM)**, among others.

These groups have **headquarters, training camps, financial networks**, and a **sophisticated radicalisation system**, often protected or indirectly supported by the Pakistani state. Even after joining the global "War on Terror," Pakistan has continued to distinguish between "good terrorists" (used against India and Afghanistan) and "bad terrorists" (those who attack Pakistani interests). Despite international pressure, Pakistan's **terror financing** systems remain largely intact through **charities, hawala, narcotics**, and **cryptocurrency**.

Key Takeaways

1. Historical Roots and State Support

- ISI began building jihadi infrastructure during the 1979 Soviet-Afghan War.

- These forces are still used as **strategic assets**, not dismantled but maintained.

- Pakistan has been on the **FATF grey list** multiple times (2008–2022) for failing to curb terror financing.

2. Lashkar-e-Taiba (LeT)

- Founded in the 1990s, main target is India.

- Led by Hafiz Saeed, with 200-acre HQ near Lahore.

- Responsible for **2008 Mumbai attacks**, 2006 train blasts, 2010 Pune bombing (via Indian Mujahideen).

- Has over **300 madrassas** and **16 training camps** in Pakistan and PoK.

- Operates in **21 countries**, funded by ISI, Gulf donors, diaspora charities, and business networks.

3. Jaish-e-Mohammed (JeM)

- Created in 2000 by Masood Azhar (released during IC-814 hijack).

- Known for **suicide terrorism**—responsible for **2001 Parliament attack**, **2019 Pulwama bombing**.

- HQ in Bahawalpur, camps in KPK, PoK, and Afghanistan.

- Funded by the **Al-Rehmat Trust**, ISI, real estate, and protection rackets.

4. Supporting Networks

- **Haqqani Network**: Now part of Afghan govt, acts as ISI arm along Afghan border.

- **ISIS-K**: Though ideologically opposed to Pakistan, sometimes tolerated.

- **Harakat-ul-Mujahideen (HUM)**: Recruits via madrassas, channels fighters to LeT and JeM.

5. Funding and Radicalisation

- 40+ front organisations raise **$150–200 million** annually.

- State budget allocations, **hawala networks**, drug trafficking (~$75M/year), and **cryptocurrency (~$15M in 2023)** sustain operations.

- Over **30,000 madrassas**, ~15% linked to extremists, spread jihadist ideology.

6. Evolving Terror Tactics

- From insurgency in the 1990s to suicide attacks and **cyber-terrorism** post-9/11.
- After Taliban's 2021 return, terror camps revived in Afghanistan.
- Increased infiltration along LoC and operational coordination with Taliban-linked groups.

7. Global and Regional Threat

- April 2025 **Pahalgam attack** (26 civilians killed) was linked to LeT-trained operatives.
- Pakistan's proxy warfare has cost over **45,000 lives since 1990**.
- Terror networks not only target India but pose a **global challenge** to international security.

[A step up-The Hindu Editorial]

Social justice

Easy Explanation

India has improved its position in the **2025 Human Development Index (HDI)**, moving from **133rd in 2022 to 130th out of 193 countries**. Its HDI score rose to **0.685 in 2023**, indicating progress in **health, education, and income**. Life expectancy is now at a record **72 years**, and children stay in school longer. Government schemes like **MGNREGA**, **RTE**, and **NRHM** helped boost this recovery post-COVID.

However, **rising inequality**—especially **income and gender gaps**—remains a major concern. Though **female labour force participation** has increased to **41.7%**, job retention and representation still lag. Also, the benefits of AI must be harnessed carefully, or it risks worsening existing inequalities.

Key Takeaways

1. HDI Progress

- **India ranks 130** in the 2025 HDI (was 133 in 2022).
- **HDI score improved** from **0.676 (2022)** to **0.685 (2023)**.
- Measures: **Life expectancy (72 years)**, **13 years average schooling**, and **GNI per capita: $9,046.76**.

2. Contributing Schemes

- **MGNREGA** (employment),

- **Right to Education Act**,

- **National Rural Health Mission** all helped raise HDI indicators.

3. Persistent Inequalities

- **Income & gender inequality** pulled down India's HDI by **30.7%**, one of the highest in Asia.

- Women's labour participation up (41.7%) but gaps in job retention and **political representation** remain.

- 13.5 crore people moved out of **multidimensional poverty** (2015–2021), but disparities persist.

4. AI as a Development Tool

- India now retains **20% of AI researchers**, up from 0% in 2019.

- AI has potential across sectors: **health, education, agriculture**.

- Need for **strong policies and safeguards** to prevent AI-driven inequality.

[The building blocks of an India-U.S. energy future-The Hindu Editorial]

International relations

Easy Explanation

India and the U.S. are working to deepen cooperation on **energy, defence, and technology**, with **critical minerals and nuclear energy** emerging as key focus areas. For India, energy security means ensuring **supply stability, affordability, and sustainability**. As India moves towards clean energy and net-zero goals, it must secure access to **rare earth elements**—many of which are controlled by China—and expand its **nuclear energy capacity**.

To achieve this, India and the U.S. are forming **long-term partnerships**: co-investing in **critical mineral projects**, building **digital trade platforms**, and enabling **private sector participation in nuclear energy**. The push includes new technologies like **Small Modular Reactors (SMRs)** and reforms to attract investment. A clear policy framework and cooperation under platforms like **iCET and the Quad** are essential for long-term energy security.

Key Takeaways

1. Strategic Energy Partnership Goals

- India needs stable energy supply, predictable pricing, and a cleaner energy mix.

- U.S. and India aim to cooperate on energy security, especially through nuclear power and critical minerals.

2. Critical Minerals Cooperation

- China controls ~90% of rare earth processing.
- India-U.S. MoU (2024) aims to diversify supply chains for minerals needed in electronics, EVs, and defence.
- Recommendations:
    - Create **India-U.S. Mineral Exchange** for digital trade and traceability.
    - Launch joint exploration in Africa, South America, Southeast Asia.
    - Build joint **strategic stockpiles** for supply security.
    - Use the **Quad** for collaborative processing and data transparency.

3. Patience and Policy in Critical Minerals

- Mines take 12–16 years to explore and develop.
- A **20-year partnership plan** with phased targets is needed.
- Back-end support must include data sharing, investment tracking, and workforce training.

4. Nuclear Energy as a Future Pillar

- India aims for **100 GW nuclear power by 2047** (currently just 8 GW).
- Net-zero by 2070 may need 200+ GW nuclear power under certain models.

5. Needed Reforms for Nuclear Growth

- **Speed up deployment**: Cut build time from 9 to 6 years to lower costs.
- **Allow private participation**: Incentivise private investment and long-term offtake.
- **Adopt SMRs**: Cheaper, flexible, suited for AI energy and water-scarce zones.
- **Estimated funding need**: ~$180 billion by 2047.

6. Legal and Safety Reforms

- Amend the **Civil Liability for Nuclear Damage Act (2010)** to attract private players.
- Ensure **waste management and safety** via advanced technologies.
- **Holtec SMR tech transfer** to L&T and TCE is a promising step in tech collaboration.

7. Broader Significance

- The IMF flags rising global uncertainty (April 2025 report).
- A **resilient India-U.S. energy alliance** ensures strategic autonomy and shared prosperity.
- Long-term cooperation, not short-term fixes, will define success.

9th May 2025

How Air Defence Systems work-Indian Express Explained

Science and technology

Easy Explanation

Air Defence Systems are multi-layered setups used to detect, track, and destroy threats from the sky—like enemy aircraft, missiles, or drones—before they reach their target. These systems use radar for detection, sensors and computers for tracking, and a variety of weapons (like surface-to-air missiles, fighter jets, and anti-aircraft guns) to intercept threats.

India successfully used these systems recently to block Pakistani aerial attacks and also used loitering munitions (like Israeli-made HAROP drones) to strike back at Pakistani air defence positions. These HAROP drones act like "suicide drones"—loitering over an area until they find a valuable target and crash into it.

The effectiveness of an air defence system relies on a seamless combination of **detection**, **tracking**, and **interception**, coordinated via command and communication systems.

Key Takeaways

1. Detection

- Done through radar and sometimes satellites.
- Detects threats by bouncing radio waves off objects (e.g., planes, missiles).
- Determines location, speed, and type of threat.

2. Tracking

- Ensures continuous monitoring of threats using radar, infrared, or laser sensors.
- Handles multiple incoming threats and differentiates between enemy and friendly aircraft.
- Accurate tracking is vital for effective targeting.

3. Interception

- Done using:
    - Fighter aircraft (interceptors like Rafale, Tejas, MiG-29).
    - Surface-to-Air Missiles (SAMs) like S-400 (long-range), Akash (medium), and MANPADS (short-range).
    - Anti-Aircraft Artillery (AAA) – older method but still useful against low-flying drones.
    - Electronic Warfare (EW) – jams or deceives enemy radar, sensors, or missile guidance.

4. HAROP Loitering Munitions

- Used by India against Pakistani air defences.
- A cross between a drone and a missile.
- Hovers for hours and attacks once a high-value target is spotted.
- Immune to GPS jamming and effective in SEAD (Suppression of Enemy Air Defence) operations.

5. SEAD Operations

- Target enemy air defence systems to establish air superiority.
- Carried out using missiles, drones, EW, and even ground forces.
- Crucial for enabling deep-strike missions and protecting friendly forces.

6. C3 Systems

- "Command, Control & Communication" binds the entire defence setup together.
- Real-time decision-making ensures quick, coordinated responses.

Hollowing of a treaty-Indian Express Editorial

International relations

Easy Explanation

The **Indus Waters Treaty (IWT)**, signed in 1960, has long been praised as one of the most durable water-sharing agreements between rival nations, India and Pakistan. It survived wars and political tensions. But India is now **reconsidering its participation** due to Pakistan's persistent support for **cross-border terrorism** (e.g., Pahalgam, Pulwama, Uri attacks) and **obstructionist behavior** regarding India's hydropower projects.

The Treaty allocates the three eastern rivers (Ravi, Beas, Sutlej) to India and the three western rivers (Indus, Jhelum, Chenab) to Pakistan, with India having limited rights over the western rivers. Despite using legal dispute resolution mechanisms like Neutral Experts and Arbitration Courts in the past, Pakistan now increasingly uses **litigious and political means** to delay India's development on its share of waters.

India's **suspension of IWT processes** (like data sharing and meetings) signals its growing **frustration and strategic shift**—gaining leverage as an upstream country while maintaining ambiguity about its next steps.

Key Takeaways

1. Treaty Structure

- Signed in 1960 with World Bank's involvement.
- **India controls eastern rivers** (Ravi, Beas, Sutlej).
- **Pakistan controls western rivers** (Indus, Jhelum, Chenab), with India allowed limited non-consumptive use.

2. Built-in Conflict Resolution

- Mechanisms include:
    - **Neutral Expert** for technical issues.
    - **Court of Arbitration** for legal disputes.
    - **Permanent Indus Commission** (annual meetings, inspections, data exchange).

3. Erosion of Trust

- Pakistan has objected to India's run-of-river hydropower projects (Baglihar, Kishanganga, Ratle).
- Initially resolved using treaty provisions; but now, Pakistan bypasses agreed mechanisms.
- India refused to participate in **parallel proceedings** for Kishanganga and Ratle, citing Pakistan's **bad faith**.

4. India's Strategic Shift

- After **Pahalgam terror attack**, India hints at putting IWT "**in abeyance**".
- May **suspend institutional mechanisms** like data exchange and dispute resolution.
- As an **upstream state**, India could gain long-term **leverage** by building infrastructure to control water flow.

5. Geopolitical and Legal Implications

- **World Bank's passive role** has added to India's disillusionment.
- Suspension of coordination raises **uncertainty** and economic risk downstream (especially in Pakistan's Punjab).
- Could signal the shift from a **mutually beneficial treaty** to one **in India's favor**, if Pakistan doesn't reconsider its actions.

6. Underlying Message

- Water, like trade and diplomacy, can be **weaponized** when trust erodes.
- The treaty's fate depends on whether Pakistan chooses **cooperation** over **confrontation**.

Do restaurants have the right to charge a service fee?-The Hindu Text and Context

Economy

Easy Explanation

The legal battle over **service charges in restaurants** stems from a basic question: can eateries **mandatorily impose a service fee** (typically 5%–20%) on diners, or must this be **voluntary like a tip**?

In 2022, the Central Consumer Protection Authority (CCPA) barred restaurants from automatically adding service charges. Consumer complaints indicated surprise fees at billing, often added without notice or consent. Restaurant bodies like **NRAI** and **FHRAI** opposed this, claiming service charges are part of staff wage systems and industry practice for over 80 years.

The **Delhi High Court**, in a key ruling (March 2024), said **service charges or tips are voluntary**, not mandatory. However, restaurants have **appealed the decision**, keeping the legal question unresolved for now.

Key Takeaways

1. The Core Issue

- Service charge: 5% to 20% fee added by restaurants to bills.

- Debate: Is it a **valid business practice** or an **unfair, non-consensual burden**?

2. Consumer Perspective

- Seen as unfair, especially if **not disclosed upfront**.
- Tips are voluntary and based on **service quality**, while service charges are **pre-fixed**.
- Complaints often arise when diners are **denied the option** to remove the charge.

3. Government and CCPA Actions

- **Dec 2016**: Consumer Affairs Ministry says service charges are **voluntary**.
- **July 2022**: CCPA issues guidelines **banning automatic imposition** of service charges.

4. Restaurant Industry Stand

- Service charge is an **established norm** for 80+ years.
- Claimed to be part of **wage structure**, ensuring **equitable tip distribution**.
- Associations argue **no existing law prohibits** charging it.

5. Court Proceedings

- **July 2022**: Delhi HC allowed service charge if **clearly disclosed** on menu.
- **March 2024**: HC ruled that **service charges must be voluntary**, like tips.
- **Current Status**: The decision has been **appealed** and the matter is **still under litigation**.

Public health in India strained by flawed policy, weak training-The Hindu Science

Governance

Easy Explanation

India's public health system is struggling due to **fragmented governance** and a **poorly coordinated education framework**. Though public health is vital for disease prevention, it is often sidelined as merely a State subject and managed in administrative silos. Responsibilities are scattered across ministries and constitutional lists, causing confusion and lack of accountability.

The **Master of Public Health (MPH)** programme, which should be building a skilled public health workforce, also suffers from inconsistencies. There is **no standard curriculum**, eligibility varies widely, and training is often **too theoretical**, neglecting technical skills like public health engineering or behavioral science.

As a result, MPH graduates remain **underutilized and invisible**, working in minor roles instead of leading health initiatives. Without major reforms in public health education and governance, India will continue to be **reactive**, not **prepared**, in the face of pandemics, climate-induced diseases, and other health threats.

Key Takeaways

1. What Is Public Health?

- A multidisciplinary field combining **medicine, engineering, and social sciences**.
- Involves **disease prevention**, **health promotion**, and **community-level problem-solving**.

2. Governance Breakdown

- Public health is wrongly seen as solely a **State subject**.
- Responsibilities spread across Union, State, and Concurrent Lists (e.g., food safety, pollution, quarantine).
- Fragmentation leads to **lack of coordination** and **contradictory policies** (e.g., promoting tobacco cultivation vs. fighting cancer).

3. Colonial Legacy

- India inherited a **unitary public health model** from the British, poorly adapted to its federal system.
- No unified **executive health authority**, leading to poor synergy between water, food, and health departments.

4. Flawed MPH Education System

- No **national curriculum or standard training structure**.
- Inconsistent eligibility: some accept only medical grads, others accept all backgrounds.
- Courses often lack **hands-on training**, focus only on theory or management.

5. Key Gaps in MPH Training

- **Public health engineering** (water, waste systems) is under-taught.
- **Nutrition education** lacks integration with food technology.
- **Behavioral sciences** and **health communication** are poorly covered.
- **Health technology assessment** is taught in very few institutions.

6. Program Structure Issues

- The 2-year MPH tries to cover too much—epidemiology, policy, research, behavior—often **superficially**.

- Suggestion: Introduce **modular formats** with flexible exit-entry points and longer duration.

7. Systemic Invisibility of Graduates

- Lack of dedicated **public health cadre** in most states.

- MPH graduates end up in **short-term or junior roles**, not policy or leadership positions.

8. Way Forward

- Public health must be treated **like national security**—proactive, not reactive.

- **Standardize MPH curriculum**, ensure regional flexibility.

- Build a strong **public health workforce** to lead surveillance, policy, and disaster response.

[Finding support-The Hindu Editorial]

International relations

Easy Explanation

Following the **Pahalgam terror attack on April 22**, India launched **precision air strikes** on terror camps in Pakistan. While global powers like the **U.S., U.K., Russia, and the UN** expressed concern, they refrained from criticizing India—indicating tacit understanding of its position. India's **clear communication**, targeted actions, and assurance to avoid civilian or economic targets helped it maintain international credibility.

New Delhi's global outreach—briefing diplomats, involving top ministers and the National Security Adviser (NSA)—conveyed a **mature and measured response**, aimed only at eliminating terrorism. However, tensions remain high, and countries such as **China, Türkiye, and Malaysia** are supporting Pakistan's call for an independent investigation.

To maintain global support and avoid unnecessary escalation, India must remain **rational, avoid war rhetoric**, and possibly open a **backchannel for de-escalation**, as it did during past crises (like the 2021 LoC ceasefire and the missile misfire incident).

Key Takeaways

1. Global Reaction: Muted But Understanding

- Most countries **did not condemn India's strikes**.

- India's actions were seen as a **measured response** to terrorism.

- UN, U.S., U.K., Russia, and Saudi/Iranian envoys are now working to **ease tensions**.

2. India's Diplomatic Strategy

- Extensive global outreach through briefings and calls by the PM, ministers, and NSA.

- Projected image of a **progressive, pluralistic, and resolute India** (e.g., women officers delivering briefings).

- Avoided targeting **civilian or military infrastructure**, focusing only on terror hubs.

3. Rising Tensions, Caution Required

- Despite strategic strikes, **further military escalation risks destabilization**.

- India must be cautious not to fall into **unplanned escalation** or retaliatory traps.

4. Pakistan's Diplomatic Pushback

- Backed by **China, Türkiye, and Malaysia**, Pakistan is calling for an "independent investigation."

- India should maintain its **reasoned tone** and avoid being seen as a co-belligerent in an international conflict.

5. Importance of Evidence-Based Diplomacy

- India could share **evidence on terror networks** with international bodies like the **UN** to **build global pressure** on Pakistan.

- This would reinforce India's image as a country targeting **terrorism**, not states.

6. Avoiding Internationalisation

- India must avoid the narrative of being "**hyphenated with Pakistan**" (i.e., both being viewed as equal parties in a conflict).

- Any potential backchannel diplomacy (like the one in 2021 for the ceasefire) can help reduce tensions **without international mediation**.

7. Bottom Line

- A **full-scale war** is **not in anyone's interest**, especially in a volatile South Asian region.

- Continued focus on **diplomatic engagement, strategic restraint, and evidence-based action** will sustain India's global support.

11th May 2024

[What will be impact of India-U.K. trade deal?: TH FAQ]

Economy

Easy Explanation

After more than three years of back-and-forth talks, India and the U.K. have finally agreed to sign a **Free Trade Agreement (FTA)**. Although the fine details haven't been shared yet, both countries say this will open doors for bigger and better trade. The deal is expected to be signed in three months and could take over a year to be fully implemented.

Right now, India trades about **$60 billion** worth of goods with the U.K., and this number is expected to almost double. India hopes to benefit by selling more items like **textiles, leather, auto parts, and jewellery**, while the U.K. is looking to sell **cars and alcohol** at lower taxes in India.

There's also good news for Indian professionals: they'll be **exempt from paying social security taxes** in the U.K. for three years, and visa processes will be made easier.

Indian industries like **textiles, automobiles, and jewellery** are excited. They believe this will boost exports and create new opportunities. But not everyone is happy. **Farmers and small businesses** (MSMEs) are worried. Past FTAs with other countries led to price crashes in things like **rubber, tea, and spices**. There's concern that this deal could also affect **local industries, farming, and public contracts**.

Another issue is that the U.K. plans to **tax goods based on their carbon emissions**, which might make Indian exports like **steel and aluminium** more expensive abroad.

Key Takeaways

Significance of the Deal

- India and the U.K. have agreed to a **Free Trade Agreement (FTA)**.
- The deal aims to **boost trade and exports** between the two countries.
- India currently has a **trade surplus** with the U.K.
- The FTA is expected to nearly **double bilateral trade by 2030**.

Benefits for India

- **Lower tariffs** on 99% of Indian exports.

- Boost for sectors like **textiles, leather, gems and jewellery, auto parts**.
- Indian professionals will **not have to pay social security taxes** in the U.K. for three years.
- **Simplified visa processes** for Indian workers and businesses.

Benefits for the U.K.

- Reduced tariffs on **alcohol and automobiles**.
    - Whisky and gin tariffs reduced from 150% to 75%, and eventually to 40%.
    - Cars may be imported at 10% duty instead of over 100%, within certain quotas.

Industry Reactions

- **Textile industry** expects duty-free access like Bangladesh and Vietnam.
- **Automobile sector** welcomes better access for Indian cars to U.K. markets.
- **Jewellery exports** projected to rise by $2.5 billion in two years.

Major Concerns

- **Farmers** worry about price drops like after previous FTAs (e.g., with Sri Lanka, ASEAN).
- **MSMEs** fear competition from large U.K. firms in public procurement.
- Critics say FTAs may weaken India's **policy space** to protect domestic sectors.
- **Public procurement access** for U.K. firms may hurt local businesses.
- **Carbon tax (CBAM)** by the U.K. could raise costs for Indian steel and aluminium exports.

Unresolved Issues

- How India will **protect vulnerable sectors** like agriculture and MSMEs.
- Whether the **U.K.'s carbon tax system** will impact trade fairness.
- Potential **import dependency** and erosion of local manufacturing.

What's the self-defence clause in global law?: TH FAQ

International Relations

Easy Explanation

On May 10, India and Pakistan agreed to stop all military actions after several tense days. This came after India carried out 24 precise missile strikes on terrorist camps in Pakistan and Pakistan-Occupied Kashmir on May 7, in response to a deadly terror attack in Pahalgam that killed 26 people. While India called its response "measured" and defensive, Pakistan claimed it was an act of war and said civilians were killed.

International law (Article 51 of the UN Charter) allows countries to use force only in self-defence after being attacked. While India didn't formally invoke this article, its actions suggest that it considers the terror attack as justification for the strikes. However, under international rules, if a country uses force in self-defence, it is supposed to inform the UN Security Council immediately. So far, there is no indication India has done this.

The challenge is that international law mainly applies to actions between countries. Since terrorist groups are non-state actors (not official arms of any country), the rules are murkier. To get around this, some countries like the U.S. have used a concept called the "unwilling or unable" doctrine. This says if a country is unwilling or unable to stop terrorists on its land, then another country can take limited action in self-defence. India's remarks that Pakistan has done nothing to stop terrorism may be hinting at this doctrine — but this idea is still debated and not accepted worldwide.

There's also the issue of proportionality — meaning the response should match the scale of the threat. India claims it only hit terror camps and avoided military or civilian targets, so legally it may be seen as proportional.

Going forward, if tensions rise again, the UN Security Council could step in with resolutions, but those actions depend on powerful nations like the U.S., China, and Russia, who all have veto powers and their own interests in the region.

Key Takeaways

Recent Events

- India conducted **24 missile strikes on May 7** targeting terrorist bases in Pakistan and PoK, after the **Pahalgam terror attack** that killed 26 civilians.
- On May 10, both countries agreed to **halt all military actions**.

Legal Basis Under International Law

- **Article 51 of the UN Charter** allows self-defence after an armed attack.
- Countries using this right must **report to the UN Security Council** — India hasn't formally done so.
- India hinted at self-defence by calling the strikes a **response to terrorism**, not an act of war.

Dealing with Non-State Actors (Terror Groups)

- The UN Charter covers **only state actions**, not non-state actors (NSAs) like terror groups.
- For NSAs, self-defence applies only if **a state is proven to support them**.
- India blamed **"Pakistan-trained terrorists,"** indirectly linking Pakistan to the attack.

'Unwilling or Unable' Doctrine

- Some countries, especially the U.S., use this doctrine to justify strikes on NSAs if the host country **can't or won't act**.
- India's statements about Pakistan's inaction may be relying on this concept.
- This doctrine is **controversial and not universally accepted**.

Necessity and Proportionality

- Military action must be **necessary and proportionate** under international law.
- India claims its strikes only targeted **terror camps**, not civilians or military assets, which would meet both tests.

What Happens Next?

- If tensions escalate, the **UN Security Council** may intervene, but actions like sanctions or peacekeeping forces depend on **political will and veto power** of members like the U.S., China, and Russia.

[Is safe harbour important for social media?: TH FAQ]

Polity

Easy Explanation

The Indian government is rethinking whether social media platforms like X (formerly Twitter), Facebook, and YouTube should continue to enjoy something called "safe harbour" — a legal protection that prevents them from being punished for what users post on their platforms.

Right now, if someone posts fake news, hate speech, or anything illegal, these platforms aren't held directly responsible, as long as they remove the content quickly after being asked to by the government or a court. This protection is written into Section 79 of India's Information Technology Act, 2000.

However, over the years, the government has accused these platforms of not taking down harmful or illegal content fast enough. That's why it's thinking of changing this rule. The government wants these companies to be more proactive — not just reacting when they're told — especially in areas like fake news, deepfake videos, and cyber fraud.

The issue has become controversial. For instance, in 2023, a new rule said that if the Press Information Bureau (PIB) calls something "fake news," social media sites must take it down — or lose their safe harbour protection. This rule was challenged in court by comedian Kunal Kamra, who argued it gives too much unchecked power to the government. The Bombay High Court agreed with him, and now the government is appealing that decision.

Similar debates are also happening in countries like the U.S., where both Biden and Trump have pushed to weaken legal protections for social media companies, though for different reasons.

India is now preparing a new Digital India Act that may change these rules, but no draft has been shared yet. Until then, this debate over free speech, fake news, and government control continues.

Key Takeaways

What is Safe Harbour?

- It's a **legal protection** for websites and social media platforms from being held responsible for what users post.
- In India, **Section 79 of the IT Act, 2000** provides this protection.
- But if the platform is told officially to remove illegal content and **doesn't act**, it can lose this protection.

How It Works in India

- Platforms must have a **grievance officer**, a **nodal contact person**, and submit regular reports on content takedown.
- If they don't follow these rules, they **risk losing safe harbour**.

Recent Controversy

- In 2023, a rule said platforms could lose protection if they don't take down content marked as "fake news" by the **PIB's fact-checking unit**.

- This was **challenged in court** for potentially giving too much power to the government.

- The **Bombay High Court sided with critics** like Kunal Kamra, saying more checks and balances are needed.

Why Is the Government Reconsidering Safe Harbour?

- It says platforms are **not acting fast enough** to remove harmful content.

- They want platforms to fight **fake news, deepfakes, cybercrime**, and misinformation more actively.

- Platforms like X have had **public disputes with the government** over takedown orders.

Global Context

- In the U.S., there's also debate over **Section 230**, which is similar to India's safe harbour.

- Presidents Biden and Trump have both criticized it — **Biden** for extremist content, **Trump** for censorship of conservatives.

What's Next?

- The government plans to introduce a **Digital India Act (DIA)** to update these rules.

- The details of this new law are **not yet public**.

[The terror trio of Pakistan: TH Profiles]

International Relations

Easy Explanation

India recently carried out precision strikes, called **Operation Sindoor**, targeting terrorist camps in Pakistan and Pakistan-occupied Kashmir. Five top terrorists were killed. What caused this? A brutal terrorist attack in Pahalgam, J&K, on April 22, left 26 people dead. In response, India struck back on May 7, hitting terror camps of **Lashkar-e-Taiba (LeT)**, **Jaish-e-Mohammad (JeM)**, and **Hizb-ul-Mujahideen**.

After the strikes, something shocking happened in Pakistan. In full public view and with state honours, top Pakistani military officials and leaders, including Army Chief Gen. Asim Munir and Punjab CM Maryam Nawaz,

honoured the dead terrorists. A U.S.-designated terrorist cleric even led the prayers. This shows a direct connection between Pakistan's establishment and these terror groups, which India has long alleged.

These terror groups—**LeT, JeM, and Hizb-ul-Mujahideen**—have been responsible for major attacks in India, like the 2001 Parliament attack, 2008 Mumbai attack, and the recent Pahalgam massacre. All of them are banned by India and designated as terror outfits globally, including by the U.S.

Each of these groups was created and supported by Pakistan's spy agency, ISI. They have long operated with impunity in Pakistan, running training camps, schools, and even hospitals as fronts, while continuing attacks in India.

This latest development shows how deep-rooted and state-protected these terror outfits are in Pakistan. Even global pressure, such as from FATF (Financial Action Task Force), has done little to break the network completely. India's strikes may have destroyed infrastructure and killed leaders, but the larger question remains — will Pakistan truly stop sheltering terrorism?

Key Takeaways

Operation Sindoor

- India conducted **24 precision airstrikes** on May 7 in Pakistan and PoK.
- Strikes targeted terror camps of **LeT**, **JeM**, and **Hizb-ul-Mujahideen**.
- Five top terrorists, including relatives of JeM founder **Masood Azhar**, were killed.
- The operation was in response to the **April 22 Pahalgam massacre** that killed 26.

What Happened in Pakistan After the Strikes

- Dead terrorists were honoured in **state ceremonies**.
- Pakistan's Army Chief and Punjab CM laid wreaths.
- **Abdur Rauf**, a U.S.-designated terrorist, led prayers at LeT's Muridke HQ.

About Hizb-ul-Mujahideen

- Formed in **1989** as the militant wing of **Jamaat-e-Islami**.
- Backed by **Pakistan's ISI** to integrate Kashmir with Pakistan.

- Led by **Syed Salahuddin** (designated terrorist).
- Carried out attacks across J&K and even in Delhi (e.g., 2011 High Court blast).
- Was once open to dialogue but quickly backtracked under pressure.

About Lashkar-e-Taiba (LeT)

- Formed in **1990**, its HQ is in **Muridke**, Pakistan.
- Led by **Hafiz Saeed** (in jail now for terror financing).
- Known for **2008 Mumbai attacks**, 2006 train blasts, Akshardham attack, etc.
- Global recruitment network and links with **al-Qaeda**.
- Despite being banned, it continues to operate through educational and charity fronts.

About Jaish-e-Mohammad (JeM)

- Created by **Masood Azhar** after being released post-IC 814 hijacking in 1999.
- Funded by **ISI** and responsible for major attacks: **Parliament attack (2001)**, **Pathankot (2016)**, and **Pulwama (2019)**.
- Operates openly in **Bahawalpur**, Pakistan.
- Its base **Markaz Subhanallah** was destroyed during Operation Sindoor.

Pakistan's Link with Terrorism

- These terror groups have **state support**, public events, and official sympathy.
- Pakistani Army and politicians openly participated in **funeral rituals** for terrorists.

- Despite international designations and bans, these groups **still function** openly.

Global Pressure

- **FATF** has put Pakistan under pressure, leading to arrests like Hafiz Saeed's.

- But Pakistan has continued to deny that terrorists like **Masood Azhar** are even in the country.

What It Means for India

- India has demonstrated it can respond decisively.

- The presence of Pakistani leaders at terrorist funerals shows the **state-terror nexus**.

- Raises further questions for the **global community** about Pakistan's credibility.

[In remains of 2004 flare, scientists find second natural source of gold: TH Science]

Science tech

Easy Explanation

Until now, scientists believed that gold could only be formed when two **neutron stars** (extremely dense remnants of massive stars) **collide** in space. These collisions create an event so powerful that heavy elements like gold are formed through a process called the **r-process**, where neutrons are rapidly captured by atomic nuclei.

But a new study led by Anirudh Patel from Columbia University has found **evidence of gold being formed in a completely different kind of event** — a **magnetar flare**. A **magnetar** is a type of neutron star, but with an incredibly strong magnetic field. In 2004, a powerful flare was emitted by a magnetar, and a day later, NASA's gamma-ray observatory recorded another burst of energy coming from it.

This delayed emission was unusual. It didn't behave like a typical flare afterglow. Instead, the team found signs that it contained **radioactive decay patterns** similar to those seen when heavy elements like gold are created. The researchers believe this shows that the magnetar had **ejected material rich in neutrons**, which then underwent **r-process nucleosynthesis** and formed elements like **gold**.

This means the **universe might have created gold earlier than previously thought**, possibly through magnetar flares, even **before neutron star collisions became common**. The researchers also ruled out errors or noise in the instruments by comparing with other data and simulations.

Key Takeaways

What Was Discovered

- Scientists found the **first direct observational evidence** of gold being formed not just in neutron star collisions, but also in **magnetar flares**.

- The flare studied occurred in **2004**, followed by a strong **gamma-ray emission** a day later.

What Are Magnetars?

- Magnetars are a type of **neutron star** with **extremely strong magnetic fields**.
- Sometimes, they release **bursts of energy** called flares.

What Is r-Process Nucleosynthesis?

- It is a process where **atomic nuclei rapidly capture neutrons** and form **heavy elements** like **gold and uranium**.
- Previously, this was thought to occur mainly during **neutron star mergers**.

Why This Is Important

- Shows that **magnetar flares** may also be responsible for creating gold and other heavy elements.
- Suggests that **gold may have existed earlier** in the universe than previously believed.

How Did Scientists Prove It?

- The 2004 delayed gamma-ray flare matched the **energy and time pattern** expected from **radioactive decay** of newly formed heavy elements.
- Models showed that **1.9 septillion kg of r-process material** ejected at near-light speed could cause such a signal.
- Alternative explanations like **instrument noise** were ruled out using other data and simulations.

What It Changes

- Adds **magnetar flares** as a potential source of gold, alongside neutron star mergers.
- Opens new doors in understanding the **chemical evolution of the universe**.

Curious case of yeast modified to develop brain defects: TH Science

Science Tech

Easy Explanation

Scientists from Emory University and the University of Texas have found that some serious developmental diseases in human babies caused by **mutations in RNA-processing proteins** can be studied in a **simple organism — yeast**. This is a big breakthrough because yeast is much easier and quicker to study in labs compared to humans or even animals.

The specific diseases they looked at are called **RNA exosomopathies**, like **Pontocerebellar Hypoplasia Type 1 (PCH1)**. Babies with this condition are born with **underdeveloped brain regions**, face movement and learning disabilities, and usually don't survive long. These diseases are caused by mutations in genes that make up the **RNA exosome**, a group of proteins that help control and clean up RNA — the molecule that carries genetic instructions inside cells.

Researchers used yeast to mimic human disease conditions by inserting the same mutations seen in human patients. They found that these mutations **damaged yeast cells in the same way** — especially in how cells process RNA and make ribosomes (protein factories). They even created a **'humanised yeast' model**, where they replaced yeast genes with human ones and tested which mutations caused harm.

These studies show that yeast can be a **powerful tool** to understand how specific human mutations work and **could be used in the future to quickly test new drugs** for such diseases.

Key Takeaways

What Are RNA Exosomopathies?

- Genetic disorders where mutations affect the **RNA exosome**, a complex responsible for **processing and cleaning up RNA** inside cells.

- Example: **PCH1**, where babies have underdeveloped parts of the brain and face severe movement and developmental issues.

What Did the Researchers Do?

- Used **yeast**, a simple organism, to **model human diseases** by introducing the same mutations seen in patients.

- Created **'humanised yeast models'** by replacing yeast exosome parts with **human or mouse versions**.

Why Yeast?

- Yeast grows fast, is easy to study, and shares many basic biological functions with humans.

- Allows **quick testing of mutations and potential drug treatments** in a controlled setting.

What Did They Find?

- Mutations that cause developmental diseases in humans **also harm yeast**, especially in:
    - **Non-coding RNA processing**
    - **mRNA related to metabolism**
    - **Ribosome production**
- Different mutations have **different impacts**, leading to unique disease symptoms.

How Was It Proven?

- They showed that yeast with human-like mutations showed the same RNA processing defects as in humans.
- Used genetic tests and simulations to confirm that the **RNA exosome itself was directly affected**.

Why Is This Important?

- Shows yeast can be a **reliable model** for studying complex human disorders.
- Opens up possibilities for **testing drugs in yeast first** before moving to human trials.
- Helps understand **how specific mutations lead to different disease outcomes**.

[Scientists create first 'pangenome' of Asian rice: TH Science]

Science Tech

Easy Explanation

Scientists have built a new kind of reference map for rice, called a **pangenome**, by combining the genetic information of 144 types of wild and farm-grown rice. This is like creating a full library of all the genetic options available in rice, not just from one or two varieties but from many — just like the Human Genome Project did for humans.

Why does this matter? Because rice is eaten by almost two-thirds of the world, including most of India, and climate change is starting to affect how much rice we can grow. It also increases harmful elements like **arsenic** in rice. So, if we understand the full genetic potential of rice — from both wild and cultivated types — scientists can create **new types of rice** that grow better during droughts, survive climate extremes, and resist diseases.

To make this pangenome, scientists — mostly from China — used advanced DNA sequencing tools and computer analysis. They confirmed that **all Asian rice varieties came from a wild ancestor called Or-IIIa**, and that **wild rice holds important genes** we can use in future to develop improved rice.

This study helps scientists know exactly which genes are shared by all rice types and which ones are unique — especially the ones that could help rice plants survive tough conditions. These genes are now being eyed for developing high-yield and climate-resilient rice varieties.

Key Takeaways

What is a Pangenome?

- A **pangenome** is a full genetic map that includes:
    - **Core genes** (common to all varieties)
    - **Unique genes** (found only in some wild or cultivated types)
- Unlike a single reference genome, it shows the full range of diversity within the species.

How Was It Created?

- Used **144 wild and cultivated rice varieties** from Asia.
- Applied **HiFi sequencing (PacBio)** for high-accuracy genome reads.
- Found **3.87 billion base pairs of new genetic data** missing from older rice genome maps.

What Did They Discover?

- Total **69,531 genes** identified.
    - **28,907** were core (common across rice)
    - **13,728** specific to wild rice

- About **20% of all genes** were unique to wild varieties — full of traits that could improve climate resistance and yield.

Where Did Asian Rice Come From?

- All cultivated rice varieties evolved from a wild rice population called **Or-IIIa**.

- **Japonica rice** came first, then spread and mixed with other wild rice to form **Indica rice**.

Why Is This Important?

- Helps scientists develop **new rice types** with traits like:
    - **Drought resistance**
    - **Better yields**
    - **Climate resilience**
- Useful for countries like **India**, which just hit record rice production but also faces **rising temperatures and changing monsoons**.

Ongoing Applications

- ICAR (India) recently developed two genome-edited varieties: **Samba Mahsuri** and **MTU 1010**, promising better drought performance.

- These aren't yet in fields but benefit from this kind of genetic research.

12th May 2025

All about IMF loan toPak, why latest tranche was passed-Indian Express Explained

Economy

Easy Explanation

The **International Monetary Fund (IMF)** approved the release of **$1 billion** to **Pakistan** under its **Extended Fund Facility (EFF)**. This is part of a **$7 billion support program** initiated in **September 2024** to address Pakistan's deep-rooted economic problems. With this, Pakistan has received **$2.1 billion** so far.

Additionally, Pakistan was granted **$1.4 billion** under the **Resilience and Sustainability Facility (RSF)**, aimed at strengthening long-term reforms, including those related to climate resilience.

Despite **India abstaining** from the vote—citing concerns over **possible misuse of IMF funds** due to Pakistan's **cross-border actions**—the IMF approved the tranche following progress in Pakistan's **economic stabilization**, including a sharp **decline in inflation**, **improved reserves**, and key **fiscal reforms**.

Key Takeaways

What is the Extended Fund Facility (EFF)?

- A medium-term IMF loan facility for countries with **serious balance of payments issues** due to **structural weaknesses**.
- It provides **longer repayment terms** and **support for economic reform**.
- The assistance is a **loan**, not a **grant**.

Why Pakistan Got the Loan

- IMF found improvement in **macroeconomic stability** and **policy credibility**.
- **Inflation fell sharply** to 0.3% in April 2025.
- Fiscal reforms like **agricultural income tax** and the **FY25 budget** strengthened Pakistan's case.

India's Objection

- India raised concerns over **IMF funds being diverted** for **state-sponsored terrorism**.
- Abstained from the decision but could not veto due to IMF voting rules.

Pakistan's Economic Context

- GDP has been **stagnant**, with 2023 output lower than in 2017.
- Inflation surged over five years (reaching nearly **29.1% in 2023**).
- Persistent issues include **low investment**, **poor infrastructure**, **low female workforce participation**, and **heavy dependence on debt**.
- Pakistan has taken **28 IMF loans in 35 years**, alongside funds from China, Gulf countries, and multilateral institutions.

Why Soviet-era spacecraft,launched 53 years ago,crashed back to Earth-Indian Express Explained

Science and technology

Easy Explanation

On **May 11, 2025**, a **fragment of the Soviet Kosmos 482 spacecraft**, launched in **1972**, crash-landed in the **Indian Ocean near Jakarta**. The spacecraft was part of the **Venera program** aimed at exploring **Venus**, but it **failed to leave Earth's orbit** due to a **rocket timer malfunction** during launch.

While most of the spacecraft had re-entered Earth's atmosphere in the 1970s, one **heavy titanium lander module** remained in orbit for over **five decades**. The lander finally re-entered Earth's atmosphere uncontrollably and splashed down. No damage or injuries occurred.

Key Takeaways

What was Kosmos 482?

- A **Soviet Venus mission** under the **Venera program**, launched on **March 31, 1972**.
- Aimed to study **temperature, pressure, atmospheric gases, and rocks on Venus**.
- Twin mission of **Venera 8**, which landed successfully on Venus.

What Went Wrong?

- The **upper rocket stage malfunctioned** due to an **incorrect timer setting**.
- Kosmos 482 failed to leave Earth's orbit and became **space debris**.
- The **lander module detached** and remained in orbit for **53 years**.

Why Didn't It Burn Up?

- The lander was built with **titanium**, which **withstood atmospheric re-entry** (melting point: 1,700°C).
- It slowed down due to **atmospheric drag** and hit the ocean at ~242 kmph.

Why Was Crash Location Uncertain?

- The re-entry was **uncontrolled**; the spacecraft had **no functioning brake or parachute system**.
- Traveling at over **17,000 mph**, its descent was purely guided by **friction and gravity**.

Is This Common?

- Yes. Over **2,400 human-made objects** re-entered Earth's atmosphere in **2022**.

- Most burn up or land in oceans. **No human deaths** have ever been recorded from such debris.

- **ESA estimates the risk** of injury from satellite debris to be **less than 1 in 100 billion**.

[Why farmers prefer rice, wheat-Indian Express Explained]

Economy

Easy Explanation

Indian farmers consistently prefer **rice and wheat** over other crops, not just because of **assured Minimum Support Prices (MSP)** and **government procurement**, but also due to **higher yields, better research support, improved seed varieties, irrigation coverage, and lower risks**.

These two crops have benefited the most from **public breeding programs**, technological innovations (like CRISPR gene-editing), and **agronomic advancements**. For example, new wheat and rice varieties mature faster, resist diseases better, use less water, and respond well to fertilizers. In contrast, other crops like **pulses, oilseeds, and cotton** haven't seen comparable scientific or policy support, leading to unstable prices and yields—making farmers hesitant to grow them.

Key Takeaways

1. Assured Procurement Support

- **Rice and wheat enjoy MSP-backed government procurement**, unlike most other crops.

- This makes these crops less risky to grow, especially during uncertain market conditions.

2. Research and Yield Improvements

- **Wheat yields** have steadily increased with each new ICAR-released variety:

    - From **3.76 tonnes/ha in 1969 (Kalyan Sona)** to **6.25 tonnes/ha in 2024 (HD-3386)**.

    - New varieties are also **rust-resistant and climate-resilient**.

- **Rice yields** have also grown with shorter crop durations and new varieties like:

    - **Kamala (GE mutant of Samba Mahsuri)** – yields up to **9 tonnes/ha**, matures in **130 days**, and requires **less water and fertilizer**.

3. Lower Risk & Better Input Response

- Both rice and wheat are often **grown under irrigated conditions**, reducing the dependency on rainfall.

- They respond well to fertilizers due to **semi-dwarf, non-lodging traits**, leading to more reliable output.

4. Biotech Innovation & Climate Readiness

- **CRISPR-based gene editing** has been used in rice to enhance:
    - **Grain yield (via Gn1a gene editing)**
    - **Stress tolerance (via DST gene editing)**
- Such innovations are **absent in most other crops**.

5. Lag in Other Crops

- **Cotton, pulses, and oilseeds** have seen **minimal genetic advancements** in the past two decades.
- No **new GM varieties** have been approved post the **Bt cotton era (2002–2006)**.
- As a result, these crops show **unstable yields** and **fluctuating acreages**.

6. Economic Logic for Farmers

- Farmers prefer crops with:
    - **Stable returns**
    - **Low yield risk**
    - **Irrigation compatibility**
    - **Research-backed variety support**
- Hence, **rice and wheat dominate**, especially in irrigated states like Punjab, Telangana, and Madhya Pradesh.

PLUGGING A GAP-Indian Express Editorial

Sociology

Easy Explanation

India's **Industrial Training Institutes (ITIs)** were originally established to train youth for industrial jobs. However, with technological progress, traditional vocational skills are no longer sufficient. Modern industries require **digital fluency, AI literacy, data analysis, and green engineering skills** — areas where most ITIs fall short today.

To address this, the **Union Cabinet approved a ₹60,000 crore scheme** to **upgrade ITIs** under the new **National Scheme for ITI Upgradation**. The plan involves establishing **five National Skill Training Institutes (NSTIs)** and revamping **1,000 ITIs** over five years to meet **industry-relevant, future-ready standards**.

The project also aims to build **stronger partnerships with the private sector**, which will **contribute 10% of costs** and help design **customized curricula and train faculty**. While the initiative won't solve the entire human capital deficit, it marks a **crucial first step toward preparing India's youth for the smart economy**.

Key Takeaways

1. Why the ITI Overhaul Was Needed

- India's workforce faces a **significant skill deficit**.
- Most ITI graduates struggle to find **placement in high-tech sectors**.
- Outdated training, **inadequate infrastructure**, and **unchecked expansion of private ITIs** diluted quality.

2. New National Scheme for ITI Upgradation

- Budget: **₹60,000 crore**.
- Target: Upgrade **1,000 ITIs** and establish **5 NSTIs**.
- Timeline: **5 years**, targeting **20 lakh skilled youth**.
- Focus: Skills in **AI, robotics, data analytics, and green technologies**.

3. Challenges with Existing ITIs

- Nearly **80% of ITIs were set up after 2006**, mostly by the private sector.
- **Lax accreditation**, lack of safety, and poor monitoring have plagued many.
- Audits found ITIs being approved even while **still under construction**.

4. Public-Private Partnership Approach

- **Private sector will bear 10% of the scheme's cost**.
- Industry will help **design curricula, train faculty, and ensure relevance**.
- **Collaborative model** is essential for scaling skilled human capital rapidly.

5. Why It's Just a Beginning

- The initiative addresses **only a fifth of the industry's projected skill needs**.
- Deeper reforms, stronger industry ties, and **continuous curriculum updates** are needed.
- **Government must push for greater private sector involvement** and accountability.

How is Kerala handling its waste problem?The Hindu Text and Context

Environment

Easy Explanation

Kerala launched the **'Vruthi' campaign** on **October 2, 2024**, to tackle its worsening **solid waste management** problem. The word *Vruthi* signifies *cleanliness of both mind and body*. The campaign was initiated in response to Kerala's **rising waste levels**, driven by **urbanisation and changing consumer habits**, especially post-liberalisation.

The campaign focuses on **public participation**, behavioural change, and a **decentralised, locally-adaptable waste management system**, in contrast to the **top-down approach** of the Swachh Bharat Mission (SBM). Kerala's initiative also includes increased roles for local bodies, citizen groups, and technological experimentation like composting and biological waste converters.

The campaign recognizes that without **sustained community ownership**, state-led efforts may lose momentum. Thus, building local collectives and **strengthening EPR (Extended Producer Responsibility)** are considered vital for lasting change.

Key Takeaways

1. Why the Vruthi Campaign?

- Kerala's waste volumes grew due to **market-based consumerism** and reduced capacity for backyard disposal.
- Public hygiene did not translate into **clean public spaces**.
- High-profile incidents like **waste worker deaths, dog bites, and disease outbreaks** prompted action.

2. What is the 'Vruthi' Campaign?

- A **statewide behavioural change** and public participation initiative.
- Focuses on **decentralised solutions**, including local composting, bioconversion, and street-level sanitation drives.
- Involves all stakeholders — government, schools, civil society, and local workers.

3. How Is It Different from Swachh Bharat Mission (SBM)?

- SBM is a **top-down, centrally monitored** program.
- Vruthi is **bottom-up**, **technology-neutral**, and **locally customisable**.
- Kerala's campaign encourages **community ownership** and flexible implementation.

4. Centralised vs. Decentralised Systems

- **Centralised systems** have shown success (e.g., Guruvayur) but also failures (e.g., Brahmapuram fire in Kochi).
- **Decentralised systems** are better for **community ownership and adaptability**, but need **capacity building** at local levels.
- **Professionalisation** and investment in **urban governance** are crucial for both models.

5. Future Challenges and Path Ahead

- Risk of **state withdrawal** causing loss of momentum.
- Need to institutionalise the slogan **"My waste, my responsibility"**.
- **EPR laws** must be enforced more rigorously to ensure producers take accountability.
- Building and strengthening **people's collectives** (schools, RWAs, businesses) is essential.

Asteroid YR4 might miss earth; will it miss the moon, too?-The Hindu Science

Science

Easy Explanation

Asteroid **2024 YR4**, discovered in December 2024, caused concern after early models suggested a **3.1% chance of hitting Earth in 2032**. Later, **NASA revised its estimate**, saying **there is now almost no risk to Earth**, but **a 3.8% chance it could strike the Moon** on **December 22, 2032**.

YR4 is about **65 metres wide**, smaller than the size threshold (140 m) for being classified a **potentially hazardous asteroid**. It wouldn't cause global devastation but could still create a **2 km-wide crater** if it hits the Moon, with energy **340 times stronger than the Hiroshima bomb**.

Even though the asteroid no longer threatens Earth, the episode shows how **asteroid tracking and prediction models evolve** with more data and how important **planetary defence systems** are.

Key Takeaways

1. What is Asteroid YR4?

- A **near-Earth asteroid (NEA)** discovered in December 2024.
- About **65 metres wide**, roughly the height of a 10-storey building.
- Initially rated as a **Level 3 threat** on the Torino scale (NASA's risk rating system).

2. Will It Hit the Earth or Moon?

- **Negligible chance of hitting Earth** (initial estimate: 3.1%, now rolled back).
- **3.8% chance of striking the Moon** on **December 22, 2032**.
- Impact would not affect the Moon's orbit but would leave a **massive crater**.

3. Why Was There Uncertainty?

- Newly discovered asteroids have **uncertain orbits**.
- Early observations are limited, and many possible orbital paths are calculated.
- As more **data is gathered**, models become more accurate, refining impact probabilities.

4. What Happens If It Hits the Moon?

- It will likely produce a **visible flash** if it hits the near side.
- Could be observed by **space telescopes and lunar orbiters** like **Chandrayaan-2**.
- The impact will help scientists learn more about the **lunar surface (regolith)**.

5. Importance of Asteroid Monitoring

- Earth is constantly exposed to **space debris and small asteroid impacts**.
- The **Chelyabinsk event in 2013** was a reminder of this risk.
- Large asteroids could alter Earth's **climate drastically**, similar to the one that ended the dinosaurs.

6. A Preventable Threat

- Asteroids are the **only natural disasters that can be predicted and prevented**.

- Global collaboration in asteroid tracking (like NASA's **Sentry system**) is key to early warning and mitigation.

[The women who remain largely invisible-The Hindu Editorial]

Sociology

Easy Explanation

Across India and South Asia, **women have played leading roles in resisting environmental degradation, displacement, and exploitative development**, especially in grassroots movements. Whether it's anti-mining protests in Odisha and Jharkhand or anti-nuclear movements in Tamil Nadu, **women are often the first to resist**, despite facing violence, exclusion, and invisibility in policy spaces.

Even though laws like the **Forest Rights Act (2006)** and **PESA Act (1996)** recognize women's rights, **implementation is poor**. Land titles are usually in men's names, women are excluded from decision-making, and climate adaptation policies rarely account for **women's ecological knowledge or daily burdens**. Structural patriarchy and inadequate policy enforcement erase women from land, climate, and development governance.

If climate justice and inclusive development are to be real, **women must not only be included — they must lead**.

Key Takeaways

1. Women as Frontline Resisters

- Women lead many **anti-mining, anti-dam, and environmental justice movements**.
- Examples: *Sijimali (Odisha), Dewas (Jharkhand), Kudankulam (Tamil Nadu)*, and *Phulbari (Bangladesh)*.
- Despite this, **their leadership is not formally recognized**.

2. Exclusion from Decision-Making

- Women are **sidelined in land consultations**, especially in forums claiming *Free, Prior and Informed Consent (FPIC)*.
- Gram Sabhas and compensation mechanisms are **male-dominated**.
- Women's input is often dismissed as "emotional" despite being rooted in lived, environmental knowledge.

3. Gaps in Legal Frameworks

- **India's FRA and PESA**, Nepal's joint land policies, and Bangladesh's khas land schemes *exist but are poorly implemented*.
- **Land ownership remains patriarchal**; titles are rarely in women's names.
- Displaced women often excluded from **rehabilitation, compensation, and documentation**.

4. Climate Crisis Deepens Gender Inequality

- Women face **greater burdens** (longer water collection, caregiving, low-pay work).
- **Climate policy rarely includes women's voices or knowledge**.
- Unsafe or male-led consultations further marginalize their participation.

5. What Must Change

- **Make consultations gender-sensitive**: suitable timings, women-only spaces, legal support.
- Recognize **women as independent landholders**.
- **Amplify women's leadership** in movements and policymaking bodies.
- Ensure their presence in **legislatures, negotiation rooms, and compensation boards**.

6. The Core Message

- Women's resistance is not just about survival — it's a **vision for inclusive and ecological development**.
- **Their leadership must move from protest grounds to power spaces**.

Fire and ceasefire-The Hindu Editorial

International relations

Easy Explanation

India and Pakistan have reached a **mutual ceasefire understanding** after **three days of intense cross-border military engagement**, triggered by a **terrorist attack on tourists in Pahalgam on April 22**. The announcement was first made by **U.S. President Donald Trump**, with U.S. officials, including Vice President J.D. Vance and Secretary of State Marco Rubio, actively facilitating the dialogue between the two countries.

India responded to the attack with overt military strikes, signalling a **new security doctrine**: **terror attacks will invite direct retaliation**, and Pakistan's **plausible deniability** won't be accepted as a shield anymore. While the conflict caused significant loss in **Jammu & Kashmir and Punjab**, India emphasized its **secular and democratic character** even during crisis.

Now that tensions have de-escalated, the Indian government is being urged to **brief Parliament**, **address civilian concerns**, and **clarify the geopolitical implications** of U.S. and Chinese involvement, especially regarding Kashmir.

Key Takeaways

1. Immediate Trigger

- A brutal **terror attack on April 22 in Pahalgam**, targeting Indian civilians, led to India's military response.

- Pakistan was accused of backing terrorism under the cover of **plausible deniability**.

2. Ceasefire Announcement

- **U.S. President Trump** announced a ceasefire, mediated by **senior U.S. officials** in contact with Indian and Pakistani leadership.

- Raises concerns about the **internationalisation of the Kashmir issue**.

3. India's New Security Doctrine

- India openly adopted a **doctrine of retaliation**, signalling that terrorism will invite **direct cross-border military action**.

- Strategic messaging: **terror safe havens in Pakistan will not be immune** to retribution.

4. Human Cost & Civilian Fallout

- Heavy toll on **civilians in Jammu & Kashmir and Punjab**—loss of life, peace, and property.

- Despite conflict, India projected its **pluralistic and democratic identity**.

5. Political Responses

- **Opposition parties, led by Congress**, demanded:
    - An **all-party meeting** chaired by PM Modi.
    - A **special session of Parliament** to discuss civilian and strategic fallout.

- Criticism of **political jingoism** by both BJP and Congress.

6. Geopolitical Shifts

- **China reportedly backed Pakistan**, raising red flags for India's security.

- U.S. involvement again highlights **external interest in South Asia's stability**.

- Government must **clarify diplomatic positions** to avoid unwanted internationalisation of internal matters like Kashmir.

7. The Path Ahead

- Importance of:
    - **Transparency with Parliament and citizens**.
    - **Avoiding competitive nationalism and emotional politics**.
    - **Domestic unity, professional policymaking, and strategic clarity**.

13th May 2025

[Single-use food packaging 84% of Himalayan plastic waste-The Hindu Science]

Environment

Easy Explanation:

A new report from the *Zero Waste Himalaya Alliance* shows that **over 84% of plastic waste** in the fragile Himalayan region comes from **single-use food and drink packaging** like chips and noodle wrappers. This plastic is often **non-recyclable**, meaning it cannot be reused or sold—so it ends up polluting mountains, rivers, and forests.

The waste crisis is not just about poor garbage collection, the alliance argues—it's a **"production and systems" problem**, meaning companies are putting too much plastic into the market without sustainable disposal systems. Their massive clean-up effort in 2024 spanned **450 sites in 9 Himalayan states**, and found **Sikkim and Darjeeling** produced the most waste.

Because most of this plastic can't be recycled, the group says we need **better alternatives and stricter regulation on packaging**, not just better recycling.

Key Takeaways:

1. Major Source of Waste:

- Over **84%** of plastic waste in the Himalayas comes from **single-use food and beverage packaging**.
- **71%** of food packaging waste is **non-recyclable**, such as multilayered plastics and Tetra Paks.

2. Non-recyclable Waste Crisis:

- **70%** of total plastic collected has **no recycling value**, making it uncollectable by scrap dealers or waste pickers.

3. Scale of the Cleanup (2024):

- Conducted across **450 sites** in **9 Himalayan states** by over **15,000 volunteers** from **350 organisations**.
- **Sikkim** and **Darjeeling (WB)** generated the highest volume of waste.

4. Pollution Hotspots:

- **Water bodies and rivers in tourist spots** were the most littered.

5. Key Insight:

- The problem is not just about disposal but **overproduction of non-recyclable plastics**.

- The solution lies **beyond recycling**, focusing on **systemic regulation, packaging alternatives, and producer responsibility**.

6. Organisers Behind the Initiative:

- Led by **Zero Waste Himalaya** (Gangtok) and **Integrated Mountain Initiative** (Dehradun).

- Movement called **The Himalayan Cleanup (THC)** began in **2018**.

How is shipping industry tackling emissions?-The Hindu Text and Context

Environment

Easy Explanation:

At its 83rd session, the **IMO's Marine Environment Protection Committee (MEPC-83)** approved a **global emissions levy** for shipping through a **Market-Based Measure (MBM)** — a first for any industry. This move aims to reduce greenhouse gas (GHG) emissions in the shipping sector, which contributes nearly **3% of global emissions**.

India and Singapore played key roles, with the adopted framework being based on their **hybrid proposal**. The **U.S. did not participate** due to its earlier withdrawal from climate commitments under the Trump administration. **Oil-exporting countries like Saudi Arabia opposed** the move, while **India supported a fair, performance-based approach** and could now benefit by **becoming a hub for green hydrogen exports**.

The adopted plan isn't final yet — it needs further ratification. But if implemented, it could revolutionize global shipping's approach to climate change.

Key Takeaways:

1. Global Emissions Levy Introduced
At MEPC-83, the IMO approved a Market-Based Measure (MBM) involving a global emissions levy for international shipping, aiming to decarbonise the sector.

2. India and Singapore Led the Framework
The adopted model was a hybrid of India's "bridging mechanism" and Singapore's enhanced version, which includes tiered incentives and penalties based on fuel performance.

3. U.S. Opted Out
The U.S., under the Trump administration, did not participate in the talks and warned of retaliatory action if the EU's carbon levy proposal advanced.

4. Divided Global Responses
Oil-exporting nations (e.g. Saudi Arabia) opposed green fuel transitions.
Small island nations pushed for high carbon levies.
China and major shipping nations sought low levies to protect competitiveness.
Scandinavian countries sought credits for early decarbonisation.

5. Not Final Yet
The decision requires an amendment to MARPOL Annex VI and ratification by two-thirds of IMO members. A blocking mechanism still exists if a third of members (with 50% of global tonnage) oppose it.

6. India's Strategic Advantage
India's international fleet is moderately affected, but the nation is positioning itself as a global exporter of green hydrogen and clean marine fuels through its National Hydrogen Mission.

7. Climate Justice Tensions
The erosion of the CBDR-RC principle shows a push by developed countries to shift responsibility onto developing nations, but India's proposal seeks to balance this by targeting only underperforming ships.

8. Why It Matters
Shipping emits about 2.8% of global GHGs and could rise drastically without regulation. The IMO's framework marks the first binding climate effort in any global industry sector.

Toxic trolling-The Hindu Editorial

Science and technology

Easy Explanation:

After India and Pakistan agreed to halt military action, India's Foreign Secretary **Vikram Misri** became the target of **abusive online trolling**, including personal attacks on his daughter. He was simply conveying the government's decision, yet trolls unleashed **hate speech and threats**, prompting widespread condemnation.

Despite earlier warnings about Pakistani disinformation, India's **Information and Broadcasting Ministry** stayed silent on this case of **domestic online abuse**. The rise of social media in India has **widened public participation**, but also **amplified toxic behaviour** — especially against **women, minorities, and public figures**.

While courts are increasingly intervening, India still lacks **strong laws** against cyberbullying and doxing. The upcoming **Digital Personal Data Protection Rules (2025)** may help, but experts argue that **dedicated anti-troll legislation** is urgently needed to protect privacy and dignity in the digital space.

Key Takeaways:

1. Targeted Trolling of Public Officials
Foreign Secretary Vikram Misri and his daughter were abused online after he announced the India-Pakistan ceasefire on May 10.

2. Government's Silence Questioned
Despite cracking down on Pakistani disinformation, the I&B Ministry did not condemn the domestic online harassment of Misri.

3. Rise in Online Abuse
India's expanding digital space has led to increasing hate speech, doxing, and threats, especially targeting women and minorities.

4. Legal Gaps Exist
India currently has limited safeguards under the **Information Technology Act** and **Bharatiya Nyaya Sanhita** to deal with cyberbullying and online threats.

5. Judicial Response
Courts like the **Delhi High Court** (Shaviya Sharma case, 2024) have recognized that doxing violates the **right to privacy** and require fast content takedowns.

6. Need for Stronger Laws
There is a growing call for a **specific anti-troll law** and better enforcement to counter the mental and physical harm caused by online harassment.

7. Upcoming Digital Regulation
The **Digital Personal Data Protection (DPDP) Rules, 2025** aim to penalize misuse of personal data, which may offer some protection but are not comprehensive.

8. Democracy vs. Disinformation
While democratic societies support free speech, **hate speech and disinformation** must be regulated through **clear legal frameworks and platform accountability**.

Path of peace,path of strength-Indian Express Editorial

Internal security

Easy Explanation:

In a strong national address, Prime Minister Narendra Modi highlighted India's firm response to the **Pahalgam terror attack** through **Operation Sindoor**, a precision military operation targeting terrorist hideouts inside Pakistan. He praised the **Indian armed forces** for their courage and stated that **zero tolerance against terrorism** is now India's unwavering doctrine.

India destroyed key terror infrastructure, killed over 100 terrorists, and showcased indigenous military strength. Modi emphasized that this is not the era of war, but also **not the era of terrorism**. He made it clear that **talks with Pakistan will only be on terrorism and Pakistan-occupied Kashmir (PoK)**. He also warned against **nuclear blackmail**, calling for decisive action against terror in any form.

Key Takeaways:

1. Operation Sindoor's Objective
A direct response to the April 22 Pahalgam terror attack; aimed at eliminating terrorist bases in Pakistan with precise strikes.

2. Scale and Impact
India attacked terror camps in Bahawalpur and Muridke, killing over 100 terrorists, many of whom were high-profile operatives.

3. Pakistan's Reaction
After suffering heavy losses, Pakistan sought de-escalation; India's DGMO was contacted on May 10.

4. India's Strategic Doctrine

- Zero tolerance for terrorism.
- No distinction between terrorist groups and state sponsors.
- Clear rejection of nuclear blackmail.

- Talks with Pakistan only on terrorism and PoK.

5. New Military Policy Shift
Operation Sindoor establishes a **new normal**: India will strike terror sources across borders, assertively and precisely.

6. Domestic and Global Message
India demonstrated **unity across political lines**, global resolve, and advanced indigenous military capability.

7. Emphasis on Indigenous Strength
India used **Made-in-India** weapons, signaling strength in 21st-century warfare and technological self-reliance.

8. Link to Peace and Power
Citing Lord Buddha on Buddha Purnima, Modi said **peace requires strength**. A peaceful and developed India needs power, used responsibly when necessary.

9. Global Appeal
India reiterated: *"Terror and talks cannot go together. Terror and trade cannot go together. Water and blood cannot flow together."*

10. Clear Warning to Pakistan
Pakistan must dismantle its terror infrastructure to survive. Continued support to terror will lead to its own destruction.

Three's a crowd-Indian Express Editorial

International relations

Easy Explanation:

While a **ceasefire between India and Pakistan** is currently in place, its **stability is uncertain**. The U.S., under President Trump, claims it helped broker the truce, with officials like JD Vance and Marco Rubio involved. However, **India firmly rejects any third-party mediation**, especially by the U.S., due to its **historical bias and failure to fairly address Kashmir** at forums like the **UN Security Council**.

India has consistently pursued a **bilateral approach**, rooted in the **Simla Agreement (1972)**. Past external interventions, especially from the U.S. and UK, left Indian policymakers wary. Pakistan, meanwhile, uses such moments to gain global sympathy and relief from conflict pressures, especially given its economic and military dependence on **China and the IMF**. While the ceasefire offers a pause in hostilities, it **does not resolve** the core tensions or **alter India's stance** on external mediation.

Key Takeaways:

1. Ceasefire Status
There is a ceasefire between India and Pakistan, but its **durability is doubtful** and contingent on future developments.

2. U.S. Claims of Mediation
President Trump claimed U.S. helped mediate the ceasefire, but **India has outright rejected any third-party role**, especially from the U.S.

3. India's Firm Stance
India's **unyielding position** stems from past negative experiences with **multilateral and external interventions** in the Kashmir issue.

4. Historical Context of Mistrust
During the first Kashmir war (1947–48), **U.S. and UK favored Pakistan** at the UNSC. Later mediation efforts (1962 and 1965) also failed or were biased.

5. Simla Agreement's Importance
Post-1971, India made **bilateralism** the core principle in resolving disputes, rejecting external arbitration despite ambiguous terms like "other peaceful means."

6. Strategic Calculations
India, even when militarily weaker, resisted international intervention. Today, with greater power, it remains **unwilling to accept mediation**.

7. Pakistan's Tactical Use of Ceasefire
Pakistan is using the ceasefire to regroup, given its **economic weakness**, **dependence on China**, and a **pro-military leadership hostile to India**.

8. Fragility of Peace
The **Pakistani army's control** over foreign policy and its history of hostility toward India suggest that the ceasefire may not lead to lasting peace.

9. Kashmir and Global Diplomacy
India views the **Kashmir issue as an internal matter** and has **consistently rejected multilateral fora**, including UN involvement, in its resolution.

10. Final Analysis
While the ceasefire is a **welcome tactical pause**, it **does not address deeper strategic issues**. India remains clear: **no talks without action on terrorism**.

Shining a light on the Court-Indian Express Editorial

Polity

Easy Explanation:

The **public declaration of assets by 21 Supreme Court judges** is an important move toward **transparency and accountability** in India's judiciary. It signals the Chief Justice's intent to rebuild trust, especially in light of recent allegations of corruption. However, this step is only symbolic unless **followed by systemic reforms**.

Though judges enjoy legal **immunity to protect judicial independence**, existing mechanisms make it **extremely hard to investigate or prosecute** them. There is **no mandatory law** requiring asset declarations, and even impeachment is rare and difficult. Globally, some countries enforce stricter rules, while India still lags in ensuring full judicial accountability.

The **Veeraswamy judgment (1991)** allows criminal cases against judges only after the Chief Justice's nod. Despite international standards pushing for asset transparency, the **opaque internal inquiry processes** and **lack of public access to outcomes** leave major gaps in oversight.

Key Takeaways:

1. Asset Declarations Made Public
21 Supreme Court judges declared their assets, marking a significant, though limited, move toward judicial transparency.

2. Background and Trigger
The step follows the discovery of unaccounted cash at a Delhi High Court judge's residence, fueling concerns over corruption.

3. Not a New Practice, But Rarely Enforced
A 2009 SC resolution allowed voluntary asset disclosures, but the system has been mostly inactive since.

4. Legal Protection vs. Accountability
Judges are protected under the **Judicial Officers Protection Act (1850)** and the **Judges (Protection) Act (1985)**. They can't be prosecuted without the Chief Justice of India's consent (as per **Veeraswamy case**).

5. Impeachment Is Rare
Removal of judges requires a special majority in both Houses of Parliament. Most inquiries result in quiet transfers or resignations, not prosecutions.

6. International Examples
Countries like the **U.S., Argentina, and South Korea** mandate asset disclosures. **Canada and the UK** have voluntary but transparent systems.

7. Global Standards Support Disclosure
The **Bangalore Principles of Judicial Conduct** encourage disclosure of both assets and potential conflicts of interest.

8. RTI and Judicial Accountability
The **Supreme Court in 2019** affirmed judges are public servants, so their information can be accessed under RTI. Still, judges remain outside the scope of the **Lokpal Act**, and enforcement is unclear.

9. Structural Gaps Persist
India lacks an **independent oversight mechanism** like Canada's Judicial Council. Asset disclosure is a step forward but not a full solution.

10. Conclusion
The declarations are welcome, but without **legal backing, institutional reform, and public transparency**, judicial accountability in India remains incomplete.

14th May 2025

WHY DOES SAUDI ARABIA WANT A CIVIL NUCLEAR DEAL WITH US-Indian Express Explained

International Relations

Easy Explanation

A U.S.-Saudi civil nuclear cooperation agreement—known as a "123 agreement" under the U.S. Atomic Energy Act—lays out strict non-proliferation rules that allow America to share nuclear technology with other countries for peaceful power generation. Saudi Arabia wants such a pact to diversify its electricity mix under its Vision 2030 plan, cutting carbon emissions by adding nuclear alongside renewables, and to build domestic expertise in case it ever feels compelled to match Iran's nuclear ambitions. For the U.S., the deal offers strategic leverage to nudge

Saudi–Israeli normalization, bolster a regional coalition against Iran, and secure lucrative contracts for American reactor builders. However, major obstacles include Saudi demands for an on-site uranium enrichment facility, proliferation concerns, delays due to the Gaza war, and the need for rigorous congressional approval.

Key Takeaways

- **Civil Nuclear Cooperation Agreement**
  A "123 agreement" under U.S. law sets nine non-proliferation criteria and requires congressional review before technology and materials can be transferred.

- **Saudi Arabia's Motivations**
  Riyadh aims to meet Vision 2030 goals by adding nuclear power to its renewables drive and to develop the know-how that could underpin a future weapons program if Iran goes nuclear.

- **U.S. Strategic Benefits**
  The pact is a bargaining chip in efforts to normalize Saudi–Israeli ties, strengthens America's role in the Gulf, and helps contain Iranian influence.

- **Commercial Upside**
  U.S. nuclear firms would gain a head start in bidding to build Saudi reactors, countering competition from Russia, China, and others.

- **Primary Hurdles**
  Hostilities in Gaza, Saudi insistence on a domestic enrichment "black box," proliferation risks, and tough U.S. congressional oversight all threaten to delay or derail a deal.

[India's air defence shield-Indian Express Explained]

Science and technology

Easy Explanation:

India's air defence system is built on an advanced, layered command structure that uses real-time data from radars, sensors, and missiles to detect and destroy incoming aerial threats like enemy aircraft, drones, and missiles. The **Integrated Air Command and Control System (IACCS)**—developed by Bharat Electronics Ltd (BEL)—is the backbone of this defence. It connects all IAF air defence elements to enable quick detection, threat analysis, and interception. The **Indian Army's Akashteer system** performs a similar function at a smaller scale and is being integrated with IACCS. The entire setup provides a **multi-layered shield**, from short-range drone defences to long-range missiles, and is continually evolving to include AI and new technologies.

Key Takeaways

What is IACCS?

- An automated command and control system developed by BEL.

- Integrates ground and airborne radars, communication nodes, and command centers.

- Enables real-time threat detection and coordinated responses with faster reaction times.

Structure of India's Air Defence

- **Layer 1**: Counter-drone systems and MANPADS (Man-Portable Air Defence Systems).
- **Layer 2**: Point defence systems and short-range surface-to-air missiles.
- **Layer 3**: Medium-range surface-to-air missile systems.
- **Layer 4**: Long-range surface-to-air missile systems.

Real-time Surveillance and Threat Management

- Combines inputs from ground radars, AWACS (Airborne Warning and Control System), and AEW&C systems.
- Provides a consolidated air picture for quick and effective decision-making.

Akashteer: Army's Air Defence System

- Also developed by BEL, it focuses on monitoring low-level airspace.
- Designed to control ground-based weapons and is in the process of being merged with IACCS.

Modernisation and Future Integration

- IACCS is expanding to cover all critical military bases.
- Future upgrades will include artificial intelligence to enhance threat analysis and operational efficiency.

This integrated network showed its effectiveness during **Operation Sindoor**, showcasing India's preparedness against hostile aerial threats.

PM SHRI: Why Kerala will take Centre to the SC-Indian Express Explained

Polity

Easy Explanation:

The Kerala government is preparing to challenge the Centre in the Supreme Court for withholding ₹1,500 crore in education-related funds. Kerala has refused to sign the MoU required to implement **PM SHRI (PM Schools for Rising India)**, a Union government scheme aimed at upgrading 14,500 schools as per the **National Education Policy (NEP) 2020**. The Centre has allegedly withheld funds under **Samagra Shiksha Abhiyan (SSA)** as a result. Kerala, governed by the CPI(M), views the NEP and PM SHRI as attempts to centralize education and promote ideological goals. The state argues it has already met infrastructure goals like smart classrooms and broadband connectivity in schools, and accuses the Centre of financial discrimination for political reasons.

Key Takeaways

What is PM SHRI?

- A **Centrally Sponsored Scheme** under the Union Ministry of Education.
- Aims to upgrade **14,500+ existing schools** into model institutions aligned with **NEP 2020**.
- Budget: ₹27,360 crore (₹18,128 crore from Centre) from 2022–27.
- States share **40% of the cost**.

Why Kerala Opposes It

- Believes NEP 2020 promotes **central control and saffronisation** of education.
- Claims its public schools already meet or exceed PM SHRI standards.
- Has not signed the required **MoU** with the Centre.

Reason for Legal Action

- Centre has allegedly **withheld ₹1,500 crore** in education funds since 2023–24.
- Most of this is under **Samagra Shiksha Abhiyan**, meant to ensure universal elementary education.
- Kerala says this will harm students and disrupt existing state schemes.

States in Similar Opposition

- **Tamil Nadu** and **West Bengal** have also refused to join the PM SHRI scheme on similar grounds.

This issue underscores the **Centre–State tensions** over education policy and the federal structure in India.

[A no compromise doctrine-Indian Express Editorial]

International relations

Easy Explanation:

In response to the **Pahalgam terror attack**, India launched **Operation Sindoor**, a bold military and diplomatic offensive. It marked the declaration of a new **"no-compromise" counter-terrorism doctrine** by Prime Minister Narendra Modi. The doctrine outlines a **zero-tolerance approach**, with decisive retaliation against terrorism, rejection of nuclear blackmail, and no distinction between terrorists and their state sponsors. It signals a shift in India's national security policy — from restraint to calibrated force. Strategic elements like **halting the Indus Waters Treaty**, **military precision strikes**, **suspension of trade and visas**, and **shutting diplomatic routes** are now part of India's integrated response. This approach is being called the **Modi Doctrine**, representing a new era of clarity, confidence, and consequence in India's fight against terrorism.

Key Takeaways

1. What Is the Modi Doctrine?

- A **new national security policy** framework announced after the Pahalgam attack.
- Declares India's commitment to act against terrorism with **decisive and preemptive retaliation**.

2. Pillars of the Doctrine

- **Decisive Retaliation on India's Terms**: India will respond swiftly and strategically to any terror attack.
- **Zero Tolerance for Nuclear Blackmail**: Nuclear threats won't deter India's counter-terrorism measures.
- **No Distinction Between Terrorists and Sponsors**: States or actors supporting terror will be treated as terrorists themselves.

3. Key Measures Taken in Operation Sindoor

- **Suspension of Indus Waters Treaty** with Pakistan.
- **Targeted military strikes** on terror camps across the border.
- **Shutdown of trade, visa services, and border crossings**.
- **Real-time, coordinated response** using systems like IACCS for air defence.

4. Strategic Shift

- Replaces previous reactive stances with **proactive and assertive strategy**.
- Shows a **calibrated use of force**, not emotional or impulsive reactions.
- Sends a **clear international message** that India will not tolerate terror or protect perpetrators under diplomatic cover.

5. Long-Term Implications

- Enhances **India's credibility and deterrence** globally.
- Reinforces **national unity and public resolve** in times of crisis.
- Sets a **new standard for India's internal and external security policy**.

Operation Sindoor is not a one-time response — it is now India's **new normal** in dealing with terrorism.

The right to repair movement in India-The Hindu Text and Context

Science and technology

Easy Explanation:

India is now taking steps to promote the **Right to Repair**, especially in the mobile and electronics sectors. A new **Repairability Index (RI)** has been proposed, which would rate electronic products based on how easy they are to repair — considering factors like spare part availability, repair cost, and software updates. This move aims to counter the growing problem of **planned obsolescence** — where companies design products to fail or become outdated quickly. Unlike the U.S., where the right to repair has sparked strong activism and pushback from companies, India's approach is more cooperative, focused on encouraging authorised repairs while gradually opening space for more consumer-friendly practices.

Key Takeaways

1. What is the Repairability Index (RI)?

- A proposed government framework to rate electronic products based on how easily they can be repaired.
- Criteria include spare parts availability, cost, repair information, and software support.
- Aims to empower consumers to make informed purchases and reduce electronic waste.

2. What is Planned Obsolescence?

- A strategy where manufacturers deliberately design products to fail sooner or become outdated.

- It forces consumers to buy new models instead of repairing old ones.

- Often caused by cost-cutting in materials and competition pressures, not just intentional design.

3. India's Approach to the Right to Repair

- Led by the Department of Consumer Affairs (DoCA), India has created a **Right to Repair portal** listing authorised service centres and manuals.

- Emphasises a **non-confrontational**, industry-cooperative model.

- The RI framework committee included industry leaders but also consumer advocates.

4. U.S. vs India: A Key Difference

- In the **U.S.**, the movement is more confrontational. Consumer groups fight monopolies on repair services and demand access to parts.

- In **India**, the focus is currently on promoting transparency and access through official channels rather than aggressively challenging manufacturers.

5. Industry and Consumer Reactions

- Manufacturers worry about **losing revenue from repair services** and oppose stricter laws.

- Consumer advocates in India are pushing for inclusion of **third-party repair rights** and fair service conditions.

- The framework signals a shift toward **longer-lasting, repair-friendly products** in line with sustainability goals and a circular economy.

India's right to repair movement is still evolving but represents a significant step toward **consumer empowerment, product longevity**, and **electronic waste reduction**.

[Big deal-The Hindu Editorial]

International relations

Easy Explanation:

The new trade agreement between the **U.S. and China** temporarily lowers the high tariffs both had imposed on each other. The U.S. will reduce tariffs on Chinese goods from 145% to 30% for 90 days, while China will cut tariffs on American imports from 125% to 10%. This eases global trade tensions for now. However, the **core issue — the U.S.'s trade deficit with China — remains unresolved**. For India, this brings mixed consequences. If U.S.–China relations improve, companies may return to China, weakening India's chance to attract manufacturers under the **China+1 strategy**. Meanwhile, India's own trade tensions with the U.S. remain unresolved, and the trade deficit with China continues to grow. To reduce import dependence, India must push serious **labour and land reforms** to boost its manufacturing sector.

Key Takeaways

1. The U.S.–China Trade Deal:

- **Tariffs reduced temporarily**: U.S. drops from 145% to 30%; China from 125% to 10%.
- Market reaction was positive globally, with stock indices rising.
- Tensions remain as the **trade deficit issue is unresolved**.

2. What It Means for India:

- **Uncertainty**: If China regains investor confidence, India may lose the temporary boost from the "**China+1**" manufacturing shift.
- **Ongoing trade friction**: India has threatened reciprocal tariffs over U.S. duties on steel and aluminium.
- **Vulnerable to shifting global dynamics**.

3. Persistent Challenges for India:

- **Trade deficit with China is widening**.
- India continues to rely heavily on **Chinese imports**, even under 'Make in India'.

4. Way Forward for India:

- The Centre must work closely with States to push **labour and land reforms**.
- Only with **cost-effective, large-scale manufacturing** can India reduce dependence on China and seize global trade opportunities.

This deal is a reminder that **India's economic future hinges on internal structural reforms**, not just on geopolitical shifts.

15th May 2025

Indian tech in Operation Sindoor-Indian Express Explained

Science and technology

Easy Explanation

Operation Sindoor showcased India's advanced defence capabilities, especially its indigenous technology. From missile precision using satellite-based navigation to powerful radar and air defence systems, Indian innovation played a central role. Technologies developed by DRDO, ISRO, and other Indian institutions enabled precise strikes deep into Pakistani territory with minimal collateral damage. Satellite constellations like **NavIC**, radar systems like **Rohini** and **Rajendra**, air defence missiles like **Akash**, and newer tools like **Directed Energy**

Weapons (DEWs) were crucial. Drones and unmanned systems also played a large role, highlighting India's growing dominance in modern tech-enabled warfare.

Key Takeaways

1. Precision Navigation & Satellite Support

- Indian missiles hit targets with **sub-metre accuracy**, avoiding civilian structures.
- Achieved through indigenous **NavIC GPS** system and **high-resolution satellites** like **Cartosat, RISAT, EOS**.
- These assets gave India real-time data and superior strike capabilities.

2. Missile and Warhead Technology

- Indigenous systems like **BrahMos** were likely used, known for their precision and lethality.
- DRDO-developed **warheads, fuses, and propulsion systems** ensured destruction of key terrorist camps and air bases.
- Development under **IGMDP**, initiated by **Dr A.P.J. Abdul Kalam**, was key.

3. Directed Energy Weapons (DEWs)

- Likely deployed against **Pakistani drones**.
- These laser-based systems damage or disable aerial threats.
- Marked India's entry into futuristic warfare tools.

4. Air Defence and Radar Systems

- The **S-400** got attention, but **indigenous systems** like:
    - **Rajendra Radar**, **Rohini 3D radar**, **LLTRs**, and **SAMAR** missile systems played a critical role.
- These tracked and neutralised almost all Pakistani missile and drone threats.

5. Akash Missile System

- Successfully used in intercepting aerial threats.

- Integrated with various indigenous radar technologies.

- Shown test-firing capabilities in earlier trials.

6. Upgraded Bofors Guns

- Bofors anti-aircraft guns were **modernised with radars and sensors**.

- Effective in **downing drones in Jammu & Kashmir and near LAC**.

7. Drones and Unmanned Systems

- Indian drones **struck strategic locations** inside Pakistan.

- Pakistani drone swarms were **ineffective against Indian defences**.

- India is focusing on building **joint manned–unmanned combat operations** capabilities.

8. Future Readiness

- DRDO focuses on AI-enabled radars, stealth detection, and radar reconfigurations.

- Emphasis on building **self-reliant production and secure supply chains** for drone components.

[Indigenous Akash missiles, pivotal to India's air defence-Indian express Explained]

Science and technology

Easy Explanation

Akash is India's **indigenous** surface-to-air missile system developed by **DRDO** as part of the Integrated Guided Missile Development Programme (IGMDP). It was crucial in neutralizing Pakistani aerial threats in Operation Sindoor. Designed for **short-to-medium range**, Akash can target aircraft, drones, and missiles at high speeds with remarkable precision.

The system includes **Rajendra radar** for fire control, **3D acquisition radar**, **command systems**, and **mobile launchers**. It's capable of **quick deployment**, resists **enemy jamming**, and uses **pre-fragmented warheads** to destroy threats even without direct hits.

Upgraded variants like **Akash Prime** and **Akash-NG** offer enhanced accuracy, altitude adaptability, and increased range — with **active seekers** and **low radar cross-section tracking** capabilities.

Key Takeaways

1. High Indigenous Content

- **96% indigenous** content — among the highest in Indian advanced defence systems.

- Over **250 Indian industries** involved; major roles by **BEL** and **BDL**.

2. Versatile Target Engagement

- Engages **multiple targets**: aircraft, UAVs, cruise missiles.

- Supports **simultaneous tracking and firing** via **Rajendra radar** (range: 80 km).

3. Radar & Tracking System

- Uses **3D Central Acquisition Radar** for 120 km coverage.

- Tracks **range, azimuth, and elevation** of incoming threats.

- Rajendra radar tracks even **low-flying targets** — a traditionally difficult task.

4. Missile Features

- Speed: Up to **Mach 2.5**.

- Warhead: **55 kg pre-fragmented**, activated by **proximity fuse** — effective without direct hits.

- Guidance: Fire-control radar + **on-board seeker** ensures precision.

5. Mobility & Deployment

- Entire system mounted on **mobile platforms**.

- Allows for **rapid deployment, redeployment, and flexibility** in battlefield conditions.

6. Electronic Resilience

- Equipped with **ECCM (Electronic Counter-Counter Measures)**.

- Can **resist jamming** and deception attempts by enemy ECM systems.

7. Upgraded Variants

- **Akash Prime**:

    - Better performance in **cold/high-altitude** zones.

- Features **indigenous RF seeker** for enhanced accuracy.

- **Akash-NG (New Generation)**:
  - Designed for **stealthy aerial threats** with low Radar Cross Section.
  - Extended range: **up to 70 km**.
  - Smaller, more efficient **ground system footprint**.

[Ripples in the classroom-Indian Express Editorial]

Sociology

Easy Explanation

India faces a severe **capacity crisis in higher education**. With a youth population of over 420 million (aged 15–29), only about **25% are enrolled in higher education**, far below the **50% target** of the National Education Policy (NEP) 2020. The country needs to **expand its higher education infrastructure fivefold** to meet this goal.

Meanwhile, **limited quality education**, intense competition, and rising income levels are pushing nearly **half a million Indian students abroad** each year. However, recent **visa restrictions and immigration changes** in the US, Canada, and Australia may reduce opportunities abroad. This opens a window for **India to reform and expand its domestic higher education system** through public investment, foreign university collaborations, and better governance.

Key Takeaways

1. Higher Education Deficit

- India has only **40,000 higher education institutions** serving **45 million students**.
- **NEP 2020 target**: 50% youth in higher education.
- India needs to **increase institutional capacity by 5 times**.

2. Private vs Public Institutions

- Private institutions dominate, forming **50% of universities**.
- But **quality varies widely**; trust deficit persists.
- **Public institutions** are underfunded with **vacant faculty posts** and outdated infrastructure.

3. Rising Foreign Exodus

- About **500,000 students** go abroad annually due to:
    - Limited seats in quality Indian institutions.
    - Rising family incomes and global exposure.
- However, **tightened visa rules** in the US, Canada, and Australia may reduce these opportunities.

4. Global Shifts as Opportunity

- Cuts in foreign university funding and visa policies may lead to:
    - **Decline in foreign enrolments**.
    - Pressure to **set up campuses abroad**, including in India.
- India must **leverage this shift** to attract **foreign universities**, especially those of global repute.

5. Policy Measures Needed

- **Recent legislation** allows foreign universities to open campuses in India, but uptake is **still low**.
- Government must:
    - Proactively engage top global universities.
    - Ease **land acquisition** and provide supporting infrastructure.
    - Encourage **joint degrees and partnerships** with Indian institutions.

6. Reviving Public Institutions

- Need to **invest in existing public universities** with brand value.
- Example: **Ashoka University** outpaced **Delhi University** in faculty growth in Economics.
- Vacancy issues reflect **rigid hiring**, not lack of talent.

7. Labour Market Impact

- Education is a **labour-intensive sector**:
    - Every **10% increase in investment** leads to a **4% employment rise**.
- It creates jobs in:
    - Teaching, student services, publishing, and other linked sectors.
- Growth in education boosts **consumption, investment**, and **overall economic growth**.

8. Way Forward

- Dynamic and data-driven **policymaking** is needed.
- The current global realignment in education is a **golden opportunity** for India to:
    - **Invest in youth human capital**.
    - Generate **employment at scale**.
    - Accelerate **inclusive and sustainable economic growth**.

How did India develop genome edited rice?-The Hindu text and Context

Science and technology

Easy Explanation

India has become the **first country** in the world to develop **rice varieties using genome editing technology**. These are not genetically modified (GM) crops, as no foreign gene was introduced. Two new rice types — **DRR Dhan 100 (Kamala)** and **Pusa DST Rice 1** — were developed under ICAR's leadership using **SDN-1 and SDN-2** genome editing methods. The varieties are **climate-resilient**, **nutrient-efficient**, and **high-yielding**, performing well under drought and salinity stress.

However, the announcement has drawn criticism from farmer groups and anti-GMO activists, who have raised concerns about transparency, intellectual property rights (IPR), and the regulatory legitimacy of genome-edited crops in India.

Key Takeaways

1. What Are the New Varieties?

- **DRR Dhan 100 (Kamala)**: Developed from **Samba Mahsuri**.
- **Pusa DST Rice 1**: Developed from **Maruteru 1010 (MTU1010)**.

2. Unique Characteristics

- **Kamala**:
  - Early maturing by 20 days, drought tolerant, high nitrogen use efficiency.
  - Average yield: **5.37 tonnes/hectare** (compared to 4.5 tonnes for Samba Mahsuri).
  - Helps conserve water, fertilizer, and reduces methane emissions.
- **Pusa DST Rice 1**:
  - Superior yield under **salinity and alkalinity stress**.
  - Yield: 9.66% to 30.4% higher than MTU1010 in different stress conditions.

3. Technology Used

- Developed using genome editing techniques:
  - **SDN-1**: Makes a gene cut, and natural cell repair follows.
  - **SDN-2**: Guided repair without any foreign gene.
- **No SDN-3** involved (which inserts foreign genes), hence **not GM**.

4. Why It's Significant

- **India is the first country** to develop genome-edited rice.
- International scientific community has cited the work extensively.
- Represents progress in self-reliant biotechnology.

5. Not Genetically Modified (GM)

- No foreign DNA introduced.
- Uses native genes with **precision mutation techniques**.
- Exempt from GM regulations in several countries due to its non-GM nature.

6. Controversies

- **Farmer representative Venugopal Badaravada** claimed ICAR's statements were premature and unverified. He was removed from ICAR's governing body afterward.
- **Activist groups** argue:
    - Gene editing is not always precise or safe.
    - Process lacked public transparency and regulatory scrutiny.
    - Raises **IPR concerns** and risks **corporate control over seeds**.

7. Regulatory and Sovereignty Concerns

- The **Coalition for GM-Free India** said deregulation of genome editing is **legally questionable**.
- Demands clarity on **ownership and IPRs** for the released varieties.
- Warns of risks to **farmers' seed sovereignty and national food security**.

[The road to safety-The Hindu Editorial]

Sociology

Easy Explanation

India is undergoing rapid urbanisation and mobility expansion, but this is accompanied by a growing road safety crisis. With over 1.68 lakh fatalities in 2022 and road crashes costing 3% of GDP annually, the country faces an urgent need for systemic reforms. Road safety is not just a technical issue; it is a constitutional right under Article 21 (Right to Life).

The government is taking steps like identifying black spots, upgrading vehicle safety norms, and building driver training centres. However, long-term success demands a **Safe System Approach** that makes roads resilient to human errors and prioritises vulnerable users. Measures must include better road design, stricter enforcement, public awareness, and sustained funding, possibly through Corporate Social Responsibility (CSR) contributions. The goal is to move toward **Vision Zero** — eliminating fatalities through a comprehensive and inclusive strategy.

Key Takeaways

1. Road Safety as a Constitutional Right

- The **right to safe mobility** falls under **Article 21 (Right to Life)**.
- Citizens must be able to use roads without fear of injury or death.

2. Current Situation

- India had **1.68 lakh road fatalities in 2022** (~12.2 per lakh population).
- In comparison, **Japan and the UK** have far lower death rates (~2.6/lakh).
- Road crashes **cost India 3% of GDP** annually — a significant economic loss.

3. Safe System Approach

- Assumes human error is inevitable but aims to **prevent fatal consequences**.
- Shifts focus from blaming individuals to **resilient road infrastructure**.
- Urban roads need:
    - **Wider footpaths**
    - **Cycling tracks**
    - **Pedestrian islands and crossings**
    - **Speed control and raised intersections**

4. Government Initiatives

- **MoRTH actions**:
    - Rectified **5,000+ black spots**
    - Mandated **safety audits** and stricter vehicle norms (airbags, ABS)
    - Deployed **speed cameras and CCTV**

- Launched **driver training and vehicle fitness centres** in all districts

5. Funding Models

- Suggested: **Auto manufacturers' CSR funds** to support road safety for 20–25 years.
- Target areas: black spot removal, awareness, trauma care, driver training.

6. The 4 Es Framework

- **Engineering**: safer roads, better design
- **Enforcement**: legal compliance, penalties
- **Education**: public awareness, road-user behaviour
- **Emergency Care**: fast and effective response

7. Global Insights

- **World Bank (2020)**: India needs **$109 billion over 10 years** to reduce fatalities by 50%.
- Every **₹1 spent** on proven interventions yields **₹4 in savings** (iRAP study).

8. Equity and Vulnerable Users

- Streets must be safer for **pedestrians, cyclists, children, and the elderly**.
- Reimagine mobility as a **public space**, not just for vehicles.

9. Vision for Viksit Bharat 2047

- Safe mobility is a **prerequisite for sustainable, inclusive growth**.
- The future of road safety requires **accountability, data-driven policy, and civic responsibility**.

16th May 2025

The President's reference-Indian Express Explained

Polity

Easy Explanation

The President of India has asked the Supreme Court for its opinion on **14 constitutional questions**. These questions mainly focus on the **role of Governors and the President in approving state laws**. This comes after the Supreme Court ruled on April 8, 2025, that the **President must act within 3 months** on Bills sent to her by

Governors. Many **Opposition-led states** complained that their Governors were **deliberately delaying or blocking Bills** passed by their Assemblies.

The President has used her power under **Article 143 of the Constitution**, which allows her to **seek legal advice from the Supreme Court**. The Court is not bound to give an answer, and its opinion is also **not binding**.

This is a **major constitutional issue** about how much power Governors and the President have over laws made by elected state governments — and how far courts can go in **controlling delays or inaction** by these constitutional authorities.

Key Takeaways

1. What is the issue?

- Governors in many Opposition-ruled states have **not cleared or delayed Bills** passed by state legislatures.
- The **President's reference** asks if timelines can be imposed on them and whether their decisions can be **challenged in court**.

2. What has the Supreme Court already said?

- On **April 8, 2025**, the Court gave a ruling requiring the **President to decide within 3 months** on such Bills.
- It also said **states can approach courts** if there is no action.

3. Why did the President approach the Court?

- To seek **clarity on constitutional powers** of Governors and the President under **Articles 200 and 201**.
- Also to ask if the **Supreme Court can interfere** using its special powers (**Article 142**) or if only bigger benches should decide such issues.

4. What are some of the key legal questions?

- Is the Governor **bound to follow** the state government's advice?
- Can the **President's or Governor's decisions** be reviewed by courts?
- Can courts **set deadlines** for them to act?
- Can smaller benches of the Supreme Court decide big constitutional questions?

5. What's the larger political context?

- This reflects ongoing tension between the **Centre (which appoints Governors)** and **Opposition-led states**.

- States like **Tamil Nadu, Kerala, West Bengal, Punjab**, and others have accused Governors of **blocking important state laws**.

6. What could happen next?

- The Supreme Court will likely form a **five-judge Constitution Bench** to hear the reference.

- While the opinion won't be binding, it may **shape future court cases and constitutional practice**.

[Before Murmu,other Presidents and their references to SC-Indian Express Explained]

Polity

Easy Explanation

Before President Droupadi Murmu, several Indian Presidents have used **Article 143** of the Constitution to **refer important legal or constitutional questions to the Supreme Court**. These references often involved **disputes between states and the Centre**, questions about the **limits of executive power**, or matters with **political implications**.

In each case, the President asked the Supreme Court for its **non-binding advisory opinion**, not to decide a case, but to get clarity on the law. Sometimes the Supreme Court gave an answer; sometimes it **refused** to answer if the issue was too political or already being decided in another case.

These references show how the **President acts as a neutral seeker of legal guidance** in times of constitutional doubt or political controversy.

Key Takeaways:

1. **Constitutional Provision (Article 143)**
    - The President can refer questions of law or fact of public importance to the Supreme Court for an advisory opinion.

2. **Advisory Role of the Supreme Court**
    - The Court's opinion is advisory, not binding, but holds significant moral and persuasive authority.

3. **Use in Politically Sensitive Issues**
    - Presidents have used this route to seek clarity on contentious political and legal matters like water disputes, communal issues, election scheduling, and natural resource allocation.

4. **Judicial Restraint in Political and Religious Matters**

- The Supreme Court avoids answering questions that are political, communal, or challenge secularism (e.g., Ayodhya temple existence reference was declined).

5. **Upholding Constitutional Competence**

   - Laws that override Tribunal decisions (like Karnataka's Cauvery Ordinance) can be struck down if found beyond legislative competence.

6. **Separation of Powers: Respect for Executive Domain**

   - Economic and policy decisions (such as natural resource allocation methods) are the Executive's prerogative, and not rigid constitutional mandates enforceable by courts.

7. **Clarifying Constitutional Ambiguities**

   - The references help resolve confusion around constitutional provisions, e.g., election timing rules and the Election Commission's authority.

8. **Balancing Legal and Political Realities**

   - The Court respects the mandate and wisdom of elected governments on complex policy choices, avoiding overreach into executive functions.

9. **Impact on Governance and Law**

   - These opinions influence governance by affirming limits of state power and guiding administrative action within constitutional bounds.

Does Article 21 include right to digital access?-The Hindu Text and Context

Polity

Easy Explanation:

Yes, the **Supreme Court has now interpreted Article 21** (Right to Life and Personal Liberty) to include the **right to digital access**, especially for persons with disabilities (PwDs). This shift came after petitions showed that existing **digital KYC systems exclude visually impaired individuals and acid attack survivors**.

The Court held that **denying access to essential digital services violates the dignity and liberty of PwDs**. It directed the government and regulatory bodies like RBI and SEBI to **revise digital KYC rules** so that they are **fully accessible and inclusive**.

The **Rights of Persons with Disabilities (RPwD) Act, 2016** already requires that **all media and digital platforms be accessible** and follow **universal design** principles. However, most financial institutions **do not comply**, and existing digital systems rely heavily on **vision-based inputs** (like selfies and reading codes), which **exclude blind users**.

The Court emphasized that accessibility is not a privilege but a **constitutional obligation**, drawing on Articles **14, 15, 21**, and **38**.

Key Takeaways

1. **Article 21 Now Includes the Right to Digital Access**
    - The Supreme Court ruled that **denial of digital access violates the right to life, dignity, and liberty** for PwDs.
2. **RPwD Act, 2016 Promotes a Barrier-Free Digital Environment**
    - Adopts a **social-barrier model** of disability and mandates **accessible electronic and print media**, and universal design in all digital platforms (Section 42).
3. **Current KYC Systems Are Exclusionary**
    - Digital KYC processes (e.g., facial recognition, reading on-screen codes, selfies) **exclude blind users and acid attack survivors**.
    - Thumb impressions are not accepted; screen readers, voice navigation, and other assistive tech are **mostly absent**.
4. **Legal Basis for Mandatory KYC**
    - KYC is required under the **Prevention of Money Laundering Act (2002)** and RBI's **2016 Master Directions** to prevent fraud and ensure accountability.
5. **SC's Ruling Anchored in Substantive Equality**
    - The judgment emphasized that **digital exclusion of PwDs violates Articles 14, 15, 21, and 38**, and contradicts India's obligations under the **UN Convention on the Rights of Persons with Disabilities (UNCRPD)**.
6. **Impact Beyond PwDs**
    - The Court noted that the **digital divide** also affects **rural populations, senior citizens, low-income groups, and linguistic minorities**, making digital accessibility a broader national issue.
7. **Mandate for Institutional Reform**
    - The SC directed that **digital KYC frameworks be revised** to center around **accessibility**, and called for all digital infrastructure to become **inclusive and equitable**.

[Should NOTA be included in all elections compulsorily?-The Hindu Text and Context]

Polity

Easy Explanation:

NOTA (None of the Above) was introduced in **2013** following a Supreme Court directive in a PIL by the People's Union for Civil Liberties. It allows voters to reject all candidates while maintaining voting secrecy.

Recently, the **Vidhi Centre for Legal Policy** filed a PIL urging that NOTA be included in **all elections** — even where there is **only one candidate**. This would allow voters to express dissent even in uncontested polls, preventing automatic wins.

The **Election Commission (EC)** opposes this. It argues:

- Such uncontested elections are **extremely rare** (only 9 since 1952).
- Making NOTA compulsory would **require legislative changes** to the **Representation of the People Act, 1951** and **Election Rules, 1961**.
- It believes **NOTA has limited impact**, as voter turnout for it is typically **just over 1%**.

However, proponents argue that:

- Even a small percentage represents a **large number of voices** in absolute terms.
- Enforcing NOTA in all elections, even uncontested ones, would **enhance electoral accountability**.
- Reforms like **setting a vote percentage benchmark** for candidates or allowing **re-election if NOTA wins significantly** could make the system more democratic.

Key Takeaways

1. **NOTA Introduced in 2013**
   – Enabled by a Supreme Court ruling to uphold the right of voters to reject all candidates while maintaining voting secrecy.
2. **Purpose of Current PIL**
   – Seeks to make NOTA **compulsory in every election**, even if there's only **one candidate**, to protect voter choice.
3. **Election Commission's Objection**
   – Opposes the move citing rarity of uncontested elections and legal barriers (would need amendments in RPA 1951 and Election Rules 1961).
4. **Uncontested Elections Are Rare**
   – Only **9 such cases since 1952**, with just **6 in Lok Sabha** since 1971, making it statistically insignificant according to EC.
5. **Low Yet Significant NOTA Votes**
   – Around **1%–2.5% of votes** go to NOTA, but in large constituencies (avg. 25 lakh voters), this amounts to a substantial number.
6. **Declining Trend Over Time**
   – NOTA voting was slightly higher when first introduced in a state, then generally declined, but **not consistently across all states**.

7. **Proposed Electoral Reforms**
   – Suggestions include:
   - **Minimum vote benchmark** for candidates to be declared elected.
   - **Re-election** if a significant percentage vote for NOTA.
8. **NOTA as a Democratic Tool**
   – Advocates argue it enhances **accountability**, allows for **silent protest**, and **strengthens voter agency**, even if its legal impact is limited.

[The paradox of the approach to the Manipur issue-The Hindu Editorial]

Sociology

Easy Explanation:

Despite **two years of ethnic violence in Manipur**, resulting in over **250 deaths** and thousands displaced, the Centre's response has been muted. Prime Minister Modi has **not visited** the state, and there's been no serious roadmap for peace, in stark contrast to the **swift national response** to events like the Pahalgam terror strike.

This **paradoxical approach** reflects how New Delhi treats Manipur and the Northeast differently compared to other regions like Kashmir. While Kashmir is viewed through a **national security lens due to international dimensions**, Manipur is seen as a **local conflict** without an external threat, despite its proximity to **Myanmar**.

Attempts have been made to **frame the violence in Manipur** through a national security narrative — blaming Kuki groups across the border — but this has often masked deeper issues: **majoritarian insecurity**, poor state governance, and a **failure to address armed insurgency holistically**.

Security responses — like **fencing the India-Myanmar border** and symbolic **arms surrenders** — appear driven more by **political optics than strategic vision**. The **real threats**, such as the reactivation of **valley-based insurgent groups** and the proliferation of arms, remain inadequately addressed.

The recent **President's Rule** seems more about **political damage control** than restoring security. A long-term solution requires **inclusive political dialogue**, trust-building, and a **shift from symbolic to substantive policy actions**.

Key Takeaways

1. **Prolonged Neglect of the Manipur Conflict**
   – Two years of violence with over 250 deaths and mass displacement have not received urgent national attention or policy intervention.
2. **Asymmetric National Response**
   – Events like the Pahalgam terror strike got immediate national attention, while Manipur continues to be sidelined in national priorities.
3. **Security vs. Political Optics**
   – New Delhi's response focuses more on **political management and optics**, rather than addressing **root causes of conflict** or upgrading security infrastructure.
4. **Misuse of National Security Narrative**
   – Attempts to portray the conflict as a cross-border Kuki militant threat ignore the **internal ethnic fault lines** and local insurgent mobilisations.

5. **Failure to Recover Arms and Ensure Accountability**
   – Out of over 6,000 arms looted since the violence began, only about 4,000 were recovered. Many surrendered arms were **country-made**, and enforcement remains weak.
6. **President's Rule and Political Breakdown**
   – Imposed on February 13, 2025, not as a decisive security measure but to avoid collapse of the BJP government amid internal revolt.
7. **Obsolete Security Measures**
   – Border fencing and revoking free movement with Myanmar are expensive and **counterproductive**, alienating border communities like the **Nagas and Mizos**.
8. **Ethnic Security Dilemma Persists**
   – Arms remain widely available, and no reliable **security guarantee** exists for vulnerable communities.
9. **Need for Substantive Political Dialogue**
   – Lasting peace depends on **inclusive negotiations** with all ethnic groups and a shift away from **majoritarian politics and military-only solutions**.
10. **Strategic Myopia in Northeast Policy**
    – Repeated failures to prioritize long-term solutions in Manipur reflect **New Delhi's historical neglect** and lack of nuanced regional engagement.

Is Bihar's high replacement rate a consequence of poverty?-The Hindu text and Context

Sociology

Easy Explanation:

Bihar has the highest fertility rate (TFR) in India at **3.0**, while the national average is **2.0**. This means, on average, women in Bihar have more children than in other states. While **poverty plays a role**, it is **not the only reason**.

Other major reasons include:

- **Cultural norms**: Many families in Bihar prefer having more children, especially **sons**.
- **Low female literacy**: Fewer educated women means less awareness and autonomy in making reproductive choices.
- **Agricultural lifestyle**: More children are seen as helping hands in farm work.
- **Urban areas in Bihar also have high TFR**, showing it's not just a rural or poor issue.
- **Women often lack decision-making power** in families, with older family members like mothers-in-law influencing choices.

Even though poverty and child mortality have gone down, the fertility rate remains high because **social and cultural changes are slower**.

Key Takeaways

1. **TFR in Bihar is Persistently High**
    - The rate remains at 3.0, well above the replacement level of 2.1, even as health and education indicators improve.

2. **Poverty Alone Does Not Explain It**
    - Poverty contributes, but high fertility has not fallen in tandem with poverty reduction, indicating additional factors.

3. **Cultural Norms Drive Fertility Choices**
    - Deep-rooted son preference, larger family ideals, and social status attached to motherhood sustain high fertility.

4. **Urban Areas Also Show High Fertility**
    - Bihar's urban TFR (2.3) exceeds the national urban average, suggesting income and education are not sole determinants.

5. **Low Female Literacy Limits Autonomy**
    - With female literacy at only about 53 percent, women have reduced decision-making power and reproductive awareness.

6. **Women's Health Choices Are Mediated**
    - Mothers-in-law and other elders often control women's interactions with health workers, restricting autonomy.

7. **Structural Economic Limitations**
    - Limited industrialization, few non-farm jobs, and reliance on agriculture mean children are viewed as economic support.

8. **Delimitation and Political Impact**

- High-fertility states may gain more parliamentary seats and fiscal transfers, raising concerns about regional imbalances.

9. **Policy Must Address Both Economic and Social Norms**

- Effective solutions must combine poverty alleviation, women's education and employment, greater autonomy, and shifts in cultural attitudes toward family size

17th May 2025

[Story of sacred Jharkhand hill at centre of friction between Jains & Santals-Indian Express Explained]

Sociology

Easy Explanation:

The Parasnath/Marang Buru hill in Jharkhand is sacred to both **Jains** and **Santals (Adivasis)** but has become a flashpoint of **religious and cultural conflict**. While Jains revere the hill as the site where 20 of their 24 *tirthankaras* attained *nirvana*, Santals consider it the abode of their supreme deity, **Marang Buru**, and a center of traditional rituals like the **Sendra hunting festival**. A recent **High Court order (May 2025)** reinforced a ban on meat, alcohol, and intoxicants within 25 km of the hill — a decision in line with Jain religious sentiments, but one that impacts 99 tribal villages and **restricts Santal traditions**. This conflict, rooted in colonial-era disputes, reflects deeper issues of **tribal rights, religious coexistence**, and **post-Independence erosion** of Adivasi autonomy despite constitutional protections.

Key Takeaways:

1. **Sacred Significance to Both Communities**

- *Jains*: Known as Parasnath Hill, where 20 Tirthankaras attained nirvana; houses 40+ Jain temples.

- *Santals*: Known as Marang Buru, site of Jug Jaher Than (sacred grove) and Dishom Manjhi Than (ritual council seat).

2. **Conflict Origins and Colonial History**

- Recorded conflict began in 1911.

- Jains opposed the Sendra hunting festival; courts (1917 Patna HC and Privy Council) upheld Santal customary rights.

3. **Post-Independence Erosion of Adivasi Rights**

- 1972 Wildlife Protection Act and removal from Fifth Schedule weakened tribal land and forest rights.

- Santal rituals at the site declined between 1970s and 2000, before Jharkhand became a state.

4. **Recent Government and Judicial Actions**
    - 2023: MoEFCC ordered a 25-km no-meat/alcohol zone around the hill affecting 99 tribal villages.
    - 2025: Jharkhand High Court ordered enforcement of this directive.
    - Security enhanced with deployment of home guards.
5. **Ongoing Resistance by Santals**
    - Sendra hunting festival celebrated in 2025 despite bans.
    - Santal association filed a counter-petition asserting traditional rights over the hill.
6. **Broader Themes and Implications**
    - Highlights tension between religious sensitivities and tribal customs.
    - Raises questions on tribal autonomy, constitutional protections, and religious coexistence in pluralistic India.

[Trump,Syria & MiddleEast-Indian Express Explained]

International relations

Easy Explanation:

Former U.S. President Donald Trump's Middle East policy took a dramatic turn when he met Syria's new leader, Ahmed al-Sharaa—once a designated Al-Qaeda terrorist—and announced the lifting of decades-old U.S. sanctions. This came as part of a broader regional shift emphasizing trade, disengagement from military entanglements, and handing over conflict resolution to regional players like Saudi Arabia, Qatar, and Turkey. Despite Israel's opposition, Trump prioritized economic deals and normalization initiatives like the Abraham Accords, while softening towards adversaries such as Iran and Syria, focusing more on **stability through trade** than ideology or past records.

Key Takeaways:

1. **Meeting with Syria's New Leader**
    - Trump met **Ahmed al-Sharaa** in Riyadh, who previously led Al-Qaeda's Syrian affiliate (Al-Nusrah Front).
    - Sharaa ousted Bashar al-Assad and now leads Syria's transitional government.
2. **Sanctions Lifted After 46 Years**

- U.S. sanctions on Syria began in 1979, intensified post-2011 due to human rights abuses by Assad.

- Trump decided to lift both executive and legislative sanctions (e.g., Caesar Act), citing regime change and regional stability.

3. **Sharaa's Moderate Image**

   - Al-Sharaa adopted a non-Islamist, unifying stance, merging sectarian militias into state forces.

   - His leadership enabled international actors to justify lifting pressure instruments.

4. **Regional Conflict Resolution Approach**

   - Trump emphasized **regional ownership** of conflicts—delegating responsibility to Gulf powers.

   - The U.S. withdrew from active security roles in Syria and Iraq.

5. **Trade as Central Strategy**
   - Trump secured trade deals worth **$600 billion with Saudi Arabia**, **$243.5 billion with Qatar**, and **$200 billion with UAE**.

   - Qatar gifted a Boeing 747-8 for Air Force One; Trump-linked real estate ventures were launched in Doha.

6. **Impact on Israel Relations**

   - Israel opposed U.S. outreach to Syria and Turkey.

   - The U.S. resumed cooperation with Turkey (e.g., $304M missile deal, revival of F-35 program participation).

   - Trump also hinted at progress on a **U.S.-Iran nuclear deal**, alarming Israel.

7. **Houthis as Iran's Bargaining Tool**

   - Iran used the **Yemen-based Houthis** to pressure the U.S.

   - U.S. halted Operation Rough Rider in exchange for reduced Houthi attacks on shipping—but Houthis didn't promise restraint against Israel.

8. **Shift from Moral Policing to Realpolitik**

   - Trump dismissed "moral judgment" of foreign leaders, favoring "stability, prosperity, and peace" through trade.

- Prioritized business interests over traditional human rights or counterterrorism doctrines.

This reflects a **transactional U.S. foreign policy** in the Middle East, centered on **economic leverage, regional autonomy**, and **geopolitical deal-making**, even with controversial actors.

[WHAT IS U.S. BIRTHRIGHT CITIZENSHIP, AND CAN TRUMP END IT?-Indian Express Explained]

International relations

Easy Explanation:

Birthright citizenship in the U.S. means anyone born on U.S. soil automatically becomes a citizen, as per the **14th Amendment** (1868). Former President **Donald Trump** issued an executive order in January to **end this right** for children of undocumented immigrants and those without at least one U.S. citizen or lawful resident parent. The **Supreme Court** has begun hearing arguments on whether this move is constitutional. While Trump argues that the term "jurisdiction" implies political allegiance (and thus excludes illegal immigrants), challengers claim the order violates the Constitution and would disrupt long-established norms, like using birth certificates as proof of citizenship.

Key Takeaways:

1. **What is U.S. Birthright Citizenship?**
    - Anyone born in the U.S. is a citizen by birth, based on the **14th Amendment** and the **Immigration and Nationality Act (1952)**.
    - Exception: Children of foreign diplomats (not under U.S. jurisdiction).
2. **Trump's Executive Order (2025)**
    - Issued on **January 20**, it directs agencies **not to recognize citizenship** for children born to non-citizen or non-resident parents.
    - Aims to target **"birth tourism"** and undocumented immigration.
3. **Supreme Court's Past Rulings**
    - **1898**: In *Wong Kim Ark*, SC ruled in favor of citizenship for U.S.-born children of lawful Chinese immigrants.
    - **1884**: In *Elk v. Wilkins*, Native Americans were excluded due to lack of U.S. jurisdiction.
4. **Trump's Legal Argument**

- Interprets "jurisdiction" as requiring **allegiance** to the U.S.
- Argues children of undocumented immigrants lack this allegiance.

5. **Opponents' Legal Claims**
   - Say the order **violates the Constitution**, oversteps executive authority, and defies **Congressional powers**.
   - Warn of chaos: Birth certificates may no longer guarantee proof of citizenship.
6. **Broader Implications**
   - Could impact **millions of American-born individuals** if upheld.
   - Challenges the fundamental interpretation of **citizenship rights in the U.S. Constitution**.

TALKING TO TALIBAN-Indian Express Editorial

International relations

Easy Explanation:

India has cautiously re-engaged with the **Taliban regime in Afghanistan** since its 2021 takeover, without officially recognizing it. Initial withdrawal of diplomatic presence gave way to gradual humanitarian aid and the reopening of its embassy in 2024. A recent **ministerial-level conversation** between EAM S. Jaishankar and Afghan FM Muttaqi marks a significant step in India's **strategic outreach**, especially as Taliban-Pakistan ties weaken. India's engagement is **not an endorsement** of Taliban rule but a pragmatic move to **safeguard regional security**, prevent Afghanistan from becoming a base for anti-India terror, and counter growing **Chinese influence** in the region.

Key Takeaways:

1. **Gradual Diplomatic Re-engagement**
   - India withdrew from Kabul in August 2021 after the Taliban takeover.
   - Embassy reopened in June 2024; ministerial-level contact began in 2025.
2. **Humanitarian Assistance Continues**
   - India has supplied wheat, medicines, pesticides, and allocated ₹100 crore in the 2024–25 Budget for Afghanistan.
3. **Taliban's Stance on Pahalgam Attack**

- Taliban **condemned the terror attack** in Pahalgam and **denied Pakistani claims** of Indian missile strikes on Afghan soil.

- External Affairs Minister Jaishankar praised this stand, indicating a growing rift between **Taliban and Pakistan**.

4. **Pakistan-Taliban Relations Deteriorating**

   - Taliban has distanced from Pakistan over issues like **Tehrik-i-Taliban Pakistan (TTP)** activity along the border.

   - Pakistan no longer has full strategic leverage over the Taliban.

5. **India's Strategic Interests**
   - Key aim: Prevent Taliban-ruled Afghanistan from becoming a hub for **anti-India terrorist groups**.

   - Maintain a **communication channel** to safeguard security and influence.

6. **Risks of Engagement vs. Non-Engagement**
   - Engagement could **weaken India's moral position**, especially on women's rights and democracy.

   - But total disengagement risks losing strategic ground to **China**, which has already signed major deals with the Taliban.

7. **China Factor**
   - China has inked a **$540 million oil deal** and other security pacts with the Taliban.

   - India is wary of a **Kabul-Beijing alignment**, particularly in the context of a **China-Pakistan-Bangladesh axis**.

8. **Realpolitik Approach**
   - India does not recognize the Taliban government officially but engages **pragmatically**.

   - Acknowledges that it must **deal with whoever holds power** in Kabul to protect its regional interests.

[Closing argument-The Hindu Editorial]

Polity

Easy Explanation:

The Supreme Court's April 2025 judgment clearly stated that **Governors and the President cannot indefinitely withhold assent** to Bills passed by State Legislatures. This verdict was a crucial step toward ensuring that **unelected officials do not undermine democratically elected Assemblies**. However, instead of accepting this as settled law, the Union government has **reopened the debate** by filing a **Presidential Reference under Article 143**, seeking the Court's opinion on already resolved issues. Critics argue that this move aims to **reassert central control** over State legislation through Governors, contrary to both the spirit and structure of **Indian federalism**.

Key Takeaways:

1. **Supreme Court's April 2025 Verdict**
    - Held Tamil Nadu Governor's withholding of 10 Bills as *"illegal"* and *"erroneous"*.
    - Clarified that Governors/President **cannot arbitrarily or indefinitely delay assent**.
2. **What Is the Presidential Reference?**
    - Filed under **Article 143** to seek SC's advisory opinion.
    - Revives issues already settled by a **binding judgment**.
3. **Missed Opportunity for Closure**
    - Instead of following the judgment's guidance or amending the Constitution, the Centre **chose a controversial route**—questioning established clarity.
4. **Violation of Federal Principles**
    - Governors are **appointees of the Centre**, not supreme authorities.
    - Their misuse **undermines State autonomy** and **disrupts governance**.
5. **Alternative Legal Paths Ignored**
    - If the Centre had genuine doubts, it could have filed a **review or curative petition**.
    - A Presidential Reference **cannot override a Court judgment**.
6. **Perceived Central Intent**
    - This move may signal the Centre's desire to **retain indirect control** over State laws.
    - It contradicts the **spirit of cooperative federalism** envisioned by the Constitution.
7. **Way Forward Suggested**
    - The Court's judgment offers a **solid framework** on Governor's role.
    - A better approach: **convene a dialogue** with Chief Ministers and political parties to resolve concerns.

[Drinking to death-The Hindu Editorial]

Governance

Easy Explanation:

Recurring deaths from **illicit liquor** in India, like the recent tragedy in **Punjab's Amritsar** (23 dead), highlight a **deep crisis** rooted in **poverty, corruption, and regulatory collapse**. Victims are often poor workers drawn to cheap alcohol, unknowingly consuming **methanol-laced brews**, which can be fatal. Methanol, an industrial chemical and **Class B poison**, is misused due to its low cost and easy availability. Bootleggers profit by bypassing safety, aided by corrupt police and political networks. Existing laws often fail due to poor enforcement. The real solution lies not just in stricter regulation, but in **eliminating poverty and corruption**, and creating better socio-economic conditions.

Key Takeaways:

1. **Victims and Causes**
    - Victims are mostly **poor daily wage earners** seeking affordable alcohol.
    - **Bootleggers use toxic methanol**, misjudging unsafe dilution levels.
2. **Methanol: Cheap but Deadly**
    - Used industrially, not meant for drinking.
    - Still cheaper than ethanol, making it **attractive for illegal liquor**.
    - Categorised as a **Class B poison** in many states.
3. **Corruption and Nexus**
    - Bootleggers operate in coordination with **corrupt police and politicians**.
    - Police action (like suspensions) is reactive, not preventive.
4. **Legal and Regulatory Gaps**
    - **Weak enforcement** of laws like the **Poison Act** and **prohibition laws**.
    - Example: 2015 Malvani case saw most accused **acquitted after 9 years**.
5. **Need for a National Methanol Framework**
    - Methanol distribution is **inter-state**, needing **centralised regulation**.
    - Stronger checks can prevent pilferage from authorised dealers.
6. **Root Causes Must Be Addressed**

- Mere law enforcement isn't enough.
- The **economic vulnerability**, **lack of education**, and **social inequality** that create demand for spurious liquor must be tackled.
- A **clean lawmaker-law enforcer relationship** is crucial to stop illicit supply chains.

7. **Broader Policy Outlook**
   - Focus on **poverty alleviation**, **social justice**, and **governance reforms**.
   - Long-term investment in public health, awareness, and affordable legal alternatives to curb the problem sustainably.

18th May 2025

[Did Trump cross the line on Kashmir issue?: TH FAQ]

International Relations

Easy Explanation

Recently, U.S. President Donald Trump claimed that he helped bring India and Pakistan to a ceasefire on May 10 after tensions escalated due to India's strikes on terror camps in response to the Pahalgam massacre. Trump said he threatened to cut trade with both countries unless they stopped fighting and even offered to mediate the Kashmir dispute, calling it a thousand-year-old issue.

India strongly denied all his claims. The Indian government, including Foreign Minister S. Jaishankar, said that the ceasefire was a result of India's own diplomatic efforts and not because of any outside interference.

India has always maintained that **Kashmir is a bilateral issue**, meaning only India and Pakistan should discuss it directly, and **no third party should mediate**. This has been India's policy since 1947. Trump's comments crossed all these diplomatic red lines and are seen as both **factually incorrect and diplomatically inappropriate**.

India has had many troubled talks with Pakistan, and each time, any attempt by foreign countries to step in — even if informally — has been firmly resisted. While countries like the U.S., Russia, and Gulf nations often try to act as middlemen during crises, India officially doesn't allow international mediation on Kashmir.

Right now, India has shut down most channels of formal dialogue with Pakistan. The only ongoing conversations are emergency backchannels through national security agencies, but even those are rare. The recent crisis has made chances of talks even slimmer.

Key Takeaways

What Did Trump Say?

- Claimed the U.S. **brokered the May 10 ceasefire** between India and Pakistan.
- Said he **threatened trade cuts** to force both sides to stop.
- Referred to the **Kashmir dispute** as a "thousand-year-old issue".
- Offered to **mediate between India and Pakistan**, which violates India's stated foreign policy.

Why Did This Spark Controversy?

- India firmly denied any U.S. role in the ceasefire.
- Jaishankar and MEA reiterated India's position: **no third-party involvement** in Kashmir.
- Trump's comments go against India's diplomatic principles:
    - No internationalisation of Kashmir.
    - No hyphenation with Pakistan.
    - Terrorism is the central issue, not territorial negotiation.

What Is Internationalisation of Kashmir?

- Refers to taking the issue to global platforms like the **UN or foreign governments**.
- Nehru had gone to the **UN in 1947**, but only to stop Pakistani aggression, not to settle Kashmir's status.
- Since then, India has tried to resolve the issue **bilaterally** and resists foreign involvement.

Have Third-Parties Intervened Before?

- **US, UK, UAE, and Saudi Arabia** often try to quietly defuse tensions.
- **Tashkent Agreement (1965)** was mediated by the **USSR**.
- During **Kargil (1999)** and **Balakot (2019)** crises, U.S. presidents helped lower tensions behind the scenes but didn't openly take credit like Trump did.

Is Direct Dialogue with Pakistan Likely Now?

- **Unlikely**, as:
    - India cancelled most talks since 2015.
    - **Indus Waters Treaty** has been suspended.
    - **Kartarpur corridor** closed during the crisis.
- Modi government's current stand: Only talks about **terrorism and the return of PoK**.
- Backchannels (like between National Security Advisors) exist but are **used only during crises**, not for regular dialogue.

India's Current Focus

- **Globalise the fight against terrorism.**
- **Avoid any international discussion on Kashmir.**
- Maintain **firm control over the narrative** by rejecting foreign mediation.

Why is there variation in fertility rates?: TH FAQ

Sociology

Easy Explanation

India's latest Sample Registration System (SRS) report for 2021 shows that the country's **Total Fertility Rate (TFR)** — the average number of children a woman is expected to have — has **remained steady at 2.0**. This means, on average, Indian women are having fewer children than before.

TFR of 2.1 is known as the **replacement level** — the number needed to maintain a stable population. India is now **below that level**, indicating that the population is **stabilising**.

However, there are **big differences among states**. For example:

- **Bihar has the highest TFR at 3.0**, meaning women there are still having more children.

- **West Bengal and Delhi have the lowest TFR at 1.4**, meaning the population may decline in the future without migration.

Fertility is also linked to **development**. States with **better health, education, and economic progress** tend to have **lower TFRs**. But that brings other challenges — in states like **Sikkim**, where people don't want many children, it can lead to an **aging population and fewer workers**.

The report is based on a **huge survey of over 84 lakh people**, and tracks various fertility indicators like:

- **Crude Birth Rate (CBR)**: How many babies are born per 1,000 people.

- **General Fertility Rate**: Births per 1,000 women aged 15–49.

- **Sex Ratio at Birth**, and more.

Key Takeaways

What is TFR and Why It Matters?

- **Total Fertility Rate (TFR)** = Average number of children a woman has in her lifetime.
- **India's TFR in 2021** = **2.0**, below the replacement level of **2.1**.
- A TFR below 2.1 means the **population may slowly decline** without migration.

State-wise TFR Highlights

- **Highest TFR**: Bihar (**3.0**), followed by UP, MP, Jharkhand, Rajasthan, Chhattisgarh.
- **Lowest TFR**: West Bengal and Delhi (**1.4**), Sikkim even **below 1.0**.

Why are Some States Higher or Lower?

- High TFR in states like **Bihar, UP, MP** linked to:
    - Lower female literacy
    - Poor healthcare
    - Lack of family planning access
- Low TFR in states like **Tamil Nadu, Kerala, Delhi, Sikkim** linked to:
    - Better education, health, and gender equality
    - Lifestyle shifts and career priorities
    - Higher costs of raising children

Crude Birth Rate (CBR) Trend:

- India's **CBR in 2021** = **19.3 births per 1,000 people**
- Declining trend at **1.12% per year**
- Fastest declines seen in **Kerala, Tamil Nadu, and Delhi**
- **Uttarakhand** is the only state showing a slight rise in CBR

Expert Insights

- Prof. Praveen Pathak of JNU says:
    - States with **high TFR need better education, health, and social reforms**
    - States with **very low TFR (like Sikkim)** face new challenges like:
        - Shrinking workforce
        - Ageing population
        - Changing family dynamics

What Should Be Done?

- **High TFR states** need targeted **human development programs**
- **Low TFR states** need strategies for:
    - Childcare support
    - Work-life balance
    - Incentives for families

[How is cyberbullying tackled under the law?: TH FAQ]

Internal Security

Easy Explanation

After the Pahalgam terror attack, the wife of a Navy officer appealed for peace and unity. Instead of support, she was targeted with online hate. The same happened to India's Foreign Secretary, whose family was trolled for announcing a ceasefire with Pakistan.

This kind of online abuse — including **trolling, doxxing (sharing private info), and harassment** — is becoming more common. But India **doesn't have a proper law** that directly punishes these actions. There are a few laws in place, like sections of the **IT Act** and **Bharatiya Nyaya Sanhita (BNS)**, but they only apply in certain situations like threats, fraud, or obscenity.

Even when laws exist, they're **hard to enforce**. Many victims don't get help unless the government steps in. When citizens complain, platforms like X (formerly Twitter) often **ignore them or delay action**. This shows a **big gap between what the law says and what really happens**.

Doxxing is not even recognised as a separate crime in India. The **Digital Personal Data Protection Act** (2023) says publicly available data is not protected — but doesn't define clearly what that means. That makes it easier for trolls to misuse someone's info.

Courts have stepped in sometimes — like when a woman was doxxed for posting something online — but the law still doesn't fully protect victims.

Key Takeaways

What's the Issue?

- After the Pahalgam attack, people calling for peace were **abused online**.
- Victims faced **trolling, hate, and even their personal info leaked (doxxing)**.

What Laws Exist Today?

- **Bharatiya Nyaya Sanhita (BNS), 2023)**:
    - Sec 74: Assault on women
    - Sec 75: Sexual harassment
    - Sec 351: Criminal intimidation
    - Sec 356: Defamation

    - Sec 196: Promoting enmity
- **IT Act, 2000**:
    - Sec 66C: Identity theft
    - Sec 66D: Impersonation
    - Sec 67: Obscene content
- But these only work in **specific cases**. They **don't directly criminalise general trolling or doxxing**.

What is Doxxing?

- **Sharing private info (like phone number, address) without consent**
- Not yet a defined crime in India
- A Delhi High Court case showed this confusion — even though a woman's info was shared, the court said it wasn't doxxing because the info was "already public"

What's the Role of the Government?

- **Section 69A of the IT Act** allows the government to block content
- Sometimes this power is **used more for censorship** than for protecting citizens
- **X (Twitter)** said it was told to block 8,000 accounts — but the government didn't specify why

What's Missing?

- **No specific law** against doxxing or online abuse
- **Weak enforcement** even when laws exist
- **Platforms act fast for government orders**, not for regular users
- The **definition of "public data" is vague**, making it easier for abuse to happen

What Experts Say

- **Laws aren't enough unless enforced well**
- **Ordinary people struggle to get help** when harassed online
- Problems include:
    - **Anonymity** of attackers
    - **Lack of police training**
    - **Cross-border issues**

What Needs to Be Done?

- Make **doxxing a punishable crime**
- Improve **cybercrime enforcement**
- Define **"public data" clearly**
- Ensure **platforms protect users**, not just obey government orders

Cause of pesky failure mode in solid state Li-ion batteries found: TH Science

Science Tech

Easy Explanation

Solid-state batteries are considered the future of energy storage. Unlike regular phone batteries that use a liquid inside, these batteries use a solid material to carry lithium ions. This makes them safer and more powerful. But there's a problem: they can crack inside and suddenly stop working.

This happens because, during charging, lithium ions form tiny needle-like structures called **dendrites** on the battery's surface. These "roots" push through the solid layer like tree roots breaking concrete and short-circuit the battery.

Now, scientists believe these failures happen due to something familiar in engineering—**metal fatigue**. Just like a metal rod breaks if bent back and forth repeatedly, the lithium in the battery gets tired with each charge-discharge cycle. Over time, this causes internal cracks and failure—even if the battery was charged slowly.

To prove this, scientists used an advanced microscope to watch the inside of a working battery. They saw small voids appear and grow into big cracks, breaking the battery after just 145 cycles.

This discovery doesn't mean manufacturing will change immediately, but now we can build **better models** to predict battery lifespan and **make them more reliable** for the future.

Key Takeaways

What's New?

- Scientists found that failures in solid-state batteries (SSBs) may be due to metal fatigue from repeated charging.

How Do Solid-State Batteries Work?

- SSBs use solid ceramic electrolytes instead of liquid ones, offering better safety and performance but with higher risk of cracking.

What Causes Failure?

- During charging, lithium forms dendrites (thin filaments) that grow like roots and pierce the solid electrolyte, causing short circuits.

How Was It Proven?

- Researchers used operando scanning electron microscopy to observe crack formation in real time as the battery cycled.

Why Is This Important?

- The study links failure to fatigue, a well-known mechanical process, making battery behavior more predictable.

What's the Impact?

- Even low charging currents, repeated over time, can cause fatigue and eventual battery failure.

What's Next?

- Future research should focus on understanding how lithium's stress-strain behavior changes with temperature and usage.

[The monsoon's green energy potential: TH Science]

Science Tech

Easy Explanation

Every year around early June, the monsoon reaches Kerala, bringing much-needed rain and cool winds across India. This year, it's expected to arrive a few days earlier, around May 27. These winds aren't just about rain anymore — they also carry potential for **renewable wind energy**.

India heavily relies on coal for electricity (about 75%), but there's a push to move toward cleaner energy like wind. However, wind power isn't constant — it depends on seasonal wind patterns. That's why predicting when and where the wind will blow is very important. During the monsoon, especially in areas like the Western Ghats, wind turbines produce most of their electricity.

To help plan better, scientists use computer models and weather stations to predict wind speeds. There's also a **Wind Atlas of India**, made using high-resolution maps. New AI tools like **Google's MetNet3** now help estimate wind speeds even in areas where no weather stations exist, using radar and satellite data.

This kind of technology is essential for ensuring we burn less coal and get the most out of renewable energy.

Key Takeaways

- The southwest monsoon typically arrives in Kerala around June 1, but this year it is expected by May 27.
- Southwesterly winds and the Somali Jet Stream bring not only rain but also wind energy potential.
- India relies heavily on coal for electricity; wind power offers a cleaner alternative but needs better forecasting due to variability.
- The Central Electricity Authority plans to increase wind capacity from 45 GW to 121 GW by 2032.
- Wind energy's effectiveness depends on accurate prediction of wind availability, especially during the monsoon.
- Monsoon winds are strongest from June to September and are crucial for agricultural electricity use, especially for kharif crops.
- Weather prediction models with fine resolution help forecast wind variability and plan wind farm deployment.
- The National Institute of Wind Energy has developed a Wind Atlas of India to aid in wind farm planning.
- AI tools like Google's MetNet3 enhance prediction accuracy using satellite and radar data, even in areas with few weather stations.
- These advancements support India's shift to low-carbon energy by maximizing renewable energy output and minimizing fossil fuel use.

20th May 2025

'Core' inflation & RBI's rate cuts-Indian Express Explained

Economy

Easy Explanation:

Between February 2023 and early 2025, the **RBI kept the repo rate steady at 6.5%**, despite headline inflation (CPI) and food inflation (CFPI) remaining relatively high. Many experts argued the RBI should have cut rates sooner, since **core inflation (excluding food and fuel)** was much lower and monetary policy works better on demand-side factors, not supply shocks like food or fuel prices.However, due to **geopolitical tensions (Ukraine war)** and **weather disruptions (El Niño)**, food inflation spiked in 2022–2024. As these shocks faded, **food prices dropped** and core inflation started to rise slightly.Now, with **stable oil prices, a recovering rupee, easing global food rates**, and **strong domestic harvests**, both food and core inflation seem under control. This opens the door for the **RBI to cut interest rates further** without significant inflationary risk.

Key Takeaways:

Monetary Policy Trends

- RBI held repo rate at **6.5%** from Feb 2023 to Feb 2025, despite pressures to cut it.
- Repo rate has now been **reduced to 6%** via two small cuts in Feb and April 2025.

Inflation Dynamics

- **Headline CPI inflation** averaged **5.2%**, while **food inflation (CFPI)** hit **7.6%**.
- **Core inflation** (excluding food/fuel) was much lower—around **4.1%**, dropping to **3.1%** in mid-2024.

Supply-side Shocks

- **Russia-Ukraine war (2022)** raised global food prices.
- **El Niño (2023–24)** caused weak monsoons, leading to poor harvests and food inflation.

Reversal & Recovery

- Food inflation fell sharply to **1.8% in April 2025**—lowest since Oct 2021.
- **Core inflation has risen** to **4.2%** but remains manageable.

Positive Economic Signals

- **No El Niño** expected in 2025; above-normal monsoon forecast.
- Global food prices and **Brent crude down** to ~$65/barrel.
- Domestic **kharif and rabi harvests** have boosted supply.
- Rupee **stabilized at ₹85.4/USD**, easing fears of imported inflation.
- **Forex reserves rebounded** to $690.62 billion as FPI returns.

External Factors

- Trump's **tariff policies** led to redirection of Chinese/Vietnamese exports to India.

- India responded with **anti-dumping duties** on select imports to protect local industries.

Outlook for RBI

- With **disinflationary pressures** (cheaper imports, stable currency, soft commodity prices), the RBI has **room for further rate cuts**.

- Neither **food nor core inflation** is a major threat now.

[Why SC struck down Centre's orders on retrospective green clearances-Indian Express Explained]

Environment

Easy Explanation:
The **Supreme Court struck down** a 2017 notification and a 2021 office memorandum issued by the Environment Ministry that allowed **retrospective (ex-post facto) environmental clearances**—i.e., permitting projects **after** they had already started operations without prior approval. The Court said this was **unconstitutional** and **against environmental law**, as such clearances **violate the fundamental right to a healthy environment** under **Article 21** of the Constitution. It also violates **Article 14** by unfairly protecting violators.

The Court strongly criticised the government for **prioritising economic activities over environmental safeguards** and warned that allowing post-facto approvals undermines the **Environmental Impact Assessment (EIA)** process and encourages violations. It also pointed out that the Centre had promised this was a **"one-time"** measure, but it later tried to institutionalise it through standard operating procedures (SOPs).

Key Takeaways

1. What Was Struck Down?

- **2017 Notification**: Allowed industries to apply for clearance after starting operations.

- **2021 Office Memorandum (OM)**: Introduced SOPs for regularising such violations.

2. Why It Was Challenged

- Violated **EIA 2006** norms, which mandate prior clearance before starting any project.

- Undermined environmental safeguards by **rewarding illegal project starts**.

3. Supreme Court's Core Observations

- **Retrospective clearances** are **alien to environmental law**.
- Violated **Article 21** (right to a healthy environment) and **Article 14** (equality before law).
- The Centre's approach **protected violators** instead of punishing them.
- Highlighted **Delhi's air pollution** as a result of such regulatory laxity.

4. Past Judgments Cited

- **Common Cause v. Union of India (2017)**
- **Alembic Pharmaceuticals v. Rohit Prajapati (2020)** – clearly ruled that ex-post facto clearance **violates environmental jurisprudence**.

5. Centre's Broken Promise

- Earlier assured Madras HC that 2017 order was a **one-time measure**.
- Supreme Court said even one-time approval is **illegal**, as it infringes on the **right to a pollution-free life**.

6. Impact of the Ruling

- All **future attempts** to regularise violations via backdoor clearances are **prohibited**.
- Strong **reassertion of environmental rule of law** and **citizen rights over industrial convenience**.

A tale of two Gulf visits-Indian Express Editorial

International relations

Easy Explanation:
Donald Trump's recent **Gulf tour (May 13–16, 2025)** starkly contrasted his **2017 visit**. Back then, he viewed the region through the lens of **evangelical and pro-Israel interests**, criticising Islam and supporting Israel's agenda. This time, **Trump praised Arab leaders**, avoided mention of Israel, and focused almost entirely on **big business deals**.

Across **Saudi Arabia, Qatar, and the UAE**, Trump signed **multi-billion-dollar agreements** in sectors like **defence, AI, semiconductors, and energy**, positioning Gulf states as **key global tech players**. The visit also featured major symbolic shifts, such as **lifting U.S. sanctions on Syria** and hints of a potential **U.S.-Iran nuclear agreement**. Yet, many observers see the trip as **image-building for Trump** rather than deep geopolitical change, with **real issues like Gaza and Palestine sidelined** for economic optics.

Key Takeaways

1. Contrast with 2017 Visit

- **2017**: Trump was hostile toward Islam and aligned closely with **Israel**, moving the U.S. embassy to Jerusalem.
- **2025**: **No mention of Israel**, more sympathetic to Arab culture and leadership.

2. Focus on Business Over Geopolitics

- Signed deals worth:
  - **$142 billion** in defence with **Saudi Arabia**
  - **$244 billion** with **Qatar** (incl. 210 Boeing jets)
  - **$1.4 trillion** investment framework with **UAE** in AI, semiconductors, etc.
- Trump emphasized Gulf modernisation and **AI leadership** over political issues.

3. Geopolitical Moves

- **Met Syrian President** al-Sharaa — first such U.S.-Syria meeting in 25 years.
- Announced **lifting of U.S. sanctions on Syria**.
- Claimed **Iran nuclear deal terms were agreed**, bypassing Israeli objections.

4. Avoidance of Sensitive Topics

- No discussion of **Saudi-Israel ties**, **Gaza violence**, or the **two-state solution**.
- Aimed at preserving a **smooth diplomatic environment**.

5. Symbolism Over Substance

- Many experts believe the **contracts lack real implementation**.

- The visit was seen more as a **PR effort** to boost Trump's image and domestic economy.

6. Strategic Implications

- Gulf nations now positioned as **central players in global tech and AI**.

- U.S. diplomacy in the region is shifting from **security and ideology** to **commerce and tech alignment**.

7. Israel's Future Role

- Despite temporary exclusion, Israel may regain influence given:
    - Strong U.S. pro-Israel lobbies.
    - Trump's unpredictable and **short-term geopolitical thinking**.

8. Moral Vacuum

- Lavish Gulf pageantry clashed with **images of suffering in Gaza**, which was **deliberately ignored** during the visit.

- No mention of **Palestinian casualties**, showing a **disconnect between diplomacy and humanitarian crises**.

The ongoing oil price tension-The Hindu Text and Context

Economy

Easy Explanation:
A major shift is happening in the global oil market. **OPEC+ recently decided to increase oil production** after months of trying to keep prices high by cutting output. This triggered a **price drop**, with Brent crude falling to around $60/barrel — its lowest since the pandemic. **Saudi Arabia**, frustrated with fellow producers who didn't stick to agreed cuts, has launched a **market share war**, increasing supply to discipline overproducers, even at the cost of low prices.

But this strategy may not succeed like before. The global oil market is now more **fragmented**, with **slower demand**, **sanction-hit rivals like Iran and Russia**, and the looming **peak oil demand** due to climate change efforts and electric vehicles. For India, falling oil prices can lower import bills but also have **downsides** — hurting exports, Gulf remittances, and revenues from petroleum.

Key Takeaways

1. OPEC+ Shift in Strategy

- On **May 3, 2025**, OPEC+ announced a production increase of **411,000 bpd** from June.
- This is a reversal of earlier cuts aimed at boosting prices — **undoing nearly half of 2023's 2.2 million bpd cuts**.

2. Saudi Arabia's Oil Price War

- **Saudi Arabia**, tired of overproducing members, resumed its historical strategy of **flooding the market** to enforce compliance.
- Its production dropped below 9 million bpd in 2024, prompting the shift.
- Similar strategies were used by Riyadh in **1985-86**, **1998**, **2014-16**, and **2020**.

3. Why This May Fail Now

- The market is now **oversupplied and fragmented** (more non-OPEC+ players).
- Global **demand growth is weak** (just **0.73% in 2025** per IEA).
- Electric vehicles, **climate goals**, and **Trump's tariffs** are all damping demand.
- **US sanctions** on Russia, Iran, Venezuela may lift soon, bringing more oil into the market.

4. Geopolitical and Economic Angles

- Saudi move may be to **frontload revenue** before prices fall permanently.
- Seen as aligning with **Trump's visit**, keeping oil prices low to tame US inflation.
- In return, Saudis hope for **US defence, nuclear, and arms deals**.

5. Impact on India

- **Positive**: India saves **$1.5 billion annually** for every $1 drop in oil prices.
- **India's demand rose 3.2%** in 2024-25 — a major global driver till 2040.
- **Negative spillovers**:
    - Lower crude prices reduce India's **refined export margins** and **tax revenue**.
    - **Gulf remittances** (over $50 billion/year) may fall due to job losses.
    - Economic decline in oil-exporting partners hits **trade and investment**.

6. What Lies Ahead

- The world may be entering a "**buyers' market**" for oil.
- India must prepare for a **new normal** where hydrocarbons no longer dominate — requiring **new growth drivers** and **energy strategies**.

'Minimal' model captures neurons, flow of opinions, exotic matter-The Hindu Science

Science

Easy Explanation:
Just as scientists use model organisms like fruit flies or roundworms to understand broader biological principles, physicists use the **Ising model** to understand systems with interacting parts—like atoms in a metal or opinions in a network. Traditionally, the Ising model assumes **reciprocal interactions**—if A affects B, B affects A equally. But many real systems don't work this way.

A new study has created a **non-reciprocal Ising model**, where interactions are **one-way**, such as leaders influencing followers, or parasites affecting hosts. This updated model helps simulate **asymmetric systems** better—ranging from **social networks and neural activity to power grids and ecosystems**. It shows **three phases**: disordered, ordered, and a unique **swap phase** where influence oscillates like a clock, and even hints at a **"time crystal"** in its 3D form. This advance could deepen our understanding of **dynamic real-world systems**.

Key Takeaways

1. What is the Ising Model?

- A simplified mathematical model to study systems with **interacting units** (e.g. atoms or people).
- Traditionally models **reciprocal interactions**: if A affects B, B affects A equally.

2. Why a New Model Was Needed

- Real-world systems often have **non-reciprocal or one-way interactions**, e.g.:
    - Leaders influence members but not vice versa (politics).
    - Parasites affect hosts, but not the reverse.
    - Power grid signals flow in one direction.
- Traditional Ising models can't simulate these well.

3. What the New Model Adds

- Introduces **two kinds of units (P and Q)** with asymmetric influence:
    - **P aligns with Q**, but **Q anti-aligns with P**—a **non-reciprocal rule**.
- Focus is on **selfish energy minimisation**, not overall system energy.
- Explores **2D and 3D grids** for behavior under these rules.

4. Key Findings

- **Three phases** observed:
    - **Disordered phase**: random alignment.
    - **Ordered phase**: fixed alignment.
    - **Swap phase**: dominant species alternates over time.
- In **3D**, swap phase can be **stable**, showing **time crystal-like behavior**.
- **Asymmetry in flipping behavior** stabilizes order in 2D as well.

5. Applications

- Can model dynamics in:
    - **Neural networks**
    - **Social & political systems**
    - **Ecological interactions**
    - **Active materials** (e.g. synthetic microscopic robots, bird flocks, bacteria)
- May explain **rhythmic biological processes** and lead to advances in **AI and physics**.

6. Scientific Significance

- Created by researchers from University of Chicago and ESPCI Paris.
- Published in *Physical Review Letters*.
- Extends Ising model's relevance to **complex, real-world systems with directional influence**.

WHO begins planning for life after the U.S. quits-The Hindu Science

International relations

Easy Explanation:
The **World Health Organization (WHO)** is facing a major financial and operational challenge after **U.S. President Donald Trump began the formal process to withdraw the U.S. from the agency**, effective January 2026. The U.S. currently contributes about **18% of WHO's funding**, creating a **$600 million shortfall** and prompting a **21% budget cut over two years**.

As the WHO's **annual assembly** begins in Geneva, focus is shifting from long-term programming to **prioritizing essential functions** like disease outbreak response and drug approvals. Non-essential activities, such as training in high-income countries and less critical programs, may be scaled back. Meanwhile, **China is poised to become the top funder**, potentially shifting influence within the agency.

Key Takeaways

1. U.S. Withdrawal

- Trump signed an executive order in **January 2025** to begin a **1-year withdrawal** from the WHO.

- Official **exit date: January 21, 2026**.
- The U.S. has been the **largest single contributor**, providing ~18% of total funding.

2. Impact on WHO

- Budget shortfall of **$600 million** for 2025.
- Planned **budget cuts of 21%** over the next two years.
- Possible **closure of regional offices** in high-income countries.
- Essential functions (vaccine guidelines, disease outbreak response) to be preserved.

3. China's Growing Role

- China to become the **largest contributor of assessed fees**, rising from 15% to 20%.
- Reflects a **shift in geopolitical influence** within the WHO structure.

4. Strategic Reassessment

- Officials questioning whether WHO needs:
    - All current **committees**
    - Thousands of **publications**
    - Minor operational tasks (e.g., fuel procurement during emergencies)
- Push for a **leaner, more focused organization**.

5. Other Assembly Agenda Items

- Ratification of a **new pandemic agreement**.

- **Donor investment round** to fill funding gaps.

- Staff urged to **volunteer** for roles (e.g., ushers) without extra pay, signaling tight finances.

6. Uncertainty Ahead

- Though Trump left the door open for a return if WHO reforms, **no signs of policy reversal** have emerged.

- The WHO is preparing for a **"new world order"** in global health leadership and financing.

[In the wake of crisis, the need for bipartisanship-The Hindu Editorial]

Polity

Easy Explanation:
In light of the April 22, 2025 **Pahalgam terror attack**, the article urges Indian political parties to **rise above partisan divides** and come together in the **national interest**. It criticises the tendency of parties to exploit tragedies for **electoral gains**, as seen after Pulwama in 2019. Instead, it calls for **bipartisanship** in matters of national security—drawing on past examples like the **Kargil War**, **Uri surgical strikes**, and global responses to 9/11 and Ukraine.

The writer argues that India needs a **non-partisan national security doctrine** that stays **consistent beyond elections**. Bipartisanship is essential to **defend democracy**, prevent **political polarisation**, and ensure **strategic clarity**, particularly in managing complex threats like terrorism from Pakistan.

Key Takeaways

1. Crisis Requires Unity, Not Partisan Politics

- After terror attacks like Pahalgam, **political rivalry often overshadows national unity**.

- Security responses get entangled with election strategies, harming long-term interests.

2. Past Examples of Bipartisanship

- **Kargil War (1999)**: Opposition Congress supported BJP-led government and armed forces.

- **Uri surgical strikes (2016)**: Received national support across political lines.

- **1994 UN Mission**: PM Rao sent Opposition leader A.B. Vajpayee to represent India on Kashmir—showing **cross-party trust**.

3. International Precedents

- **Post-9/11 (USA)**: Unified bipartisan security response.
- **Christchurch attack (NZ)**: Gun reforms passed with cross-party support.
- **Ukraine crisis**: NATO expansion saw consensus across political spectrums in Europe.

4. Current Problem: Toxic Polarisation

- Politics has become **bitter and vengeful**, eroding mutual respect.
- Social media amplifies **divisive rhetoric**, weakening the possibility of bipartisan cooperation.

5. Why Bipartisanship Is Crucial

- **Disunity emboldens enemies**, especially in the case of cross-border terrorism.
- **Inflammatory rhetoric** may help in elections but **hurts India's strategic clarity and global standing**.

6. Call for a National Security Doctrine

- India needs a **structured, long-term security strategy** insulated from political changes.
- Must include:
    - Counter-terrorism framework
    - Intelligence-sharing protocols
    - Regional and global diplomacy coherence
- Should be based on **bipartisan consensus**, not electoral calculus.

7. Conclusion

- National security must **rise above party politics**.

- India's maturity as a democracy depends on placing the **nation above party**, and **strategy above slogan**.

- Bipartisanship in crisis isn't optional—it's essential for a **stable and secure India**.

21st May 2025

[Kurma mela: the science of the mass nesting of Olive Ridley turtles- TH Science]

Science Tech

Easy Explanation

The Olive Ridley turtles are famous for their unique behavior called **arribada**, where thousands of them come ashore together to lay eggs — especially on Odisha's beaches like Rushikulya, which saw a record 7 lakh turtles in March. While this mass nesting gives hope, scientists are also concerned.

These turtles return to the same beach where they were born using Earth's magnetic fields, a process called **philopatry**. But as more turtles return and nesting grounds remain limited, they sometimes dig up other turtles' eggs, leading to accidental destruction and attracting predators. Rising temperatures are also causing more female hatchlings, which may affect the population balance.

Modern conservation has helped increase turtle numbers by protecting beaches and eggs. But too much human involvement — like tourism and artificial incubation — might also be changing natural behavior and affecting genetic strength. Some tourists disturb turtles by taking photos or using bright lights.

The key is to protect turtles **without interfering too much** — letting nature take its course while respecting the delicate balance between conservation, tourism, and wildlife well-being.

Key Takeaways

- Olive Ridley turtles are known for mass nesting events called arribada, with over 7 lakh nesting at Rushikulya beach this year.
- These turtles return to the beach where they were born using Earth's magnetic fields — a behavior called philopatry.
- Odisha has three key nesting sites: Gahirmatha, Devi, and Rushikulya.
- As nesting beaches become crowded, newer turtle arrivals may accidentally destroy existing nests, reducing hatchling survival.
- Olfactory cues (smell of disturbed soil or broken eggs) guide predators to turtle nests more than visual clues.
- Temperature influences hatchling sex — warmer sand creates more females, which can unbalance the sex ratio.
- Some turtles establish new nesting sites if they can't return to their birth beach, which is important for long-term survival.
- Overly successful conservation might allow weaker turtles to survive and reduce the population's genetic resilience.
- Local communities in Odisha play a major role in protecting turtle nests and supporting conservation.
- Turtle tourism, though helpful in awareness, often disturbs turtles with bright lights, crowds, and unethical behavior.
- Turtles' cognitive and emotional responses are not fully understood; even small disturbances may impact their memory or nesting behavior.

- The focus of conservation should now shift to protecting nesting sites long-term and ensuring responsible, ethical human interaction.

India's 'new normal' deconstructed: TH Editorial

International Relations

Easy Explanation

After the Pahalgam terror attack on April 22, Prime Minister Modi made a strong statement in English, signaling India's intent to act decisively against terrorism. Soon after, India launched *Operation Sindoor* and carried out precision strikes on terror camps in Pakistan and Pakistan-occupied Kashmir, including targets deep within Pakistan's Punjab province.

In the past, India's typical response to terrorism involved diplomatic pressure and halting dialogue. But now, India has adopted a *"new normal"* — a proactive, hard-hitting approach that includes crossing the Line of Control and striking terror hideouts. India now clearly says that any act of terror will be responded to, regardless of whether it comes from non-state actors or the Pakistani state.

This new approach also delinks Pakistan's nuclear threats from India's response and emphasizes that India will no longer bear the burden of proving Pakistan's involvement. India will act if credible intelligence exists. Technologies like drones, loitering munitions, and precision weapons will play a larger role. India will depend on itself, not foreign allies, to fight terrorism.

Moreover, India is making it clear that trade, water-sharing, or dialogue with Pakistan is impossible unless Pakistan gives up terrorism and returns POJK (Pakistan Occupied Jammu & Kashmir). This is the core of India's *new doctrine*.

Key Takeaways

- India's *Operation Sindoor* was a response to the April 22 Pahalgam terror attack, targeting nine terror camps in Pakistan and POJK.
- Prime Minister Modi's message was aimed at both Pakistan and the international community, asserting a strong anti-terror stance.
- India clarified the strikes were "measured" and "non-escalatory" but warned that attacks on Indian military targets would be met with force.
- On May 10, India expanded the operation by hitting 11 Pakistani military installations after escalations from Pakistan's side.
- This marks a shift from India's traditional response — no longer limited to diplomatic steps or appeals to global powers.
- India has decoupled the fear of nuclear escalation from its response, calling Pakistan's nuclear bluff.
- The Prime Minister stated that Pakistan's army presence at terrorists' funerals proves state sponsorship of terrorism.
- India will not furnish dossiers or wait for international validation — credible intel alone will justify strikes.
- Modern warfare tools like drones and precision munitions are now central to India's counter-terror strategy.
- The government emphasizes self-reliance, stating that India's fight against terror must be led and executed by India itself.
- Trade and water-sharing with Pakistan are now conditional on Pakistan giving up terrorism and returning POJK.
- This "new normal" signals a permanent shift in India's doctrine: hard action, credible deterrence, and no tolerance for excuses or inaction.

Scheme-based workers, the struggle for an identity: TH Editorial

Economy

Easy Explanation

India's government employs millions of scheme-based workers (SBWs) such as Anganwadi workers, ASHAs, and Mid-Day Meal staff. These people are essential to delivering nutrition, education, and health services at the grassroots level. Despite doing crucial public service, they are not officially recognized as "workers" like regular government staff. This means they are often denied minimum wages, social security, and other rights.

Many of these workers have been protesting, going on strikes, and approaching courts to get justice. Some courts have ruled in their favour—for example, granting gratuity or calling for minimum wages. However, full recognition and regular employment have not been implemented yet. Governments cite cost concerns and delay forming policies.

There's also concern over privatisation of these services, which may worsen conditions for SBWs. The core demand of these workers is simple: don't call their contribution "voluntary" or "honorary"—acknowledge them as proper workers and pay them fairly. Their fight is similar to gig workers who are also denied basic labour rights.

Key Takeaways

- India has around 60 million scheme-based workers (SBWs) under programmes like ICDS, NRHM, and Mid-Day Meal Scheme.
- SBWs play vital roles in nutrition, child care, school enrolment, and public health services, especially in rural areas.
- Despite their essential work, SBWs are not recognized as "workers" and are denied minimum wages and social security.
- They often protest through strikes and legal action, and seek recognition, fair pay, and permanent jobs like other government staff.
- While some state governments offer better conditions, many use legal tools like the Essential Services Act to curb strikes.
- The Supreme Court initially ruled Anganwadi workers are not government employees but later granted them gratuity in 2022.
- The Gujarat High Court in 2024 directed that Anganwadi workers be paid minimum wages and considered for regularisation.
- In the Indian Labour Conference, all stakeholders recommended recognizing SBWs as workers and giving them rights like pension and insurance.
- The central government has delayed implementation, citing policy complexity and cost implications.
- There are growing concerns over attempts to privatise the ICDS, which may further harm SBWs' rights and job security.
- SBWs' struggle mirrors that of gig workers—both demand formal recognition, fair wages, and labour rights instead of applause or honorary labels.

Trade diplomacy: TH Editorial

Economy

Easy Explanation

India has recently restricted certain imports from Bangladesh, especially garments, which are a key part of Bangladesh's economy. This move is seen as a response to Bangladesh's interim leader Mohammed Yunus

inviting China to access India's northeast region through Bangladesh, calling the northeast "landlocked" — something India found offensive.

However, this trade restriction could damage Bangladesh's already struggling economy without actually helping India achieve its political or strategic goals. Bangladesh is currently facing political instability, and its new interim government has been turning away from India diplomatically, even banning the Awami League, the former ruling party that was close to New Delhi.

Instead of reacting with trade barriers, India is advised to adopt a smarter approach — talk to all political sides in Bangladesh and support free and fair elections. Otherwise, India's actions may only worsen anti-India sentiment and even affect security in India's northeast. The focus should be on managing both diplomacy and regional stability until a new elected government comes to power in Bangladesh.

Key Takeaways

- India imposed trade restrictions on Bangladeshi goods, particularly targeting the garment sector, due to recent political tensions.
- The move was in response to interim Bangladeshi leader Mohammed Yunus inviting Chinese access to India's northeast and calling it "landlocked."
- This restriction is seen as a message of displeasure from India but may hurt Bangladesh economically without helping India's strategic goals.
- Bangladesh's political crisis has worsened since the ousting of Sheikh Hasina's government; the current regime is perceived as hostile to India.
- The interim government has banned the Awami League and is warming up to Pakistan and China, causing concern in New Delhi.
- Anti-India sentiment in Bangladesh has increased, partly blaming India for backing the previous government.
- India is advised to engage with all political stakeholders in Bangladesh and urge the interim government to conduct elections promptly.
- Using trade restrictions may backfire by increasing hostility and creating law and order issues, especially in India's northeast.
- India needs a balanced approach — conveying dissatisfaction while maintaining working relations with Bangladesh until a new government is elected.

The role of the Internet in spreading misinformation: TH Opinion

Sociology

Easy Explanation

During the recent India-Pakistan crisis, social media was flooded with fake videos, edited images, and false news about missile strikes and casualties. Many people, including news channels, shared these without checking if they were real. This kind of misinformation spreads panic and confusion.

This issue is not new. A past survey by Lokniti-CSDS showed that nearly half of all internet users and social media users in India had seen or even shared fake news at some point. Even those who never shared fake news were worried about it. The more people were exposed to fake news, the more concerned they became about receiving it in the future.

Many users reported that they do not fully trust the news they see on social media — especially on platforms like X (formerly Twitter). The Reuters Institute also found that more than 70% of Indians get their news online, with many depending on social media like YouTube and WhatsApp.

This shows a major shift in how people get their news and the dangers that come with it. It highlights the urgent need for media literacy — the ability to spot fake news — and for users to think critically before forwarding or believing what they see online.

Key Takeaways

- Misinformation surged during the recent India-Pakistan crisis, including fake videos, images, and casualty reports.
- Many news channels shared these claims without verifying them, adding to public panic.
- A Lokniti-CSDS survey showed that nearly 50% of internet and social media users had encountered fake news online.
- Around 40% admitted to having shared misinformation unknowingly, realising it was fake only later.
- 21% of internet users and 20% of social media users were “highly concerned” about fake news; 31–32% were “somewhat concerned.”
- Even those who had never been misled showed worry — indicating general awareness about the dangers of misinformation.
- 88% of people who had unknowingly shared fake news were more concerned about receiving fake content in the future.
- 21% of users on X reported very little trust in news, and 12% expressed complete distrust.
- Reuters Institute’s 2024 report showed 70% of Indians now get their news online; YouTube and WhatsApp are major sources.
- This shift highlights the urgent need for media literacy and critical thinking to combat fake news and protect public trust.

How the Trump administration aims to contain China’s AI industry: Th Text&Context

International Relations

Easy Explanation

The U.S. and China are in a major tech and trade battle, especially over Artificial Intelligence (AI) and tariffs. Recently, the U.S. decided to cancel a rule introduced by former President Biden that placed global limits on the export of advanced AI chips. This rule aimed to stop countries like China and Russia from indirectly gaining access to U.S. tech through other nations.

Instead, the current administration under Donald Trump wants to take a more aggressive and flexible approach. Rather than having complex global rules, the U.S. now plans to work directly with trusted countries and take tough actions against companies or countries that help China access restricted AI technology. This includes warning against using Chinese AI chips and tightening rules for companies like Nvidia.

At the same time, tariffs on Chinese goods — originally started under Trump and mostly continued under Biden — remain a key pressure tactic. These tariffs, along with strict controls on AI chips, have made life tough for tech companies. They're now dealing with high costs and unclear rules while trying to compete globally.

In the long term, the tech world may split into two — one led by the U.S. and one by China — as each builds its own systems and supply chains. Companies and countries will need to pick sides and prepare for more uncertainty as this power struggle over AI leadership continues.

Key Takeaways

- The U.S. cancelled the Biden-era AI Diffusion Rule, which restricted AI chip exports to prevent China and Russia from gaining indirect access.

- The Trump administration favors direct negotiations with trusted countries instead of blanket restrictions.
- This shift marks a new tactical approach — more aggressive, flexible, and focused on specific threats like Huawei.
- The U.S. aims to maintain its AI leadership while stopping China from strengthening its tech and military power.
- New guidance highlights penalties for using U.S. AI chips in China and urges stronger safeguards in global chip supply chains.
- Tariffs remain a core tool in the U.S.-China economic battle, directly affecting tech sectors and raising hardware costs.
- Companies like Nvidia now need special licenses to ship downgraded chips (like H20) to China, further complicating exports.
- Tech companies face dual pressure: strict export controls and expensive tariffs, making strategic planning harder.
- Countries previously targeted by Biden's tiered system may now face more pressure to align with U.S. interests through direct deals.
- This trend may lead to separate U.S. and China-led tech ecosystems, forcing firms to "de-risk" and diversify their supply chains.
- China is speeding up efforts to build its own AI and chip-making industries, turning U.S. policies into a push for tech self-reliance.
- The global tech industry must now navigate a world where innovation, supply chains, and market access are shaped by geopolitical tensions.

The shadow triangle: IE Editorial

International Relations

Easy Explanation

The recent India-Pakistan crisis is not just about two neighboring countries clashing—it now involves global powers like the U.S. and China. India's military response to terrorist attacks shows a new boldness, but each time there is a conflict, global attention shifts to managing South Asia rather than seeing India as a rising global power.

The U.S., while encouraging peace, has again taken on the role of a mediator, which India doesn't prefer because it puts India and Pakistan on the same level. India wants to be seen globally for its strength and partnerships, not as part of a regional rivalry. Pakistan, on the other hand, uses this mediation to portray itself as equal to India.

A bigger concern now is China's direct role in Pakistan's military. China provides Pakistan with advanced fighter jets, drones, and defense systems. If China's weapons are being used in real-time by Pakistan during conflicts, then India is not just facing Pakistan, but a stronger, China-backed threat.

There is also a warning from India about possibly rethinking the Indus Waters Treaty—an important water-sharing agreement with Pakistan. This is a serious move, but any action here needs to be handled carefully, or it could attract more global attention and pressure, especially from China.

India's goal now should be to control the way conflicts are managed. Instead of reacting to every provocation, it should maintain calm, avoid being pulled into repeated skirmishes, and keep shaping its image as a stable power with a bigger global role. It must balance being strong without getting stuck in a cycle of regional fights.

Key Takeaways

- **India-Pakistan conflict is now a triangular issue** involving not just both countries, but also China and the U.S.

- **India's retaliatory strikes** show a shift from passive defense to active deterrence, sending a message domestically and globally.
- **But frequent military engagements** risk pulling India back into a regional frame, reducing its global image.
- **U.S. involvement as a crisis mediator** revives the "India-Pakistan hyphenation" — something India has worked to eliminate.
- **Pakistan benefits diplomatically** by portraying itself as an equal in the conflict when the U.S. gets involved.
- **India must reject these frameworks**, maintain strategic focus, and emphasize that it is a rules-based power, not in a rivalry of equals.
- **Indus Waters Treaty signaling** by India is meant as pressure but must be handled carefully to avoid backfiring.
- **China's deeper military involvement** in Pakistan — through fighter jets, drones, and defense systems — changes the game.
- **India may now face Chinese-origin weapons in battle**, marking a real two-front threat becoming a reality.
- **Repeated limited conflicts** (flare-ups followed by ceasefires) may become a norm but hurt India's larger strategic goals.
- **India's strategic task** is to shift the narrative: internationalize its global ambitions, while keeping conflicts with Pakistan localized.
- **Maturity in diplomacy** means not reacting emotionally but controlling the terms of engagement and keeping long-term strategic goals in sight.

A LIFE IN SCIENCE: IE Editorial

Science

Easy Explanation

Jayant Narlikar, one of India's most respected astrophysicists, passed away at 87. He was known for pushing scientific boundaries, both in his research and his writing. In the 1990s, he wrote a story imagining a plague

caused by a space virus and later led a real experiment to collect microbes from the stratosphere, raising questions about life beyond Earth.

He famously worked with Fred Hoyle, a British astrophysicist, and together they challenged the Big Bang theory. They proposed instead that the universe has always existed and grows in phases, not from one big explosion. Though controversial, this theory helped spark important scientific debates.

Narlikar chose to return to India, giving up a comfortable career abroad, to build research in Indian institutions. He taught and mentored future Indian astrophysicists and helped set up IUCAA, a top astronomy institute in Pune. He believed deeply in sharing knowledge and fighting pseudoscience.

He also had a creative side—writing novels, short stories, and TV scripts, using simple examples like vegetable prices to explain complex theories. His work combined scientific depth with cultural and social awareness, making science approachable for everyone.

Key Takeaways

- **Pioneer in Indian astrophysics**: Jayant Narlikar passed away at 87. He was known for exploring cosmic questions and challenging mainstream theories.
- **Critique of the Big Bang theory**: Alongside Fred Hoyle, he proposed the *Quasi-Steady State Cosmology*, which suggests the universe has existed forever and evolves gradually, not through a single Big Bang.
- **Science fiction meets science fact**: Wrote a story about a space virus and later led an experiment that found signs of microbes in the upper atmosphere.
- **Mentor and institution builder**: Helped shape Indian astrophysics by mentoring scientists like Thanu Padmanabhan and founding IUCAA, which became a national hub for astronomical research.
- **Believer in accessible science**: Used real-life analogies (like vegetable prices) to explain cosmic ideas. Also worked to debunk astrology and pseudoscience.
- **Wrote for public awareness**: Contributed to newspapers, wrote fiction, and explained science to everyday audiences, bridging the gap between scientists and the public.
- **Culturally rooted approach**: Had IUCAA designed using Buddhist concepts while promoting modern science grounded in critical thinking.
- **Legacy beyond labs**: He stood for rigorous scientific method, creative imagination, public outreach, and a rejection of shortcuts in learning or research.

NOT JUST A TRADE DEAL: IE Text&Context

Economy

Easy Explanation

The India–UK Free Trade Agreement (FTA) is more than just a big win in trade talks — it's a chance for Indian industries to grow globally. Before this deal, Indian exports like textiles, leather, toys, and seafood faced high tariffs in the UK, making them more expensive than products from countries like Bangladesh or China. Now, with the FTA, almost all Indian products (99%) will get zero-duty access, giving Indian businesses a fair chance to compete.

This change means Indian companies must shift from just selling basic products to offering branded, high-quality items suited for global, premium markets.

Importantly, India hasn't opened everything — sensitive sectors like dairy, smartphones, and edible oils are protected. This shows a smart balance: open up where we're strong and protect where we're still growing.

The biggest benefit may come in services. Indian IT, education, telecom, and finance firms will find it easier to operate in the UK. Professionals like architects and engineers will have smoother job opportunities. A new rule will also let Indian professionals on short-term UK assignments skip double social security payments, making hiring more affordable.

The FTA also helps India and the UK work together in technology, design, and innovation. Indian businesses should look at the UK not just as a market, but as a partner for global innovation.

For the first time, an Indian FTA also talks about labour rights, environmental protection, gender equity, and anti-corruption — showing that India is ready to meet modern global standards.

To benefit fully, Indian businesses must understand UK consumer needs, ensure product quality and compliance, and build strong partnerships. This FTA can help India move from being a low-cost exporter to a high-value global leader.

Key Takeaways

- **Big trade breakthrough**: Nearly 99% of Indian products will now enter the UK without tariffs, removing major disadvantages in sectors like textiles, toys, leather, and seafood.

- **Balanced strategy**: India gave the UK access to its markets but protected critical sectors like dairy, apples, edible oils, smartphones, and medical devices.

- **Services boost**: Indian IT, telecom, education, and finance firms gain easier UK market access. Professionals benefit from recognition of degrees and exemption from social security contributions.

- **Shift from commodity to brand**: Indian companies are urged to move beyond basic exports to creating premium, branded products for regulated, high-end markets.

- **Innovation partnership**: The FTA promotes collaboration in research, design, technology, and co-manufacturing between Indian and UK firms.

- **Modern values included**: For the first time, the FTA includes chapters on labour rights, environment, gender equity, and anti-corruption — reflecting India's growing economic maturity.

- **Preparation required**: Indian companies must invest in UK-specific strategies, quality certifications, compliance, product development, and reskilling talent.

- **Step toward Viksit Bharat**: The FTA helps India become a value-creating global power, supporting its vision of becoming a developed economy with strong global brand leadership.

Trump-proofing India-US: IE Text&Context

International Relations

Easy Explanation

Building trust between countries takes years of effort — but it can be broken in just a few careless words. That's what happened when Donald Trump made a series of public remarks about India and Pakistan. His recent statements — such as taking credit for the India-Pakistan ceasefire or suggesting mediation on Kashmir — have disrupted the carefully built understanding between the two countries, especially since the 1990s.

Historically, the U.S. supported Pakistan on the Kashmir issue. But over the past two decades, especially under George Bush, Obama, and even Trump's first term, the U.S. moved away from that and chose to treat India and Pakistan separately. India was seen as a growing power, not just a South Asian player. That began to change with Trump's strange remarks during the current crisis — comparing India and Pakistan unfairly, talking casually about mediation, and even referencing trade figures that don't match reality.

This time, Trump appears to be the sole voice shaping U.S. policy, with many top posts in his administration still unfilled. Unlike before, there is no formal system or process behind his foreign policy statements — it's all about his personal decisions and business interests, which raises serious concerns. Media reports suggest he might have business interests in Pakistan, which could be influencing his views.

So how should India respond?

1. **Stay calm** – India has dealt with bigger diplomatic challenges in the past, including U.S. pressure on Kashmir and nuclear policy.

2. **Avoid reacting daily** – Instead of countering every Trump statement, India should continue engaging the U.S. on specific issues, knowing it is now a much stronger economy.

3. **Engage with all of America** – The U.S. has more power centres than just the White House — like Congress, businesses, and civil society — and India must keep working with them.

4. **Diversify partnerships** – Europe and other U.S. allies are also unhappy with Trump's unpredictability. India can build stronger ties with them.

5. **Strengthen from within** – India's biggest strength is its domestic capability. Investing in industry, innovation, and self-reliance is the best long-term insurance.

In short, Trump's comments have created turbulence, but India must stay focused, calm, and strategic — both in foreign policy and in building its own economic power.

Key Takeaways

- **Trump disrupted decades of India-U.S. diplomatic understanding**, especially on Kashmir and Pakistan, with careless public remarks.
- **Past U.S. administrations (including Trump's first term)** supported de-hyphenation — treating India and Pakistan separately and rejecting mediation on Kashmir.
- **Now, Trump appears to be shaping U.S. foreign policy alone**, with little administrative process or support, raising concerns over credibility and personal business influence.
- **India's strategy to handle the disruption** includes:
    - Avoid overreacting to daily statements.
    - Continue engagement with various parts of the U.S. system — Congress, business, civil society.
    - Avoid depending too heavily on one partner and **deepen ties with Europe and other powers**.
    - Focus on **building domestic strength**, especially in innovation and industry, to reduce external vulnerability.
- **The Trump shock is temporary**, but India must use this time to increase its strategic autonomy, diversify partnerships, and rely on its own economic and technological capabilities for long-term stability.

[Narlikar's challenge to Big Bang: IE Explained]

Science

Easy Explanation

Professor Jayant Narlikar, one of India's most respected scientists, passed away recently. He was an astrophysicist who challenged the popular Big Bang theory — the idea that the universe began with a giant explosion around 13.8 billion years ago.

Instead, Narlikar, along with his mentor Fred Hoyle, proposed the **steady-state theory**. This theory said that the universe didn't start or end — it has always existed and continues to expand while creating new matter to keep its density constant. So even as the universe grows, it doesn't get thinner because new particles are constantly being created.

Narlikar and Hoyle believed this model solved some of the mysteries that the Big Bang theory could not, like what existed before the universe began, or how everything could be created from nothing in a single instant.

To support their idea, they even adjusted Einstein's equations to allow for this constant creation of matter. Narlikar compared this to compound interest: as capital grows with interest, so does the universe with new matter being added over time.

However, over the years, the **Big Bang theory became more widely accepted**, especially after scientists discovered the **cosmic microwave background radiation (CMB)** — a kind of leftover heat from the Big Bang — which strongly supported that model. Other evidence, like the way galaxies evolve, also backed the Big Bang.

Even though the steady-state theory lost popularity, Narlikar always believed that science should remain open to re-examining old theories. His math and frameworks are still considered useful in many areas of physics.

He leaves behind not only a remarkable scientific legacy but also a passion for questioning established ideas and making science accessible to everyone.

Key Takeaways

- **Jayant Narlikar was a pioneering Indian astrophysicist** known for proposing the **steady-state theory** of the universe with Fred Hoyle, as an alternative to the Big Bang theory.
- The **steady-state theory** argued that the universe has **no beginning or end**, and keeps a **constant density** by creating **new matter** as it expands.
- Narlikar modified **Einstein's theory of general relativity** to include this idea of continuous matter creation.
- Despite initial attention, the steady-state model lost ground when **evidence like cosmic microwave background radiation (CMB)** and **galaxy evolution** more strongly supported the **Big Bang theory**.
- Narlikar **never fully accepted the Big Bang theory**, arguing that it rests on assumptions and that **alternative models deserve exploration**.
- His **mathematical contributions remain significant**, and his work continues to influence cosmology.
- Narlikar was also known for **making science accessible**, often explaining complex ideas using everyday examples like bank interest or vegetables, and writing books and TV scripts.
- He symbolizes the **spirit of scientific questioning**, blending deep theoretical work with a commitment to public understanding of science.

22nd May 2025

[The illiberal in the mirror: IE Editorial]

Polity

Easy Explanation

Freedom of Expression (FoE) is often seen as a symbol of a liberal and democratic society. But in practice, it faces serious challenges — especially in countries like India where democratic values are mixed with complex politics, societal sensitivities, and state control.

Two people recently exercised their right to free speech — both commented on the Indian government's decision to include Colonel Sofiya Qureshi in public briefings. One person questioned the move, while the other used it to spread hate. The first was arrested and faces a Special Investigation Team (SIT), but the second faced no arrest. This shows how inconsistently FoE is treated.

The article points out **three major myths** about FoE in India:

1. **The State is the protector of free speech**: In reality, laws have mostly been used to restrict FoE — often in the name of national interest, defamation, or communal harmony. Over time, FoE has become more like a rare privilege than a citizen's right.

2. **There are clear safeguards for FoE**: Actually, the rules are vague and often tilted in favour of the ruling government. Legal decisions are inconsistent, and ordinary people often don't know what's allowed or punishable. Even if someone speaks out, they may be arrested first and given bail later — creating fear.

3. **All speech should be treated equally under FoE**: This idea is misused. Hate speech is presented as valid criticism and justified under FoE. This blurs the lines between legitimate opinion and harmful propaganda, weakening the true meaning of free speech.

The core question is: **Is FoE necessary for democracy?** Many think democracy just means holding regular elections. But real democracy also needs **public reason** — open debate, disagreement, and citizen participation. These are only possible when FoE is protected.

So, if we arrest someone for speaking out, or demand punishment for unpopular opinions, we damage the foundation of democracy. The conversation about FoE must not just be legal — it should be about what democracy really means.

Key Takeaways

- **FoE is treated inconsistently**: Citizens making similar comments can face very different consequences, exposing bias in how free speech is handled.

- **India's laws have mostly restricted FoE**, often using justifications like national interest, defamation, or causing communal tension.

- **FoE is treated more as a temporary concession than a basic right**, with arrests and bail often used to discourage dissent.

- **Legal safeguards for FoE are weak**, and jurisprudence is inconsistent, leaving people uncertain about what speech is protected.

- **Hate speech is often misrepresented as free expression**, diluting the true purpose of FoE and giving space for targeted abuse.

- **FoE is essential for real democracy**, not just as a legal right but as a way for citizens to engage in debate, express disagreement, and shape public opinion.

- **FoE must be defended in the language of democracy**, not just legal terms, to prevent its misuse and to keep democracy alive and meaningful.

A TURNING POINT: IE Editorial

Internal Security

Easy Explanation

Since Vishnu Deo Sai became Chief Minister of Chhattisgarh in December 2023, the state has taken aggressive steps to eliminate Maoist militants. Last year saw 219 left-wing extremists (LWEs) killed — the highest number since the state was formed. This year, the most important breakthrough came when *CPI (Maoist) general secretary Nambala Keshava Rao*, also known as *Basavaraju*, was killed along with 26 others. Basavaraju had been behind major attacks in the past, including the 2010 massacre of 76 CRPF personnel and the 2013 Jhiram Ghati ambush that wiped out most of Chhattisgarh's Congress leadership.

This could be a turning point in India's battle against Maoist insurgency. Chhattisgarh remains one of the last strongholds of Maoists, particularly in districts like Bastar and Dantewada, while the movement has declined in states like Andhra Pradesh and Telangana.

The Maoists gained ground in Chhattisgarh due to difficult geography (dense forests, poor infrastructure) and high levels of poverty. Earlier state policies, like arming civilians under Salwa Judum instead of investing in security and development, made things worse. But over time, the Centre and state started working together better, building security camps, roads, and mobile towers — which cut off the Maoists' safe havens and connected people to development.

Importantly, Chhattisgarh is also encouraging Maoists to surrender by offering them homes, job training, and employment opportunities. In 2023, over 800 Maoists gave up arms.

Still, killing a top leader doesn't mean the problem is over. The government must continue its two-pronged strategy: maintain strong security and push even harder for development.

Key Takeaways

- **Major offensive against Maoists**: Under CM Vishnu Deo Sai, Chhattisgarh killed 219 Maoists in 2023 — the highest so far.

- **Death of Maoist chief Basavaraju**: His killing in 2024, along with 26 cadres, is a major blow to the insurgency.

- **Historical strongholds weakened**: Maoist power has declined in Andhra Pradesh and Telangana, pushing leaders to Chhattisgarh.

- **Chhattisgarh's geography aided Maoists**: Forested terrain and poor infrastructure gave them an advantage, worsened by early policy missteps like Salwa Judum.

- **Improved coordination**: Better cooperation between central and state forces, creation of base camps, and infrastructure projects have shrunk Maoist control zones.

- **Rehabilitation efforts**: Former Maoists are offered housing, skill training, and job opportunities to reintegrate into society.

- **Surrenders on the rise**: Over 800 Maoists surrendered in 2023 in Chhattisgarh alone.

- **Way ahead**: The government must not relax. Continued security efforts and faster development are key to permanently ending Maoist extremism.

NO TIME FOR PARTISAN POLITICS: IE Editorial

Polity

Easy Explanation

On April 22, terrorists supported by Pakistan attacked tourists in Pahalgam. This wasn't just a strike on people — it was an attack on the nation's conscience. Earlier attacks targeted military bases, but this one hit innocent civilians, leaving the whole country shocked. The government responded with strong airstrikes on terrorist camps in Pakistan, followed by strikes on airbases when Pakistan retaliated. Eventually, India agreed to a ceasefire proposed by Pakistan — but history shows that Pakistan's words rarely match its actions.

Pakistan has often spoken of peace while continuing to support terrorism. Past leaders like Imran Khan and Shehbaz Sharif made promises of peace — through tweets, manifestos, and public speeches — but nothing meaningful came from those promises. The recent Pahalgam attack shows how hollow those claims are.

To expose this hypocrisy to the world, the Indian government decided to send multi-party delegations to foreign countries (excluding China and Turkey, who supported Pakistan). It's a welcome step that even opposition leaders are part of this mission. But for this to work, all questions — including those raised by opposition leader Rahul Gandhi about our operations and losses — must be answered before the delegation travels.

Some controversy did arise over who was selected to join these delegations — for instance, about Congress MP Shashi Tharoor or TMC's Yusuf Pathan — but these have been mostly resolved. The important thing is that India shows unity to the world at this critical time. Politics can wait. Justice for the Pahalgam victims cannot.

Key Takeaways

- **Pahalgam attack was a turning point**: For the first time, Pakistan-linked terrorists targeted civilians, not just soldiers — shocking the nation.

- **India's response**: Precision strikes were carried out on terror camps and airbases in Pakistan. Later, a ceasefire was accepted, but with caution.

- **Pakistan's double-speak**: Despite repeated peace promises by Imran Khan and Shehbaz Sharif, Pakistan has continued to shelter and support terrorists.

- **Global outreach planned**: Multi-party Indian delegations will visit several countries (except China and Turkey) to present India's case and counter Pakistan's propaganda.

- **Opposition's questions**: Congress leader Rahul Gandhi demanded clarity on how the operation was conducted and on Indian losses — these must be addressed.

- **Some delegation-related controversy**: Issues over who was selected (e.g., Tharoor and Yusuf Pathan) emerged but were largely resolved.

- **National unity is key**: This is not the time for political rivalry. A united front is essential to honour the victims and prevent future tragedies like Pahalgam.

- **Final goal**: The message must be clear — India stands firm against terrorism, and the world must see a strong, united India demanding accountability.

[Moral argument & the microphone: IE Ideas]

International Relations

Easy Explanation

In today's world, especially during international conflicts, how a country tells its story can be just as important as what actually happened. In the recent India-Pakistan conflict, India acted with military strength and caution — but lost out on something just as vital: the global narrative.

Pakistan used the media, diplomacy, and international forums smartly. It portrayed itself as a victim and India as an aggressor. Surprisingly, it even managed to get a loan from the IMF with no conditions attached to its support for terrorism. Meanwhile, India — though morally and strategically strong — failed to explain its side effectively to the world.

One big reason was the Indian media. Many TV channels went overboard with nationalistic and dramatic coverage, making it hard for global observers to get clear, credible updates. Meanwhile, India's official communication remained slow, vague, and poorly coordinated. That created a gap, which Pakistan filled quickly.

In financial matters too, India didn't push hard enough to connect terrorism with funding restrictions. For example, earlier India had managed to get Pakistan put on the FATF "grey list" for funding terror — but failed to apply similar pressure during the IMF loan talks. Meanwhile, China's support for Pakistan and Trump's focus on trade talks with China may have influenced the US to stay quiet.

The core issue is this: India continues to treat terrorism as its personal problem with Pakistan. But to hold Pakistan accountable, India must make it a global issue — backed by real-time communication, evidence, and diplomacy.

India now needs a permanent crisis communication setup, with coordinated messaging from ministries, diplomats, and the military. It should produce regular, credible data about Pakistan's terror links and engage international media, think tanks, and watchdogs. And it must also address irresponsible media coverage within India.

India didn't lose the moral argument — it just lost the global microphone. And in this age, every conflict is also a media war. If India wants the world to support its stance and see Pakistan as a terror sponsor, it must tell its story better — fast, clear, and loud.

Key Takeaways

- **India won the military battle, lost the media war**: Despite strong action, India struggled to control the global narrative, allowing Pakistan to portray itself as a victim.
- **Hyper-nationalist media weakened India's credibility**: Sensational TV coverage drowned out official updates, confusing global audiences and pushing them toward Pakistan's clearer messaging.
- **Pakistan used the first 48–72 hours smartly**: Quick, coordinated press releases, diplomacy, and emotional appeals helped it gain soft power advantage.
- **India lacked a communication strategy**: No timely briefings, no media coordination, and no pre-emptive diplomacy meant facts got buried under noise.
- **IMF bailout showed India's missed opportunity**: Pakistan received international funding without any counter-terrorism conditions — a failure of Indian lobbying.
- **Global media defaulted to false equivalence**: Instead of calling out Pakistan, many global narratives asked for "restraint from both sides," treating the issue as a bilateral clash.
- **Need for permanent crisis communication team**: India should set up a real-time strategic messaging system involving diplomats, military, and media experts.
- **Make terrorism a global concern, not just an India-Pakistan issue**: Consistently share credible reports, name entities, and engage financial institutions and watchdogs.
- **Control over domestic media is essential**: Freedom of expression must be preserved, but misinformation and exaggeration during crises should be addressed to avoid global damage.
- **Bottom line**: India didn't lose the argument — it just didn't speak loud and clear. Every future conflict will be a communication contest. India must win that too.

[The Veeraswami case: When can a sitting judge face an FIR?: IE Explained]

Polity

Easy Explanation

Recently, Vice President Jagdeep Dhankhar questioned why the Supreme Court only ordered an internal inquiry (in-house probe) into a judge, Justice Yashwant Varma, instead of registering a criminal FIR, even though a large sum of unaccounted cash was found at his home. He also criticized an older Supreme Court ruling from 1991 (called the *K Veeraswami judgment*), which, he said, gives too much protection to judges from criminal investigation.

But here's the background:

In India, judges are supposed to work independently and without fear — including from criminal cases filed by those unhappy with their judgments. So, the Constitution only provides one method to remove a judge: **impeachment** through Parliament. This process is political and complex, and no judge has ever actually been impeached in India.

To handle complaints against judges more practically, the Supreme Court developed a system of **in-house inquiries**. In this process, the Chief Justice of India (CJI) sets up a panel of judges to check if the allegations are serious. If they are, the report goes to the President and Prime Minister. That's exactly what happened in Justice Varma's case.

Now, back to the 1991 Veeraswami case. At that time, the CBI had filed a corruption case against a sitting High Court Chief Justice (Justice K Veeraswami). The Supreme Court had to decide if this was legal. The verdict said: **Yes, judges can be prosecuted — but only if the Chief Justice of India gives permission**. This was to stop the government from harassing judges.

Over the years, very few such permissions have been given. One example was in 2019, when then CJI Ranjan Gogoi allowed the CBI to register an FIR against a sitting judge.

Vice President Dhankhar feels this system protects corrupt judges too much and needs to be reviewed. However, the Supreme Court has made it clear that unless the CJI allows it, no FIR can be filed against a sitting judge.

Key Takeaways

- **Why the controversy?**: Justice Yashwant Varma was found with a large amount of unaccounted cash. The SC held an internal probe but did not allow a criminal FIR, leading to public and political criticism.
- **Vice President Dhankhar's stand**: He questioned the in-house inquiry process and called for an FIR. He also attacked the 1991 *Veeraswami* ruling, saying it gives undue protection to judges.
- **What is the Veeraswami judgment?**
    - Delivered in 1991 by the Supreme Court
    - Said that judges *can* be prosecuted under corruption laws
    - But an FIR *requires prior permission from the Chief Justice of India (CJI)*
    - This was meant to protect judges from executive harassment
- **Why not just impeach judges?**
    - Impeachment is the only constitutional method to remove a judge
    - But no impeachment has ever succeeded in India
    - Hence, the judiciary created the **in-house inquiry** system for handling misconduct
- **In-house inquiry system**:
    - A panel of judges examines the charges
    - If there's enough evidence, the report is sent to the executive
    - The judiciary itself cannot punish or remove the judge
- **Real-life use of the Veeraswami rule**:

  - Very rare — only once in 2019, when CJI Gogoi allowed a CBI FIR against Justice S.N. Shukla for MBBS seat scam
- **Current situation**:
  - The SC has already sent Justice Varma's report to the President and PM
  - The Court refused a plea to register an FIR against him, sticking to the Veeraswami rule
- **Bottom line**:
  - Judges can be investigated for crimes — but only with the Chief Justice's permission
  - The aim is to protect judicial independence
  - But there are growing calls to reform this system and allow criminal prosecution without such restrictions in cases of serious wrongdoing

[Maoist leader Basavaraju: IE Explained]

Internal Security

Easy Explanation

The Chhattisgarh Police recently confirmed the killing of Nambala Keshava Rao, also known as **Basavaraju**, the top leader (general secretary) of the **CPI (Maoist)** — the most prominent Maoist insurgent group in India. He was killed in a major security operation in the forests of **Abujhmaad**, an area long considered a Maoist stronghold.

This marks one of the **biggest successes** for Indian security forces in the decades-long battle against **Left-Wing Extremism (LWE)**. With Basavaraju gone, many believe India is closer than ever to meeting the target of **eliminating the Maoist insurgency by March 2026**, as stated by Home Minister Amit Shah.

Who was Basavaraju?

- Originally from **Srikakulam, Andhra Pradesh**, he studied engineering and was even a national-level volleyball player.
- He joined the **People's War Group** in 1980 and stayed underground for over **four decades**.
- In **2018**, he became the **head of CPI (Maoist)** after long-time leader **Ganapathy** stepped down.
- He was known as a **ruthless military commander**, skilled in explosives and planning major attacks.
- He played a key role in some of the deadliest attacks on Indian forces, including:
  - The **2013 Jhiram Ghati** attack that killed top Congress leaders
  - The **2010 Dantewada** massacre that killed 76 CRPF men

Why was his death significant?

- He was the **No. 1 Maoist leader**, with a ₹2 crore reward on his head.
- He was behind both **ideological planning** and **armed operations**.
- His death leaves the CPI (Maoist) headless and disoriented.
- It comes after several **major setbacks** for Maoists in recent years, where hundreds of cadres have been eliminated.

Major Maoist Attacks Under Basavaraju's Leadership (2018–2025):

- 2018: **Sukma (Chhattisgarh)** – 9 CRPF personnel killed.
- 2019: **Gadchiroli (Maharashtra)** – 15 police personnel killed.
- 2021: **Sukma-Bijapur** – 22 security personnel killed.
- 2023: **Dantewada** – 10 DRG personnel killed.
- 2025: **Bijapur** – 8 DRG personnel killed.

Major Setbacks for Maoists Recently:

- 2024: **29 Maoists killed in Kanker**
- 2024: **38 Maoists killed in Abujhmaad**

Basavaraju's death is seen as a **turning point** in the war against Maoism, but officials say that **security efforts and development work** must continue to fully eliminate the insurgency.

Key Takeaways

- **Who was killed?**
  CPI (Maoist) general secretary **Basavaraju**, top leader and chief of military strategy, was killed in Abujhmaad, Chhattisgarh.
- **Why is this historic?**
  His death is the **biggest Maoist leadership loss in decades** and brings India closer to ending the Maoist insurgency.
- **Background of Basavaraju**:

  - Born in Andhra Pradesh, B.Tech from REC Warangal
  - Joined People's War in 1980
  - Arrested only once in his life
  - Became general secretary in 2018
  - Known for his **brutal tactics and military planning**
  - Carried a reward of ₹2.02 crore
- **Major attacks planned under him**:
  - 2018: **Sukma** – 9 CRPF killed
  - 2019: **Gadchiroli** – 15 killed
  - 2021: **Sukma-Bijapur** – 22 killed
  - 2023: **Dantewada** – 10 killed
  - 2025: **Bijapur** – 8 killed
- **Major recent defeats for Maoists**:
  - 2024: 29 Maoists killed in Kanker
  - 2024: 38 Maoists killed in Abujhmaad
- **What now?**
  Security forces must remain alert; development work, surrender policies, and public trust will be key to ending LWE permanently.

WHAT IS TRUMP'S 'GOLDEN DOME', FUTURISTIC U.S. AIR DEFENCE SYSTEM?: IE Explained

Science

Easy Explanation

US President Donald Trump has proposed building a **"Golden Dome" missile defense system**, which he claims will be the **most advanced** and **first truly space-based weapon system** ever created. Inspired by **Israel's Iron Dome**, the Golden Dome is far more ambitious — it aims to stop **intercontinental ballistic missiles (ICBMs)** and other threats **from space itself**, not just from the ground.

What is the Golden Dome?

- It is a proposed **missile defense shield** that would use **thousands of small satellites** orbiting Earth to detect and destroy enemy missiles **just seconds after they are launched**.
- It would involve **space-based interceptors** — weapons in orbit — which has never been done before.
- Trump appointed **General Michael Guetlein of the US Space Force** to lead the project.

How is it different from Israel's Iron Dome?

- The **Iron Dome** is a **ground-based** system that intercepts **short-range** rockets and missiles using radars.
- The **Golden Dome** aims to stop **long-range threats like ICBMs**, including **nuclear weapons**, and would primarily use **space-based technology**, like satellites and space-launched interceptors.

Why is it significant?

- If built, it would be the **first space-based missile defense system** in the world.

- It would aim to neutralize threats from countries like **Russia and China**, who possess ICBM technology.

- ICBMs travel into space before returning to Earth at **hypersonic speeds**, making **space-based interception more efficient** than ground-based systems.

But there are big challenges:

- Trump says it will be ready by **January 2029** and cost **$175 billion**, but experts doubt both the **timeline and the budget**.

- The funding is still uncertain and tied to a larger bill in **US Congress**, which is facing resistance.

- Technologically, it's **possible**, but so far it remains a **concept** — not yet tested or proven in real-world conditions.

Key Takeaways

- **What is it?**
  The **Golden Dome** is a proposed US missile defense shield designed to intercept enemy missiles **from space**, inspired by Israel's **Iron Dome**, but much more powerful.
- **Who is leading it?**
  General **Michael Guetlein** of the US Space Force is in charge.
- **How does it work?**
  - Uses **thousands of satellites** in orbit.
  - Launches interceptors from space to stop **ICBMs** and nuclear missiles.
  - Unlike the Iron Dome, which is ground-based and defends against short-range threats, this will work **from space** and tackle **long-range, fast-traveling missiles**.
- **Why is it important?**
  - Targets **ICBMs** from rivals like **Russia and China**.
  - Represents a **military shift into space warfare**.
  - Would be the **first true space-based weapons system**.
- **Challenges ahead**:
  - Cost: Estimated at **$175 billion**, but experts say this may rise.
  - Timeline: Trump wants it by **2029**, but experts are skeptical.
  - Funding: An initial **$25 billion** has been proposed, but it's tied to a controversial defense bill.
  - Status: For now, it is **still a concept**, not yet tested.
- **Bottom line**:
  Golden Dome could **transform global defense**, but its future depends on funding, technology, and international response.

Warming likely to make cyclones more destructive than ever before: TH Science

Science

Easy Explanation

Cyclones (like hurricanes and typhoons) are some of nature's most powerful storms. While they've always occurred naturally, **climate change is making them worse** — stronger, more frequent, and even striking **new places that weren't used to them**.

A new study by researchers at ETH Zurich says if the world follows a high-pollution, high-warming path (called **SSP5-8.5**), **cyclones could become even more dangerous**, harming ecosystems like **mangroves** and hitting **regions that haven't experienced them before**.

What is SSP5-8.5?

It's a scenario scientists use to model climate futures:

- **SSP5** assumes heavy fossil fuel use and high economic growth, but little concern for the environment.
- **8.5** is a number representing how much heat energy gets trapped on Earth due to pollution — a very high level of warming.
  This scenario leads to extreme climate change.

What did the study find?

1. **More cyclones, stronger cyclones**:
   - Future cyclones will happen more often and with stronger winds.
   - Many places like **East Asia, the Caribbean, and Oceania** will see more damage.
   - **Even the Philippines** could face worse storms than ever recorded.
2. **New regions will be hit**:
   - **200 new ecoregions** (natural zones like forests or mangroves) may be hit by cyclones.
   - **Madagascar and higher-latitude areas** (away from the equator) are also at risk.
   - These areas aren't prepared for such storms and will struggle to recover.
3. **Mangroves are in big trouble**:
   - By 2100, **up to 56% of the world's mangroves** could be at high or severe risk.
   - **Southeast Asia** is the most vulnerable.
   - Mangroves protect coasts, reduce erosion, and store large amounts of carbon — much more than regular forests.
   - If mangroves die, **fish populations, coastal protection, and climate stability** could suffer.
4. **Ecosystems may not recover**:
   - Normally, resilient ecosystems recover between cyclones in 19 years. But this gap could shrink to **just 12 years**.
   - Some ecosystems may be permanently damaged or completely change.
5. **Cyclone zones could move**:
   - **Cyclone belts** could shift away from the equator.
   - Areas that never faced cyclones before (like higher-latitude regions) might start experiencing them.
6. **Planning must improve**:
   - Countries need to include **recovery time** in disaster planning.
   - **Conservation policies** must account for these new patterns and risks.

Key Takeaways

- **What is SSP5-8.5?**
  A high-warming future with heavy fossil fuel use and severe climate impact.
- **Cyclone Risk Increases**:
  - Cyclones will become more frequent and intense.
  - Areas not used to cyclones will be hit harder.
- **Mangroves Under Threat**:
  - Up to **56% of mangroves worldwide** could be severely affected by 2100.
  - **Southeast Asia** is the most at-risk region.

    - This endangers coastal protection and climate control.
- **Newly Affected Areas**:
    - **200 more ecoregions** may become vulnerable to cyclones.
    - **Madagascar and parts of Oceania** face rising danger.
- **Recovery Gaps Shrinking**:
    - Resilient areas had 19 years between big cyclones earlier; this could drop to **12 years**, giving them **less time to recover**.
- **Shift in Cyclone Zones**:
    - **Cyclones could move farther from the equator**, hitting regions that are **unprepared**.
- **What needs to be done?**
    - Include **ecosystem recovery time** in planning.
    - Focus on **risk-sensitive conservation**.
    - Act quickly to reduce fossil fuel use and stick to the **Paris Agreement goals**.
- **Final message**:
  Climate change is not only making cyclones worse — it's changing **where they happen**, and **how ecosystems recover**. If we don't act now, the scale of the damage will be much worse than we think.

Development without the savaging of urban biodiversity: TH Editorial

Environment

Easy Explanation
Biodiversity means all the different types of life — plants, animals, and other organisms — on Earth. It's essential for clean air, water, food, and overall health. But today, many species are at risk of disappearing forever.

May 22 is celebrated as International Day for Biological Diversity. This year's theme is "Harmony with nature and sustainable development." In 1992, countries agreed on a big plan called the Convention on Biological Diversity (CBD). It recently came up with new goals, including protecting 30% of land and water by 2030.

One important goal focuses on saving green (like parks) and blue spaces (like lakes) in cities. This is crucial because half of the world's population lives in cities, and the number is growing. Sadly, many cities are losing trees and green spaces due to buildings and development.

Urban trees and green spaces are not just beautiful — they help cool cities, clean the air, reduce floods, and improve mental and physical health. In fact, experts say the trees in big cities give services worth crores of rupees every year. But Indian cities still have very little forest cover. Some, like Chennai and Hyderabad, have lost more greenery recently.

To help cities become greener, the UN recommends a 3-30-300 rule — you should see 3 trees from your window, your neighborhood should have 30% tree cover, and a public park should be within 300 metres.

Some Indian cities have already taken steps. For example, in Chennai, planting native trees in market areas attracted many birds and butterflies. Other cities are protecting marshlands and reviving lakes.

However, more work is needed. Builders should be required to plant trees, rooftops can grow kitchen gardens, and all citizens should help protect the environment. Courts are also stepping in to stop tree destruction.

To truly save nature in cities, everyone must work together — governments, citizens, businesses — so we can build cities that grow without harming nature.

Key Takeaways

1. Global and National Commitments

- May 22 marks the adoption of the Convention on Biological Diversity (CBD).
- The Kunming-Montreal Global Biodiversity Framework (GBF) aims to conserve 30% of land and water by 2030.
- SDG Goal 11 promotes sustainable cities.

2. Why Urban Biodiversity Matters

- Urban areas are growing fast — 70% of the world's population will live in cities by 2050.
- Trees and green spaces lower temperatures, control pollution and floods, and improve mental and physical health.
- Trees in cities like New York provide services worth ₹8 crore per sq km per year.

3. Forest Cover Status in Indian Cities

- Mumbai: 25.4%, Delhi: 12.6%, Bengaluru: 6.8%, Chennai: 4.6%, Ahmedabad: 3.2%.
- Chennai and Hyderabad lost green cover between 2021–2023.

4. Urban Planning Solutions

- UN's 3-30-300 Rule: 3 trees visible from home, 30% tree canopy in neighbourhood, green space within 300 metres.
- City Biodiversity Index tracks a city's biodiversity efforts.
- Chennai's Koyambedu market project helped regenerate 141 plant species and attracted birds and butterflies.

5. Way Forward

- Make tree planting mandatory in new construction projects.
- Promote rooftop gardens and kitchen gardens.
- Legally protect lakes and water bodies.
- Courts are stepping in (e.g., Hyderabad's Kancha Gachibowli tree destruction case).
- Citizens, NGOs, and companies must join hands to conserve urban biodiversity.

Should water be used as a weapon?: TH Text&Context

International Relations

Easy Explanation

India and Pakistan share rivers, and since 1960, a treaty called the Indus Waters Treaty (IWT) has helped divide those river waters peacefully. Even during wars between the two countries, the treaty continued to work — that's how strong it is.

The treaty gives India full rights over three rivers (Ravi, Beas, Sutlej), and Pakistan rights over the other three (Indus, Jhelum, Chenab). India can still use some water from Pakistan's rivers for power generation, but with strict rules.

After recent terrorist attacks like Pahalgam, India is questioning whether it should still follow the treaty. Some say India should use water as a pressure tactic on Pakistan. Others warn that this could backfire and damage India's international reputation.

India has built hydroelectric projects like Kishanganga and Ratle, which Pakistan objects to. Disagreements have gone to courts and expert panels under the treaty's rules.

Globally, countries have solved water disputes through laws and diplomacy. If India withdraws from the treaty, it might face global criticism, lose legal credibility, and upset nearby countries like Nepal or Bangladesh.

In the end, India can use the treaty better by building within the rules, but walking away from it could do more harm than good — both to India's image and to regional peace.

Key Takeaways

1. What is the Indus Waters Treaty (IWT)?

- Signed in 1960 between India and Pakistan, with World Bank support.
- Eastern rivers (Ravi, Beas, Sutlej) go to India; western rivers (Indus, Jhelum, Chenab) to Pakistan.
- India can use western rivers for hydropower but under strict design conditions.
- The treaty survived wars and political tensions due to its technical structure.

2. Why is the Treaty Being Questioned Now?

- After attacks like Uri (2016), Pulwama (2019), and Pahalgam (2025), calls have grown in India to rethink the treaty.
- Critics say it's wrong to keep sharing water with a country that shelters terrorists.
- India has increased dam and hydropower projects (Kishanganga, Ratle), which Pakistan opposes.

3. Legal and Diplomatic Tools Under IWT

- Disputes are handled via neutral experts or a Court of Arbitration.
- World Bank plays a supervisory role.
- India participated in both arbitration and neutral expert processes, even if reluctantly.

4. Can India Withdraw from the Treaty?

- Legally hard: The IWT has no withdrawal clause.
- Vienna Convention allows treaty exit only in extreme situations.
- Unilateral exit could harm India's image as a law-abiding power and upset neighbours like Bangladesh and Nepal.

5. What are the Risks of Weaponising Water?

- Water is a basic need — reducing flows can hurt Pakistan's civilians.
- It could be seen as collective punishment, raising moral and legal concerns.
- Could invite global backlash and damage India's standing in international law.

6. What Should India Do?

- Fully use the water India is allowed under IWT, including for hydropower.
- Avoid exiting the treaty — that could backfire legally and diplomatically.
- Show strength through responsibility, not retaliation.
- Keep the treaty as a symbol of peace and cooperation even in conflict.

[Analysing poverty levels in India by comparing various surveys: TH Text&Context]

Economy

Easy Explanation

India hasn't officially measured poverty since 2011-12. That's more than a decade ago. So, researchers have been trying different ways to estimate how many people in India are still poor. A new paper by economists from JNU and Vrije University says that while poverty fell sharply between 2004 and 2012, it slowed down a lot after that.

From 2004-05 to 2011-12, the poverty rate fell from 37% to 22%. But from 2011-12 to 2022-23, it only went down a little more — to about 18%. That means about 225 million people are still poor in India.

The authors used a method called "survey-to-survey imputation." That's a way of filling in missing data by using similar surveys. They used employment surveys that were similar in design to earlier poverty surveys to get a better picture.

They also found that in some states like Uttar Pradesh, poverty has reduced. But in places like Bihar and Jharkhand, the progress has been much slower. And in big states like Maharashtra and Andhra Pradesh, poverty seems to have stopped falling altogether.

Other signs also point to this slowdown — India's economy grew slower after 2011-12, and rural wages didn't rise as fast. More people have gone back to agriculture since 2017, which usually means lower incomes and more poverty.

The authors say that unless the government brings out updated and comparable data, this debate will continue. But one thing is clear — India needs to work harder and faster to reduce poverty.

Key Takeaways

1. Sharp Slowdown After 2011-1

- Poverty dropped from 37% (2004-05) to 22% (2011-12), then only to 18% by 2022-23.
- The number of poor people declined only slightly from 250 million to 225 million.

2. No Official Poverty Data Since 2011-12

- The 2017-18 consumption survey was scrapped.
- No direct data exists for the years in between, so researchers used indirect methods.

3. Three Main Ways to Estimate Poverty

- **Survey-based extrapolation** using NSSO data (e.g., UMPCE).
- **Scaling old data** using national accounts like PFCE (used by Bhalla et al.).
- **Survey-to-survey imputation** (used in this paper) — matching similar older and newer surveys to fill gaps.

4. This Study's Unique Method

- Used Tendulkar poverty line (not World Bank's).
- Used NSS employment surveys to match with old consumption data.
- Estimated poverty trends at state-level for more accuracy.

5. State-Wise Findings

- **Uttar Pradesh:** Significant poverty decline.
- **Jharkhand & Bihar:** Much slower progress.
- **Maharashtra & Andhra Pradesh:** Stagnation in poverty reduction.

6. Supporting Evidence for Slower Decline

- GDP growth slowed from 6.9% (2004–2012) to 5.7% (2012–2023).

- Rural wage growth fell from 4.13% to 2.3%.
- After 2017-18, 68 million more people moved back into agriculture — a sign of job stress.

7. Bottom Line

- Poverty is still a major issue.
- Without new, comparable official data, estimates will keep differing.
- But all signs point to one thing: poverty reduction efforts need to speed up.

24th May 2024

The pain of others: IE Editorial

International Relations

Easy Explanation

The terrorist attack in Pahalgam wasn't just about killing people. It tried to hurt India's unity, growth, and democracy. India responded with **Operation Sindoor** — a precise military strike — and followed it up with a clear and firm national address by the Prime Minister. But today, the world is focused on other big issues like AI misuse, climate change, economic instability, and conflicts elsewhere like Gaza. So, terrorism doesn't grab as much attention globally as it used to after 9/11.

This puts India in a tough spot: how do we make the world notice our red lines when they're distracted? India's answer: a large-scale **public diplomacy mission**.

India is sending **seven teams of MPs** from different political parties to **32 countries**. Their goal: Explain India's actions, its counter-terrorism doctrine, and why the response to the Pahalgam attack was justified. These MPs are meeting not just governments, but also academics, journalists, and think tanks — people who shape opinion globally.

This is not about winning sympathy. It's about making the world understand. In today's world, **information moves fast**, and **perception shapes reality**. Pakistan is trying to twist the narrative. India needs to stay ahead with clarity and truth.

This strategy is **not a replacement for traditional diplomacy**, but an expansion of it. It uses both closed-room talks and public platforms. By involving experienced MPs from different parties, India is showing unity and using people who know how to communicate in public.

In a noisy world filled with half-truths and emotional headlines, **precision messaging matters**. The bombs have stopped — now it's time to win the battle of narratives.

Key Takeaways

1. The Challenge

- Pahalgam terror attack was not just a violent act — it aimed to disrupt India's internal harmony and international image.
- The world's attention is scattered — climate crisis, AI, Ukraine, Gaza, economic uncertainty. Terrorism is not the global priority it once was.

2. India's Response

- **Operation Sindoor (May 7):** India's military reply to the attack.
- **PM's National Address (May 12):** Clear stance on counter-terrorism.

- **New Diplomacy Strategy:** Public diplomacy using MPs as envoys.

3. The New Diplomacy

- **7 cross-party delegations**, over **50 MPs**, visiting **32 countries**.
- Their goal: Explain India's red lines, clarify actions, and build understanding, not applause.
- They are reaching not just ministries but opinion shapers — journalists, academics, and think tanks.

4. Why This Approach?

- **Pakistan is spreading misinformation.**
- India wants to control the global narrative before the next crisis.
- Silence is often misread as guilt. India is breaking that silence strategically.

5. What's Different Now?

- Traditional diplomacy isn't enough.
- Public diplomacy matters more — where debates happen online, and perceptions form on social media.
- MPs are being used as skilled communicators to cut through global noise.

6. Not Just Optics — It's Strategy

- Involving MPs from different parties shows unity and uses their public speaking skills.
- India is adapting its tools to a world where narratives shape legitimacy before formal agreements do.

7. The Goal

- Reinforce the global consensus that **terrorism is never acceptable**.
- Make sure global actors understand **why India acts**, before the next provocation happens.
- Maintain coherence in India's message so it doesn't get drowned in international noise.

WHEN THE SEA DOESN'T RESPOND: IE Editorial

International Relations

Easy Explanation

After any violent attack, like the one in Pahalgam, some people feel that **nonviolence is weak** or even foolish. The idea goes: if someone hits you and you don't hit back, you must be helpless. This way of thinking often links **nonviolence with Gandhi**, then jumps to the idea of **"turning the other cheek"**, and ends with the feeling of **defeat**.

But this view is wrong — and dangerously so.

1. **Nonviolence (Ahimsa)** is not just a Gandhian idea. It comes from ancient Indian philosophy and has been respected in India for over 2,500 years.

2. **Gandhi was not passive**. His nonviolence was active resistance — not cowardice. The same was true of **Martin Luther King Jr.** and other global peace leaders. They believed nonviolence means **resisting injustice without hatred**.

3. **Nonviolence is not weakness.** In fact, real weakness is when we act out of anger. Ahimsa asks us to act from a place of awareness, compassion, and strength — without becoming like the oppressor.

4. True victory is not destroying the enemy but standing firm in your values and still being willing to coexist. Hatred and fear make us think violence is the only answer — but that is short-sighted.

5. Some people argue that nonviolence has failed, especially against terrorists. But the truth is — **nonviolence and violence exist on a spectrum**, not as opposites. Real life isn't black and white, and all of us move somewhere between these two.

A story from the **Ramayana** reminds us of this. When the sea doesn't part, Lord Ram gets angry and fires a weapon to dry it. But **Samudradev (Sea God)** reminds him — even the gods cannot break the laws of nature. Ram withdraws the weapon, calms down, and finds a better solution through two gifted soldiers who build a floating bridge.

This story tells us: **even strength must follow dharma**. The right path may not be easy, but it opens up new, smarter ways.

Key Takeaways

1. Misconception about Nonviolence

- Nonviolence is wrongly seen as weak or passive.
- It is mistakenly equated with "turning the other cheek" and not reacting.

2. Real Roots of Nonviolence

- It is an ancient Indian value — not just Gandhi's idea.
- Gandhi gave it a powerful political form, but others like MLK Jr. carried it forward globally.

3. Nonviolence is not about inaction

- It's about resisting injustice **without hate**.
- It comes from **inner strength**, not fear or helplessness.

4. Why it Feels Difficult Today

- In times of repeated attacks, people want quick revenge.
- Nonviolence seems slow or impractical — but that's because it doesn't glorify violence.
- The media and politics often reward rage, not calm.

5. Violence vs. Nonviolence: It's a Spectrum

- Life is not binary. We all swing between himsa (violence) and ahimsa (nonviolence).
- There is no final "perfect position," but we can always choose to shift toward more awareness and less hate.

6. Lesson from the Ramayana

- Ram's rage at the sea shows even divine beings feel anger.
- But dharma reminds us to **pause, reflect, and find better solutions**.
- Victory is possible not just through force, but through wisdom and teamwork.

7. What's Needed Today

- Reclaim the idea of nonviolence as **a strategy, not a weakness**.
- Revive ideas like the **Shanti Sena**, which promoted nonviolent protection and peace.
- Recognize that nonviolence is **not the absence of fear**, but the **refusal to be ruled by it**.

LIFE ON A DISTANT PLANET: AS DATA ARE DICED, THE SIGNS GET BLURRED: IE Explained

Science

Easy Explanation

In April, a group of scientists thought they might have found something extraordinary — **possible signs of life** on a planet called **K2-18b**, which is **over 120 light-years away from Earth**.

They used the **James Webb Space Telescope** to observe the planet as it passed in front of its star. When this happens, **starlight passes through the planet's atmosphere**, and scientists can study that light to figure out what gases are present.

They found signs of **hydrogen, carbon dioxide, and methane** — normal for planets. But more interestingly, they found hints of a gas called **dimethyl sulfide** (DMS). On Earth, this gas is **only produced by life**, especially **photosynthetic microbes in the oceans**. So if it exists on K2-18b, it could mean life.

But other scientists were skeptical.

- One team led by **Rafael Luque** said they found the same common gases, but **no clear sign of DMS**.
- Another team led by **Luis Welbanks** looked at **90 other possible molecules** that could be creating that signal. They found the gas could also be something else — maybe even **propyne**, a fuel gas used by welders on Earth.

That means the signal may not be dimethyl sulfide after all.

Still, Madhusudhan and his team defended their conclusion by running an even bigger test with **650 possible gases** — and **DMS still came out near the top of the list.**

In the end, there's **no confirmed discovery of life**. Just **a strong debate** and **very faint signals**. The science isn't wrong — it's just that the signals are too weak to be sure. And when you're trying to figure out what gas is in a distant planet's atmosphere, **even a tiny mistake can change the answer.**

Key Takeaways

1. The Excitement

- In April, scientists thought they found **possible signs of life** on planet K2-18b.
- The clue? A gas called **dimethyl sulfide (DMS)** — on Earth, it's only produced by microbes.

2. How They Detected It

- The **James Webb Telescope** observed the light passing through K2-18b's atmosphere.
- The light pattern suggested **hydrogen, methane, CO_2**, and possibly DMS.

3. Why It's Not Confirmed

- Other scientists **re-analysed the data** and did not find strong proof of DMS.
- They said **the signal could come from many other gases**, including **propyne**.

4. Madhusudhan's Rebuttal

- His team ran a bigger test with **650 possible molecules**.
- DMS still came near the **top of the list**, though not conclusively.

5. What It Really Means

- There's **no clear proof of life** — just one interesting candidate gas.
- The data is **not strong enough** yet. Many gases can create similar signals.
- **The search for alien life continues.**

[Tyre particles: How EVs are a climate solution with pollution problem: IE Explained]

Science

Easy Explanation

Electric Vehicles (EVs) are known to reduce **greenhouse gas (GHG) emissions** because they don't burn petrol or diesel. That's great for fighting **climate change**.

But a new study by Indian and international scientists says EVs may be **adding to air pollution** — not from their engines, but from **their tyres**.

Why?

EVs are **heavier than regular petrol cars** because their **batteries** weigh a lot (300–900 kg). Heavier vehicles put more pressure on tyres, leading to **more wear and tear**.

When tyres break down, they release **tiny plastic particles** into the air. These are **microplastics** and **nanoplastics**, and they can cause **serious harm** to the environment and our lungs.

Two Types of Tyre Damage:

1. **Primary fragmentation**: Happens during sudden braking or hitting potholes. Releases **very small particles** that float in the air.

2. **Sequential fragmentation**: Happens slowly as tyres wear down. Produces **larger particles** that settle on the ground.

Smaller particles are more dangerous because they **stay suspended in the air** and are easily inhaled.

Global Concern:

- EVs now make up **2% of cars in India** and **20% of new car sales globally**.

- But the **extra weight and rapid acceleration** of EVs is making their tyres shed more microplastics.

This issue has **not been talked about much** so far.

Key Takeaways

1. EVs reduce CO_2 but increase plastic pollution

- Heavier EVs cause **more tyre wear**.
- That leads to **release of tiny plastic particles** (microplastics and nanoplastics).
- These **do not fall to the ground** easily — they **stay in the air** and pollute it.

2. Two kinds of tyre damage

- **Primary fragmentation** (sudden impacts) = more dangerous, smaller particles.
- **Sequential fragmentation** (slow wear) = larger particles.

3. Existing pollution rules aren't enough

- Current PM2.5 and PM10 norms don't cover **smaller plastic particles**.
- **Air quality laws** may need to be updated.

4. Solutions suggested by the study

- Make **stronger tyres** for EVs.
- Consider **capturing tyre particles** at the source (while driving).
- Include **non-exhaust emissions** in pollution regulations.

5. Why it matters for India and the world

- Road transport = **10% of global GHGs**.
- EVs = **good for climate**, but not perfect.
- India's EV market is small but growing — now is the time to **fix the side effects**.

A medical oxygen access gap SE Asia must bridge: TH Editorial

Science tech

Easy Explanation

Oxygen saves lives. But billions of people still don't have access to safe and affordable medical oxygen.

The **COVID-19 pandemic** showed just how **broken** our oxygen systems are — especially in **South Asia** and **East Asia**, where the **gap in oxygen coverage is as high as 78%**.

Even though many emergency steps were taken during the pandemic, long-term progress has been **very slow**. A new global report says it's time to treat medical oxygen as a **human right**, not a privilege.

Key Takeaways

1. Massive Oxygen Gap

- Around **5 billion people globally** lack access to **safe, quality, affordable medical oxygen**.
- In **South and East Asia**, the **oxygen service gap** is **74–78%**.
- This causes **avoidable deaths**, especially during **respiratory outbreaks**.

2. What are the main challenges?

- Only **54% of hospitals in low- and middle-income countries (LMICs)** have **pulse oximeters**.
- Only **58% have medical oxygen**.
- Cost: The global oxygen gap needs **$6.8 billion** to fix; South Asia alone needs **$2.6 billion**.
- Lack of **trained engineers** means oxygen plants often break down.
- Poor **rural access**, unreliable **power supply**, and **policy neglect** worsen the problem.

3. Why EV-style local innovation matters

- **Solar-powered oxygen systems** work well in low-resource areas (e.g. Ethiopia, Nigeria).
- New tools like **portable oxygen concentrators** and **community-based hubs** can help remote areas.
- Countries must **reduce import dependence** and set up **local oxygen production**.

4. What India and other LMICs can do

- **Integrate oxygen into health policies** and **universal health coverage plans**.
- **Train biomedical staff** for installation, maintenance, and repair.
- Promote **public-private partnerships** for local production and last-mile delivery.
- **Use tech tools**: Track oxygen need using **digital dashboards** and **real-time monitoring**.

5. WHO is already supporting efforts

- WHO helped train Nepalese engineers to set up oxygen plants in Bhutan.
- WHO's **Oxygen Scorecard** helps track national progress.
- Countries must report progress to WHO by **2026, 2028, and 2030**.

6. Lessons from COVID must not be forgotten

- Many countries set up PSA oxygen plants during the pandemic.
- But unless we **maintain and operate them properly**, they'll fail when needed again.
- This is **not just a health issue** — it's about **human rights and equity**.

Decisive moment: TH Editorial

Internal Security

Easy Explanation

Basavaraju, the **topmost Maoist leader**, was **killed in a security operation in Chhattisgarh** — a major blow to the Naxal insurgency.

He was known for leading **violent attacks** and continuing the line of armed struggle instead of peaceful political movements. His death signals the **decline of Maoist strength**, especially as **recruitment has dropped** and **tribal support has waned**.

But while this is a security success, it raises an important question: Should the government focus on **eliminating** Maoist leaders, or push harder for **peace talks** — especially to avoid further alienating the tribal communities?

Key Takeaways

1. Basavaraju's Death – A Strategic Blow

- He was the **General Secretary of CPI (Maoist)** since 2018.
- Earlier, he led the **Central Military Commission** and planned major attacks.
- His death is the biggest loss for the Maoists since **Cherukuri Rajkumar** (2010).

2. The Failure of the 'People's War'

- Maoists stuck to their **militant path** instead of political agitation.
- Basavaraju's death reflects the **failure of this militarist strategy**.

3. Government's Anti-Maoist Push

- Home Minister Amit Shah aims to **eliminate the Maoist threat by 2026**.
- Recent years have seen **large numbers of Maoists surrender**.
- Security forces have deepened control in former Maoist strongholds.

4. Waning Support Among Tribals

- Maoist **recruitment is falling**.
- **Tribal youth**, once the backbone of Maoist cadre, are now **disillusioned**.
- **Government outreach** and tribal welfare measures are slowly replacing Maoist influence.

5. The Dilemma: Elimination vs Negotiation

- Despite the gains, the **senior Maoists are reluctant to surrender**.
- The government has chosen security operations, but this has also led to **tribal casualties**.
- To avoid **future resentment** in tribal areas, there's a need to **explore peace talks** alongside security actions.

6. Ideological Disconnect

- Maoists **reject democracy and elections** as a "facade".
- This has further isolated them, especially as **development and governance reach** remote areas.

7. The Way Forward

- With **senior leaders gone** and support eroding, the movement is weakening.
- But the **continued use of force without dialogue** may push tribals into renewed alienation.
- The state should consider a **balanced approach**: security with space for **peaceful surrender and reintegration**.

[Introspecting counter-terrorism after Operation Sindoor: TH Editorial]

Internal Security

Easy Explanation

India carried out **Operation Sindoor** in May 2024 in response to the **terrorist attack in Pahalgam**. While the military action showcased India's strength, experts warn that focusing only on **external strikes against Pakistan** ignores the **internal roots** of terrorism in **Jammu & Kashmir (J&K)** — including **local alienation, lack of trust, and unresolved grievances**.

Though Pakistan continues to support terrorism, the problem can't be solved by military means alone. The real goal isn't just to retaliate against Pakistan — it's to **win over the people of Kashmir**. That requires a mix of security, **political dialogue**, and **socio-economic inclusion**.

Key Takeaways for UPSC

1. Operation Sindoor: Tactical Victory, Strategic Questions

- Carried out on **May 7** after the **Pahalgam terror attack (April 22)**.
- Demonstrated **India's military readiness** and capability for high-impact strikes.
- But **long-term deterrence** of Pakistan remains **uncertain**.

2. Historical Patterns Show Military Action Alone Doesn't Deter Pakistan

- Terror fatalities **increased after the 2016 surgical strike** and **2019 Balakot strike**.
- Pakistan's leadership is portraying recent events as a **military success**.
- **Revival of military nationalism** in Pakistan could embolden further acts.

3. Internal Roots of Terrorism in J&K Still Persist

- While **foreign terrorists are active**, **internal grievances** such as:
  - **Identity crises**
  - **Political disenfranchisement**
  - **Marginalisation**
  - **Repression**

  ...are equally responsible for radicalisation.

4. Decline in Local Recruitment – A Silver Lining

- **Local support for terrorism** has declined since the **Burhan Wani era**.
- Yet, **local terror networks remain**, and lack of **human intelligence (HUMINT)** is worrying.

5. Security Gaps in Jammu Region Exploited

- **Troop movements to Galwan (LAC tension)** created **vacuums in Jammu**.
- Result: Rise of new groups like **The Resistance Front** and **People's Anti-Fascist Front**.
- **Terrorist kill-ratio in Jammu is alarming**; suggests operational weakness.

6. Positive Public Response After Pahalgam Attack

- **Widespread condemnation by Kashmiri civilians** presents a **strategic opportunity**.
- But actions like **house demolitions and mass arrests** could backfire.

7. Key Recommendations Going Forward

- Shift focus from just **external retribution** to **internal healing**.
- Combine **kinetic (military)** and **non-kinetic (social-political)** strategies.
- **Political engagement, economic growth, and inclusive governance** must be core.

8. Principle to Remember

> "**People are the center of gravity**" — long-term peace requires winning over the people of Kashmir, not just defeating terrorists.

30th May 2025

READING THE HIKE: IE Editorial

Economy

Easy Explanation

The southwest monsoon reached Kerala earlier than expected this year (on May 24), and the government has quickly followed up by announcing Minimum Support Prices (MSP) for kharif crops. This is good news because timely MSP declarations help farmers decide what crops to plant.

The increase in the MSP for **paddy (rice)** is very small this year — only ₹69 more per quintal. That's the **smallest hike in the last 5 years**. Ideally, it should not have been raised at all because India already has **huge rice stocks**, far more than required. Rice also uses **a lot of water**, so encouraging its production through higher prices is not good for the environment.

On the other hand, the government has given much **higher MSP hikes** (between 5.4% to 13.9%) for crops like **pulses, oilseeds, maize, cotton, and millets**. These are better for the environment, improve nutrition, and are essential because India is importing a lot of these. For example, India imported $17.3 billion worth of edible oils in 2024-25.

But here's the problem: **Farmers don't always get the MSP in real markets.** For instance, soyabean's MSP has been set at ₹5,328, but in Maharashtra's Latur market, it's selling for only ₹4,300. So, **just increasing MSPs on paper is not enough** — unless the government actually **procures** these crops or ensures prices don't fall below MSP.

The article suggests a better approach: **Limit paddy procurement**, and slowly shift from giving price support for specific crops to giving **per-acre income support**, like a fixed amount per acre. This would allow farmers to choose crops more freely, based on demand and environmental suitability, and make farming more efficient — much like poultry, dairy, and vegetable farmers already do.

Key Takeaways for UPSC

1. Early MSP Announcement in 2024

- Monsoon reached Kerala on **May 24**, earlier than usual.
- MSPs for kharif crops were declared early — unlike last year's delay.
- Helps farmers **make timely planting decisions**.

2. Minimal MSP Hike for Paddy

- Paddy MSP increased by only **₹69/quintal**.
- Compared to ₹117 and ₹143 hikes in previous two years.
- India already has **record rice stocks (63.1 million tonnes)**.
- Rice is **water-intensive**; raising MSPs could worsen environmental strain.

3. Significant MSP Hikes for Other Crops

- **Urad and Arhar**: 5.4%–6% hike.
- **Groundnut, Maize, Cotton**: 7.1%–8.3% hike.
- **Soyabean, Jowar, Ragi**: 8.9%–13.9% hike.
- Intended to promote **crop diversification** toward more **nutrient-rich**, **climate-resilient**, and **import-heavy** crops.

4. Ground Reality: MSPs Often Not Realised

- Example: **Soyabean MSP = ₹5,328**, but market price in Latur = ₹4,300.
- Farmers may avoid growing such crops if they get **lower than MSP in markets**.

5. Reform Needed in MSP System

- Suggests **capping procurement** (e.g., 100 quintals per farmer).

- Move towards **per-acre income support** instead of **crop-specific MSPs**.
- Helps encourage **market-driven, resource-efficient cropping choices**.

6. Environmental and Economic Rationale

- Overproduction of rice is **ecologically harmful** and **fiscally burdensome**.
- **Flat income support** can:
    - Encourage sustainable farming.
    - Reduce over-reliance on government procurement.
    - Align crop production with **market demand and environmental needs**.

The deregulation we need: IE Editorial

Polity

Easy Explanation

India has made a lot of economic progress since 1947. Government spending has gone from ₹198 crore to over ₹107 lakh crore, and people's average income (per capita GDP) has increased eight times. But when you compare this with China — where per capita income rose **42 times** — it feels like India has **missed many opportunities** for faster prosperity.

One of the main reasons is **overregulation**. Entrepreneurs in India often face a strange attitude from the government — instead of "everything is allowed unless restricted," it's "nothing is allowed unless we permit it." This discourages innovation and creates bureaucratic hurdles. For example, employers and factories are told **where they can build**, **how many shifts women can work**, **how wide a road should be**, and more — all of which **add unnecessary cost and limit growth**.

Women in India are banned from working in over **230 types of operations**. Workers are not allowed to work extra hours even if they want to, losing out on 270+ hours of earnings per year. Rules are so rigid that building a 300-worker factory requires up to **80% more land** than building two 150-worker factories.

Despite massive laws and compliance burdens, it's not that we don't need regulation. But the **quantity and approach** is the problem. We need **fewer but smarter regulations** — just like medicine, where the **dose makes the poison**. Deregulation doesn't mean abandoning social welfare or safety, but rather focusing regulations where they truly matter, like consumer protection and law enforcement.

Also, the central government in Delhi tries to manage too much. Real development — job creation, entrepreneurship, services — must be **decentralized to states**. This needs **fiscal discipline**, as many states are in **poor financial health**, but still, decentralization is key for effective governance.

Lastly, the article argues that **mass prosperity** by 2047 (India's 100th year of independence) will come not from controlling every economic move but by **freeing entrepreneurs, supporting high-productivity jobs**, and enabling businesses through smart governance. It's not about weakening the government but about **removing the unnecessary burdens** that are slowing India down.

Key Takeaways for UPSC

1. Economic Growth vs Regulatory Burden

- Since 1947, India's government spending rose from ₹198 crore to ₹107 lakh crore.
- Per capita income increased 8 times, but China's grew **42 times**.
- India is producing **more public spending** but not enough mass prosperity.

2. Overregulation as a Barrier to Growth

- Entrepreneurs often face a mindset of **"prohibited until permitted."**
- Regulatory barriers act as **"cholesterol"** in the economic system.
- Example: Building a factory or hiring women for night shifts involves excessive compliance.

3. Gender Discrimination in Employment Laws

- Women are banned from **32 operations and 200 sub-processes**.
- **59 special conditions** exist for hiring women across Indian states.
- These laws limit **equal job access** and employer flexibility.

4. Land and Labour Regulations Increase Cost

- A single 300-worker factory needs **40-80% more land** than two 150-worker factories.
- **270+ hours of earnings lost annually** due to working hour restrictions.
- **50% of rural India** can't industrialize due to road-width norms.

5. Deregulation with Guardrails

- Deregulation ≠ No Regulation.
- Needs strong but **targeted laws** for consumer protection, market failures, externalities.
- Principle: **"The dose makes the poison."**

6. F. A. Hayek's Economic Philosophy

- Opposed the idea of central planners having perfect knowledge.
- Called this belief the **"pretence of knowledge."**
- Supports economic freedom driven by **individual decisions, not central control.**

7. Need for Decentralization

- "India cannot be run from Delhi."
- Must **devolve funds, functions, and functionaries** to state capitals.
- However, **states face poor fiscal and debt health**, per NITI Aayog and NCAER.

8. Civil Service Reform = Ease of Doing Business

- To improve small business viability, India must **cut compliance, filings, jail provisions.**
- Regulatory reform and civil service reform are **interlinked**.

9. Mass Prosperity Requires High-Wage Jobs

- India's future prosperity lies in **non-farm, high-wage, formal job creation**.
- Strategy must support **samaaj (society), bazaar (market), sarkar (government)** in sync.

10. Vision for Viksit Bharat @ 2047

- Focus on **deregulation**, **smart governance**, and **entrepreneurship**.
- Replace outdated control philosophy with **"permitted until prohibited"** approach.
- Aim: Empower citizens, entrepreneurs, and institutions to deliver mass prosperity.

[Why US trade court struck down many of Trump's tariffs: IE Explained]

Polity

Easy Explanation

A U.S. court has struck down a large portion of the **import tariffs** imposed by Donald Trump, stating that he **overstepped his emergency powers** under a 1977 law. This is a major legal blow to Trump's trade war policies that targeted countries like **China, Canada, and Mexico**.

The law Trump used — the **International Emergency Economic Powers Act (IEEPA)** — allows the U.S. President to act only in case of an **"unusual and extraordinary threat"** after formally declaring a **national emergency**. Trump had declared such an emergency citing **drug cartels and threats to national security**, but the court found that the **tariffs he imposed were unrelated to those threats**. Instead, they were about **trade imbalances** and **lack of reciprocity**, which don't qualify under this Act.

The **U.S. Court of International Trade (USCIT)** said clearly: **IEEPA does not give the President unlimited power** to impose tariffs on nearly every country in the world. The court gave the government **10 days to end these tariffs**, though the Trump team is planning to appeal, claiming that stopping the tariffs would lead to a **foreign policy disaster**.

While this ruling only affects tariffs under IEEPA and not others based on different laws, it does challenge **how far the President can go** in using emergency powers for economic policies. It also highlights the **checks and balances** of the U.S. system, where even the President's actions can be reviewed by the courts.

Despite the ruling, the White House responded aggressively, calling the court's action **"judicial tyranny"**, and Trump is expected to use it to criticize the legal system more during his speeches.

Key Takeaways for UPSC

1. Trump's Tariffs Struck Down by Court

- U.S. Court of International Trade ruled that Trump's use of **IEEPA** to impose **massive tariffs** on China, Mexico, and Canada was **beyond legal limits**.
- The court ruled that **IEEPA doesn't allow unrestricted, long-term tariffs** under a vague emergency.

2. About IEEPA (1977)

- Law allows U.S. Presidents to act during **real international emergencies**, but the threat must be **specific and extraordinary**.
- Trump invoked IEEPA citing **drug cartels and security threats**, but imposed tariffs for **trade imbalances**, which the court said were not legally justified.

3. Tariffs and Their Impact

- Tariffs were: **25% for Mexico and Canada**, **20% for China**.
- Court said these tariffs do **not match the threats** cited in Trump's emergency declaration.

4. Key Legal Issue: Presidential Powers

- Question: **Can the U.S. President impose global tariffs unconditionally under IEEPA?**
- Answer: **No**, powers are **limited in scope and time**, and must be **directly related to the emergency**.

5. Other Legal Authorities Still Valid

- Ruling affects only tariffs under IEEPA.
- Tariffs imposed under other laws like **Trade Act of 1974** (e.g., for balance of payments) remain valid but are also limited in scope.

6. Reaction from the Government

- Trump administration is **appealing** the ruling.
- Officials argue courts shouldn't interfere in **national security matters**.
- Called the ruling an act of **"judicial tyranny."**

7. About the U.S. Court of International Trade (USCIT)

- Handles cases related to **import transactions and trade laws**.
- Judges are **appointed for life** by the President.
- One of the judges who ruled in this case was **appointed by Trump himself**.

8. Trade Implications

- Tariffs now temporarily reduced to **10% until July**, hoping other countries will **negotiate**.
- U.S. has already signed trade deals with **UK and China**; talks with **India** are ongoing.

9. Market Impact

- Despite legal turmoil, **stock markets rose** due to strong tech performance (e.g., Nvidia).

10. Relevance to UPSC

- Important case study for:
  - **Separation of powers** and **judicial review** in democracies.
  - **Use of emergency powers** and their limits.
  - Role of **international trade law** and **tariff regimes**.
  - Importance of **legal reasoning in public policy**.

The nature of escalation: IE Explained

International Relations

Easy Explanation

The recent conflict between **India and Pakistan (Operation Sindoor)** marked the most serious military confrontation since the **1971 war**. India struck targets **up to 100 km deep** inside Pakistan and Pakistan-occupied Kashmir, while Pakistan responded with airstrikes in parts of India including **J&K, Punjab, Rajasthan, and Haryana**. The escalation followed a terrorist attack in Pahalgam, Jammu & Kashmir, on April 22 that killed 26 civilians.

This escalation can be analyzed through **Herman Kahn's "escalation ladder"**, a 44-step theoretical model that maps out how conflicts can grow in intensity—from a crisis to full-scale war. According to this model:

- Step 1: Ostensible Crisis — the Pahalgam attack
- Step 2–4: Political and diplomatic statements, hardening of stances
- Step 5–6: Show of force and mobilization (missile tests, naval drills)
- Step 8–9: Dramatic military confrontation — strikes, drone attacks, etc.

A **ceasefire was declared on May 10**, ending four nights of intense military action.

Key Takeaways for UPSC

1. Operation Sindoor – India's Deepest Strike

- India hit terror targets up to **100 km inside Pakistan and PoK**, marking a sharp escalation.
- Pakistan retaliated with **aerial attacks on multiple Indian states**.
- Described as the **most expansive India-Pakistan conflict** since the 1971 war.

2. Application of Herman Kahn's Escalation Ladder

- Step-by-step climb in conflict from **terrorist attack (Step 1)** to **direct military strikes (Step 9)**.
- Helps analyze how diplomatic crises escalate to full-blown hostilities.
- **Used for strategic studies** in international relations and military planning.

3. India's Changing Doctrine

- India's **response strategy has evolved**:
  - **Post-Uri surgical strikes (2016)**
  - **Balakot airstrikes post-Pulwama (2019)**
  - **Operation Sindoor (2025)** now reflects a **zero-tolerance** approach to cross-border terror.
- No longer differentiates between **terror groups and the Pakistani state**.

4. Modi's Statement Post-Strike

- Promised a **"befitting response"** on India's terms.
- Rejected **nuclear blackmail** from Pakistan.
- Projected Operation Sindoor as part of **a global war on terror**.

5. India's "New Normal"

- **Lowered threshold for military action**: India is now quicker to respond.
- Likely to skip diplomatic delay and go straight to military retaliation in future attacks.
- Could escalate rapidly to **full-scale war** if not managed diplomatically.

6. Diplomatic Challenges

- Some Western powers portraying **false equivalence** between India and Pakistan.
- India wants to assert that it acted **in self-defense**, not aggression.
- The U.S., especially **Donald Trump**, has claimed to mediate the ceasefire — a claim India resents, as it **rejects third-party interference**.

7. Emerging Warfare Domains

- Future wars won't just be land/air/sea. India must prepare for:
  - **Cyber warfare**
  - **Space and satellite conflicts**
  - **Drone and autonomous tech wars**
  - **Narrative battles via global media**

Tobacco affordability fuelling cancer epidemic in India: TH Science

Science Tech

Easy Explanation

In India, taking a break at work often involves having tea and smoking a cigarette — a culture known as the **"chai-sutta break."** While it may feel like a bonding and creative time for some, it comes at a serious cost: both **health-wise and economically.**

India has the highest number of **smokeless tobacco (SLT)** users in the world, and although **bidis** are more common in rural areas due to affordability, **cigarette use is rising rapidly**, especially in cities. Tobacco use is linked to **deadly cancers**, and India ranks among the highest globally for **oral and lung cancers**.

Beyond health, tobacco imposes a **huge economic cost** — over ₹1.77 lakh crore in 2017-18 alone. Many people, especially daily wage earners and youth, can still afford tobacco products because they're **very cheap** (some as low as ₹1–5). Even **single cigarette sticks**, which bypass health warnings, are sold everywhere, often near tea stalls.

India's **anti-tobacco laws are weakly enforced**. Taxes are **too low** to deter use effectively, and the tobacco industry keeps prices low through **strategic pricing**. Despite WHO guidelines to tax tobacco at 75% of its retail price, India lags behind.

To fight this crisis, experts recommend **higher taxes, banning single-stick sales, restricting sales near tea stalls**, and using tobacco tax revenue for **public health programs** like cancer screenings.

Key Takeaways for UPSC

1. Tobacco Culture in India

- "Chai-sutta breaks" normalize smoking at workplaces.
- Smoking is seen as social, creative, and modern, especially among the youth.
- Non-smokers suffer due to **second-hand smoke exposure**.

2. Tobacco Usage Patterns

- India is home to **70% of the world's smokeless tobacco users**.
- **Bidis dominate in rural/low-income groups**; cigarettes rising in urban areas.
- Market share of cigarettes in India is **increasing faster than anywhere else**.

3. Health Impacts

- Tobacco use linked to **oral, lung, stomach, pancreatic cancers**.
- India has the **highest male cancer mortality rate** due to tobacco.
- Oral cancers top the list in India, unlike the global trend of lung cancers.

4. Economic Cost

- Tobacco use cost India **₹1.77 lakh crore** in 2017–18 (1.04% of GDP).
- Smoking: 74% of this cost; SLT: 26%.
- Hidden costs include **hospital bills, loss of productivity, and family burden**.

5. Affordability Crisis

- **Bidis available for ₹5–12**, SLT products even for ₹1.
- **Single cigarette sticks sold for ₹15**, dodging health warnings.
- Unit pricing makes tobacco **easily accessible even to poor and youth**.

6. Policy Failures

- India's **GST on tobacco remains low**, below WHO's 75% MRP recommendation.
- **Rising incomes** make tobacco even more affordable.
- Manufacturers use **"undershifting" tactics** — absorbing tax hikes to keep prices low.

7. Regulatory Gaps

- **Single-stick sales** not banned (unlike in 88 countries).
- Tobacco shops are located near **tea stalls**, reinforcing addictive routines.
- Graphic warnings often bypassed due to unit sales.

8. Recommendations for Control

- **Raise taxes regularly**, higher than income growth, to reduce affordability.
- **Ban single-stick sales** to enforce warning labels and discourage impulse buys.
- **Use tax revenue** for rural cancer screenings and awareness.
- Enforce **plain packaging, location restrictions, and shop licensing**.
- Ensure **regular inspections and fines** for violations.

Slow and unsteady: TH Editorial

Internal Security

Easy Explanation

It has been a few months since **President's Rule** was imposed in Manipur because the earlier state government, led by the BJP's N. Biren Singh, failed to calm down the **ethnic violence** that began in May 2023. While **gun violence and arson have reduced**, this does **not mean peace has returned**.

The situation on the ground is still tense. **Highways are not fully open**, people cannot move freely between the **valley and hill areas**, and **displaced families** have still not been able to go back to their homes. The two major communities involved in the conflict continue to **distrust each other**, and there's **no real progress in rebuilding peace**.

A recent event during the **Shirui Lily Festival** shows how fragile the peace is. When a government bus carrying journalists passed near **Kuki-Zo-inhabited areas**, security officials **covered the state name on the bus** for safety. However, this move upset civil society groups in the Imphal valley, who saw it as giving in to demands for a **"separate administration"** by the Kuki-Zo group. Though some Kuki-Zo groups had objected to the bus, the festival organizers made sure it could pass.

The Union government is being very cautious, but this slow approach is **delaying any real return to normal life**. What's needed now is **firm action to disarm militant and extremist groups**, whether in the hills or valley. The government must also make it clear that these violent groups do **not speak for the entire community**.

Many people no longer trust the government or police, and this has allowed **ethnic groups to dominate the conversation**. To fix this, the government must **enforce law and order** strongly and **focus on helping the victims** of the violence.

Some MLAs are now asking to **restore the State Assembly**, claiming they can form a new NDA-led government. But this should be considered only if **both communities and civil society** agree on steps to bring peace and work together.

Key Takeaways for UPSC

1. Current Status under President's Rule

- President's Rule was imposed after failure of BJP-led government to contain ethnic tensions.
- Violence has reduced, but **peace is still fragile**.
- **Weapons looted from police stations** are being returned, but full disarmament is still incomplete.

2. Ground Situation

- **Movement between hills and valley areas remains restricted**.
- Displaced persons have **not yet returned** to their homes due to ongoing tension.
- **Trust deficit between communities** remains a core challenge.

3. Shirui Lily Festival Incident

- Journalists' bus had state name sticker covered to **ensure safe passage through Kuki-Zo areas**.
- This move was viewed by valley-based civil society groups as **appeasement of separatist sentiments**.
- Kuki-Zo groups had earlier resisted bus passage but were overruled by event organizers.

4. Ethnic Demands and Separatist Sentiments

- Kuki-Zo community continues to demand a **separate administration**.
- Acts perceived as validating this demand create **backlash in the Imphal valley**.
- Polarisation between the two ethnic groups remains high.

5. Need for Stronger Governance

- The Union government is taking a **cautious, slow approach**.
- There's a need for **firm disarmament of insurgents and chauvinist groups**.
- These groups must not be seen as **legitimate representatives** in political talks.

6. Law and Rehabilitation

- **Distrust in state institutions** has allowed ethnic leaders to set the narrative.
- Government must **enforce rule of law** more strongly.
- **Rehabilitation of displaced victims** should be a top priority.

7. Political Restoration and Assembly Demands

- Some MLAs are pushing for a **return of the State Assembly** under the NDA.
- This should only happen if there's a **clear consensus on peace and cooperation** between communities and civil society groups.

8. Long-Term Outlook

- Real peace requires **political consensus, trust-building, and victim support**.
- Restoring state government must go hand in hand with efforts to **heal ethnic divides**.

Rewriting the script of early childhood education: TH Editorial

Sociology

Easy Explanation

In India, a child's future is often decided by the "lottery of birth" — whether they are born into poverty or privilege. Many children start life with disadvantages in health, nutrition, and learning simply because of their family background. But this fate can be changed by investing in **Early Childhood Care and Education (ECCE)** — the stage from ages 3 to 6.

Nobel Laureate James Heckman's research shows that investing early in a child's education gives huge returns — children are more likely to earn well, stay healthy, and even own homes later in life. In fact, if children do not get proper support by the age of five, they often continue to struggle throughout life.

In India, however, the ECCE system has **three big problems**.

First, **children are not getting enough teaching time**. There are 5.5 crore kids in this age group, but most Anganwadi workers spend only 38 minutes daily on teaching — far less than the recommended two hours. Also, very few pre-primary schools have trained ECCE teachers. As a result, children don't develop basic skills like object matching or number comparison, and many enter Class 1 without any preschool learning.

Second, **there is poor investment and resource management**. The government spends ₹1,263 per ECCE child annually, compared to ₹37,000 per school-age student. Also, there are not enough supervisors and trained teachers to make proper use of resources. States like Uttar Pradesh and Odisha are now trying to fix this by hiring thousands of ECCE educators and launching preschool readiness programs.

Third, **parents are not actively engaged**, though they do care about their children's education. But many don't know how to help. Simple steps like giving them worksheets or involving them in classroom activities can really help. Some states like Madhya Pradesh are already experimenting with programs like **Bal Choupal**, which directly involve parents and explain why play-based learning matters. With almost everyone having a smartphone, tools like WhatsApp or educational apps can help parents support learning at home.

To truly make a difference, India must **increase funding**, hire more trained ECCE teachers, **engage parents**, and take early learning seriously. These small but powerful steps could change the lives of over 200 million children and help India become a global leader by 2047.

Key Takeaways for UPSC

1. Lottery of Birth and Employment Problem

- A child's poverty at birth impacts their future health, learning, and earning potential.
- Nobel Laureate James Heckman's theory emphasizes high returns from early investment in education.

2. Heckman Curve and Early Investment

- Every $1 spent on early education yields $7–$12 in return.
- Children who receive quality early education are more likely to succeed economically and socially.

3. Learning Crisis in ECCE

- Over 5.5 crore children (ages 3–6) are enrolled in Anganwadis and pre-primary schools.
- Anganwadi workers spend only 38 minutes a day on instruction (ideal is 2 hours).
- Only 9% of pre-primary schools have dedicated ECCE teachers.
- Basic skills like object matching and number comparison are missing in most children.

4. Skipping ECCE and Direct Class 1 Enrollment

- 2% of 3-year-olds, 5.1% of 4-year-olds, and nearly 25% of 5-year-olds directly join Class 1.
- This leads to poor foundational learning and long-term academic struggles.

5. Resource Allocation Issues

- Government spends ₹1,263 per child annually on ECCE vs ₹37,000 on school education.
- Teaching materials are underused due to lack of trained staff and monitoring.
- One supervisor currently oversees 282 Anganwadis.

6. State-led Solutions

- Uttar Pradesh: Hiring 11,000 ECCE educators; training master trainers for pedagogy.
- Odisha: Launching Shishu Vatikas to ensure school readiness.

7. Need for Parental Engagement

- Most parents care about education but lack guidance.
- Encouraging participation through worksheets or classroom activities can help.
- Madhya Pradesh's Bal Choupal program educates parents on play-based learning.

8. Role of Technology

- Nearly universal smartphone access offers scope for EdTech and WhatsApp engagement.
- Digital tools can strengthen parental involvement in early learning.

9. Long-term Vision

- By 2047, over a billion Indians will be in the workforce.
- Strategic ECCE investments can uplift 200 million children and boost India's economic role.
- A strong ECCE system is key to achieving India's vision of becoming a Vishwa Guru.

Danger in the sea: TH Editorial

Internal Security

Easy Explanation

On May 24, a cargo ship named MSC Elsa 3 began to tilt off the coast of Kochi due to an operational issue. The ship, which is nearly 30 years old, was believed to be structurally safe, but the crew had to abandon it after failing to fix the tilt. The ship eventually sank to the seabed, about 50 metres underwater, with more than 640 containers on board.

Out of those containers, 13 had hazardous materials — 12 had calcium carbide and one had rubber solution. When rubber solution mixed with seawater, it likely caused the plastic pellets that are now being found along Kerala's coast. Calcium carbide is also dangerous, especially when it reacts with water, and five of those containers are lying on the seabed. Officials are worried they might leak and cause pollution if not removed soon. Some oil leakage has also been reported.

There are still 365 tonnes of heavy fuel oil and 60 tonnes of diesel inside the sunken ship, and while they haven't leaked yet, there is a high risk if action is not taken quickly. A similar oil spill off Chennai in 2017 caused major environmental damage when 250 tonnes of oil spilled after two ships collided.

The bigger problem is that no one really tracks what's inside each container — containers often change hands many times, and there's little transparency. MSC Elsa 3 is now seen as an underwater toxic dump, and it needs urgent action to prevent a full-blown environmental disaster.

Special salvage teams (called salvers) are being brought in to handle the situation under international insurance rules. The Indian Coast Guard is in charge of such clean-ups, as per the National Oil Spill Disaster Contingency Plan. While the response during the 2017 Chennai oil spill was slow and uncoordinated, Kerala has had enough time to prepare a better response.

As India grows and more ships enter its waters due to economic growth and shipping expansion, how Kerala handles this crisis will show whether the country is ready to manage such maritime disasters in the future.

Key Takeaways for UPSC

1. Incident Overview

- MSC Elsa 3, a 30-year-old cargo ship, tilted and sank off Kochi coast on May 24.

- It was carrying over 640 containers, including 13 with hazardous materials.

2. Hazardous Cargo

- 12 containers had calcium carbide; 1 container had rubber solution.
- Reaction of rubber solution with seawater is believed to have caused plastic pellets on Kerala's coast.
- Five calcium carbide containers lie on seabed; pose chemical and pollution risks.

3. Oil Spill Threat

- The ship contains 365 tonnes of heavy fuel oil and 60 tonnes of diesel.
- No major oil leakage yet, but there's high risk if prompt salvage is not conducted.

4. Global Container Oversight Issues

- Lack of proper monitoring over what's inside each container is a worldwide problem.
- Containers pass through multiple handlers and ports without full tracking.

5. Past Precedent: 2017 Chennai Oil Spill

- In 2017, 250 tonnes of heavy fuel oil leaked after a ship collision off Chennai.
- The response was slow and poorly coordinated, worsening environmental damage.

6. Current Response Mechanism

- Indian Coast Guard is the nodal agency under the National Oil Spill Disaster Contingency Plan (NOS-DCP).
- Salvage operations are being undertaken as per international insurance and maritime protocols.

7. Environmental Impact

- Plastic pellets and oil pose serious ecological threats to marine life and coastal communities.
- Need for proper disposal of sunken hazardous materials and containment of oil.

8. Lessons for Maritime Preparedness

- Kerala's timely and organized response is being closely watched.
- With increasing ship traffic due to India's port and transshipment ambitions, readiness for maritime disasters is crucial.

9. Relevance to India's Growth Plans

- India is aiming to attract more global shipping and transshipment traffic.
- Handling of incidents like MSC Elsa 3 will set a benchmark for India's maritime disaster management capacity.

Autonomous warfare in Operation Sindoor: TH Text&Context

Internal Security

Easy Explanation

Operation Sindoor, launched by India in May 2024 after the Pahalgam terror attack, represents a major turning point in how wars are fought — especially between nuclear-armed nations like India and Pakistan. For the first time, drones took the lead role in direct military combat, changing how each side responds to threats without escalating to full-scale war.

Before the operation began, Indian drones flew into Pakistan to gather information using surveillance technology. From May 7 onward, India attacked nine targets using a wide variety of drones — from surveillance drones to armed ones, and even "kamikaze drones" that explode on impact. The idea was to hit precise targets like missile sites, command centers, and logistics hubs without risking the lives of pilots. India used decoy drones to confuse Pakistani radar systems, so real drones could strike accurately.

India claimed it shot down around 600 Pakistani drones and released videos and wreckage to prove it. Pakistan responded with its own drone operation called “Operation Bunyan-um-Marsoos,” using both locally made and imported drones from countries like Turkey and China. They tried to hit Indian military locations across a vast stretch — from Kashmir to Gujarat. However, India’s multi-layered air defense system managed to neutralize most of the attacks.

India’s defense system included modern and old-school weapons working together — ranging from World War II-era anti-aircraft guns and snipers to modern missile systems like SPYDER, Akash, Barak-8, and even the powerful S-400 system from Russia. All these were linked to India’s air defense nerve center called the Integrated Air Command and Control System (IACCS), which gathered data from satellites, radars, drones, and fighter planes, and allowed quick and coordinated responses.

The operation showed that India can fight modern wars using autonomous technology — without putting pilots at risk. It also showed that drone warfare is the new normal in conflicts between major powers, and future battles might begin not with troops on the ground but with silent drones in the sky.

Key Takeaways for UPSC

1. Context and Trigger

- Operation Sindoor launched by India in May 2024.
- Response to the April 22 Pahalgam terror attack.
- Marked the first major drone-centric conflict between India and Pakistan.

2. Role of Drones in Warfare

- Unmanned Aerial Systems (UAS) replaced conventional manned combat.
- India used drones for surveillance, attack, and radar spoofing.
- Drones used: Heron MK-II, TAPAS-BH-201, Nagastra-1, Harop (kamikaze), quadcopters.

3. Operational Strategy

- Surveillance UAVs collected intel before strikes.
- Decoy drones exhausted Pakistani air defenses.
- Loitering munitions and armed drones followed in coordinated waves.

4. Psychological and Strategic Impact

- India's drones disrupted public events like a cricket match in Rawalpindi.
- Destroyed a Chinese-made HQ-9 air defense system near Lahore.
- Demonstrated India’s capability to strike with precision, avoiding pilot risk.

5. Drone Warfare Infrastructure

- Integrated Battle Management System (IBMS) used for real-time targeting.
- Army, Air Force, and private developers collaborated in deploying swarm drones.

6. Pakistan’s Counter-Operation

- Operation Bunyan-um-Marsoos launched in response.
- Drones used: Shahpar-II, Burraq, Bayraktar TB2, CH-4, Wing Loong II.
- Loitering munitions from China targeted Indian military sites across 1,500 km.
- Indian air defenses neutralized most attacks, minimizing damage.

7. India's Air Defence System

- Central system: IACCS – fuses radar, satellite, airborne data for rapid response.
- Tactical layer: Akashteer – for Army coordination and drone response.

8. Legacy and Modern Platforms

- India used a mix of Cold War-era guns and new systems.
- Legacy weapons: ZSU-23-4 Shilka, Pechora, OSA-AK, L/70 Bofors.
- Modern systems: SPYDER (Python-5 & Derby), Akash, Barak-8, S-400 Triumf.

9. Innovations and Directed Energy Weapons

- IACCS supported Directed Energy Weapons (DEWs) like lasers/microwaves.
- DEWs used to quickly neutralize incoming drones.

10. Strategic Significance

- Operation showcased India's shift to autonomous, cost-effective warfare.
- Highlights India's ability to fight cross-border threats below full war threshold.
- Demonstrates regional drone dominance and deterrence model evolution.

31st May 2025

Pakistan's India war: TH Editorial

International Relations

EASY EXPLANATION

This article talks about the recent short military conflict between India and Pakistan and the bigger picture behind it. Despite being a culturally rich and rapidly developing country, India still faces regular threats from its neighbour, Pakistan. Pakistan, even after repeated defeats in wars, continues to provoke India, driven by a military mindset and deep-rooted hostility toward India's secular democracy.

Pakistan is run mostly by its military, not its elected government. Recently, the Pakistani army chief openly declared that Pakistan is not a democracy but a religious state, claiming that it was founded like a holy Islamic state. He also said Kashmir is Pakistan's "jugular vein", making it clear that more conflicts may come in the future.

The article criticizes how the world treats conflicts differently. There's a lot of global attention and effort to resolve European conflicts like Ukraine, but almost none for issues like Gaza or South Asia. This shows that violence in Asia doesn't get the same response as in Europe. The West also pushed for peace when Pakistan started losing in the recent clash with India — possibly because it wants access to Pakistan's rich mineral resources like lithium and copper.

The article explains how modern wars have changed. It's not just soldiers and guns anymore. India and Pakistan both used advanced drones, fighter jets, radar, and missiles in this recent conflict. Countries are watching closely to see how their weapons performed — like Rafale jets from France against Chinese J-10Cs. India used drones and systems like the Aakash missile and S-400 defence to protect its airspace.

One important lesson is that future wars will be high-tech and very fast. Whoever can respond quickly and dominate the conflict early will have the upper hand. While India currently has that advantage, this may not last forever — especially if both Pakistan and China join forces.

In such a situation, one big weakness for India is its lack of real-time space-based monitoring systems. Satellites are now crucial for early warning, tracking targets, and staying connected during a war. Without strong space infrastructure, India could be at a disadvantage in the next major conflict.

KEY TAKEAWAYS

India-Pakistan Conflict Patterns

- Pakistan repeatedly provokes India despite losing previous wars.
- Its military continues to follow a strategy of weakening India through small, frequent attacks.

Military Dominance in Pakistan

- Pakistan is effectively controlled by its army, not by its elected leaders.
- The army chief declared Pakistan a religious state, claiming a holy origin and contrasting it sharply with secular India.
- Statements about Kashmir signal that more military tensions are likely.

Global Reactions and Interests

- The world reacts more strongly to European conflicts (like Ukraine) than to Asian ones (like Gaza or India-Pakistan).
- Western interest in South Asia may be driven by the need for critical minerals in Pakistan, such as lithium and rare earths.
- The U.S. may be involved in regional peace talks not out of fairness, but for strategic resource access.

Technological Warfare Insights

- The conflict saw extensive use of drones, fighter jets, and electronic systems by both sides.
- India's air defence included systems like Aakash, Barak (with Israel), and S-400 (from Russia).
- Pakistan used Turkish and Chinese drones, and the J-10C fighter.
- Both countries used electronic warfare techniques to jam enemy systems and avoid detection.

Changing Nature of War

- Speed and technology will define success in future wars.
- Escalation dominance — the ability to control and win a conflict quickly — is essential.
- Nuclear weapons and cruise missiles are quietly being developed, making future wars more dangerous.

Two-Front War Risk and India's Space Gap

- A joint conflict with China and Pakistan would be much harder for India to handle.
- India lacks a strong satellite-based surveillance and communication system, which is vital for modern warfare.
- Space will play a central role in future wars, and India must strengthen its capabilities in this domain quickly.

Strategic Outlook

- Peace in the region depends heavily on Pakistan's military leadership.

- India must stay alert and build its military and technological strength — especially in space — to stay ahead.

Rebuilding J&K: TH Editorial

Internal Security

EASY EXPLANATION

After Operation Sindoor, Pakistan responded with shelling across the border, and the worst-hit area was Poonch in Jammu and Kashmir. Many residential zones came under fire, leading to loss of lives and serious damage to civilian homes and infrastructure.

Union Home Minister Amit Shah visited these affected areas, especially Poonch, to assess the damage and support the residents. During his visit, he emphasized two main goals: security and development. He also handed out job appointment letters to family members of those who died in the shelling, offering both emotional and financial support.

A preliminary damage report showed that around 1,500 houses were affected, mostly in Poonch and Uri. At least 18 civilians died, with 14 of them in Poonch alone. Other districts like Baramulla, Kupwara, and Rajouri were also hit. Shelling destroyed homes and forced people to leave, but residents are now slowly returning as the situation becomes more stable.

Political leaders across parties, including Rahul Gandhi and Trinamool Congress members, visited the area to show support, which helped reduce fear and boost morale among the locals.

However, the government's current relief support — up to ₹1.2 lakh for fully damaged houses — is being seen as too little, especially by those whose multi-storey homes were destroyed. People feel this amount is not enough to rebuild.

The government has already built around 9,500 bunkers across the Jammu and Kashmir regions to help civilians take shelter during shelling. But there's now growing demand for more personal bunkers, especially in scattered, rural areas where collective shelters are harder to access quickly.

The article stresses that the central and local governments must work together more effectively to help these border residents who continue to live in fear and face repeated displacement due to cross-border firing.

KEY TAKEAWAYS

Impact of Cross-Border Shelling

- Pakistan's shelling post-Operation Sindoor caused major civilian damage, especially in Poonch.
- 1,500 houses were affected, with 690 in Poonch and 534 in Uri.
- 18 civilians lost their lives; 14 of them were from Poonch.
- Baramulla, Kupwara, and Rajouri also experienced damage.

Government Response and Relief Measures

- Home Minister Amit Shah visited the affected areas and assured support.
- Job appointment letters were handed to the families of victims.
- Relief of up to ₹1.2 lakh was approved for fully damaged houses, but many residents find it insufficient.

Political Visits and Community Impact

- Visits by opposition leaders, including Rahul Gandhi and Trinamool Congress members, gave emotional support to residents.
- These visits helped reduce fear and uplifted morale among the affected border communities.

Restoration and Return to Normalcy

- Residents are beginning to return to their homes, although many are still damaged or unsafe.
- The Indian Army's statement that the ceasefire agreement has "no expiry date" brought some reassurance to the population.

Need for Better Shelter Infrastructure

- Around 9,500 bunkers have been constructed — 8,000 in Jammu and 1,500 in Kashmir.
- There is an increasing demand for personal bunkers in sparsely populated border areas, especially in the Kashmir Valley.
- Quick access to safe shelters remains a challenge in isolated locations.

Way Forward

- A stronger, better-funded relief package is needed for rebuilding damaged homes.
- Coordination between the Centre and the J&K government is essential to address both immediate and long-term needs of border residents.
- Investment in individual safety infrastructure and faster response systems should be a priority in these vulnerable regions.

Steep decline: TH Editorial

Economy

EASY EXPLANATION

India's industrial output — a measure of how well the country's factories are performing — has slowed down sharply in April, the first month of the financial year 2026. This is tracked using the Index of Industrial Production (IIP), which showed only 2.7% growth, the weakest performance in the last eight months. This is nearly half of what it was in April last year (5.2%).

A similar trend was seen in the performance of eight key sectors (like coal, steel, cement, electricity, etc.) that form 40% of the IIP. These core sectors grew by only 0.5% in April, also their slowest growth in eight months, and much lower than 6.9% a year ago.

The overall growth in industrial output last year was only 4%, the lowest in the past four years. One worrying sign is that the mining sector shrank by 0.2%, the first time it has declined since August 2024. Even though mining exports have increased in terms of value, their share in total exports has gone down over the past decade.

Other sectors like manufacturing and electricity also slowed down — with growth of just 3.4% and 1.1%, respectively. This is a sharp fall from previous performances.

Another major concern is low demand in rural India. Consumer non-durables (everyday items like food, soap, and household goods) saw output shrink for the third month in a row. Even though overall inflation has dropped to a 6-year low (3.16%), rural people still aren't spending more. Food prices have also been falling for six months, but farmers are getting prices below the Minimum Support Price (MSP), which is hurting rural incomes.

To improve this situation, the government needs to ensure farmers actually get MSP and work on raising rural income. This could help increase rural spending and boost the economy.

On a more positive note, capital goods (like machinery and tools used for future production) grew by 20.3%, which shows that investors still believe in India's economy and are continuing to invest. However, this growth is based on a very low base from last year.

Given the uncertainty in global trade — with changing tariffs and supply chain problems — the government should encourage private companies to invest more inside India. This will create jobs and increase spending. Exporters should also try to find new markets beyond just the US and Europe to avoid being too dependent on those regions.

KEY TAKEAWAYS

Industrial Output Slows Down

- April 2026 IIP growth slowed to 2.7%, the lowest in eight months.
- A significant drop from April 2025's 5.2% growth.
- Eight core sectors grew only 0.5%, compared to 6.9% last year.

Sector-wise Performance

- Mining contracted by 0.2%, its first decline since August 2024.
- Manufacturing grew by 3.4%, down from 4.2%.
- Electricity generation slowed sharply to 1.1%, from 10.2% last year.

Rural Economy Under Strain

- Consumer non-durables output declined for the third month in a row.
- Indicates weak rural demand despite low retail inflation (3.16% in April).
- Food price inflation dropped to 2.14%, resulting in farmers receiving below-MSP rates for their produce.

Issues with Minimum Support Price (MSP)

- Farmers are not benefiting from MSP as they should.
- This leads to lower rural income and reduced consumption in villages.
- Government needs to better implement MSP to boost rural demand.

Positive Sign: Capital Goods Growth

- Capital goods output jumped 20.3% in April.
- Indicates business confidence and investment in infrastructure and production.
- However, growth is from a low base, so it may not signal a full recovery yet.

Trade Volatility and Global Risks

- Global trade remains uncertain due to tariffs, supply chain issues, and price shocks.
- Sectors relying heavily on exports are vulnerable to external disruptions.

Suggested Policy Actions

- The government should promote domestic capital expenditure by private companies.
- This would help create jobs and boost demand.
- Exporters should diversify away from over-dependence on the US and EU.
- Stronger local presence and alternative markets can reduce global risk exposure.

The rankings mirage: IE Editorial

Sociology

EASY EXPLANATION

Recently, a top official from NITI Aayog, the government's main policy think tank, prematurely announced that India had overtaken Japan to become the world's fourth-largest economy. But another member clarified that this will likely happen a few months later — not yet. Currently, India's GDP is $4.187 trillion, and Japan's is just slightly lower at $4.186 trillion. So, India is close, but not quite there.

However, there's still a huge difference when it comes to per capita income — the average income per person. Japan's per capita income is around $33,900, while India's is only $2,880. This means Japan is far more developed, even though its total economy is about the same size. India is still a developing country, though its large, young population gives it long-term growth potential.

India's economy has grown consistently over the past 30 years. Back in 1991, Finance Minister Manmohan Singh had predicted India's rise as a major economic power. This idea gained global attention when economist Angus Maddison showed that India and China had once been global economic giants before colonialism and the Industrial Revolution shifted power to the West.

China grew much faster than India and overtook Japan in 2010, especially after the 2008–09 global financial crisis. This worried Japan, which was already facing economic slowdown. The return of Shinzo Abe as Japan's Prime Minister in 2012 led to the launch of "Abenomics" — a set of reforms to revive the Japanese economy.

Despite these efforts, Japan's growth remained weak. Recently, Germany overtook Japan too, pushing it to the fourth position. Now, India is poised to overtake Japan, but this time Japan doesn't seem worried. The reason? Japan sees China as a threat — economically and politically — but not India. India is viewed more as a partner and an opportunity, not a competitor.

India's diplomatic ties with Japan have been friendly, and the two countries don't see each other as rivals. That's why Japan hasn't reacted negatively to India's economic rise.

Still, the race between India, Japan, and Germany could continue to shift for a while. Currency values, global trade disruptions, or temporary slowdowns could cause rankings to change. But once India firmly takes the third spot, it's likely to hold on to it for a long time — although catching up with China or the U.S. will still be a very long journey.

The main message is: India should focus not just on ranking, but on growing in a way that benefits everyone — making the economy more competitive and improving people's lives.

KEY TAKEAWAYS

India Close to Becoming Fourth-Largest Economy

- India's GDP ($4.187 trillion) is about to surpass Japan's ($4.186 trillion), but hasn't officially done so yet.
- The announcement by NITI Aayog's CEO was premature; experts expect the shift in a few months.

Gap in Per Capita Income Remains Wide

- Japan's per capita income: $33,900
- India's per capita income: $2,880
- India is still classified as a developing, lower-middle-income country.

Historical Economic Shift

- In 1991, Manmohan Singh predicted India's rise as an economic power.
- Economist Angus Maddison's research showed India and China were once major global economies before colonialism and the Industrial Revolution led to their decline.

China's Rise vs India's Path

- China overtook Japan in 2010 after the global financial crisis, causing concern in Japan.
- China's economic surge made Japan view it as a competitor and a geopolitical rival.

Japan's Response to India's Rise

- Unlike China, India's rise is not viewed as threatening by Japan.
- Friendly diplomatic ties and India's smaller role in global trade mean Japan sees India as an opportunity rather than a competitor.

Changing Global Rankings

- Germany has already overtaken Japan to become the third-largest economy.
- The rankings between India, Japan, and Germany may fluctuate due to exchange rates, trade conditions, and economic slowdowns.

Long-Term Outlook

- If India continues to grow steadily and crosses the $5 trillion mark, it could pull ahead of Japan and Germany permanently.
- However, India still has a long way to go to catch up with China ($18 trillion GDP) or the US.

Focus for India

- Rather than just chasing rankings, India should aim for inclusive, people-centric growth.
- Improving competitiveness, raising living standards, and making growth more broad-based will ensure lasting progress.

DECODING GDP: IE Editorial

Economy

EASY EXPLANATION

India's economy grew by 7.4% in the last quarter of the financial year 2024–25, which was better than what most people expected. For the full year, the growth rate was 6.5%, as estimated earlier by the National Statistics Office (NSO). If we remove product taxes and focus only on the value-added by economic activities, the growth was 6.8% in the final quarter.

However, despite this strong finish, the overall pace of the economy slowed during the year. In the second quarter, growth dropped to just 5.6%, and nominal GDP (the total economic output without adjusting for inflation) rose by less than 10%, which is considered slow.

Looking at specific sectors:

- **Agriculture** performed well due to good weather and profitable crop prices, with 4.6% growth for the year — better than usual.

- **Industry** slowed down sharply, mainly because of weaker manufacturing. Industrial growth dropped to 4.5% from 12.3% the year before.
- **Construction** stayed strong with 9.4% growth.
- **Services** — including trade, transport, finance, and real estate — also slowed slightly.

Interestingly, private consumption (what people spent) rose by 7.2% last year. This seems odd because many business leaders have complained throughout the year that demand is weak, especially from the middle class.

There was also a big jump in investment in the last quarter, with a 9.4% rise in fixed capital formation (spending on things like buildings, machinery, etc.). But it's unclear if this level of investment will continue in the coming months.

Looking ahead, the future is uncertain. If global commodity prices fall, the way we measure price changes (deflators) may also drop, affecting GDP numbers. Investment may also slow due to the current uncertainty in the economy.

On the bright side, tax cuts and lower interest rates could help boost spending by families. The Reserve Bank of India is expected to keep inflation under control and may cut interest rates further. Still, expectations for the coming year (2025–26) remain modest. Both the central bank and many analysts predict growth between 6.2% and 6.5%.

KEY TAKEAWAYS

Headline Economic Growth

- Q4 of 2024–25: GDP grew at 7.4%, beating expectations.
- Full-year growth: Pegged at 6.5% by the NSO.
- Real value-added growth (excluding taxes): 6.8% in Q4.
- Nominal GDP (not adjusted for inflation): Grew by less than 10%, showing a slowdown.

Sector-wise Performance

- **Agriculture**: Strong growth of 4.6% for the year, helped by good weather and better prices.
- **Industry**: Slowed to 4.5%, mainly due to weaker manufacturing output.
- **Construction**: Maintained steady growth at 9.4%.
- **Services**: Experienced a mild slowdown in key segments like transport, hospitality, finance, and real estate.

Consumer Spending and Investment Trends

- **Private consumption** rose by 7.2%, despite complaints from businesses about weak demand.
- **Fixed capital formation** (investment in physical assets) increased by 9.4% in Q4 — though sustainability of this trend is uncertain.

Economic Outlook and Challenges

- The short-term future is uncertain due to:
    - Possible fall in commodity prices affecting GDP measurements.
    - Global and domestic uncertainties slowing investment activity.

Possible Policy Support

- Tax cuts and further interest rate reductions may support household consumption.
- RBI is expected to keep inflation within its target range and may cut rates further.

Forecast for 2025–26

- RBI expects GDP growth to stay at 6.5%.
- Private analysts expect a similar range of 6.2% to 6.5%, indicating cautious optimism.

PAYING MORE FOR LESS: IE Editorial

Sociology

EASY EXPLANATION

Digital platforms like Amazon, Swiggy, YouTube, and Zomato have changed how people shop, eat, watch content, and live. They started off by offering great value: fast service, low prices, lots of choices, and ease of use. But now, many users feel the experience is getting worse as these platforms grow larger and more powerful.

This trend is being called **"enshitification"** — a term coined by journalist Cory Doctorow. It describes how platforms evolve in a negative way: first they serve users, then they prioritize business clients, and finally they serve only themselves. As a result, the user becomes just another source of profit.

Examples are everywhere:

- **Amazon Prime Video** will now show ads unless users pay extra.
- **Zomato Gold** and **Swiggy One** have added new "rain-surge fees" for even premium members.
- **YouTube** and **Spotify** bombard users with unskippable ads.
- Platforms are adding "platform fees" and "handling charges" on every order.

These changes show how platforms are no longer focused on making the user experience better. Instead, they're making users pay more — for things that were once free or standard.

A big concern is the **use of unfair pricing based on the user's device**. In 2025, people discovered that iPhone users were being charged more than Android users for the same service. This was done without their knowledge, based on the assumption that iPhone users have more money.

Another trick being used is **"dark patterns"** — sneaky design tactics that manipulate users into doing things they don't want:

- **False urgency**: Showing fake countdowns to rush people into buying.
- **Basket sneaking**: Adding items or donation boxes without asking.
- **Drip pricing**: Revealing hidden fees only at checkout.
- **Nagging**: Repeated alerts to buy something.
- **Subscription trap**: Making it hard to cancel paid services.

While some rules exist — like the Consumer Protection Act, E-Commerce Rules, and IT Rules — they mostly address problems after they've already happened. These laws don't directly regulate how platforms design their apps or websites to influence user behavior.

India's consumer body has issued some guidance, but it's not legally binding, so platforms still find ways around it.

What's needed is a **stronger legal framework** — a proactive law that can prevent manipulation before it happens. A proposed law, the **Digital Competition Bill**, may help stop platforms from pushing their own products or blocking access to outside apps. But India still needs stricter rules on dark patterns, user interface manipulation, and mandatory audits of how large platforms are designed.

KEY TAKEAWAYS

What is "Enshitification"?

- A process where digital platforms degrade over time.
- They start by prioritizing users, then business clients, and finally shift to benefiting only themselves.
- Coined by journalist Cory Doctorow to explain worsening user experiences on dominant platforms.

Examples from Indian Digital Platforms

- **Amazon Prime Video** to show ads unless users pay more.
- **Zomato Gold** and **Swiggy One** added rain-surge fees for premium users.
- Platforms like **YouTube** and **Spotify** serve unskippable ads.
- Growing "platform" and "handling" charges on basic services.

Business Strategy Shift

- As user growth slows, companies focus on squeezing more money out of existing users.
- Returning customers are no longer rewarded.
- Free features are placed behind paywalls.

Unfair Pricing Practices

- iPhone users reported being charged more than Android users for identical services.
- Pricing based on device data occurs without transparency or consent.

Use of Dark Patterns

- Platforms manipulate users through design tricks:
  - **False urgency** with fake countdowns.
  - **Basket sneaking** with auto-added items or donation boxes.
  - **Drip pricing** with hidden fees at the end.
  - **Nagging** through endless notifications.
  - **Subscription traps** making it hard to cancel services.
- These are designed to mislead users and increase profits.

Regulatory Gaps in India

- Existing laws:
  - **Consumer Protection Act, 2019**
  - **E-Commerce Rules, 2020**
  - **IT Rules, 2021**
  - **Digital Personal Data Protection Act, 2023**
  - **Competition Act, 2002**
- These laws handle issues like privacy, unfair pricing, and data consent — but only after the harm has occurred.
- No direct rules exist for user experience design or interface manipulation.

What Needs to Be Done

- India needs a **forward-looking, preventive legal framework**.
- The **Digital Competition Bill** could help stop self-preferencing and forced bundling.
- But more is required:
  - Mandatory **UX audits** for big platforms.
  - **Stronger definitions** of dark patterns.
  - **Binding regulations** to protect users from manipulation.

- Clear **transparency standards** in digital pricing and design practices.

Setting sail on our own: IE Ideas

Economy

EASY EXPLANATION

India is aiming to become a major player in global shipbuilding. The 2025 Union Budget backed this ambition with strong support — announcing Rs 25,000 crore for a Maritime Development Fund, offering tax exemptions, setting up mega shipbuilding clusters, and giving big ships the status of key infrastructure. India also wants to partner with global shipbuilding giants and boost private sector investments to become one of the top five shipbuilding nations by 2047.

But there's a big problem: **engines**. Building a ship is not enough if you can't build what makes it move. Currently, India depends almost entirely on foreign companies for marine engines, especially the large ones used in both commercial and naval ships. Over 90% of such engines (above 6 megawatts) are supplied by just five companies from Germany, Finland, the UK, the US, and Japan.

This heavy dependence is dangerous. These foreign engines are protected by strict intellectual property rights and controlled software. If diplomatic relations with these countries get tense or if export laws change, India could suddenly lose access to spare parts, engine servicing, or even diagnostics — putting the entire shipbuilding program at risk.

To reduce this risk, the Indian Navy recently placed an order with Kirloskar Oil Engines to develop a 6 MW marine engine. But the real need is for engines that go up to 30 MW for bigger vessels — and that's where the challenges begin.

The problems are complex:

1. **Design Limitations**: India lacks the ability to design modern marine engines that meet international standards for efficiency and emissions. Without our own designs, we can't adapt engines for military use or specific Indian conditions.
2. **Material Challenges**: Big engines require special metals and alloys that can withstand high pressure, heat, and corrosion from seawater. India doesn't yet have the capacity to produce these in large quantities.
3. **Engineering Challenges**: The science of wear and tear (tribology), advanced coatings, and precision manufacturing is still underdeveloped in India. Making heavy-duty engine parts like crankshafts and cylinder blocks requires extremely high precision — which most Indian industries currently can't deliver at scale.
4. **Outdated Education**: India's top engineering colleges still teach students using outdated engine models. They don't have access to modern engines, even though India dismantles many such ships at its shipbreaking yard in Alang.

To fix all this, India needs to change its strategy. Relying only on big public and private companies hasn't worked so far. The solution lies in **supporting tech start-ups** that are innovative, fast-moving, and willing to take risks.

The government must fund and mentor these startups through innovation grants, partnerships with institutions like IIT Madras, access to labs and testing facilities, and assured purchases from the defence and shipping sectors. These startups also need software and tools for designing, simulating, and testing engines.

India is making big moves in building ships. But unless it can build the engines that power those ships, it will still remain dependent on other countries. Just like India's Tejas fighter jet still uses imported engines, Indian ships too will remain vulnerable unless we master marine engine technology.

KEY TAKEAWAYS

India's Shipbuilding Ambition

- The 2025 Union Budget supports India's maritime growth with:
  - Rs 25,000 crore Maritime Development Fund
  - Customs duty exemptions
  - Infrastructure status for large vessels
  - Public-private and international partnerships
- Goal: Make India a top 5 shipbuilding nation by 2047

Engine Dependency: A Strategic Weakness

- Over 90% of large marine engines in Indian ships come from just five foreign manufacturers.
- Engines include protected technology (software, designs) and cannot be easily modified or serviced.
- Export restrictions and diplomatic tensions could severely affect India's naval and commercial fleet.

Key Challenges to Indigenous Engine Development

1. **Lack of Modern Designs**
   - India cannot yet design high-performance marine engines.
   - These engines must meet global emission standards and work with new propulsion technologies.
2. **Material Shortcomings**
   - Large engines need high-performance metals like chromium steel and nickel alloys.
   - India lacks capacity to produce such materials in bulk.
3. **Engineering and Manufacturing Gaps**
   - Advanced coatings and precision parts are required to reduce wear and improve engine life.
   - India lacks the industrial setup for high-precision manufacturing at this scale.
4. **Outdated Education and Training**
   - Engineering institutes still use obsolete training models.
   - Modern engines should be sourced from shipbreaking yards like Alang for hands-on training.

Solutions and Recommendations

- **Encourage Startups**
  - Startups can be agile, innovative, and more open to cross-disciplinary work.
  - Government should fund marine-tech innovation missions and provide access to test labs and contracts.
- **Institutional Support**
  - Institutes like IIT Madras can lead marine propulsion research.
  - Startups need access to design software, simulation tools, and embedded systems for engine control.
- **Urgency of Indigenous Capability**
  - Without building marine engines, India will remain dependent despite building ships domestically.
  - True maritime independence comes only when India can power its own vessels with its own engines.