

# ANTIM ASSURED 100+

*The Topper's Last Read. Every Morning.*

PART I · HEADLINES TO ECONOMY

Wednesday, 12 August 2026

*"The Topper's Last Read"*

Morning Edition · 08:00 IST · TheIAS Akademia

## INSIDE PART I

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## SECTION 01

# Top Headlines — 11 & 12 August 2026

1. Centre files a counter-affidavit in the Supreme Court opposing extension of the "creamy layer" exclusion to Scheduled Castes and Scheduled Tribes.
2. Supreme Court holds that an FIR is mandatory for every missing person irrespective of age or gender, and moves for contempt against defaulting States.
3. Government indicates the Foreign Contribution (Regulation) Amendment Bill, 2026 may be referred to a Joint Parliamentary Committee rather than passed this session.
4. A Damascus court sentences Bashar al-Assad to death in absentia for crimes against humanity and war crimes.
5. Fourth session of the India-Namibia Joint Trade Committee concludes in New Delhi; Agreed Minutes signed.
6. Cargo vessel MV Tihamah struck by a missile in the Bab el-Mandeb Strait, with crew fatalities reported.
7. Navy Chief Admiral Krishna Swaminathan holds maritime-security talks in Mauritius on coast guard capacity building and joint EEZ surveillance.
8. INST Mohali and BARC report light-activated, fuel-free nanobots for targeted breast-cancer therapy.
9. ARIES Nainital reports an anomalously thick ozone layer at 21-23 km over the North Bay of Bengal.
10. IMD warns of extremely heavy rainfall over East Rajasthan as a low-pressure area tracks across northwest Madhya Pradesh.
11. DGFT removes the requirement of physical duty-payment challans for Export Obligation Discharge Certificates under Advance Authorisation and EPCG.
12. Consumer Price Index data for July 2026 is due for release today on the rebased 2024=100 series.

## SECTION 02

# Polity & Governance

**Editorial note:** Every card carries a date stamp. **11-12 AUG** marks stories from yesterday and today; **CURRENT** marks a story from the immediately preceding days whose true date is stated on the card. Two structural notes on this edition: **(a)** Polity is deliberately capped at three cards so the syllabus is covered in breadth rather than letting Parliament and the Supreme Court crowd out other papers; **(b)** where a figure was still unpublished at press time, the card says so rather than printing a guess.

GS2

GS1

11-12 AUG

Reservation — Articles 341 & 342

# No Creamy Layer for SC/ST: The Centre's Constitutional Case in the Supreme Court

**Why in News:** The Union Government has filed a counter-affidavit in the Supreme Court opposing a petition that seeks to extend the income-based "creamy layer" exclusion — currently applied only to Other Backward Classes — to Scheduled Castes and Scheduled Tribes. The Centre's argument rests on the distinct constitutional basis on which SC and ST lists are drawn, and is among the most conceptually rich reservation matters currently before the Court.

**Background:** The creamy layer doctrine originates in *Indra Sawhney v. Union of India* (1992), which upheld OBC reservation but required exclusion of the socially advanced among them; the Court expressly did not extend this to SC/STs. The question revived after the seven-judge Constitution Bench in *State of Punjab v. Davinder Singh* (August 2024) permitted sub-classification within SC/ST lists, in which four of the seven judges separately observed that a creamy layer for SC/STs merited consideration. The petition before the Court builds on those observations.

## ⚡ KEY FACTS

- Petition filed by advocate Ashwini Kumar Upadhyay, alleging "elite capture" of reservation benefits and seeking income-based exclusion across all reserved categories.
- Centre's first plank: SCs are identified by historical disadvantage rooted in untouchability, and STs by distinct culture, geographical isolation and backwardness — neither is an economic classification.
- Second plank — precedent: *Indra Sawhney* (1992) created the creamy layer for OBCs and expressly excluded SC/STs; *Ashoka Kumar Thakur* (2008) affirmed this; *E.V. Chinnaiah* (2005) held only Parliament could introduce such an exclusion.
- Third plank — Articles 341 and 342: only the President notifies the SC and ST lists, and only an Act of Parliament may vary them.
- Centre also challenges maintainability under Article 32, arguing no fundamental-right violation is shown and that the plea seeks an impermissible mandamus directing executive policy.
- The OBC creamy-layer threshold currently stands at ₹8 lakh annual family income.
- Sub-classification following *Davinder Singh* has already been implemented for SCs in Telangana, Haryana and Punjab, and for STs in Mizoram; at the Centre, ST quota has been sub-divided for Particularly Vulnerable Tribal Groups in Eklavya Model Residential Schools.
- The 2017 G. Rohini Commission report on OBC sub-categorisation remains unacted upon.

## 🎯 MAINS DIMENSIONS / ANALYSIS

- The core conceptual distinction is between reservation as compensation for *social* stigma and reservation as a remedy for *economic* deprivation. The Centre's case stands or falls on that separation, because untouchability is not cured by income.
- Yet the counter-argument is empirically serious: if benefits concentrate within a small advanced segment of a reserved group, the constitutional purpose of substantive equality is defeated in practice even while formally satisfied.
- *Davinder Singh* created the tension this case exploits — once the Court accepted that SC/ST groups are internally differentiated enough to justify sub-classification, resisting internal differentiation by income becomes harder to argue on principle alone.
- Articles 341 and 342 give this a separation-of-powers dimension: the Centre is arguing that even if a creamy layer were desirable, the Court is the wrong institution to impose it.
- The Centre's own concession — that any change requires a "holistic review and thorough empirical study" — is significant: it concedes the policy question is open while denying the judicial route to it.

💡 Let's Remember This Through a Trick

Remember "341 notifies, Parliament modifies" — the President notifies the SC/ST lists under Articles 341 and 342, and only Parliament can vary them. That single line is the Centre's whole institutional argument.

 **Probable Prelims MCQ (Statement-Based)**

Consider the following statements:

1. The creamy layer principle for OBCs was laid down in *Indra Sawhney v. Union of India* (1992).
2. Articles 341 and 342 empower the President to notify the SC and ST lists respectively.
3. Only Parliament may include or exclude a community from the SC/ST lists.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (d) All three.

 **PYQ LINKAGE**

GS2 2018 & 2022: Reservation policy, the creamy layer doctrine and substantive versus formal equality; GS1 on social empowerment.

#GS1

#GS2

#CreamyLayer

#Article341

#IndraSawhney

GS2

GS3

CURRENT

Judicial Oversight — Human Trafficking

Order dated 5 August 2026; reported 11 August 2026 · Source: Supreme Court of India

## An FIR for Every Missing Person: Supreme Court Moves for Contempt Against Defaulting States

**Why in News:** In an order dated 5 August 2026 and reported on 11 August, the Supreme Court held that its earlier missing-persons directive applies to *every* person irrespective of age or gender, rejecting several States' reading of it as applying only to children as a "deliberate and mala fide bogey". The Court has ordered contempt notices to the Chief Secretaries and Directors General of Police of non-complying States and Union Territories, requiring their personal presence.

**Background:** The directions arise in continuing anti-trafficking proceedings, building on an order of 22 May 2026. The underlying problem is a well-documented police practice of treating adult disappearances as voluntary and registering only a "missing person" entry rather than an FIR — which means no investigative machinery is triggered. Because trafficking cases are time-critical, the Court has repeatedly emphasised that the first hours after a disappearance are decisive.

 **KEY FACTS**

- Bench of Justices Ahsanuddin Amanullah and R. Mahadevan, in *G. Ganesh v. State of Tamil Nadu*; order dated 5 August 2026.
- Core holding: "person" means every person regardless of age or gender — an FIR must be registered immediately on any missing-person information, with no preliminary enquiry and no shifting of the search burden to the family.
- The Court invoked the "golden hours" principle, requiring police machinery to be activated at the highest level immediately.
- FIRs must cite the relevant provisions of the Bharatiya Nyaya Sanhita, 2023 on kidnapping, abduction and trafficking; suspected trafficking cases must be transferred to a specialised unit without waiting for the four-month period.

- All Anti-Human Trafficking Units (AHTUs) are to be made fully functional within four weeks.
- Contempt notices ordered against Chief Secretaries and DGPs of non-complying States and UTs, with personal appearance and show-cause affidavits; the Union Territory of Ladakh was specifically named for filing no response.
- The Union has been directed to integrate all relevant portals nationwide within six weeks; the matter is listed next on 5 October 2026.

#### MAINS DIMENSIONS / ANALYSIS

- The order targets a discretion gap rather than a legal gap: the law already permits an FIR, but police discretion in classifying disappearances is where trafficking cases are lost. Removing that discretion is the intervention.
- Contempt against Chief Secretaries and DGPs personally is an unusually sharp enforcement instrument — it shifts accountability from the institution to the individual officer, which is precisely what makes it effective and also what raises federal friction.
- The directive intersects with policing as a State subject: the Court is not making law but enforcing compliance, yet the practical effect is central judicial supervision of State police procedure.
- AHTU functionality is the real bottleneck — units exist on paper across States but are frequently unstaffed or diverted, which is why a four-week functionality deadline matters more than the FIR mandate alone.
- Portal integration addresses the structural weakness in trafficking response: victims move across State lines faster than State-level databases can talk to each other.

#### Let's Remember This Through a Trick

Remember "golden hours, no enquiry, every person" — immediate FIR, no preliminary enquiry, and the directive covers adults as much as children.

#### Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. Anti-Human Trafficking Units function at the district and State level in India.
2. The Bharatiya Nyaya Sanhita, 2023 contains provisions on kidnapping, abduction and trafficking.
3. Police is a subject in the Union List of the Seventh Schedule.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (a) 1 and 2 only. Police is a State List subject (Entry 2).

#### PYQ LINKAGE

GS2 2021 & 2023: Judicial activism and enforcement of rights; GS3 on human trafficking as an internal-security challenge.

#GS2

#GS3

#HumanTrafficking

#AHTU

#BNS2023

GS2

11-12 AUG

Civil Society Regulation — JPC Route

JPC-referral reporting 11 August 2026; Bill introduced 25 March 2026 · Source: PRS Legislative Research / press reports

# FCRA Amendment Bill Heads for a Joint Parliamentary Committee Instead of a Vote

**Why in News:** The Foreign Contribution (Regulation) Amendment Bill, 2026 had been listed for consideration and passing, but on 11 August 2026 multiple reports indicated the Government is likely to refer it instead to a Joint Parliamentary Committee. The procedural turn is itself the story: a Bill that had been scheduled for passage in a session's final week is being sent for detailed examination.

**Background:** The Bill amends the Foreign Contribution (Regulation) Act, 2010, which replaced the 1976 Act and was last significantly amended in 2020. Its central innovation is a Designated Authority in which foreign contribution and assets vest when an FCRA certificate ends. Passage had already been deferred once, on 2 April 2026, amid protests from church bodies and minority-run institutions.

**Memory Technique** This topic has appeared before — here is precisely what is new

**Previously covered:** the Bill's substantive provisions, when it was listed for consideration.

**What is new today:** the procedural pivot — likely referral to a Joint Parliamentary Committee rather than passage, which changes the legislative pathway entirely.

**UPSC relevance shifts:** from "what does the Bill do" to "how does Parliament scrutinise contested legislation" — JPC versus Standing Committee versus Select Committee.

## ⚡ KEY FACTS

- Bill No. 97 of 2026, introduced in the Lok Sabha on 25 March 2026; passage deferred 2 April 2026; JPC referral reported 11 August 2026.
- Creates a Designated Authority in which foreign contribution and assets vest when a certificate is cancelled, surrendered, or "ceases" — cessation being a new category covering non-renewal or denied renewal.
- Vesting is provisional pending a fresh or restored certificate, and otherwise permanent; permanently vested assets may be transferred to government agencies or sold, with proceeds credited to the Consolidated Fund of India.
- Assets created partly from foreign contribution vest entirely; the organisation must apply to recover any distinct domestically-funded portion. For a place of worship, the Authority must preserve its religious character.
- Maximum imprisonment reduced from 5 years to 1 year, but prior Central Government approval is now required to initiate any investigation.
- "Key functionaries" — including company directors, firm partners, trustees, the Karta of a Hindu Undivided Family and governing-body members — are presumptively liable unless due diligence is shown.
- FCRA portal data as of 15 July 2026: 14,449 active certificates, 22,498 cancelled and 15,212 deemed expired. The Ministry of Home Affairs has reported that 13,520 organisations received ₹55,741 crore in foreign contribution between 2019 and 2022.
- The FCRA Amendment Rules, 2026 (notified 22 June 2026) require utilisation of at least ₹10 lakh of foreign contribution in the preceding two financial years for renewal.

## 🎯 MAINS DIMENSIONS / ANALYSIS

- A JPC is constituted for a specific purpose with members from both Houses and can summon witnesses and documents — a stronger scrutiny instrument than a departmental Standing Committee for legislation with contested constitutional implications.
- The referral is a useful counterpoint to the criticism that Indian legislation bypasses committees: it shows the mechanism working when political cost is high enough, which itself tells you what drives referral.

- The substantive concern flagged in legislative analysis is the absence of an appeal mechanism against non-renewal — appeals lie to the High Court against cancellation, rejection or confiscation, but not against a refusal to renew.
- Vesting assets built partly from foreign funds in their entirety, with a recovery application afterwards, reverses the normal burden and raises a proportionality question under Article 300A.
- The regulation of foreign funding is a legitimate sovereignty function; the analytical question is whether the administrative architecture is calibrated to that purpose or broad enough to operate as leverage over civil society.

#### 💡 Let's Remember This Through a Trick

Remember "cancelled, surrendered, ceased" — the three triggers for vesting. "Ceased" is the new one, and it captures the organisation that simply never got its renewal.

#### 🎯 Probable Prelims MCQ (Statement-Based)

Consider the following statements about a Joint Parliamentary Committee:

1. It draws members from both Houses of Parliament.
2. It is constituted for a specific subject or Bill and is dissolved once it reports.
3. Its recommendations are binding on the Government.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (a) 1 and 2 only. JPC recommendations are advisory, not binding.

#### 📄 PYQ LINKAGE

GS2 2015 & 2021: Role of NGOs and civil society, and the statutory framework regulating them; parliamentary committees.

#GS2

#FCRA

#JPC

#CivilSociety

**THEIAS AKADEMIA** Polity is deliberately held to three cards today. A syllabus is covered in breadth, not by letting one paper crowd out five. **ANTIM 2027** is built on that discipline. [theiasakademia.com](https://theiasakademia.com)

## SECTION 03

# International Relations

GS2

11-12 AUG

Transitional Justice — International Law

11 August 2026 · Source: Fourth Criminal Court, Damascus (verdict broadcast on Syrian state television)

## Assad Sentenced to Death in Absentia: Transitional Justice and Its Limits

**Why in News:** On 11 August 2026, the Fourth Criminal Court in Damascus sentenced former Syrian President Bashar al-Assad to death in absentia for crimes against humanity and war crimes committed during Syria's fourteen-year conflict. It is the first conviction of Assad since his ouster in December 2024, and the first major ruling by Syria's transitional authorities against former-regime figures.

**Background:** Transitional justice describes the mechanisms a society uses to address mass atrocity after regime change — domestic prosecutions, international or hybrid tribunals, truth commissions, reparations and vetting. Syria's conflict has never been referred to the International Criminal Court, because Syria is not a party to the Rome Statute and a Security Council referral has been blocked. That vacuum is why domestic prosecution by the successor government, with all its limitations, has become the primary accountability route.

#### ⚡ KEY FACTS

- Sentence pronounced 11 August 2026 by the Fourth Criminal Court in Damascus; verdict read by Judge Fakhreddine al-Aryan and broadcast live on state television.
- Convicted of crimes against humanity and war crimes, including ordering the murder of civilians, torture and unlawful detention.
- Also convicted: Maher al-Assad, in absentia; and cousin Atef Najib, who was present in court and sentenced in person.
- Najib was the security chief in Daraa whose 2011 arrest and torture of schoolboys is widely regarded as the trigger for the Syrian uprising.
- Assad has lived in exile in Russia since his ouster in December 2024, so the sentence cannot presently be executed.
- Syria is not a party to the Rome Statute of the International Criminal Court, and a Security Council referral has been blocked — leaving domestic courts as the main forum.
- Trial in absentia is permitted in many civil-law jurisdictions but is disfavoured in international criminal law, where the accused's presence is generally treated as a fair-trial requirement.

#### 🧠 MAINS DIMENSIONS / ANALYSIS

- The case sharpens the central dilemma of transitional justice: accountability delayed indefinitely is itself an injustice to victims, yet convictions secured without the accused present are vulnerable to the charge of victor's justice.
- Capital punishment in absentia compounds the problem — a sentence that cannot be carried out and was not contested risks functioning as political declaration rather than adjudication.
- The ICC gap illustrates a structural weakness of international criminal law: jurisdiction depends on treaty membership or Security Council referral, both of which great-power politics can foreclose.
- For India the relevance is doctrinal rather than immediate — India too is not an ICC party, and has consistently argued that international criminal jurisdiction should not override sovereign judicial systems.
- The alternative model worth contrasting is a truth-and-reconciliation process prioritising documentation and acknowledgement over punishment; Syria's choice of criminal trial signals which trade-off its transitional authorities have made.

#### 💡 Let's Remember This Through a Trick

Remember "no Rome Statute, no referral, so domestic court" — that chain explains exactly why this trial happened in Damascus rather than The Hague.

#### 🧠 Probable Prelims MCQ (Statement-Based)

Consider the following statements about the International Criminal Court:

1. It was established by the Rome Statute.

2. Neither India nor Syria is a party to the Rome Statute.
3. The UN Security Council can refer a situation to the ICC even where the State concerned is not a party.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (d) All three.

 **PYQ LINKAGE**

GS2 2017 & 2022: Important international institutions and their mandate; effect of great-power politics on international justice.

#GS2

#TransitionalJustice

#ICC

#Syria

GS2

GS3

11-12 AUG

India-Africa — Critical Minerals & DPI Export

Session held 10-11 August 2026; Agreed Minutes signed 11 August 2026 · Source: Department of Commerce (PIB)

## India-Namibia Joint Trade Committee: Critical Minerals and the Export of Digital Public Infrastructure

**Why in News:** The fourth session of the India-Namibia Joint Trade Committee concluded in New Delhi with Agreed Minutes signed on 11 August 2026. Two threads make it more than a routine trade meeting: structured cooperation on critical-mineral beneficiation, and a review of Namibia's rollout of a UPI-based instant payment system — India exporting digital public infrastructure rather than merely goods.

**Background:** Namibia holds significant reserves of uranium, lithium, rare earths, copper and cobalt. India's interest is framed by the National Critical Mineral Mission and by KABIL (Khanij Bidesh India Limited), the joint-venture vehicle created to acquire overseas mineral assets. Separately, India has been actively exporting its DPI stack — UPI, Aadhaar-style identity and DigiLocker-type systems — as a diplomatic and commercial offering, with Namibia among the adopters.

### KEY FACTS

- Fourth session of the Joint Trade Committee held 10-11 August 2026 in New Delhi; Agreed Minutes signed by the two co-chairs on 11 August.
- Indian delegation led by Amit Kumar, Joint Secretary, Department of Commerce; Namibian side by Ndiitah Nghipondoka-Robiati, Executive Director, Ministry of International Relations and Trade.
- Bilateral merchandise trade: US\$592.94 million in 2025-26, up from US\$568.40 million in 2024-25.
- India's exports US\$349.09 million, imports US\$243.85 million — a surplus of roughly US\$105 million.
- Critical minerals: structured cooperation on exploration, offtake, processing and downstream beneficiation of lithium, graphite, copper, cobalt and rare earths.
- Digital public infrastructure: Namibia's UPI-based instant payment system "WayaMe", launched in June 2026, was reviewed.
- New working groups agreed on services and health; the first Joint Working Group on Health and Medicine is to convene by December 2026. The fifth JTC session will be held in Namibia in 2028.

- The word that matters is "beneficiation". African mineral producers increasingly refuse to be raw-material exporters, and India's willingness to invest in in-country processing is what distinguishes its offer from a pure extraction model.
- Critical-mineral security is now an industrial-policy question, not merely a trade one: batteries, electronics and the energy transition all depend on supply chains currently concentrated in a small number of countries.
- Exporting DPI is a distinctive form of Indian soft power — it creates technical dependence and interoperability with Indian systems in a way that aid or arms sales do not, and at far lower cost.
- The trade figure is modest in absolute terms (under US\$600 million), which is the honest caveat: the strategic value here is in the mineral and digital verticals, not in volume.
- Sits within India's wider Africa engagement — the India-Africa Forum Summit process, lines of credit, and pharmaceutical exports — where India competes with far larger Chinese commitments by offering partnership terms rather than scale.

#### 💡 Let's Remember This Through a Trick

Remember "minerals out, UPI in" — India seeks Namibian critical minerals with in-country beneficiation, and exports its payments stack in the other direction.

#### 🎯 Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. KABIL (Khanij Bidesh India Limited) was created to acquire overseas mineral assets.
2. Namibia holds significant uranium reserves.
3. "Beneficiation" refers to processing ore to improve its concentration and value before export.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (d) All three.

#### 📄 PYQ LINKAGE

GS2 2019 & 2023: India's engagement with Africa; GS3 on critical minerals and supply-chain security.

#GS2

#GS3

#Namibia

#CriticalMinerals

#UPI

#DPI

## SECTION 04

# Defence & Security

GS3

GS1

11-12 AUG

Maritime Chokepoints — SLOC Security

11 August 2026 · Source: Yemen's transport ministry, via international wire reports

## Missile Strike on MV Tihamah: The Bab el-Mandeb and the Economics of a Chokepoint

**Why in News:** The Egyptian-owned cargo vessel MV Tihamah was struck by a missile in the Bab el-Mandeb Strait on 11 August 2026, with the crew losing control of the ship and multiple fatalities reported. It is the first shipping death toll since the current regional conflict escalated, and it returns attention to the most consequential maritime chokepoint for Indian trade after Hormuz.

**Background:** The Bab el-Mandeb connects the Red Sea to the Gulf of Aden and is the southern gate of the Suez route. Its narrowest point is roughly 29 km, and Perim (Mayyun) Island splits it into two channels — Alexander's Strait and the Dact-el-Mayun. Geologically it sits near the Afar triple junction, where the Red Sea, Gulf of Aden and East African Rift systems meet. Traffic through the Red Sea corridor has fallen by more than half against pre-2023 levels as vessels reroute around the Cape of Good Hope.

#### KEY FACTS

- MV Tihamah, a small Egyptian-owned cargo ship, struck by a missile in the Bab el-Mandeb Strait on 11 August 2026; crew lost control of the vessel.
- Casualty reports conflict across sources — Yemen's transport ministry reported four crew killed (three Pakistani, one Indonesian), while other outlets reported three, and at least one reported six including personnel killed during the rescue effort.
- No group claimed responsibility for the attack.
- Red Sea and Bab el-Mandeb traffic is down more than 50% against pre-2023 levels, with further decline following a declared naval blockade in July 2026.
- The strait's narrowest width is about 29 km; Perim (Mayyun) Island divides it into Alexander's Strait and the Dact-el-Mayun channel.
- The European Union's Operation ASPIDES is the standing European naval escort mission in the corridor.
- India's exposure: Indian nationals constitute a large share of global merchant crews, and the Suez-Bab el-Mandeb route carries a significant portion of India's trade with Europe. The Indian Navy has maintained anti-piracy deployments in the Gulf of Aden since 2008, and Operation Sankalp covers the wider region.

#### MAINS DIMENSIONS / ANALYSIS

- Chokepoint vulnerability is about geometry, not distance: a 29-km strait can be interdicted with cheap shore-launched weapons, which is why anti-ship missiles have proved more disruptive than piracy ever was.
- The economics are asymmetric — a single missile can impose weeks of rerouting cost on global shipping, since the Cape alternative adds substantial voyage time, fuel and insurance.
- India's interest is threefold and often conflated: the safety of Indian seafarers, the cost of its Europe-bound trade, and its declared role as a net security provider in the Indian Ocean Region.
- Escort operations raise the classic freedom-of-navigation dilemma: convoying protects shipping but concentrates naval assets in a contested space, raising escalation risk.
- Compare the three great Indian Ocean chokepoints — Hormuz for energy, Bab el-Mandeb for Suez-route trade, Malacca for East Asian commerce. India's maritime doctrine is shaped by simultaneous exposure to all three.

#### Let's Remember This Through a Trick

Remember "Hormuz for oil, Mandeb for Suez, Malacca for the East" — the three chokepoints, each with a different cargo logic.

Consider the following statements about the Bab el-Mandeb Strait:

1. It connects the Red Sea to the Gulf of Aden.
2. Perim (Mayyun) Island lies within the strait.
3. It connects the Mediterranean Sea directly to the Arabian Sea.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (a) 1 and 2 only. The Mediterranean connects via the Suez Canal to the Red Sea, not directly.

#### PYQ LINKAGE

GS1 2018 & 2022: Important straits and geophysical features; GS3 on maritime security and sea-lane protection.

#GS1

#GS3

#BabElMandeb

#MaritimeSecurity

#SLOC

GS2

GS3

11-12 AUG

Indian Ocean Architecture — EEZ Surveillance

Visit 10-13 August 2026; substantive talks reported 11 August 2026 · Source: Ministry of Defence / Indian Navy

## India's Indian Ocean Architecture: Coast Guard Capacity Building and Joint EEZ Surveillance with Mauritius

**Why in News:** The Chief of the Naval Staff, Admiral Krishna Swaminathan, held talks in Mauritius on 11 August 2026 during a four-day visit, focused on capacity building for the Mauritius National Coast Guard and joint surveillance of Mauritius's exclusive economic zone. The visit is best read not as a courtesy call but as one node in the institutional architecture India has built across the Indian Ocean.

**Background:** Small island states in the Indian Ocean possess vast exclusive economic zones under UNCLOS but lack the assets to police them — Mauritius's EEZ is roughly 2.3 million sq km. India's response has been to position itself as a capacity provider: supplying patrol vessels and aircraft, training personnel, hosting joint surveillance, and building infrastructure. The framing has evolved from SAGAR (Security and Growth for All in the Region, 2015) to the broader MAHASAGAR vision.

### KEY FACTS

- Admiral Krishna Swaminathan, Chief of the Naval Staff since 31 May 2026, on a four-day visit to Mauritius, 10-13 August 2026.
- Agenda: capacity building of the Mauritius National Coast Guard, joint EEZ surveillance, and expanded operational linkages.
- Interlocutors included the Secretary for Home and Defence Affairs and the Commissioner of Police, alongside the Indian High Commissioner.
- Mauritius's exclusive economic zone is approximately 2.3 million sq km — among the largest in the Indian Ocean.
- Framed under India's MAHASAGAR vision, the successor framing to SAGAR (2015).
- Mauritius participates in the Indian Ocean Naval Symposium (IONS), MILAN, the Goa Maritime Conclave, IOS SAGAR and Exercise AIKEYME — the multilateral architecture India anchors in the region.
- Under UNCLOS, the EEZ extends up to 200 nautical miles, within which the coastal state has sovereign rights over living and non-living resources but not sovereignty as such.

#### MAINS DIMENSIONS / ANALYSIS

- Capacity building is strategically more durable than basing: training a partner's coast guard creates interoperability and institutional dependence without the political cost of a foreign military presence.
- The EEZ is the operative concept — small island states hold enormous resource jurisdictions they cannot enforce, so illegal fishing, trafficking and unregulated resource extraction are the practical threats, not invasion.
- India's competition in this space is explicit: Chinese infrastructure finance and port access agreements across the western Indian Ocean make Indian capacity-building offers a counter-positioning tool.
- The multilateral scaffolding (IONS, MILAN, Goa Maritime Conclave, AIKEYME) matters because it converts bilateral goodwill into habitual coordination — a network is harder to displace than a single relationship.
- The honest limitation is resource depth: India's own naval assets are stretched across three chokepoints and a two-front continental commitment, which caps how much surveillance it can actually underwrite.

#### Let's Remember This Through a Trick

Remember "2.3 million sq km, no navy to match" — Mauritius's EEZ is vast and its enforcement capacity is not, which is the entire logic of India's offer.

#### Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. Under UNCLOS the Exclusive Economic Zone extends up to 200 nautical miles from the baseline.
2. Within the EEZ the coastal state enjoys full territorial sovereignty.
3. The Indian Ocean Naval Symposium (IONS) is a forum of Indian Ocean littoral navies.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 1 and 3 only (c) 2 and 3 only (d) All three

**Answer:** (b) 1 and 3 only. In the EEZ the coastal state has sovereign rights over resources, not full sovereignty.

#### PYQ LINKAGE

GS2 2020 & 2023: India's neighbourhood and Indian Ocean policy; GS3 on maritime domain awareness and security cooperation.

#GS2

#GS3

#Mauritius

#MAHASAGAR

#EEZ

#IONS

## SECTION 05

# Science, Technology & Geography

GS3

11-12 AUG

Nanotechnology — Targeted Therapeutics

11 August 2026 · Source: INST Mohali and BARC, published in ACS Applied Materials & Interfaces

# Light-Driven Nanobots: An Indian Fuel-Free Platform for Targeted Cancer Therapy

**Why in News:** Researchers at the Institute of Nano Science and Technology, Mohali, working with the Bhabha Atomic Research Centre, reported on 11 August 2026 a fuel-free nanorobot that is steered by near-infrared light and kills breast-cancer cells through two simultaneous mechanisms. The work is notable because it removes the chemical-fuel requirement that has limited most nanorobot designs.

**Background:** Conventional nanorobots need a chemical fuel — often hydrogen peroxide — which is toxic at the concentrations required, making in-vivo use impractical. This platform instead uses upconversion nanoparticles, which absorb low-energy near-infrared light and re-emit it at higher energy. Near-infrared is chosen because it penetrates biological tissue far better than visible light, the basis of the "optical window" in photomedicine.

## ⚡ KEY FACTS

- Led by Dr Jiban Jyoti Panda (INST Mohali, an autonomous institute under the Department of Science and Technology) and Dr Santosh K. Gupta (BARC, Mumbai); published in *ACS Applied Materials & Interfaces*.
- Built on upconversion nanoparticles (UCNPs) that convert absorbed near-infrared light into higher-energy emission.
- Propulsion by phototaxis: a 980-nanometre near-infrared laser creates a local thermal gradient that drives the nanobot towards the light source — no chemical fuel required.
- Targeting: the surface is functionalised with folic acid, exploiting folate receptors that are over-expressed on breast-cancer cells.
- Dual kill mechanism — photothermal therapy (heat generated from near-infrared absorption) plus photodynamic therapy, in which the photosensitiser rose bengal generates reactive oxygen species. The combination outperformed either alone.
- Validated in in-vitro cell models and in mouse breast-tumour models, where near-infrared activation reduced tumour growth.
- Stated limitations: preclinical stage only; limited near-infrared penetration into deep-seated tumours; difficulty controlling nanobots in vivo; long-term safety and toxicity unestablished.

## 🎯 MAINS DIMENSIONS / ANALYSIS

- Targeted delivery addresses the fundamental problem of chemotherapy — that cytotoxic agents cannot distinguish cancerous from healthy tissue. Receptor-based targeting is how that specificity is engineered.
- Removing the chemical-fuel requirement is the genuine advance: it converts nanorobotics from a laboratory demonstration into something with a plausible clinical pathway.
- The near-infrared penetration limit is the binding constraint and the honest caveat — this platform suits superficial or accessible tumours far better than deep-seated ones, which is a real narrowing of application.
- Institutionally, the collaboration is instructive: a DST nano-science institute paired with a Department of Atomic Energy laboratory, showing that India's research strength often lies in cross-agency combinations rather than single institutions.
- The translation gap is the policy question — India publishes strong preclinical nanomedicine work but converts little of it into approved therapeutics, which points to clinical-trial infrastructure and regulatory capacity rather than to science.

## 💡 Let's Remember This Through a Trick

Remember "light steers it, light kills twice" — near-infrared light both propels the nanobot by phototaxis and triggers both the photothermal and photodynamic kill mechanisms.

### Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. Upconversion nanoparticles absorb near-infrared light and emit at higher energy.
2. Photodynamic therapy works by generating reactive oxygen species using a photosensitiser.
3. Near-infrared light penetrates biological tissue less effectively than visible light.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (a) 1 and 2 only. Near-infrared penetrates tissue better than visible light.

### PYQ LINKAGE

GS3 2019 & 2023: Nanotechnology and biotechnology applications in health; indigenous research and development.

#GS3

#Nanotechnology

#INSTMohali

#BARC

GS1

GS3

CURRENT

Atmospheric Science — Ozone Dynamics

Reported 10 August 2026 · Source: ARIES Nainital (DST), published in Earth and Space Science (AGU)

## An Unusual Ozone Layer Over the Bay of Bengal: Evidence of Stratospheric Subsidence

**Why in News:** Scientists at the Aryabhata Research Institute of Observational Sciences (ARIES), Nainital, have reported an anomalously thick ozone layer at 21-23 km altitude over the North Bay of Bengal — far above normal concentrations for eastern India, persisting for over a day and present both day and night. The day-night persistence is the key finding, because it rules out sunlight-driven photochemical production as the cause.

**Background:** Ozone occupies two very different roles depending on altitude. In the stratosphere, roughly 15-35 km up, it forms the protective layer that absorbs ultraviolet radiation; near the surface it is a harmful secondary pollutant. The observed layer sits in the upper troposphere-lower stratosphere transition. Because photochemical ozone production requires sunlight, an anomaly that persists through the night must be explained by transport rather than chemistry — in this case downward subsidence in the lower stratosphere.

### KEY FACTS

- Anomalously thick ozone layer detected at 21-23 km altitude over the North Bay of Bengal — the upper troposphere-lower stratosphere region.
- Concentration far above normal for eastern India; the layer persisted for more than a day.
- Observed in both day and night, ruling out photochemical production as the principal mechanism; attributed instead to persistent subsidence, or downward transport, in the lower stratosphere.
- Led by Dr Manish Naja and Dr Samaresh Bhattacharjee of ARIES, Nainital, an autonomous institute under the Department of Science and Technology.
- Method: ozonesondes carried on weather balloons, a nationwide radar network, satellite data including Aura MLS and INSAT-3DR, and atmospheric models.
- Conducted under the Phase-I NetRAD-ASMA campaign, relating to the Asian Summer Monsoon Anticyclone.

- Static anchors: the ozone layer lies at roughly 15-35 km; the Montreal Protocol (1987) governs ozone-depleting substances, with the Kigali Amendment (2016) extending it to hydrofluorocarbons.

#### MAINS DIMENSIONS / ANALYSIS

- The methodological point is worth stating in any answer: the day-night persistence is what converts an observation into an explanation, because it eliminates the photochemical hypothesis by design rather than by assumption.
- Stratosphere-troposphere exchange matters for the monsoon: the Asian Summer Monsoon Anticyclone is one of the most important vertical transport pathways in the global atmosphere, moving pollutants and trace gases upward over South Asia.
- Redistribution is not depletion — the finding concerns where stratospheric ozone sits, not whether it is being destroyed, and conflating the two is a common error.
- There is a surface-level consequence: changes in overhead ozone column affect ultraviolet flux reaching the ground, with implications for health and agriculture.
- Observational capacity is the underlying story — this result depended on ozonesondes, radar and satellite data together, illustrating why sustained atmospheric monitoring infrastructure has scientific returns that single missions do not.

#### Let's Remember This Through a Trick

Remember "night-time ozone means transport, not chemistry" — sunlight makes ozone, so an anomaly that survives the night must have been carried there.

#### Probable Prelims MCQ (Statement-Based)

Consider the following statements about ozone:

1. The stratospheric ozone layer lies at roughly 15-35 km altitude.
2. Photochemical production of ozone requires sunlight.
3. Ground-level ozone is a beneficial primary pollutant.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (a) 1 and 2 only. Ground-level ozone is a harmful secondary pollutant.

#### PYQ LINKAGE

GS1 2019 & 2022: Atmospheric structure and important geophysical phenomena; GS3 on the Montreal Protocol and atmospheric pollution.

#GS1

#GS3

#Ozone

#ARIES

#MontrealProtocol

GS1

GS3

11-12 AUG

Monsoon Mechanism — Disaster Preparedness

IMD warnings valid 11 and 12 August 2026 • Source: India Meteorological Department

## A Low-Pressure Area Over Madhya Pradesh, and an August Running Below Normal

**Why in News:** The India Meteorological Department warned of isolated extremely heavy rainfall over East Rajasthan on 11 August 2026 and very heavy rainfall on 12 August, driven by a low-pressure area over northwest Madhya Pradesh. The

immediate event sits inside a season that IMD expects to finish below normal — a combination that makes the monsoon mechanism itself worth revising.

**Background:** Monsoon rainfall in central and northwest India is delivered largely by low-pressure systems that form over the Bay of Bengal and track west-northwest along the monsoon trough. The trough's position determines whether rain falls over central India or shifts to the Himalayan foothills, producing a "break monsoon" over the plains. IMD measures performance against the Long Period Average, and classifies a season as below normal at 90-95% of LPA and deficient below 90%.

#### ⚡ KEY FACTS

- A low-pressure area over northwest Madhya Pradesh drove isolated extremely heavy rainfall over East Rajasthan on 11 August 2026, with very heavy rainfall warned for 12 August.
- IMD's outlook places August 2026 rainfall below normal — under 94% of the Long Period Average over most of India.
- The August LPA is 254.9 mm.
- IMD classification: below normal is 90-95% of LPA; deficient is below 90%.
- Normal or above-normal rainfall is expected in parts of eastern peninsular India, parts of northwest and central India, and isolated pockets of the east and northeast.
- September is also forecast below normal, making 2026 a back-half deficit year unless offset.
- Multiple international centres project a positive Indian Ocean Dipole developing in September 2026 — a condition historically supportive of Indian monsoon rainfall, which could partly offset the deficit.

#### 🌀 MAINS DIMENSIONS / ANALYSIS

- The apparent paradox — extremely heavy local rainfall inside a below-normal season — is the defining signature of a changing monsoon: fewer rain days, more intense events, and the same or lower seasonal total.
- That distribution shift matters more than the aggregate for agriculture and water management, because intense rain runs off rather than infiltrating, so soil moisture and groundwater recharge suffer even in a "normal" year.
- A positive Indian Ocean Dipole strengthens the western Indian Ocean warm pool and can counteract El Niño-driven suppression — the standard example of why single-index monsoon forecasting fails.
- Kharif sowing and reservoir storage are the transmission channels from a back-half deficit to food prices, which links this directly to the inflation trajectory.
- Disaster preparedness must be district-scaled, not season-scaled: a below-normal seasonal forecast gives no warning of the extremely heavy event that arrives inside it.

#### 💡 Let's Remember This Through a Trick

Remember "below normal is 90 to 95, deficient is below 90" — and the August LPA is 254.9 mm. Those three numbers answer most monsoon-classification questions.

#### 🌀 Probable Prelims MCQ (Statement-Based)

Consider the following statements about the Indian monsoon:

1. IMD classifies a season as "below normal" when rainfall is 90-95% of the Long Period Average.
2. Monsoon low-pressure systems typically form over the Bay of Bengal and move west-northwest.
3. A positive Indian Ocean Dipole is generally associated with suppressed Indian monsoon rainfall.

Which of the statements given above is/are correct?

- (a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (a) 1 and 2 only. A positive IOD is generally supportive of monsoon rainfall.

 **PYQ LINKAGE**

GS1 2015, 2021 & 2023: Indian monsoon mechanism, IOD and ENSO; GS3 on disaster management and agriculture.

#GS1

#GS3

#Monsoon

#IOD

#IMD

## SECTION 06

# Economy

GS3

11-12 AUG

Trade Facilitation — Export Promotion

Reported 11 August 2026 · Source: Directorate General of Foreign Trade (PIB)

## DGFT Scraps Physical Challans for Export Obligation Discharge Certificates

**Why in News:** The Directorate General of Foreign Trade has removed the requirement to submit physical duty-payment challans when applying for an Export Obligation Discharge Certificate under the Advance Authorisation and EPCG schemes. It is a small procedural change with a disproportionate compliance effect, because the challan requirement was the last paper step in an otherwise digital closure process.

**Background:** The Export Promotion Capital Goods (EPCG) scheme allows duty-free import of capital goods for pre-production, production and post-production used in making export goods, in exchange for an export obligation. Advance Authorisation allows duty-free import of inputs physically incorporated into export products. Both are administered by DGFT under the Foreign Trade Policy, and both close only when the exporter obtains an EODC certifying the obligation has been met.

### KEY FACTS

- DGFT has removed the requirement to submit physical duty-payment challans for EODC applications under Advance Authorisation and EPCG.
- EPCG permits duty-free (zero customs duty) import of capital goods for pre-production, production and post-production used in export production.
- Eligible categories: manufacturer exporters with or without supporting manufacturers, merchant exporters tied to supporting manufacturers, and service providers — so the scheme covers both goods and services exports.
- Second-hand capital goods are not permitted under EPCG.
- Advance Authorisation covers duty-free import of inputs physically incorporated into the export product, subject to Standard Input Output Norms.
- The EODC is the certificate confirming that the export obligation attached to an authorisation has been fulfilled — removing physical challans fully digitises the closure step.

- Both schemes are administered by DGFT under the Ministry of Commerce and Industry, governed by the Foreign Trade Policy.

#### MAINS DIMENSIONS / ANALYSIS

- Trade facilitation reform is mostly not about tariffs — it is about time and paper. Compliance cost falls hardest on smaller exporters who lack dedicated customs staff, so procedural simplification is implicitly an MSME measure.
- The distinction between duty *exemption* schemes (Advance Authorisation, on inputs) and duty *remission* or capital-goods schemes (EPCG) is a standard examiner target and worth stating precisely.
- WTO compatibility is the background constraint: export subsidies are actionable, which is why India's schemes are structured as duty-neutralisation on inputs and capital goods rather than as direct export incentives.
- Digitisation of closure has an enforcement upside too — a fully electronic EODC trail is easier to audit than a paper challan, so facilitation and compliance are not necessarily in tension.
- The limitation is scope: procedural reform does not address the deeper constraints on Indian exports — logistics costs, quality infrastructure and non-tariff barriers in destination markets.

#### Let's Remember This Through a Trick

Remember "Advance Authorisation for inputs, EPCG for machines" — one covers what goes into the product, the other the equipment that makes it.

#### Probable Prelims MCQ (Statement-Based)

Consider the following statements about the EPCG scheme:

- It permits duty-free import of capital goods against an export obligation.
- Second-hand capital goods are permitted under the scheme.
- It is administered by the Directorate General of Foreign Trade.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (c) 1 and 3 only. Second-hand capital goods are not permitted.

#### PYQ LINKAGE

GS3 2020 & 2022: India's foreign trade policy, export promotion schemes and ease of doing business.

#GS3

#DGFT

#EPCG

#TradeFacilitation

GS3

11-12 AUG

Price Statistics — CPI Rebasing

July 2026 CPI due for release today, 12 August 2026 · Source: MoSPI. See the note below on the unreleased figure.

## CPI for July Lands Today: Reading the Rebased 2024=100 Series

**Why in News:** The Ministry of Statistics and Programme Implementation releases Consumer Price Index data for July 2026 today, on the rebased 2024=100 series. **An honest note:** the July figure had not been published when this edition went to press, so no July number is printed here. What follows is the framework and the confirmed June baseline against which today's print should be read — which is the part that is actually examinable.

**Background:** India's headline inflation target is framed on CPI (Combined), not the Wholesale Price Index. The series has been rebased to 2024=100, which changes the consumption-basket weights and therefore the sensitivity of headline inflation to different price shocks. The June 2026 print came in at an eighteen-month high, driven by food and by a transport-cost pass-through from an energy shock — so the July release is a test of whether that was a spike or a trend.

#### ⚡ KEY FACTS

- June 2026 headline CPI inflation was 4.38% (provisional) — an eighteen-month high, up from 3.93% in May; rural 4.74% and urban 3.92%.
- June food inflation (CFPI) was 5.32%, up from 4.78% in May; housing inflation 2.10%.
- June CPI rose 1.03% month-on-month, the sharpest since January 2025, with transport inflation swinging to +4.31% as an energy shock passed through.
- Weights in the rebased 2024=100 series: Food and beverages 45.86%, Miscellaneous 28.32%, Housing 10.07%, Fuel and light 6.84%, Clothing and footwear 6.53%, Pan and tobacco 2.38%.
- Forecasts for July ranged widely — from below 4% to above 5.4% across market polls, clustering around 4.5%.
- Wholesale Price Index data for July 2026 follows on 14 August 2026.
- Note on a common error: the Index of Industrial Production is released around the 28th of each month, not alongside CPI, so July IIP is due later in August.

#### 🎯 MAINS DIMENSIONS / ANALYSIS

- The 45.86% weight on food and beverages is the single most consequential number in Indian inflation analysis: it means headline CPI is dominated by supply-side items that monetary policy cannot influence.
- Rebasing matters analytically — a changed basket alters how the same price movements translate into headline inflation, so pre- and post-rebasing series are not directly comparable.
- The rural-urban divergence in June (4.74% against 3.92%) is a distributional point worth making: food-heavy rural baskets transmit food shocks more strongly, so the poor experience higher effective inflation than the headline suggests.
- Core versus headline is the standard diagnostic — if core stays contained while headline rises, the shock is supply-side and tightening would be the wrong response.
- The monsoon link closes the loop with this edition's geography card: a below-normal back-half monsoon feeds food prices, which is where nearly half the CPI basket sits.

#### 💡 Let's Remember This Through a Trick

Remember "almost half the basket is food" — 45.86% on food and beverages in the 2024=100 series explains why Indian headline inflation follows the monsoon more closely than the repo rate.

#### 🎯 Probable Prelims MCQ (Statement-Based)

Consider the following statements about India's Consumer Price Index:

1. India's inflation target is framed in terms of CPI (Combined).
2. In the rebased 2024=100 series, food and beverages carry the largest weight.
3. CPI and the Index of Industrial Production are released on the same date each month.

Which of the statements given above is/are correct?

- (a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

**Answer:** (a) 1 and 2 only. IIP is released separately, around the 28th of the month.

 **PYQ LINKAGE**

GS3 2017, 2020 & 2022: Inflation measurement, CPI versus WPI, and the limits of monetary policy against supply-side inflation.

#GS3

#CPI

#Inflation

#MoSPI

→ *Continue to Part II: Environment · Places in News · Ethics · MCQs · Mains Questions · Direct Hit Tracker*

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## UPSC CSE Prelims 2026 Results

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48

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