

# GK COMPENDIUM

**JULY 2025** 





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### (WEEKLY GK NOTES)

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# 1. <u>Thailand Political Crisis 2025 – Suspension of PM Paetongtarn</u> <u>Shinawatra & Border Conflict with Cambodia</u>

#### 1. Overview

On 1 July 2025, Thailand's Constitutional Court suspended Prime Minister Paetongtarn Shinawatra in a 7–2 vote, after accepting a petition from 36 senators alleging dishonesty and ethical breaches linked to a leaked phone call with Cambodia's Hun Sen.

- Final Defence Deadline: 4 August 2025 (after 2 extensions).
- Final Verdict: Expected by September 2025.
- Historical Note: She is the third Shinawatra family PM to face removal before completing a full term, and at 38, the youngest PM and second woman to hold the post.

### 2. The Leaked Phone Call Controversy

Date	Detail		
15 June 2025	Call between Paetongtarn & Cambodia's Senate President Hun Sen amid rising border tensions after a 28 May 2025 clash that killed 1 Cambodian soldier.		
Duration	17 minutes (approx. 9–15 mins released publicly).		
	- Referred to Hun Sen as "uncle" (seen as deferential).		
Content	- Criticised Thai Army Commander Lt. Gen. Boonsin Padklang, calling him an		
	"opponent" Promised to "take care of whatever" Hun Sen needed.		
Release	Hun Sen released full audio on Facebook to "avoid misunderstandings" and confirm authenticity.		
Perception	Critics claimed she sided with Cambodia over her own military, sparking accusations of compromising national sovereignty.		

#### 3. Political Fallout





Date	Event		
18 June 2025	Bhumjaithai Party (69 seats) withdrew from coalition citing "national dignity" concerns, leaving govt with fragile 254/495 majority.		
1 July 2025	Paetongtarn suspended; Deputy PM Suriya Juangroongruangkit became Act PM.		
3 July 2025	Phumtham Wechayachai (Interior Minister) replaced Suriya as Acting PM in reshuffle.		
Post- suspension	Paetongtarn retained role as Culture Minister.		

### 4. Border Conflict Escalation

Five-day Thailand–Cambodia conflict (24–29 July 2025) triggered during the political crisis. Key Features:

- Artillery exchanges, F-16 fighter jet deployments by Thailand.
- Temple disputes along the border.
- Civilian casualties; hospitals and schools damaged.

Statistic	Figure
Death toll	43+
Displaced	300,000+
Ceasefire	Brokered by Malaysia on 29 July 2025.
Monitors	ASEAN observers deployed.

### 5. Public Reaction & Protests





Date	Protest Details	Estimated Size
28 June 2025	Protest at Victory Monument, Bangkok demanding resignation over "national betrayal".	~20,000
2 Aug 2025	Anti-government protest accusing Shinawatra family of siding with foreign interests, demanding resignation & supporting military.	~2,000

Approval Rating: Dropped from 30.9% (March 2025) to 9.2% (late June).

Polls: 80%+ respondents want resignation or dissolution of parliament.

### 6. Multiple Legal Challenges

- Constitutional Court Case: Primary ethics violation case from senators' petition (verdict due Sept 2025).
- NACC Probe: National Anti-Corruption Commission investigating same phone call.
- Family Legal Trouble: Former PM Thaksin Shinawatra facing lese-majeste ruling on 22 August 2025.

#### 7. Defence Submission & Timeline

- 4 Aug 2025: Paetongtarn's defence filed via Dr. Prommin Lertsuridej, claiming actions were in "country's best interests".
- Next Steps:
  - 1. Senators have 15 days to reply.
  - 2. Potential counter-rebuttals.
  - 3. Final verdict by Sept 2025.

#### 8. Historical & Political Context

 Pattern of instability: Court has dissolved 34 political parties since 2006 (incl. 2023winning Move Forward Party).





Risk factors: Military intervention or coup if political deadlock deepens.

### 9. Economic Impact

• Currency: Baht at ~\$32.8/USD.

• Markets: Stock Exchange of Thailand Index down ~24% YTD.

• **Investment:** \$2.3B foreign equity outflow.

• **Growth:** Already fragile due to post-COVID recovery.

### 10. India-Thailand Relations (Contextual Background)

Cultural Roots: 2,000+ years of Indo-Thai links; Buddhism from Emperor Ashoka's time; Ramayana (Ramakien), Songkran festival from Indian Sankranti; monarchs titled "Rama". Diplomatic Timeline:

- 1947: Ties established; first Thai Ambassador to India Thanat Khoman.
- Key visits:
  - o 1986 Rajiv Gandhi to Thailand.
  - o 1989 PM Chatichai to India ("battlefields into marketplaces").
  - o 2012 Yingluck Shinawatra, Republic Day Chief Guest.
  - o 2013 Manmohan Singh gifts Bodhi sapling to Thai King.
  - o 2016 PM Modi at King Bhumibol memorial.
  - o 2019 PM Modi attends ASEAN summits in Bangkok.
  - 3 Apr 2025 PM Modi meets Paetongtarn, elevates ties to Strategic Partnership;
     MoUs on digital tech, MSMEs, maritime heritage, handicrafts.

#### Trade & Defence:

- Trade: \$14.94B (2023–24); Thailand = India's 21st largest partner, 4th in ASEAN.
- Defence: Exercise Cobra Gold, Maitree drills, 2012 MoU.





### (WEEKLY GK NOTES)

• People: 4–5 lakh PIOs in Thailand, 25,000+ NRIs.

Cultural Diplomacy: July 2025 – Thai delegation visits Sri Sri Jagannath Temple, Dibrugarh.

### 11. Mnemonic - "THAI CRISIS 2025"

- T Thailand's PM Paetongtarn suspended over leaked call with Hun Sen
- **H** Hun Sen releases 17-min audio to "avoid misunderstandings"
- A ASEAN monitors after 5-day border war (43 dead, 300k displaced)
- I India–Thailand ties elevated to Strategic Partnership in Apr 2025
- C Coalition collapses after Bhumjaithai exit (69 seats)
- **R** Ratings plunge from  $30.9\% \rightarrow 9.2\%$  amid protests
- I Investors pull \$2.3B; baht and stocks slump
- S Senators' petition drives Constitutional Court suspension
- I Instability risks coup or early election
- S Shinawatra dynasty faces 3rd removal before full term





### 2. Indo-French Joint Military Exercise Shakti-VIII (2025)

#### 1. Overview

- Edition: Eighth edition of the Indo-French Joint Military Exercise Shakti a biennial engagement alternately hosted by India and France.
- Dates: Conducted over a period of 14 days from 18 June to 1 July 2025, concluding on 3 July 2025.
- Location: Camp Larzac, La Cavalerie in the Larzac region of southern France, covering two operational areas Monclar district in Aveyron and Hérault.
- Host Unit: 13th French Foreign Legion Demi-Brigade (13e DBLE).
- Significance: Regarded as one of the most comprehensive bilateral army exercises, focusing on enhancing modern warfare capabilities, counter-terrorism preparedness, and tactical interoperability between the two nations.

### 2. Participating Forces & Assets

Country	Force Composition	Key Equipment & Assets
India	, ,	Indigenous small arms, advanced communication and surveillance equipment
France	500+ personnel from the French Army, 13e DBLE, French Air & Space Force, and French Navy	Armoured vehicles, advanced EW (Electronic Warfare) systems
Joint Assets	_	Approximately 50 armoured and tactical vehicles, and fighter jets from both countries

#### 3. Structure of the Exercise





### (WEEKLY GK NOTES)

The training was structured in two distinct phases, designed to gradually progress from basic interoperability drills to complex joint operational scenarios:

Phase	Dates	Location	Key Focus Areas	
Phase I	June	district,	Joint weapon handling, small arms firing, basic combat drills, command and control integration, marksmanship, and establishing interoperability protocols between mixed units	
Phase	22–26 June 2025	Hérault	Open-field and semi-urban combat operations, deployment of the Monclar Combined Arms Tactical Group (GTIA), execution of both day and night operations, and advanced scenario-based tactical maneuvers	

### 4. Major Training Components

### A. Combat & Tactical Training

- Live-firing drills in semi-developed and urban terrain to prepare for close-quarter combat situations.
- Joint patrol missions involving mixed squads from both armies to enhance coordination.
- Obstacle crossing and mobility training to simulate operations in challenging battlefield environments.
- Tactical troop insertion techniques for rapid deployment in conflict zones.

### B. Electronic Warfare (EW) & Counter-UAS Training

- Use of spectrum monitoring, jamming, and signal interception to simulate communication disruption in contested zones.
- Counter-Unmanned Aerial Systems (C-UAS) training to detect, track, and neutralize hostile drones.
- Practical drills for electromagnetic spectrum dominance to deny adversaries a technological advantage.

#### C. 96-Hour Continuous Field Exercise





### (WEEKLY GK NOTES)

- A sustained, four-day operational mission under realistic battlefield conditions.
- Combined arms operations in multi-domain combat scenarios, including urban assault, defensive positioning, and high-stress operational decision-making.
- Continuous simulation without breaks to test physical endurance, mental resilience, and tactical adaptability of troops.

### 5. Strategic Objectives & Achievements

- Operational Interoperability: Enabled Indian and French forces to operate seamlessly in mixed formations through shared Tactics, Techniques, and Procedures (TTPs).
- Sub-Conventional Warfare Preparedness: Prepared troops for counter-terrorism, peacekeeping, and hybrid warfare under Chapter VII of the UN Charter.
- Technology Integration: Allowed practical field deployment of advanced military technology including EW suites, drone-defense systems, and secure communication tools.

### 6. Diplomatic & Strategic Significance

- Diplomatic Presence: India's Ambassador to France, Sanjeev Singla, visited the troops during the exercise, commending their professionalism and dedication.
- Strategic Alignment: Forms part of the wider Indo-French defense cooperation roadmap
   complementing Exercise Varuna (naval) and Exercise Garuda (air force).
- Horizon 2047 Vision: Supports the bilateral strategic framework aiming at deep defense, technology, and innovation partnerships by 2047.

### 7. Technological Showcases & Tactical Innovations

- Advanced Equipment Demonstrated: Next-gen small arms, advanced EW equipment,
   counter-drone systems, and secure digital communication devices.
- Tactical Adaptability: Exercises emphasized flexibility to operate across varied environments — from urban centers to open rural battlefields — under time-sensitive decision-making pressure.





### 8. Future Implications

- Shakti 2026: Plans underway for the next edition, with possible expansion to tri-service participation.
- Defense Industry Collaboration: Linked to "Make in India" initiatives, technology transfer agreements, and joint R&D under the FRIND-X platform.
- Regional Security Role: Strengthens Indo-Pacific security architecture with India as a net security provider and France reinforcing its Indo-Pacific presence.

### 9. Other Key Indo-French Military Exercises

Exercise	Domain	<b>Latest Edition</b>
Shakti	Army	Shakti-VIII (June–July 2025, France)
Garuda	Air Force	Garuda-VII (2022, India)
Varuna	Navy	Varuna 2025 (Mar 2025, Goa)
Tarang Shakti	Air Force	Aug-Sep 2024, India
La Perouse	Multinational Naval	Jan 2025, Indo-Pacific

### 10. Historical & Strategic Context

- **18th Century:** French involvement in India during Carnatic Wars, alliances with Dupleix and Hyder Ali.
- 1954–56: Integration of French enclaves (Pondicherry, Karaikal, Mahe, Yanam) into India under the Treaty of De Jure Cession.
- 1998 Strategic Partnership: Cemented cooperation in defense, nuclear, and space sectors.

#### **Recent Engagements:**

- Feb 2025: PM Modi & President Macron announced advanced collaboration Rafale M deal, Eurodrone participation, INS Vaghsheer commissioning, Charles de Gaulle visit.
- July 2025: ₹61,000 crore Indo-French joint fighter engine development project.
- **Dec 2024:** FRIND-X defense startup innovation platform launched.





### **Space & Nuclear Cooperation:**

- Joint TRISHNA satellite, human space training programs, maritime surveillance.
- Jaitapur nuclear project and SMR/AMR reactor development.

#### **Economic & Cultural Links:**

- Trade > US \$15 billion (2023–24), France among top foreign investors in India.
- 10,000+ Indian students in France, with a target to triple numbers by 2030.
- UPI rollout in France; AI cooperation in 2026 "India-France Year of Innovation."

### 11. Mnemonic - "SHAKTI 2025"

- S Strategic army drill deepening Indo–French military partnership
- H High-tech warfare training including EW & anti-drone systems
- A Ambassador's visit underscoring diplomatic & defense alignment
- **K** Key 96-hour continuous combat operation under real conditions
- T Tactical drills in urban & open-field battle environments
- I Integration of indigenous & French defense technologies





### 3. Exercise Bold Kurukshetra 2025

#### 1. Overview

- Edition: 14th edition of Exercise Bold Kurukshetra, the annual flagship India—Singapore Army joint military exercise, first initiated in 2005 as part of long-standing bilateral defence cooperation.
- Dates: 27 July 4 August 2025 (some sources note 3 August for closing ceremony).
- Location: Conducted in the desert terrain of Jodhpur, Rajasthan, which provided realistic conditions to test mechanised warfare tactics and interoperability.
- Theme & Focus: The 2025 edition was designed to test and validate mechanised warfare
  procedures in simulated UN Peacekeeping (Chapter VII) scenarios, using Table Top
  Exercises (TTX) and Computer-Based Wargaming instead of traditional live manoeuvres.
- Occasion: Coincided with 60 years of diplomatic relations between India and Singapore, marking a milestone in bilateral ties.

### 2. Participating Forces

Country	Unit/Formation	Details
India		Included personnel from the 340th Mechanised Brigade and 1st Mechanised Infantry (I Madras).
Singapore	42nd Singapore Armoured Regiment	Part of the 4th Singapore Armoured Brigade.

### Command Leadership:

- Indian Contingent: Colonel Arjun Ganapathi, CO of Mechanised Infantry Regiment.
- Singapore Contingent: Lieutenant Colonel Khiew Zhi Yoong, Battalion Commander, 42
   Singapore Armoured Regiment.
- Opening Ceremony: Brigadier Pritam (India) as chief guest.





(WEEKLY GK NOTES)

 Closing Ceremony: Co-officiated by Brigadier Pritam and Singapore SAF Deputy Chief Armour Officer Colonel Andy Quek.

### 3. Structure & Methodology

Component	Key Features
•	Indoor simulation exercises to test command decision-making and operational planning.
Computer-Based Wargaming	Digital simulations replicating battlefield conditions for mechanised operations.
UN Mandate Framework	Training aligned to Chapter VII of the UN Charter — including peacekeeping, peace enforcement, and humanitarian assistance.
Ceremonial Elements	Formal regimental flag handover from Singapore to India, symbolising trust, cooperation, and shared operational responsibility.

### 4. Core Training Objectives

### • Mechanised Warfare Readiness:

- o Coordination of armoured vehicles in offensive and defensive operations.
- o Tactics for urban and semi-developed terrain combat.
- o Counter-terrorism protocols in complex operational settings.

### • Interoperability Enhancement:

- o Synchronising operational doctrines of the two armies.
- o Establishing common communication protocols and joint command frameworks.
- o Practising integrated decision-making for multi-national deployments.

### • UN Peacekeeping Preparedness:

o Conducting military operations in multinational coalition settings.





- Managing humanitarian aid delivery during armed conflicts.
- Responding to crisis scenarios under UN Chapter VII mandates.

#### 5. Key Highlights

### • Equipment Display:

- Showcased Indian Army's indigenous mechanised assets, including modernised infantry combat vehicles and advanced communication systems.
- Demonstrated technological upgrades and battlefield innovations.

### • Flag Handover Ceremony:

- o A symbolic act reinforcing camaraderie and formal command transition.
- o Served as a visible commitment to mutual trust and respect.

### 6. Strategic Significance

- Bilateral Defence Framework: Conducted under the Bilateral Agreement for Joint Army Training and Exercises, enabling sustained high-level cooperation.
- Tri-Service Cooperation: Complements other Indo-Singapore exercises —

Service Branch	Exercise	Focus Area
Army	Bold Kurukshetra	Mechanised Warfare
Navy	SIMBEX	Maritime Operations
Artillery	Agni Warrior	Artillery Systems
Air Force	Joint Air Training	Aviation Cooperation

- Act East Policy: Enhances India's strategic engagement with ASEAN countries, boosting regional security ties.
- Indo-Pacific Security: Contributes to stability, upholding a rules-based order and supporting cooperative security frameworks in the region.





### 7. Economic, Diplomatic & Cultural Context

- Comprehensive Strategic Partnership (CSP) 2024: Expanded cooperation to include automation, AI, digital technologies, and industrial collaboration.
- Trade & Investment:
  - o Bilateral trade reached US \$35.6 billion (2023–24).
  - Singapore remains India's largest ASEAN trading partner and top FDI source (US \$11.8 billion in 2023–24).
- Digital & Financial Links:
  - o UPI-PayNow integration enables seamless cross-border payments.
  - o Cooperation in semiconductors, fintech, and innovation parks.
- People-to-People Links:
  - Large Indian diaspora in Singapore, with Tamil recognised as an official language.
  - o Educational partnerships and student exchanges ongoing.

### 8. Historical Diplomatic Foundations

- Ancient Trade Links: Flourishing maritime trade routes between India and Southeast Asia for centuries.
- Colonial Era: Singapore governed from Kolkata until 1867 under British rule.
- **Post-Independence:** India among the first to recognise Singapore's sovereignty in 1965.
- Key Milestones:
  - o 1994: MoU on Foreign Office Consultations.
  - o 2003: Defence Cooperation Agreement signed.





### (WEEKLY GK NOTES)

- 2005: Comprehensive Economic Cooperation Agreement (CECA) inked.
- o 2015: Elevated to Strategic Partnership.
- o 2024: Upgraded to Comprehensive Strategic Partnership.

#### 9. Future Outlook

- Expansion of mechanised warfare training scenarios to include cyber and space domains.
- Continued integration of simulation technology into joint exercises.
- Exploration of joint defence production and technology transfer initiatives.
- Potential for more frequent tri-service and multilateral drills involving Singapore.

### 10. Mnemonic - "BOLD 2025"

- **B** Bilateral mechanised warfare drill in Jodhpur desert terrain
- O Operations aligned to UN peacekeeping Chapter VII mandates
- L Leadership cooperation with ceremonial flag handover
- **D** Defence partnership marking 60 years of diplomatic ties





### 4. NASA's TRACERS Mission & NASA

#### 1. Introduction

NASA has launched the Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites (TRACERS) mission, aimed at studying magnetic reconnection — a fundamental process in space plasma physics that influences space weather, potentially impacting satellites, astronauts, GPS systems, and power grids.

This mission is part of NASA's broader efforts to strengthen space weather forecasting and safeguard Earth's critical infrastructure. It also aligns with NASA's strategic vision through upcoming missions and long-term planetary exploration goals.

### 2. Magnetic Reconnection: The Core Phenomenon

- Definition: Magnetic reconnection occurs when two magnetic fields with opposing orientations collide, causing magnetic field lines to break and reconnect, releasing massive amounts of energy.
- Energy Impact: A single reconnection event can release as much energy as the entire United States consumes in a day.
- Effects:
  - o Generates heat, particle acceleration, and radiation.
  - Creates auroras.
  - o Can disrupt satellite operations, GPS accuracy, and power grids.
  - Produces hazardous radiation for astronauts.
- Location in Study: TRACERS will study this process in polar cusps funnel-shaped openings in Earth's magnetic field over the poles, where solar wind particles directly enter the atmosphere.

#### 3. Mission Overview





Feature	Details						
Full Form	Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites						
<b>Launch Date</b>	23 July 2025, 11:13 a.m. PDT						
Launch Vehicle	SpaceX Falcon 9						
<b>Launch Site</b>	Vandenberg Space Force Base, California						
Orbit	Sun-synchronous Low Earth Orbit (590 km altitude)						
Mission  Duration	12-month primary mission (extensions possible)						
Formation	Two satellites flying 10–120 seconds apart						
Objective	Capture ~3,000 reconnection events in 1 year						
Cost	\$115 million (Small Explorer/SMEX program)						

### 4. Mission Leadership & Collaboration

- **Principal Investigator:** Dr. David M. Miles (University of Iowa)
- **Deputy PI:** Dr. Stephen Fuselier (Southwest Research Institute)
- Spacecraft Manufacturer: Millennium Space Systems (Boeing subsidiary)
- Mission Management: Southwest Research Institute, Texas
- NASA Oversight: Heliophysics Explorers Program Office (NASA Goddard Space Flight Center)

### • University Partners:

- University of Iowa Mission leadership & science ops.
- o UCLA Magnetic field instruments.
- o UC Berkeley Electric field instruments.





#### 5. Instruments on TRACERS

Instrument	Full Name	Purpose	Key Specs	
ACI	Analyzer for Cusp Ions	•	8 eV/e – 20,000 eV/e, 312 ms cadence	
ACE	Analyzer for Cusp Electrons		40 eV – 10 keV, <100 ms resolution	
MAG	DC Magnetometer	Measures background magnetic fields	Up to 5 Hz sampling	
MSC	Magnetic Search Coil	Detects AC magnetic fields	2 Hz – 1 kHz	
EFI	Electric Field Instrument	Measures electric fields	Low freq: 1,000 Hz; High freq: 0.3–5 MHz	

### 6. Strategic Importance

- **Space Weather Forecasting:** Enhances predictions to protect satellites, navigation, power grids, and astronauts.
- **Technological Protection:** Data helps mitigate billion-dollar losses from geomagnetic storms.
- Scientific Advancement: Distinguishes temporal vs. spatial changes in reconnection events via dual-satellite design.
- International Collaboration: Data will be shared globally (ESA, JAXA, ground-based observatories).

### 7. Integration with Other NASA Missions

TRACERS complements:

- MMS Magnetospheric Multiscale Mission (higher altitude reconnection studies)
- PUNCH Solar wind imaging in 3D
- **EZIE** Studies electric currents above the poles





### 8. NASA Overview

**Formation:** Established in 1958 via the National Aeronautics and Space Act during the Space Race.

Historic Programs: Mercury, Gemini, Apollo (Moon landing, 1969), Space Shuttle Program (1981–2011).

### **Ongoing Major Programs:**

Program	Objective	Key Timeline
ISS	Microgravity research lab in orbit	Operational since 2000; retiring 2030
Artemis	Return humans to the Moon	Artemis II (2026), Artemis V (2030)
Earth System Observatory	Climate, weather, and disaster monitoring	Upcoming launches
Lunar Gateway	Lunar orbit space station	First module 2027

### **Upcoming NASA Missions:**

Mission	Target	Launch	Goal	
Europa Clipper	Jupiter's moon Europa	2030 arrival	Search for signs of life	
Dragonfly	Titan (moon of Saturn)	2028	Explore organic-rich surface	
VERITAS	Venus 2028		Map terrain & geology	
DAVINCI+	Venus	2028	Study atmosphere	
Enceladus Orbilander	Saturn's moon Enceladus	Late 2030s (proposed)	Search for life in plumes	
HWO	Exoplanets	2040s	Directly image Earth-like worlds	





### 9. Current NASA Leadership

- Acting Administrator: Sean Duffy (as of July 9, 2025)
- **Deputy Administrator:** Vacant (nominee Matthew P. Anderson)
- NASA Advisory Council Chair: Gen. (Ret.) Lester L. Lyles
- Notable NAC Members: Dr. Waleed Abdalati, Hon. Eric Fanning, Dr. Amanda Hendrix, Dr. Ilan Kroo, among others.

#### 10. Mnemonic

### For remembering TRACERS mission details - "FAST POLAR"

- F Formation flying twin satellites 10–120 seconds apart
- A Auroras & atmospheric entry studied via polar cusps
- S Solar wind interaction with magnetosphere
- T TRACERS: Tandem Reconnection and Cusp Electrodynamics Reconnaissance Satellites
- P Polar region focus for reconnection
- **O Orbit**: Sun-synchronous, low Earth orbit
- L Launched July 23, 2025, via SpaceX Falcon 9
- A Advanced instruments like ACI, ACE, MAG, MSC, EFI
- R Research to improve space weather forecasting





### 5. PM Modi's Five-Nation Diplomatic Tour – July 2–9, 2025

#### 1. Overview

Prime Minister Narendra Modi embarked on his longest foreign tour in a decade, covering five nations across Africa, the Caribbean, and South America from July 2 to 9, 2025.

The tour demonstrated India's deepening engagement with the Global South, focusing on:

- Critical minerals & clean energy partnerships.
- Digital public infrastructure expansion.
- Defence, development, and economic diplomacy.
- People-to-people linkages and parliamentary outreach.

Tour Cost: ~₹67 crore (part of ₹295 crore total foreign visit expenditure since 2021).

### 2. Itinerary & Historic Firsts

Country	Dates	Historic First	Key Outcomes		
Ghana	July 2–3	First Indian PM visit in 30 years	Four MoUs (culture, standards, traditional medicine, Joint Commission), UPI offer, tradedoubling plan		
Trinidad & Tobago	July 3–4	First PM visit in 25+ years	Addressed Parliament, ORTT honour, diaspora outreach, counter-terrorism cooperation		
Argentina	July 4–5	First bilateral PM visit in 57 years	Lithium & critical minerals partnership, agriculture working group, space & defence cooperation		
Brazil	July 5–8	First state visit in ~6 decades + BRICS Summit	Six agreements (counter-terrorism, renewables, agriculture, IP, digital), rare earths cooperation		





Country	Dates	Historic First	Key Outcomes
Namibia	July	First PM visit in 27	Two MoUs (health, entrepreneurship), UPI &
Ivamibia	8–9	years	Jan Aushadhi invitation

### 3. Country-Wise Highlights

### (A) Ghana – July 2–3, 2025

• **Honour:** Officer of the Order of the Star of Ghana (OSG).

### • Agreements:

- Cultural exchange
- Standards certification
- o Traditional medicine cooperation
- o Joint Commission Meeting institutionalisation

### • Key Initiatives:

- UPI digital payments offer.
- o Skill Development Centre.
- o Doubling of ITEC & ICCR scholarships.
- o Jan Aushadhi Kendras for affordable generics.
- Support for "Feed Ghana" agriculture programme.
- Plan to double trade in 5 years.

#### • Historical Ties:

- o Diplomatic ties since 1957.
- Leaders Nehru & Nkrumah key to NAM foundation.
- o Ghana-India Kofi Annan Centre of Excellence in ICT (2003).





### (B) Trinidad & Tobago – July 3–4, 2025

• **Honour:** Order of the Republic of Trinidad and Tobago (ORTT).

### Key Outcomes:

- Address to Joint Parliament (first since 1999).
- o Emphasis on democratic values & diaspora ties.
- o Commitment to counter-terrorism cooperation.
- o Promotion of "Bharat Ko Janiye" quiz for diaspora youth.

### Historical Ties:

- Relations since 1962; 40–45% Indo-Trinidadian population.
- First indentured workers arrived in 1845 (Fatel Razack).
- Multiple cooperation pacts (Science & Tech 1985, Cultural 1987, Double Tax 1999).

### (C) Argentina – July 4–5, 2025

• **Historic Visit:** First standalone bilateral PM trip in 57 years.

### • Key Agreements:

- o Joint working group on agriculture.
- o Lithium & critical minerals cooperation.
- o Defence, space, pharmaceuticals, and oil & gas collaboration.
- o Digital Public Infrastructure and renewable energy partnerships.
- o Support for India-MERCOSUR PTA expansion.

### • Historical Context:

o Diplomatic ties since 1949.





Strategic Partnership (2019); 75th anniversary in 2024.

### (D) Brazil - July 5-8, 2025

- **Honour:** Grand Collar of the National Order of the Southern Cross.
- BRICS Summit (Rio, July 6–7):
  - Discussions on AI ethics, counter-terrorism, climate action, global governance reform.
  - o Called for united BRICS stance on terrorism & rare earths.
- State Visit to Brasília (July 8):
  - Six agreements: counter-terrorism, digital transformation, renewable energy,
     agricultural research, classified info exchange, IP.
  - o Cultural diplomacy with performances & Global South solidarity.

#### • Historical Note:

o IBSA Dialogue Forum (2003) links India, Brazil, South Africa.

### (E) Namibia – July 8–9, 2025

- **Honour:** Order of the Most Ancient Welwitschia Mirabilis (27th international recognition for PM Modi).
- Key Agreements:
  - o Entrepreneurship Development Centre.
  - o Health & medicine cooperation.

### • Key Themes:

 Digital technology, healthcare, critical minerals, agriculture, education partnerships.





### (WEEKLY GK NOTES)

- Invitation to adopt UPI & Jan Aushadhi scheme.
- o Tribute to Dr. Sam Nujoma at Parliament.
- Visit to Heroes' Acre.

#### Historical Context:

- o India hosted SWAPO's first embassy (1986).
- o Defence training, IT centre (INCEIT), Project Cheetah cooperation.

### 4. Strategic Themes of the Tour

- Global South Solidarity: Stronger engagement with Africa, Latin America, Caribbean.
- Critical Minerals Cooperation: Lithium (Argentina), rare earths (Brazil), uranium (Namibia).
- **Digital Diplomacy:** UPI adoption offers in multiple countries.
- **Defence Cooperation:** Joint training, tech sharing, maritime & space collaboration.
- People-to-People Diplomacy: Diaspora outreach, cultural exchanges, parliamentary addresses.

### 5. Mnemonic - "GREAT BOND"

- G Ghana: OSG honour, UPI, trade doubling
- R Rare earths & lithium deals (Brazil, Argentina)
- E Entrepreneurship & Education MoUs (Namibia)
- A Argentina: Agriculture, energy, minerals cooperation
- T Trinidad: ORTT honour, diaspora engagement
- **B BRICS Summit** in Brazil: AI ethics, counter-terrorism
- O Order honours in 4 countries (OSG, ORTT, Southern Cross, Welwitschia)
- N Namibia: Digital health, Project Cheetah
- **D Digital public infrastructure** expansion (UPI offers)





### 6. Global Liveability Index 2025 - Top-Ranked Cities

#### 1. Overview

The Economist Intelligence Unit (EIU)'s Global Liveability Index 2025 assessed 173 cities worldwide between April 14 and May 11, 2025 to determine the world's most and least liveable urban environments.

Copenhagen (Denmark) claimed the top spot with a near-perfect score of 98.0, ending Vienna's three-year reign.

The rankings evaluate cities across five weighted categories:

Category	Weight in Score
Stability	25%
Healthcare	20%
Culture & Environment	25%
Education	10%
Infrastructure	20%

### 2. Methodology

- Indicators: 30 qualitative & quantitative measures, rated on a 1−5 scale (acceptable → intolerable).
- Scoring: Converted to a 1–100 scale and weighted per category.
- Data Sources: Surveys, expert analysis, and public data.

### 3. 2025 Top 10 Most Liveable Cities





Ran k	City	Country	Over all Score	Stabil ity	Healthc are	Culture & Environ ment	Educati on	Infrastruc ture	Notable Highlight s
1	Copenha gen	Denmar k	98.0	100.0	95.8	95.4	100.0	100.0	Perfect scores in stability, education , infrastruc ture
2	Vienna	Austria	97.1	95.0	100.0	93.5	100.0	100.0	Dropped due to reduced stability post- security incidents
2	Zurich	Switzerl and	97.1	95.0	100.0	96.3	100.0	96.4	Consisten t high quality in all categories
4	Melbour ne	Australi a	97.0	95.0	100.0	95.8	100.0	96.4	Strong healthcare & infrastruc ture





Ran k	City	Country	Over all Score	Stabil ity	Healthc are	Culture & Environ ment	Educati on	Infrastruc ture	Notable Highlight s
5	Geneva	Switzerl and	96.8	95.0	100.0	94.9	100.0	96.4	High scores in healthcare , education , infrastruc ture
6	Sydney	Australi a	96.6	95.0	100.0	94.4	100.0	96.4	Maintains top performa nce
7	Osaka	Japan	96.0	100.0	100.0	86.8	100.0	96.4	Perfect stability, healthcare , education
7	Aucklan d	New Zealand	96.0	95.0	95.8	97.9	100.0	92.9	Combines natural beauty & services
9	Adelaide	Australi a	95.9	95.0	100.0	91.4	100.0	96.4	Quality healthcare & education





(WEEKLY GK NOTES)

Ran k	City	Country	Over all Score	Stabil ity	Healthc are	Culture & Environ ment	Educati on	Infrastruc ture	Notable Highlight s
10	Vancouv er	Canada	95.8	95.0	95.8	97.2	100.0	92.9	North America' s highest- ranking city

### 4. Key Insights

- Global Average Score: 76.1 (unchanged from 2024).
- Stability Decline: Down 0.2 points due to geopolitical tensions, civil unrest, and housing crises.
- Healthcare & Infrastructure: Small but consistent improvements in most regions.
- Regional Dominance:
  - o Western Europe Vienna, Zurich, Geneva, Copenhagen.
  - o Asia-Pacific Melbourne, Sydney, Adelaide, Osaka, Auckland.
  - o North America Vancouver only entry in top 10.

### 5. Notable Movers

City	Country	Change in Rank	Reason
Al Khobar	Saudi Arabia	+13	Healthcare & education improvements
Calgary	Canada	-13	Decline in healthcare & stability

### 6. Least Liveable Cities





### (WEEKLY GK NOTES)

Rank	City	Country	Overall Score	Notable Issues
173	Damascus	Syria	~30.7	Post-conflict recovery slow; instability remains
172	Tripoli	Libya	N/A	Political instability, poor infrastructure

### 7. Spotlight: Copenhagen

- Overall Score: 98.0 (Highest in 2025).
- Perfect Scores: Stability, Education, Infrastructure.
- **Strengths:** Well-planned urban design, low crime, robust healthcare, efficient public services.

### 8. Mnemonic – "CVM GO SAVAC" (Top 10 Cities in Order)

- C Copenhagen (Denmark)
- V Vienna (Austria)
- **M** Melbourne (Australia)
- **G** Geneva (Switzerland)
- O Osaka (Japan)
- S Sydney (Australia)
- **A** Auckland (New Zealand)
- V Vancouver (Canada)
- **A** Adelaide (Australia)
- **C** Zurich (Switzerland)





### 7. <u>Contempt Conviction of Sheikh Hasina & Related Legal</u> Proceedings (2025)

#### 1. Overview

On July 2, 2025, the International Crimes Tribunal-1 (ICT-1) in Dhaka sentenced former Bangladeshi Prime Minister Sheikh Hasina to six months' imprisonment for contempt of court.

- Verdict: Delivered in absentia, as Hasina is currently residing in India.
- Significance: Marks her first conviction since her ouster in August 2024 following mass student protests.

### 2. Contempt Case - Details

Detail	Information		
Basis of Charge	Leaked October 2024 audio in which Hasina allegedly said: "227 cases have been filed against me, so I have obtained a licence to kill 227 people."		
Tribunal's	Statement seen as a direct threat capable of intimidating victims, witnesses, and		
View	court officials.		
Evidence	Forensic analysis confirmed the authenticity of the audio.		
Co-Defendant	Shakil Akand Bulbul (Awami League student leader) – sentenced to two		
Co-Defendant	months' imprisonment for contempt.		
Enforcement	Sentence will be implemented upon arrest or voluntary surrender.		

### 3. Extradition Request

- Following the verdict, Bangladesh's interim government formally requested India to extradite Hasina under the 2013 India—Bangladesh Extradition Treaty.
- Political Exception Clause: Treaty allows refusal in politically motivated cases a
  possible point of contention.





### 4. Trials on Crimes Against Humanity

Date / Stage	Details		
July 10, 2025	ICT indicted Hasina on five charges of crimes against humanity linked to the 2024 crackdown on student protests (up to 1,400 deaths).		
Allegations	Use of force via drones, police, and military; incineration of bodies to destroy evidence.		
Trial Start	June 2025, conducted in absentia with amicus curiae appointed for fair trial representation.		
Current Status	Ongoing – testimonies and evidence presentation in progress.		

### 5. Political Backdrop

- August 2024: Hasina ousted amid quota reform protests.
- Exile: Took refuge in India.
- Interim Government: Led by Nobel laureate Muhammad Yunus.
- Actions Taken:
  - o Ban on Awami League party.
  - o Legal cases against Hasina & allies.
  - o Operation Devil Hunt targeting supporters.
- Awami League's Stand: Denounces trials as politically motivated "show trials."

### 6. Historical Context - India-Bangladesh Relations





Year / Period	Key Developments	
1971	India played a decisive role in Bangladesh's liberation; recognized the country immediately post-independence.	
1972	Indira-Mujib Treaty of Friendship; First Bilateral Trade Agreement enabling border trade & transit.	
1996	Ganga Water Treaty signed (30-year arrangement).	
2015	Land Boundary Agreement resolved decades-old enclave disputes; Maritime boundary settlement in Bay of Bengal.	
2009–2024	Hasina's tenure saw improved ties: rail links (Maitri, Bandhan, Mithali Express), port access (Chittagong, Mongla), energy cooperation (Friendship Pipeline, 1,160 MW power trade), and UPI payment integration.	
Strategic	Bangladesh central to India's Act East Policy, regional security, cultural links,	
Importance	and shared ecosystems like the Sundarbans.	

#### 7. Key Takeaways

- First conviction of Hasina post-exile; adds legal pressure amid ongoing war-crimes trials.
- Political undertones evident due to treaty's political exception clause.
- India—Bangladesh relations historically deep, but current tensions may test bilateral frameworks.

#### 8. Mnemonic - "CASE-PH"

- **C Contempt conviction** (6 months) first since exile.
- A Audio leak ("licence to kill 227 people") basis of charge.
- S Shakil Akand Bulbul co-defendant, 2-month term.
- **E Extradition request** under 2013 treaty.
- P Protests crackdown crimes against humanity trial ongoing.
- H Historical India–Bangladesh ties from liberation to infrastructure, now strained.





### 8. <u>Wisconsin Supreme Court Overturns 176-Year-Old Abortion Ban</u> (1849–2025)

#### 1. Overview

On July 2, 2025, Wisconsin's liberal-majority Supreme Court (4–3) struck down the state's 1849 near-total abortion ban, ruling it had been implicitly repealed by later comprehensive abortion laws.

- Significance: Restores legal abortion access in Wisconsin up to 20 weeks postfertilization (or later for health/life exceptions).
- Legal Basis: Statutory interpretation, not constitutional grounds the decision does not create a state constitutional right to abortion.

### 2. Historical Background

Year	Development	
1849	Ban enacted soon after statehood; criminalized "destroying the life of an unborn child" except to save the mother's life.	
1858	Broadened to ban abortion at any stage; classified as felony.	
1923	State Supreme Court narrowed application — required fetal viability for charges.	
1973	Roe v. Wade effectively rendered the law unenforceable, though it was never repealed.	
2022	Roe overturned (Dobbs v. Jackson); uncertainty over revival of 1849 law.	
2023 (Dec.)	Dane County Circuit Court held 1849 statute targeted non-consensual fetal harm, not consensual abortion.	

#### 3. Legal Challenge



### **CLAT WHISPERS**



### (WEEKLY GK NOTES)

- Plaintiff: Democratic Attorney General Josh Kaul (filed June 2022).
- Argument: Later laws, notably the 1985 viability-based law and other detailed abortion regulations (waiting periods, informed consent, ultrasound), replaced the 1849 ban.
- Lower Court Ruling: December 2023 decision allowed abortion services to resume under clarified protections.

#### 4. Supreme Court Ruling

Detail	Information	
Date	July 2, 2025	
Vote	4–3 (liberal majority)	
Majority	Justice Rebecca Dallet – comprehensive modern abortion laws regulate "the who,	
Opinion	what, where, when, and how" of abortion, implicitly repealing the 1849 bar	
Dissent	Justice Annette Ziegler & two others – accused majority of "legislating from the	
Dissent	bench" and erasing a law without legislative repeal.	
Effect	Legal clarity — abortion permitted up to 20 weeks; later only for health/life of	
	the mother.	

#### 5. Political Context

Year	Event	
2023	Liberal Janet Protasiewicz won pivotal race, flipping court majority.	
2025	Liberal Susan Crawford won high-profile, expensive election (~\$100M spent) funded by national donors (Elon Musk, George Soros), maintaining 4–3 liberal edge.	
· ·	Wisconsin is a U.S. swing state with razor-thin presidential margins; court rulings carry outsized political impact.	

#### 6. Current Abortion Access in Wisconsin





Provision	Status	
<b>Gestational Limit</b>	Legal until 20 weeks; later only for health/life exceptions.	
<b>Number of Clinics</b>	4 statewide; 70% of women of childbearing age live far from services.	
Medication	Heavily regulated — in-person dispensing, mandatory ultrasounds, 24-	
Abortion	hour waiting periods.	
<b>Public Funding</b>	Medicaid does not cover elective abortions.	

#### 7. State Profile – Wisconsin

- Economy: GDP ~\$414B (2023); key industries: manufacturing, agriculture, tourism.
- Agriculture: "America's Dairyland" top producer of dairy, corn, cranberries, ginseng.
- Quality of Life: Strong public education, healthcare, low cost of living, abundant green spaces.

#### 8. Implications & Future Outlook

- Legal Stability: Providers and patients now have clear protection from the 1849 ban.
- Constitutional Question Pending: No decision yet on whether abortion is a state constitutional right could arise in future cases.
- Legislative Deadlock: With divided government and no citizen ballot initiative process, further changes depend on electoral outcomes (especially 2026 midterms).
- Judicial Elections: Abortion expected to remain a defining issue in upcoming races (e.g., 2026 contest between liberal Chris Taylor & conservative Rebecca Bradley).

#### 9. Mnemonic – "BOLD LAW" (to remember key elements)

- **B Ban** from 1849 overturned in 2025.
- **O Opinions split** 4–3 (liberal vs conservative justices).
- L Legislative replacements (1985 viability law, modern regulations) cited as repeal.
- **D Dobbs fallout** triggered the legal battle.





- L Limited access few clinics, strict procedural rules remain.
- A Attorney General Josh Kaul led the challenge.
- W Wisconsin politics court makeup shaped by 2023 & 2025 elections.





### 9. North Eastern Region (NER) District SDG Index 2023–24 – Second Edition

#### 1. Context & Launch

- Released on 7 July 2025 in New Delhi by NITI Aayog, in partnership with the Ministry of Development of North Eastern Region (MoDoNER) and UNDP India.
- Tracks the performance of 121 districts (92% of all NER districts) across eight states –
   Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and
   Tripura.
- Measures progress on 15 Sustainable Development Goals (SDGs) using 84 indicators (SDGs 14 & 17 excluded for regional applicability).

#### **Purpose:**

- Supports evidence-based planning and targeted interventions.
- Helps in resource allocation and peer learning between districts.
- Aligns with India's Viksit Bharat @2047 vision.

#### 2. Methodology

Category	Score Range	Meaning	
Achiever	100	Achieved all identified targets	
Front Runner	65–99	Strong performance across most indicators	
Performer	50–64	Moderate progress with room for improvement	
Aspirant	<50	Requires significant intervention	

#### • Data Sources:

- o 41 indicators from Union Government databases.
- 43 indicators from state-level data systems.





Assessment Period: 2023–24.

#### 3. Key Findings

- 85% of districts are Front Runners (up from 62% in 2021).
- No districts in Achiever or Aspirant categories.
- Score range: 81.43 (highest) to 58.71 (lowest).

Top 10 Performing Districts

Rank	District	State	Score
1	Hnahthial	Mizoram	81.43
2	Gomati	Tripura	80.57
3	Mokokchung	Nagaland	80.29
4	Champhai	Mizoram	80.14
5	West Tripura	Tripura	80.07
6	Gangtok	Sikkim	79.93
7	Kohima	Nagaland	79.93
8	Kolasib	Mizoram	79.86
9	South Tripura	Tripura	79.79
10	Dimapur	Nagaland	79.79

Lowest Scoring District: Longding (Arunachal Pradesh) – 58.71.

#### 4. State-wise Performance

State	Highlights	
Mizoram	All districts Front Runners; highest scorer (Hnahthial); 3 districts in top 10.	
Sikkim	Most consistent; only 5.5-point gap between highest and lowest scorer.	





State	Highlights	
Tripura	Strong balanced development; minimal variation (6.5 points); Gomati & West Tripura in top 5.	
Nagaland	3 districts in top 10; strong in Gender Equality & Clean Water.	
Assam	89% districts Front Runners; Dibrugarh top at 74.29; notable gains in Zero Hunger, Education, Water, Jobs.	
Manipur	75% Front Runners; highest – Imphal West (73.21), lowest – Pherzawl (59.71).	
Meghalaya	84% Front Runners; highest – East Khasi Hills (73.00), lowest – East Jaintia Hills (63.00).	
Arunachal Pradesh	59% Front Runners; highest – Lower Dibang Valley (73.36); lowest – Longding (58.71).	

### **5. SDG-wise Progress**

### Major Gains (2021 $\rightarrow$ 2023–24)

SDG No.	Goal	Front Runner Districts 2021  → 2023–24	Key Achievements
2	Zero Hunger	49 → 83	Nutritional schemes impact
3	Good Health & Well- being	14 → 48	Better healthcare access
4	Quality Education	$36 \rightarrow 80$	Infrastructure expansion
5	Gender Equality	71 → 112	Women empowerment programmes
6	Clean Water & Sanitation	81 → 114	Jal Jeevan Mission success
8	Decent Work & Economic Growth	$69 \rightarrow 111$	More employment opportunities

**Areas Needing Focus** 



### **CLAT WHISPERS**



### (WEEKLY GK NOTES)

- SDG 10 (Reduced Inequalities) decline from 59 to 43 Front Runners.
- SDG 12 (Responsible Consumption) decline from 67 to 51.
- SDG 13 (Climate Action) 49 districts remain in Aspirant category.

#### 6. Strategic & Policy Relevance

- Supports Aspirational Districts Programme with targeted policy interventions.
- Encourages peer learning among districts for rapid SDG localization.
- Strengthens cooperative federalism by fostering central–state–district collaboration.
- Data improvements allow better integration of Union and state reporting systems.

#### 7. Statements by Key Leaders

- Suman Bery (Vice Chairman, NITI Aayog): Achieving SDGs by 2030 is essential for Viksit Bharat @2047.
- B.V.R. Subrahmanyam (CEO, NITI Aayog): Called the Northeast India's "Ashta Lakshmi" (eight jewels).
- Chanchal Kumar (Secretary, MoDoNER): Index helps identify gaps for better planning.
- Dr. Angela Lusigi (UNDP India): Data must translate into real-life changes.

#### 8. Future Outlook

- Scale successful models from top districts.
- Strengthen climate resilience and inequality reduction programmes.
- Enhance real-time data systems and inter-district collaboration.
- Target focused interventions in lagging districts (below 65 score).





- 9. Mnemonic "FRONT EAST"
- **F Front Runners** dominate (85% of districts)
- **R Regional coverage** 121 districts across 8 states
- O Outstanding performers Hnahthial, Gomati, Mokokchung
- N Nagaland, Mizoram, Tripura, Sikkim full Front Runner status
- T Targets tracked via 84 indicators across 15 SDGs
- E Equitable growth Sikkim's consistency, Tripura's balance
- **A Areas for improvement** Inequality, Climate Action
- S Strategic tool for Viksit Bharat @2047
- T Technical collaboration NITI Aayog, MoDoNER, UNDP





### 10. <u>U.S.-Israel Strikes on Iranian Nuclear Facilities & Iran's</u> <u>Suspension of IAEA Cooperation (June-July 2025</u>

#### **1.** Trigger Event – Coordinated Strikes

- Mid-June 2025: Israel launched precision airstrikes on major Iranian nuclear and military installations, including:
  - o Natanz Iran's largest uranium enrichment facility.
  - o Fordow fortified underground enrichment site.
  - o Isfahan key research and production hub.
- Strikes killed top IRGC commanders, nuclear scientists, and civilians.
- U.S. participation: Used bunker-buster munitions to destroy hardened facilities, reportedly setting back Iran's nuclear program by 1–2 years.

#### 2. Iran's Legislative Response – Ending IAEA Coordination

Step	Detail	
Parliament Bill	Passed to suspend cooperation with IAEA in protest against attacks and IAEA's perceived inaction.	
Guardian Council Approval	Verified compliance with Iran's constitution and Islamic law.	
Presidential Enactment	On 2 July 2025, President Masoud Pezeshkian signed the bill into law.	
Duration	Suspension to last until security guarantees for nuclear infrastructure and personnel are assured.	

#### 3. Immediate Impact



### **CLAT WHISPERS**



### (WEEKLY GK NOTES)

- IAEA inspectors withdrew from Iran, some traveling via Armenia to Vienna.
- All IAEA surveillance, inspections, and monitoring ceased → drastically reduced international oversight of Iran's nuclear activities.
- Created a serious transparency gap in global nuclear monitoring.

#### 4. International & Regional Reactions

Actor / Bloc	Position	
U.S.	Called Iran's move "unacceptable"; urged full cooperation with IAEA.	
Israel	Pressed European signatories to trigger "snapback" UN sanctions under the JCPOA framework.	
France, Germany, U.K.	Condemned threats against IAEA head Rafael Grossi; demanded Iran resume cooperation.	
Russia	Said Iran's decision was a direct retaliation to strikes; questioned IAEA's neutrality.	

#### 5. Diplomatic Signals & Possible Path Ahead

- Iran remains in the NPT continues to claim its nuclear program is for peaceful purposes.
- Negotiations: An IAEA deputy head is expected to visit Tehran; no site inspections planned unless a new cooperation framework is agreed.
- JCPOA implications: Risk of collapse if snapback sanctions are triggered.

#### 6. Cities & Conflict Context

#### **Iranian Cities Targeted**

City	Significance	Event (June 2025)
Natanz	Largest enrichment facility	Bombed by Israeli jets





City	Significance	Event (June 2025)
Fordow	Deep underground enrichment	Hit with U.S.–Israeli bunker-buster strike
Isfahan	Nuclear research hub	Drone attack; air defenses activated
Tehran	Political/military HQ	Strike on Iran's Defense Ministry
Damascus	Proxy hub	IRGC commanders killed at Iranian embassy

#### Israeli & Palestinian Urban Centers

City	Significance	Event
Tel Aviv / Ramat Gan	Economic hub	Hit by Iranian ballistic missiles
Gaza City		Intensified Israeli urban warfare; planned occupation

#### Historic Parallel – Iran–Iraq War (1980s)

- "War of the Cities": Iraq bombed Tehran, Isfahan, Shiraz; Iran struck Baghdad, Basra.
- Thousands of civilian casualties; shows long history of city-centered warfare.

#### 7. Strategic Implications

- **Nuclear Non-Proliferation at Risk**: Loss of IAEA monitoring could accelerate Iran's nuclear capabilities without verification.
- Regional Escalation: Risk of direct Iran–Israel war beyond proxy conflicts.
- Oil & Shipping Security: Possible spillover into Strait of Hormuz tensions.
- **Global Diplomacy**: May force a new multilateral negotiation format involving regional powers and the P5+1.

#### 8. Mnemonic - "NUCLEAR"

N – Natanz, Fordow, Isfahan targeted

U - U.S.-Israel joint strikes





- C Cooperation with IAEA suspended
- L-Law enacted by Iran on July 2
- **E Exit of inspectors** from Iran
- A Allies react U.S., EU, Russia, Israel
- **R Risk of escalation** in Middle East





### 11. <u>17th BRICS Summit 2025 – Rio de Janeiro, Brazil (6–7 July 2025)</u>

**Theme:** "Strengthening Global South Cooperation for More Inclusive and Sustainable Governance"

#### 1. Summit Overview

- Hosted by Brazil in Rio de Janeiro on 6–7 July 2025.
- Attended by 11 full BRICS members: Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Indonesia (first-time full member), Iran, Saudi Arabia, UAE.
- Partner Country category introduced, welcoming Belarus, Bolivia, Kazakhstan, Cuba,
   Nigeria, Malaysia, Thailand, Vietnam, Uganda, Uzbekistan.
- Notable Absences:
  - o President Xi Jinping (China) cited domestic priorities.
  - o President Vladimir Putin (Russia) attended virtually due to ICC arrest warrant.
- Focused on Global South priorities, multilateral reform, climate finance, AI governance, health, trade, and peace/security.

#### 2. Membership & Expansion

Category	Countries
New Member (2025)	Indonesia
Partner Status	Belarus, Bolivia, Kazakhstan, Cuba, Nigeria, Malaysia, Thailand, Vietnam, Uganda, Uzbekistan





#### 3. Key Agenda Areas

The Summit addressed six major challenges:

- 1. Global Health equitable healthcare access, pandemic preparedness.
- 2. Trade, Investment & Development Finance sustainable economic growth.
- 3. Climate Change climate finance and green tech cooperation.
- 4. Artificial Intelligence Governance ethical frameworks, bridging the digital divide.
- 5. Reform of Global Security Architecture UN Security Council reforms, anti-terror coordination.
- 6. Institutional Development of BRICS expansion strategy, payment systems, cultural exchanges.

#### 4. Major Declarations & Initiatives

Declaration / Initiative	Key Highlights
Rio de Janeiro Declaration	126 commitments spanning politics, economy, health, technology, and culture; reaffirmed BRICS role in multilateral governance; India to chair BRICS 2026 and host 18th Summit.
AI Governance Declaration	Inclusive, rights-respecting AI regulation; UN-led global AI norms; bridging digital divide.
Climate Finance Framework	Call to increase annual climate finance from USD 100 bn to USD 300 bn by 2035; reform MDBs for climate responsiveness.
Public Health Initiative	BRICS Partnership for Elimination of Socially Determined Diseases; expansion of BRICS Vaccine R&D Centre.
IMF/World Bank Reform Call	Quota realignment to reflect emerging economy weight; governance reforms.





Declaration / Initiative	Key Highlights
Expansion &	Launch of BRICS Partner Country status; progress on BRICS Pay and
Payments	alternative cross-border settlement systems.

#### 5. Strategic Significance

- Electrostates vs Carbon States: Internal tension between renewable leaders (Brazil, China) and fossil-fuel-heavy members (Russia, Saudi Arabia).
- Multipolar Financial Framework: Push to reduce dollar dependence.
- **Geopolitical Messaging**: Opposition to unilateral sanctions; advocacy for inclusive governance.

#### 6. India's Role

- PM Modi reaffirmed India's leadership in the Global South.
- Advocated for multilateral reform, climate financing, and inclusive AI governance.
- Introduced new BRICS acronym: "Building Resilience and Innovation for Cooperation and Sustainability".
- Condemned terrorism, referencing the Pahalgam tragedy; called for global anti-terror solidarity.
- Will host 18th BRICS Summit in 2026.

#### 7. India-Brazil Relations (Contextual Note)

Aspect	Highlights
<b>Diplomatic Ties</b>	Established 1948; Strategic Partnership since 2006.
Trade	Bilateral trade ~USD 12.2 bn (2024–25); India exports petrochemicals, pharma; Brazil exports crude oil, soy oil, sugar, iron ore.





Aspect	Highlights
Defence & Space	Defence Cooperation Agreement (2003); India launched Brazil's Amazonia-1 satellite (2021).
Energy &	Co-founders of Global Biofuels Alliance; historic cattle and crop
Agriculture	exchanges.
Cultural Links	Shared traditions, telenovelas, Gandhi's legacy in Brazil.

#### 8. Parameter Snapshot

Parameter	Details
Summit Name	17th BRICS Summit
Host Country / City	Brazil / Rio de Janeiro
Dates	6–7 July 2025
Members	11 (Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Indonesia, Iran, Saudi Arabia, UAE)
Partners	10 (listed above)
Theme	Strengthening Global South Cooperation for More Inclusive and Sustainable Governance
Key Outcomes	Rio Declaration, AI & Climate frameworks, BRICS Pay progress
Next Host (2026)	India

#### 9. Mnemonic - "BRICS 2025"

- $\mathbf{B}$  *Brazil* hosts historic summit
- **R** *Rio Declaration* with 126 commitments
- I Indonesia joins as full member
- $\mathbf{C}-Climate\ finance\ push\ to\ USD\ 300\ bn$
- **S** *Security reform* and anti-terror focus





- 2 Two major absences Xi & Putin
- **0** *Zero tolerance* on terrorism
- 2 Two new frameworks AI & Climate
- **5** *Five*+ *strategic areas* addressed





### 12. <u>Ramsar COP15 – Protecting Wetlands for Our Common</u> Future

Venue & Dates: Victoria Falls, Zimbabwe | 23–31 July 2025

Theme: "Protecting Wetlands for Our Common Future"

Participants: 172 Contracting Parties to the Ramsar Convention

#### 1. What is the Ramsar Convention?

- Established 2 February 1971 in *Ramsar, Iran*, it is the oldest modern international environmental treaty dedicated to the conservation and sustainable use of wetlands.
- Came into force 21 December 1975 upon ratification by seven countries.
- Initially focused on waterfowl habitats, but over time expanded to protect all types of wetlands (natural, artificial, inland, coastal) and promote wise use and ecosystem services.
- Amended via Paris Protocol (1982) and Regina Amendments (1987).
- Core Principles:
  - 1. Wise Use of all wetlands through national planning, legislation, and education.
  - 2. Designation & Management of at least one *Wetland of International Importance* (Ramsar Site).
  - 3. International Cooperation for shared wetlands, species, and ecosystem services.
- Governing Bodies:
  - o Conference of the Contracting Parties (COP) meets every 3 years.
  - Standing Committee oversees work between COPs.
  - o Scientific & Technical Review Panel (STRP) provides expert advice.



### CLAT WHISPERS



### (WEEKLY GK NOTES)

- Secretariat based at IUCN HQ, Gland, Switzerland.
- International Partners: IUCN, BirdLife International, WWF, Wetlands International, IWMI, Wildfowl & Wetlands Trust, plus UN agencies & biodiversity conventions.

#### 2. COP15 Overview

- Significance: Focused on reversing global wetland loss and integrating wetlands into climate, biodiversity, and sustainable development agendas.
- Host Presidency: Zimbabwe assumed the Ramsar presidency.
- Global Wetland Outlook 2025 launched warns of 35% wetland loss since 1970; up to 20% more loss possible by 2050 without urgent action.
- Zimbabwe's Pledge: Restore 250,000 ha of degraded wetlands by 2030; nominate 5 new Ramsar Sites.

#### 3. Victoria Falls Declaration

A high-level political commitment adopted to:

- 1. Place wetland restoration at the heart of climate and biodiversity strategies.
- 2. Mobilize financial resources and investments in wetland conservation.
- 3. Create synergies with the Paris Agreement, CBD, and SDGs.
- 4. Strengthen community participation and rights-based governance.

#### 4. Key Resolutions (13 Adopted at COP15)

Focus Area	Highlights
Wetland Restoration	Develop national policies & legal frameworks for restoring degraded freshwater ecosystems.
Migratory Birds	Enhance transboundary flyway conservation.





Focus Area	Highlights
Waterbird Data	Establish global standardized waterbird population estimates mechanism.
River Dolphins	Recognize as flagship wetland species in South America & Asia.
Site Criteria	Update Ramsar site designation criteria using IUCN Red List data.
Equitable Governance & OECMs	Promote rights-based site management.
5th Strategic Plan	4 goals, 18 targets for 2025–2034 (see below).
Traditional Knowledge	Integrate indigenous and local community knowledge in wetland use.
Sustainable Lifestyles	Whole-of-society approach to wise use (India-led).
Urban Wetlands	Strengthen frameworks for peri-urban wetland conservation.
Youth Empowerment	Encourage youth involvement in wetland stewardship.
Technology & Innovation	Use remote sensing, citizen science for monitoring.
CEPA Framework	New approach for education, communication, participation, and awareness.

#### 5. 5th Strategic Plan (2025–2034)

#### Goals:

- 1. Halt global wetland loss.
- 2. Ensure wise and sustainable use of wetlands.
- 3. Manage all Ramsar Sites effectively.
- 4. Strengthen science-based implementation, capacity building, and financing.

**Targets:** 18 measurable targets; monitored by STRP; progress tracked via *Ramsar Sites Information Service*.





#### 6. Budget & Operational Capacity

- Core Budget (2025–2027): CHF 15.5 million 4.1% increase over previous triennium.
- Aim: Improve operational delivery, monitoring, and coordination with biodiversity/climate frameworks.

#### 7. Scientific & Conservation Highlights

- Africa Special Report "Taking Animals into Account" (Global Rewilding Alliance & IFAW) stressed role of keystone wildlife (e.g., elephants) in wetland health.
- Greater emphasis on ecosystem-based approaches linking fauna and flora.

#### 8. India's Role

- Resolution Sponsored: "Promoting Sustainable Lifestyles for the Wise Use of Wetlands", aligned with Mission LiFE (Lifestyle for Environment) and UN 10YFP on Sustainable Consumption & Production.
- Achievements Showcased: Restoration of 68,800+ small wetlands in one year using GIS mapping & community participation under *Mission Sahbhagita* and *Save Wetlands* Campaign.
- Resolution adopted unanimously by all 172 parties.

#### 9. Historical Milestones

Year	Event
1960s	Wetland conservation movement gains momentum in Europe.
1971	Ramsar Convention adopted in Ramsar, Iran.
1975	Convention enters into force.
1982	Paris Protocol amendment.





Year	Event
1987	Regina Amendments adopted.
1990	Montreux Record established for at-risk sites.
1997	World Wetlands Day initiated (2 February).
2025	COP15 adopts 5th Strategic Plan & Victoria Falls Declaration.

#### 10. Global Status of Ramsar Sites (2025)

- 172 Contracting Parties.
- 2,500+ Sites covering over 257 million hectares worldwide.
- Montreux Record used for priority restoration needs.

#### 11. Implications & Next Steps

- Policy Reform: Translate restoration goals into laws, plans, and financing tools.
- Monitoring: STRP to track Strategic Plan progress.
- Convention Synergy: Stronger integration with CBD, UNFCCC, UNCCD.
- Community Action: Greater role for indigenous & local communities, youth.

#### 12. Mnemonic - "WETLANDS COP15"

- W Wise use resolution by India
- E Elephants & wildlife in wetland health (Africa Report)
- T Thirteen resolutions adopted
- L Loss warning 35% decline since 1970
- **A** *Africa hosts* (Victoria Falls)
- **N** *New Strategic Plan* (2025–2034)
- **D** Declaration of Victoria Falls
- $S-Site\ restoration-250,000\ ha\ pledge\ by\ Zimbabwe$





### 13. Lucknow Becomes UP's First "Zero Dump City"

**Date of Milestone:** June 22, 2025 **Location:** Lucknow, Uttar Pradesh

#### 1. Achievement Overview

- Lucknow has become Uttar Pradesh's first city to process 100% of its daily waste scientifically, without sending any fresh waste to landfills.
- This was achieved following the full operation of the Shivri Solid Waste Management Plant, including its third and final processing unit.
- Daily Waste Generation: ~2,000 metric tonnes (MT)
- Total Processing Capacity: 2,100 MT/day (buffer for growth)
- Achievement: Complete processing of daily waste, no fresh waste dumped.

#### 2. Infrastructure Enhancement

#### **New Facility:**

- On June 22, 2025, the third 700 MT/day unit was inaugurated by Urban Development Minister A.K. Sharma at Shivri West.
- Three units of 700 MT/day each are now operational, meeting the city's waste needs with capacity to spare.

Unit	Capacity (MT/day)	Commissioned Year	Status
Unit 1	700	Earlier phase	Operational
Unit 2	700	Earlier phase	Operational
Unit 3	700	2025	Operational





#### 3. Legacy Waste Remediation

- Initial Waste Stockpile: 18.5 lakh MT accumulated over two decades at Shivri site.
- **Processed so far:**  $\sim$ 12.86–13 lakh MT ( $\approx$ 70%).
- Land Recovered: 25 acres cleared; an additional 15 acres to be cleared within 6 months.
- Cost: ₹96–106 crore under Swachh Bharat Mission (SBM-1).
- Execution: Public-Private Partnership (PPP) with Bhumi Green Energy (contract started March 2024).

#### 4. Scientific Processing & Outputs

#### **Waste Segregation Breakdown:**

- Organic ( $\sim$ 55%)  $\rightarrow$  Compost & Biogas.
- Inorganic (~45%) → Recyclables & Refuse-Derived Fuel (RDF) for cement & paper industries.
- Construction Waste → Recycled aggregates for infrastructure.

Waste Type	<b>Processing Method</b>	End Products	Applications
Organic	Composting & Biogas	Bio-soil, compost	Agriculture
Inorganic	Sorting & Processing	RDF	Cement & fertilizer sectors
C&D Waste	Recycling	Aggregates	Infrastructure reuse
Mixed Waste	Segregation	Recyclables	Industrial use

By-products: Eco-friendly mats (from coconut husk & plastic), bio-soil, compost, aggregates.

#### 5. Technology & Oversight

- **Monitoring:** 47 CCTV cameras for 24×7 surveillance.
- Technical Oversight: IIT Roorkee, VJTI Mumbai, NEERI Nagpur.
- Odour & Sanitation: Microbial solutions, aeration systems.





#### • Collection System:

- Door-to-door collection: 96.53% coverage.
- o Source segregation: >70%.
- Use of electric vehicles replacing diesel/petrol.

#### 6. Broader Impacts

#### **Environmental Gains:**

- Zero landfill pollution.
- Lower greenhouse gas emissions.
- Better air & water quality.
- Prevention of soil contamination.

#### **Economic Benefits:**

- Revenue from RDF, compost, recyclables.
- Job creation & skill development.
- Increased land value from reclaimed sites.

#### 7. Innovation & Public Engagement

- Waste-to-Art Projects:
  - o UP Darshan Park replicas of Taj Mahal & Red Fort made from recycled waste.
  - o Similar park in Prayagraj's Kalawati Park.
- **Urban Greening:** Over 20,000 trees planted; Miyawaki urban forests created.
- Redevelopment: Cleared land repurposed for green zones & compost pads.

#### 8. Recognition & Replication



### CLAT WHISPERS



### (WEEKLY GK NOTES)

- Awards: 7-star rating in Swachh Survekshan 2024–25.
- National Rank: 3rd among million-plus cities; 1st in Uttar Pradesh.
- Model for Others: Studied by delegations from Brazil, Andhra Pradesh, and Bhopal.
- International Platform: Invited to ASEAN Governors & Mayors Forum as "Knowledge City".

#### 9. Strategic Significance

- **SDG Alignment:** Waste reduction, climate change mitigation, circular economy promotion.
- Policy Impact: Framework for replication across UP; scalable technology adaptable to other cities.

#### 10. Historical & Cultural Context of Lucknow

#### **Ancient Roots:**

• Linked to Lakshmana of Ramayana; originally called Lakhanapuri.

#### Nawabi Era (1775 Onwards):

- Capital shifted from Faizabad to Lucknow by Nawab Asaf-ud-Daula.
- Iconic architecture: Bara Imambara, Rumi Darwaza, Qaiserbagh Complex.

#### **Colonial Period:**

- Annexed by British in 1856.
- Central site in 1857 Revolt Siege of Lucknow.

#### **Cultural Heritage:**

- Known for Ganga—Jamuni Tehzeeb.
- Famous for *Kathak*, Urdu poetry, Awadhi cuisine (UNESCO Gastronomic City).
- Chikankari embroidery (GI-tagged).





#### **Modern Revival:**

- Heritage restoration (e.g., Pari Khana).
- Academic & archival projects (VS Ram Museum).
- Cultural exhibitions (e.g., Dastavez).

#### 11. Mnemonic - "LUCKNOW CLEAN"

- L *Legacy waste* cleared (13 lakh MT processed)
- U Urban greening & Miyawaki forests
- C Complete capacity (2,100 MT/day for 2,000 MT/day generation)
- K Knowledge City recognition at ASEAN forum
- N No landfill waste 100% scientific processing
- **O** *Odour control* & advanced monitoring (CCTV, IIT oversight)
- W Waste-to-Art projects (UP Darshan Park, Kalawati Park)





### 14. <u>INS Tamal Commissioned – India Ends Foreign-Built</u> Warship Era

**Date of Commissioning:** July 1, 2025

Location: Yantar Shipyard, Kaliningrad, Russia

#### 1. Overview & Strategic Significance

- Historic Milestone: INS Tamal is India's last foreign-built warship to enter service, ending a 65-year era of importing major naval vessels.
- Transition: Marks India's shift from a "buyer's navy" to a "builder's navy", in line with the Aatmanirbhar Bharat vision.
- Fleet Role: Will operate with the Western Fleet under Western Naval Command, enhancing India's maritime capabilities in the Arabian Sea & Indian Ocean.

#### 2. Ship Specifications

Parameter	Details
Class	Talwar-class (Tushil subclass)
Project	1135.6 – 8th ship in the series
Length	125 m
Displacement	3,900 tonnes
Crew	250 sailors + 26 officers
Propulsion	Advanced Russian gas turbines, 30+ knots
Commanding Officer	Capt. Sridhar Tata

#### 3. Weapons & Systems

• **BrahMos supersonic cruise missiles** – dual-role (land & sea targets).



### **CLAT WHISPERS**



### (WEEKLY GK NOTES)

- Shtil-1 VLS SAMs extended 50 km range (first Talwar-class with vertical launch).
- Main Gun: 100 mm low radar-cross-section design.
- **CIWS:** 30 mm AK-630 system.
- **ASW:** RBU-6000 rocket launchers + heavyweight torpedoes.
- EW Suite: Comprehensive defensive electronic warfare package.
- **NBC Defence:** Fully automated nuclear, biological, chemical protection.

#### 4. Indigenous Content & Collaboration

- **Indigenous Share:** 26% by value; 33 Indian-origin systems.
- Suppliers: BrahMos Aerospace, BEL, Tata's Nova Integrated Systems, Elcome Marine.
- **Key Indian Systems:** BrahMos missiles, HUMSA-NG sonar, communication systems.
- Collaboration Model: Built in Russia, but with extensive integration of Indian technology a model for future technology transfer.

#### 5. Project Background

Stage	Date	Detail
Laid down	15 Nov 2013	Originally "Admiral Istomin" for Russian Navy
Launched	24 Feb 2022	Re-designated for India
Sea Trials		Comprehensive multi-environment tests
Delivery	Jun 2025	Handed over to Indian Navy
Cost	Part of ₹21,000 crore Indo-Russian agreement (2016)	





#### 6. Significance in India's Naval Evolution

#### From Imports to Indigenous:

- 1960: INS Ajay first Indian-commissioned patrol vessel.
- 1983–84: INS Godavari first major indigenous warship.
- 2014: INS Kamorta first fully indigenous stealth ASW corvette.
- 2016: INS Arihant first nuclear-powered ballistic missile submarine (strategic triad).

#### **End of Import Era:**

- INS Tamal concludes India's foreign-built warship acquisitions.
- Future projects—like Project 17A Nilgiri-class frigates—will be built entirely in India.

#### 7. India's Shipbuilding Revolution

Shipyard	Key Achievements	
MDL, Mumbai	Godavari-class, Shivalik-class, Scorpene subs, P15B destroyers, P17A	
,	frigates	
GRSE,	Kamorta-class corvettes, early patrol vessels	
Kolkata	, , , , , , , , , , , , , , , , , , , ,	
GSL, Goa	Talwar-class under ToT, OPVs	
HSL, Vizag	Submarine refits, fleet support vessels	
CSL, Kochi	INS Vikrant – first indigenous aircraft carrier	

#### **Current Status:**

- Over 60 warships under construction in India.
- Indigenous content in Project 17A frigates: 75%.
- Economic Impact: 4,000+ direct jobs & 10,000+ indirect per major project.

#### 8. Future Indigenous Fleet Pipeline





Project	Class	Qty	Timeline	<b>Indigenous Content</b>
P17A	Nilgiri-class frigates	7	2024–26	75%
ASW-SWC	Arnala-class	16	2025–28	80%
P75I	Next-gen submarines	6	2030s	60%+
FSS	Fleet Support Ships	5	2027–30	80%

#### 9. Strategic Role & Deployment

• **Assigned Fleet:** Western Fleet (*Sword Arm* of Indian Navy).

#### • Operational Capabilities:

- o Air Defence: Shtil-1 VLS SAMs.
- o Surface Warfare: BrahMos missiles.
- o ASW: Torpedoes, rocket launchers, sonar.
- o Electronic Warfare: Full-spectrum defensive suite.

#### 10. Indo-Russian Naval Partnership

- 51 warships built under Indo–Russian collaboration over 65 years.
- Technology transfer enabling Goa Shipyard to construct sister ships Triput & Tavasya.
- Joint integration of advanced Indian & Russian technologies into combat platforms.

#### 11. Vision Ahead – Aatmanirbhar Bharat 2047

- 100% domestic warship construction for future requirements.
- Continuous R&D investment in naval design.
- Development of export-ready warships for global markets.
- Strategic autonomy in maritime security.





#### 12. Mnemonic - "TAMAL BUILDS"

- T Technology transfer from Russia with indigenous integration
- A Aatmanirbhar Bharat milestone last foreign-built warship
- **M** *Multi-role* warfare capability (air, surface, sub-surface, EW)
- A Advanced weapons BrahMos, Shtil-1 VLS, RBU-6000
- L Legacy end from 65 years of imports to full indigenous shipbuilding
- $\mathbf{B}$  Builder's navy transition
- U *Upgraded Talwar-class* features
- I Indigenous content 26% at commissioning
- L Long-range strike via BrahMos missiles
- **D** Design excellence stealth, NBC defence, automation
- S Strategic fleet role in Western Naval Command





### 15. <u>INS Nistar Commissioned – India's First Indigenously Built</u> Diving Support Vessel (DSV)

**Date of Commissioning:** 18 July 2025

Location: Visakhapatnam, Eastern Naval Command

**Builder:** Hindustan Shipyard Limited (HSL)

#### 1. Legacy & Nomenclature

- Namesake Heritage: The name *INS Nistar* ("rescue" in Sanskrit) revives a historic vessel—the original Soviet-built *INS Nistar* (1971–1989) that played a crucial role in locating the sunken Pakistani submarine *PNS Ghazi* during the 1971 Indo–Pakistan War.
- **Symbolic Continuity:** The modern Nistar inherits this rescue legacy, now with vastly advanced capabilities, reflecting five decades of evolution in submarine rescue technology.

#### 2. Design & Construction Timeline

Milestone	Date	Detail
Project Award	Sept 2018	₹2,392.94 crore contract
Keel Laid	28 Dec 2019	HSL, Visakhapatnam
Launch	22 Sept 2022	Slipway launch ceremony
Delivery	8 Jul 2025	Post sea trials
Commissioning	18 Jul 2025	By Defence Minister Sanjay Seth, Navy Chief Admiral Dinesh K Tripathi

**Indigenous Content:** Over **80%** components sourced domestically from **120+ MSMEs**, making it a flagship of the *Aatmanirbhar Bharat* initiative.





#### 3. Technical Specifications

Attribute	Specification
Length	118–120 m
Beam	22.8 m
Displacement	~9,350–10,500 tonnes
Endurance	60+ days at sea
Propulsion	Supports DP-II dynamic positioning
Crew	Officers + sailors for DSV ops
Armament	AK-630 30 mm CIWS for close defence

#### 4. Core Capabilities

#### A. Submarine Rescue

- Acts as a mothership to Deep Submergence Rescue Vehicles (DSRVs)—universal NATO-standard interfaces for global interoperability.
- Operational depth of DSRVs: up to 650 m.
- Side-scan sonar for seabed mapping & wreck location.

#### **B.** Deep-Sea Diving

- Saturation diving system operational to 300 m depth.
- Side diving capability 75 m depth.
- Open-bottom diving bells & decompression chambers.

#### C. Underwater Recovery & Survey

- ROVs operational to 1,000 m.
- 15-tonne subsea crane for heavy recovery.
- Moon pool for safe deployment of submersibles.





## D. Medical & Support Facilities

- Fully equipped OT & ICU, 8-bed hospital, hyperbaric treatment facilities.
- Helipad for MEDEVAC and rapid logistics.

### 5. Strategic Significance

- Operational Enabler: Enhances India's readiness for submarine rescue emergencies,
   HADR missions, and deep-sea recovery.
- Regional Leadership: Places India among the few nations capable of indigenous fullspectrum submarine rescue—supporting SAGAR (Security and Growth for All in the Region) doctrine.
- Industrial Impact: Boosts naval-industrial base and technology absorption, strengthening export potential for future DSV designs.

## 6. Future Fleet Integration

- Command: Eastern Naval Command.
- Role: To operate alongside sister ship INS Nipun (under construction at HSL) for complete east-west coast coverage in submarine rescue operations.
- **Support Network:** Will integrate with India's two operational DSRVs for pan-Indian rapid deployment.

## 7. India's Indigenous Naval Milestones - Context

Year	Vessel	Significance	
1967	INS Kalvari	First submarine (imported)	
1992–94	INS Shalki & Shankul	First submarines built in India (German ToT)	
2014	INS Kamorta	First fully indigenous ASW stealth corvette (~90% Indian)	
2016	INS Arihant	First indigenous nuclear ballistic missile submarine	





Year	Vessel	Significance
2022	INS Vikrant	First indigenous aircraft carrier
2025	INS Nistar	First indigenous DSV

## 8. Shipyards Driving the Revolution

Shipyard	Key Contributions
MDL, Mumbai	Godavari, Shivalik, Kalvari-class; Visakhapatnam-class destroyers
GRSE, Kolkata	Kamorta-class corvettes, landing craft, patrol vessels
GSL, Goa	OPVs, Talwar-class frigates (ToT builds)
HSL, Vizag	DSVs (Nistar & Nipun), missile tracking ships
CSL, Kochi	INS Vikrant, next-gen green ships

## 9. Policy & Strategic Push

- Government Initiatives: Make in India, Atmanirbhar Bharat, Sagarmala, Maritime India Vision 2030.
- **MSME Role:** Over 120 Indian MSMEs supplied specialised systems for Nistar—ranging from hull fabrication to high-tech diving equipment.
- Export Ambition: Growing prospects for Indian-designed rescue & support ships in friendly navies.

### 10. Mnemonic - "NISTAR RESCUE"

- N Nation's first indigenous DSV
- I − *Indian MSMEs* − 120+ suppliers, 80% content
- S Saturation diving 300 m depth
- T Technological leap in deep-sea operations
- **A** *Advanced rescue systems* DSRVs, ROVs, sonar
- **R** Regional leader in submarine rescue





- $\mathbf{R} ROV$  capability to 1,000 m depth
- E Eastern Naval Command deployment
- S Side dive up to 75 m depth
- $\mathbf{C}$  *Cranes* 15-tonne subsea operations
- $U-Universal\ NATO\ interface\ for\ global\ ops$
- **E** *Enhanced medical* & HADR capabilities





## 16. <u>Samudra Prachet – India's Second Indigenous Pollution</u> Control Vessel

Launch Date: 23 July 2025

Shipyard: Goa Shipyard Limited (GSL), Vasco, Goa

Series: Second & final vessel in the 2-PCV series (first – Samudra Pratap, launched 29 August

2024)

#### 1. Overview

- Purpose-Built for Environmental Security: Designed specifically for oil-spill management and marine pollution response in India's Exclusive Economic Zone (EEZ).
- **Indigenous Achievement:** Over 72% indigenous content sourced from domestic suppliers, reinforcing *Aatmanirbhar Bharat* in specialised maritime platforms.
- **Strategic Milestone:** Completes India's dedicated pollution-control fleet, marking a shift from modified multi-role ships to specialised, high-capability PCVs.

## 2. Historical & Policy Context

- Early Efforts: Since its establishment in 1978, the Indian Coast Guard (ICG) has been tasked with marine environmental protection, but initially relied on retrofitted patrol vessels for oil-spill mitigation.
- **Need for PCVs:** Offshore oil exploration, dense shipping lanes, and ecological sensitivity of coastal waters demanded purpose-built pollution-control ships.
- Contract Award: GSL was tasked to design & construct two PCVs tailored for rapid oil-spill detection, containment, recovery, and processing.
- **Policy Alignment:** Supports *Blue Economy* goals, *Maritime Zones of India Act 1981*, and compliance with MARPOL obligations.





## 3. Technical Specifications

Attribute	Details
Length	114.5 m
Breadth	16.5 m
Displacement	4,170 tonnes
Crew	14 officers, 115 sailors
Indigenous Content	72%
Builder	Goa Shipyard Limited
Endurance	Extended sea operations within EEZ
Sensors	Advanced pollution-detection radar & IR systems

## 4. Pollution Control & Environmental Response Systems

## A. Oil-Spill Containment

 Two hydraulically operated side-sweeping arms deployed while underway to encircle oil slicks.

## **B.** Detection & Monitoring

 Advanced radar & infrared sensors for detecting oil films, even under low-visibility conditions.

## C. Recovery & Separation

- Pump-in contaminated water → process via onboard oil-water separators → store recovered oil in dedicated tanks.
- Handles oil across the full viscosity range (light to heavy crude).

## D. Storage & Transfer

• Large-capacity tanks to hold recovered oil before onshore disposal or transfer to barges.

## 5. Strategic Significance



## **CLAT WHISPERS**



## (WEEKLY GK NOTES)

- Self-Reliance in Specialised Maritime Assets: Marks GSL's capability to deliver complex, non-combat yet strategically vital ships.
- Environmental Protection: Critical for safeguarding marine biodiversity, fisheries, and coastal livelihoods.
- Operational Readiness: Enhances India's ability to respond swiftly to oil-spill incidents in its EEZ and beyond, boosting regional leadership in marine disaster response.

## 6. Launch Ceremony Highlights

- Chief Guest: DG ICG Paramesh Sivamani highlighted PCVs as "pivotal" for marine environment safety.
- **Guest of Honour:** Smt Priya Paramesh (wife of DG ICG) performed the ceremonial launch.
- **GSL CMD Brajesh Kumar Upadhyay:** Praised exceptional indigenous content and MSME participation.

## 7. Deployment & Training

- Post-Launch Plan: Sea trials, crew familiarisation, and integration into ICG fleet.
- **Training Focus:** Oil-spill control drills, inter-agency HADR coordination, environmental surveillance.
- **Regional Role:** First-responder for Indian Ocean Region environmental emergencies under the **SAGAR** doctrine.

#### 8. Evolution of India's Pollution Control Fleet

Year	Vessel	Remarks
1980s– 2000s	Modified patrol ships	Limited oil-spill mitigation equipment





Year	Vessel	Remarks
2024	Samudra Pratap	First purpose-built indigenous PCV
2025	Samudra Prachet	Second & final vessel in series, 72% indigenous content

### 9. Mnemonic - "PRACHET GUARD"

- **P** Pollution-control specialist
- **R** Radar & infrared slick detection
- **A** Advanced sweeping arms for containment
- C Containment-to-recovery oil handling system
- **H** *High indigenous content* 72%
- $\mathbf{E}$  *Environmental security* of EEZ
- T Two-vessel dedicated PCV fleet completed
- **G** Goa Shipyard Limited builder
- U Underway recovery while in motion
- **A** *All-viscosity* oil handling capability
- **R** Regional responder in IOR
- **D** Dedicated tanks for recovered oil





## 17. <u>Deepika Padukone – First Indian Actress to Receive</u> Hollywood Walk of Fame Star (Class of 2026)

**Announcement Date:** 3 July 2025

**Category:** Motion Pictures

Location: Hollywood Boulevard & Vine Street, Los Angeles, USA

### 1. Historic Achievement

• First Indian Actress Honored: Deepika becomes the first Indian actor in history to be inducted into the prestigious Hollywood Walk of Fame.

- Part of the 2026 Class: Selected alongside prominent international celebrities such as Emily Blunt, Timothée Chalamet, Marion Cotillard, Stanley Tucci, Rami Malek, Rachel McAdams, Demi Moore.
- Official Selection: Chosen by the Hollywood Chamber of Commerce Walk of Fame Selection Panel from hundreds of nominations; approved by the Board of Directors.
- Deepika's Reaction: Shared a heartfelt "Gratitude..." on Instagram Stories.

#### 2. Selection Process

Stage	Date	Details
Nominations Review	20 June 2025	Panel reviewed hundreds of global nominations
Final Ratification	25 June 2025	Approved by Hollywood Chamber Board
Public Announcement	3 July 2025	Live press conference at Ovation Hollywood
Induction Ceremony Deadline	By 2027	Ceremony must occur within two years or honor expires





## 3. Associated Inductees - Class of 2026

Category	Notable Names
Motion Pictures  Emily Blunt, Timothée Chalamet, Rami Malek, Stanley Tucci, Rami McAdams, Demi Moore	
Television	Sarah Michelle Gellar, Noah Wyle, Robin Roberts, George Stephanopoulos
Recording	Miley Cyrus, Gordon Ramsay (Celebrity Chef)
Sports Entertainment	Shaquille O'Neal
Posthumous	Tony Scott (Director), Carlo Rambaldi (Special Effects Artist)

## 4. Hollywood Walk of Fame - Overview

- Established: 1960
- **Stars Installed:** Over 2,700 brass stars on sidewalks along Hollywood Boulevard & Vine Street.
- **Recognition Fields:** Film, television, music, radio, theatre/live performance, sports entertainment.
- Annual Selection:  $\sim 300$  applications  $\rightarrow \sim 30$  honorees chosen per year.

## 5. Financial & Logistical Requirements

- Sponsorship Fee: \$85,000 (~₹73 lakh) covers star creation, installation & maintenance.
- Application Fee: \$275 (~₹23,530).
- **Ceremony Deadline:** Recipients have 2 years to schedule the ceremony; otherwise, selection lapses.





## 6. Deepika Padukone - Career Highlights & Global Presence

## **Bollywood Career:**

- Debut: *Om Shanti Om* (2007) opposite Shah Rukh Khan.
- Acclaimed films: Piku, Bajirao Mastani, Padmaavat, Gehraiyaan.
- Action Roles: Fighter (2024) with Hrithik Roshan; Singham Again as DCP Shakti Shetty.

## **Hollywood Work:**

• xXx: Return of Xander Cage (2017) – opposite Vin Diesel; marked her Hollywood debut.

## **International Recognition:**

- TIME 100 Most Influential People (2018)
- TIME100 Impact Award (Mental Health Advocacy)
- Cannes Film Festival Jury (2022)
- Met Gala appearances (Global fashion representation)
- FIFA World Cup 2022 Trophy Unveiling (Qatar)

## 7. Upcoming Projects

Film	Co-stars	Remarks
Untitled Atlee Project (AA22xA6)	Allu Arjun	Action-drama
King	Shah Rukh Khan	Reunion after Om Shanti Om & Chennai Express
Kalki 2898 AD Part 2	Prabhas, Amitabh Bachchan	Continuation of sci-fi epic

## 8. Historical Context - Indian & South Asian Representation



## **CLAT WHISPERS**



## (WEEKLY GK NOTES)

- **First Indian-origin Honoree:** Sabu Dastagir (1960) starred in *Elephant Boy*, *Arabian Nights*, *The Thief of Baghdad*.
- First South Asian Woman Honoree: Mindy Kaling (2025).
- **Zubin Mehta:** Legendary conductor with a star for contributions to music.
- **Deepika's Milestone:** First Indian actress, representing Indian cinema globally.

## 9. Industry & Public Reactions

- Freida Pinto: Called on South Asians to "celebrate our own," praising Deepika's achievement.
- **Bollywood Industry:** Widely celebrated as a win for Indian talent on a global stage.

### 10. Significance of the Honor

- Cultural Diplomacy: Positions Deepika as a cultural ambassador bridging Bollywood & Hollywood.
- Global Recognition of Indian Cinema: Reflects growing influence of non-Western film industries.
- **Representation Milestone:** Expands diversity on the Walk of Fame.

### 11. Mnemonic - "DEEP STAR"

- **D** Debut in Bollywood with Om Shanti Om (2007)
- E Emily Blunt & elite peers in Class of 2026
- **E** *Endorsement* by Hollywood Chamber after hundreds of nominations
- **P** Pioneer first Indian actress honored
- S Star sponsorship fee \$85,000
- T TIME 100 honoree & Cannes jury member
- **A** *Ambassador of Indian cinema* globally
- **R** *Recognition* in Motion Pictures category





## 18. NASA-ISRO Synthetic Aperture Radar (NISAR) Mission

Launch Date: 30 July 2025

Launch Vehicle: GSLV-F16 (Mk II)

Launch Site: Second Launch Pad, Satish Dhawan Space Centre, Sriharikota, Andhra Pradesh

Cost: ~US\$1.5 billion – world's most expensive Earth observation satellite

### 1. Mission Overview

• Joint Collaboration: First hardware co-development between NASA and ISRO for an Earth observation satellite.

- Purpose: To map Earth's land and ice surfaces with high accuracy using dual-frequency Synthetic Aperture Radar L-band SAR from NASA and S-band SAR from ISRO.
- Launch Milestone: First-ever GSLV mission to place a satellite into Sun-synchronous polar orbit.
- Global Access: All data to be openly available for scientists, policy makers, and emergency agencies worldwide.

### 2. Key Launch Facts

Parameter	Details
Date & Time	30 July 2025, 17:40 IST (12:10 UTC / 8:10 a.m. EDT)
Rocket	GSLV-F16
Achieved Orbit	740–747 km (Target: 742–745 km)
Orbit Type	Sun-synchronous polar orbit, inclination 98.4°
First Contact	~20 minutes after launch via Bengaluru ground station
Launch Count	102nd launch from Sriharikota





## 3. Technical Specifications

Attribute	Value
Mass	2,392 kg
Swath Width	242 km
Resolution	3–10 m (mode-dependent)
Repeat Cycle	Every 12 days
Mission Duration	Primary – 3 years; Extended – up to 5 years
Antenna	12-meter deployable mesh reflector
Power	Solar arrays & battery system
Radar Bands	L-band (24 cm), S-band (10 cm)

## 4. Core Technology

- Dual-Frequency SAR:
  - L-Band (NASA): Penetrates dense vegetation, measures tree biomass, monitors ice sheets.
  - S-Band (ISRO): High-resolution surface mapping, agriculture & vegetation monitoring.
- **SweepSAR Technique:** Enables wide swath (242 km) with high resolution, providing all-weather, day-and-night imaging.
- **Precision:** Detects surface movement with centimeter-level accuracy.

## 5. Mission Capabilities

## **Earth System Monitoring:**

- Earthquake, landslide, and volcanic activity tracking.
- Tsunami early warning via ground deformation monitoring.
- Glacier melt, ice sheet collapse, and sea-level rise assessment.





Soil moisture and agricultural productivity mapping.

## **Infrastructure Monitoring:**

- Bridge and dam structural integrity assessments.
- Urban subsidence mapping.

### **Climate Science:**

- Deforestation and forest biomass changes.
- Arctic permafrost thaw tracking.

### 6. International Contributions

NASA	ISRO
L-band SAR payload	S-band SAR payload
12-m mesh reflector antenna	I-3K spacecraft bus
High-rate telecom system	GSLV-F16 launch vehicle
GPS receivers	Launch & mission operations
Solid-state recorder	Data distribution (ISRO centers)

## 7. Operational Roadmap

## **Commissioning Phase (90 days):**

- Antenna deployment & calibration of both radar systems.
- Orbit adjustments for optimal coverage.
- Test imaging before full science operations.

## **Data Access Policy:**

- Standard products: Available within 1–2 days post-capture.
- Disaster response data: Near real-time delivery.
- Distribution via NASA & ISRO data portals.





## 8. Strategic Significance

- Science Diplomacy: Strengthens Indo-U.S. cooperation in space and climate action.
- Global Utility: Disaster management, agricultural planning, climate adaptation strategies.
- Technological Leap: Demonstrates India's capability to use GSLV for polar missions.
- **Diplomatic Symbolism:** Termed "Vishwa Bandhu" (Friend to the World) by Indian leadership for its global benefits.

## 9. Agency Backgrounds

## ISRO (Indian Space Research Organisation):

- Founded: 15 August 1969 (successor to INCOSPAR).
- First satellite: Aryabhata (1975, Soviet launch).
- Major missions: Chandrayaan-1 (2008), Mangalyaan (2013), Chandrayaan-3 (2023),
   SpaDeX docking demo (2025).

## **NASA (National Aeronautics and Space Administration):**

- Established: 29 July 1958; operations began 1 October 1958.
- Landmark programs: Apollo Moon landings, Space Shuttle, Hubble Space Telescope, Mars rovers, Artemis lunar program.

### 10. Historical Firsts in this Mission

- First joint NASA–ISRO satellite with dual-frequency radar.
- Most expensive Earth observation mission ever launched.
- First GSLV mission to a Sun-synchronous orbit.

Mnemonic - "NISAR"





- N NASA-ISRO collaboration milestone.
- I *Imaging* Earth with dual-frequency radar.
- S SweepSAR tech for wide, precise scans.
- **A** *All-weather* & day-night global coverage.
- $\mathbf{R}$  *Response-ready* data for disasters.





## 19. India's First Equine Disease-Free Compartment (EDFC)

**Recognised by:** World Organisation for Animal Health (WOAH)

**Date of Recognition:** 3 July 2025

Location: Remount Veterinary Corps (RVC) Centre & College, Meerut Cantonment, Uttar

Pradesh

## 1. Concept & Definition

• What is an EDFC?

A *scientifically managed, biosecure zone* for horses, maintained under strict biosecurity protocols to remain free from specified equine diseases.

- Purpose: Enables the safe movement of sport and trade horses for international competitions, breeding programmes, and exports without lengthy quarantines.
- Framework: Operates under the WOAH Terrestrial Animal Health Code on
   compartmentalisation a science-based method to manage defined animal sub populations with a distinct, verified health status.

## 2. Certified Disease-Free Status

Disease	Nature	Impact	Status
Anemia	Viral, blood-cell affecting	Chronic illness, trade restrictions	Free
Equine Influenza	Highly contagious respiratory virus Rapid outbreaks		Free
Equine Piroplasmosis	Tick-borne parasitic	Anaemia, reduced performance	Free
Glanders	Bacterial, multi-organ	Zoonotic, fatal if untreated	Free





Disease	Nature	Impact	Status
Surra	Parasitic, transmitted by flies	Fever, weakness, death in severe cases	Free

## **Additional Status:**

India remains free from African Horse Sickness since 2014 — a major global trade advantage.

## 3. Biosecurity & Operational Protocols

## • Infrastructure Controls:

- o Controlled entry with visitor health checks.
- Quarantine for all incoming horses.
- Secure fencing and isolation zones.

## • Veterinary Surveillance:

- o 24/7 monitoring by trained vets.
- o Regular diagnostic screenings.
- Vaccination schedules & digital health records.

## • Environmental Management:

- Pest and vector control.
- o Waste disposal systems.
- o Clean water & uncontaminated feed assurance.

### 4. Institutional Collaboration

Organisation	Role
Dept. of Animal Husbandry & Dairying (GoI)	Policy & coordination





Organisation	Role
Ministry of Defence – Directorate of Remount Veterinary Services	Facility management
Equestrian Federation of India (EFI)	Sports integration & global liaison
Uttar Pradesh Animal Husbandry Dept.	State-level support

## 5. Strategic Significance

- International Participation:
   Indian sport horses can now compete at Olympics, Asian Games, World Equestrian
   Games, FEI events, without restrictive quarantines.
- Boost to Equine Trade:
   Easier access to global markets for high-value Indian horses.
- Veterinary Excellence:
   Positions India as a regional leader in global-standard animal health systems.

## 6. Broader National Strategy

- The EDFC is part of India's plan to replicate the compartment model across:
  - o Poultry: *HPAI-Free Compartments* for export-ready poultry products.
  - Cattle: Bovine disease-free zones for meat/dairy export.
  - Aquaculture: Pathogen-free fish export units.
  - o Small Ruminants: Sheep & goat disease-free areas.

## 7. WOAH – The Certifying Body

- Founded: 1924 as OIE; renamed WOAH in 2003.
- HQ: Paris, France.





- Members: 183 countries (as of 2025).
- Role: Sets global animal health & welfare standards; its Terrestrial Animal Health Code forms the basis for disease-free certification.
- WTO Link: WOAH standards are recognised by the WTO as international sanitary guidelines.

### 8. Future Plans

- Expansion: New EDFCs planned in Rajasthan, Maharashtra, Karnataka, Haryana.
- **Diversification:** Models to be adapted for cattle, swine, fish, and poultry.
- Global Marketing: Promotion of Indian equine excellence to buyers and sports bodies abroad.

## Mnemonic - "HORSE"

- **H** *High-standard biosecurity*
- **O** *Open access to global competitions*
- **R** Regional leadership in animal health
- **S** *Strict WOAH compliance*
- **E** *Economic boost through equine trade*





## 20. <u>World's First Port-Based Steel Slag Road – Hazira Port,</u> Gujarat

Date of Inauguration: 2 July 2025

Developer: Adani Ports and Special Economic Zone Ltd. (APSEZ)

Technical Partner: CSIR – Central Road Research Institute (CSIR-CRRI)

Certifying Authority: Ministry of Science & Technology

## 1. Project Overview

• Location: Hazira Port, Gujarat.

• Length: 1.1 km road linking Multi-Purpose Berth (MPB-1) to the coal yard inside the port.

• Material: 100% processed steel slag aggregates – a by-product of steel manufacturing.

## • Significance:

- o Global First First steel slag road inside a port anywhere in the world.
- o National Milestone India's third steel slag road overall.
- **Purpose:** To improve intra-port logistics while pioneering circular economy infrastructure in maritime zones.

## 2. Technical Specifications

Parameter	Details
Road Length	1.1 km
Туре	Flexible pavement
Material	100% processed steel slag
Design Agency	CSIR–CRRI





Parameter	Details
Project Phase	Phase-II of Bulk & General Cargo Terminal (BGCT) expansion
Cost Benefit	28–32% lower than conventional roads
Global Status	First in a port facility
National Rank	Third steel slag road in India

## 3. Steel Slag - The Core Material

What is Steel Slag?

A by-product generated during steel production (~180–200 kg per tonne of steel).

- Traditional Disposal: Sent to landfills, causing environmental hazards.
- New Application: Processed into a durable aggregate for road construction.

### **Environmental Benefits:**

- Reduction in landfill waste.
- Conservation of natural stone/gravel.
- Lower carbon footprint in construction.

## 4. Design & Engineering Excellence

- Engineered By: CSIR-CRRI under the Union Ministry of Science & Technology.
- Key Features:
  - High load-bearing capacity for heavy cargo vehicles.
  - o 30% thinner pavement design compared to conventional methods.
  - o Moisture and temperature resilience for coastal climates.
  - Extended lifespan and reduced maintenance.

## **Performance Monitoring:**

• Real-time structural health sensors.





• Long-term durability tracking for future replication.

## 5. India's Steel Slag Road Timeline

Year & Month	Location	Developer	Significance
Mar 2022		ArcelorMittal Nippon Steel + CSIR-CRRI	India's first steel slag
2023	Indapur–Panvel, NH-66 (1 km, 4-lane)	JSW Steel + CSIR-CRRI	First on a National Highway
Jul 2025	Hazira Port (1.1 km)	APSEZ + CSIR–CRRI	World's first inside a port

## 6. Strategic Significance

## • Maritime Operations:

- o Efficient movement between berths & storage zones.
- o Handles 24/7 heavy-duty port traffic.
- o All-weather operation in coastal conditions.

## • Global Leadership:

- o Sets benchmark for green port infrastructure.
- o Replicable for ports worldwide under circular economy principles.

## 7. Institutional Collaboration

Stakeholder	Role
APSEZ	Project execution & funding
CSIR–CRRI	Design, engineering, testing





Stakeholder	Role
Ministry of Science & Technology	Policy & technical backing
Ministry of Steel	R&D funding for slag utilisation

## **Key Personalities:**

- **Dr. Satish Pandey** Inventor of steel slag road technology, CSIR–CRRI.
- **Dr. Manoranjan Parida** Director, CSIR–CRRI; President, Indian Roads Congress.
- Anand Marathe COO, Adani Hazira Port Ltd.

## 8. Economic & Environmental Impact

#### Economic:

- o 28–32% cost savings.
- o Lower vehicle maintenance due to superior surface quality.
- o Reduced operational delays from weather-related damage.

### • Environmental:

- o Eliminates disposal of thousands of tonnes of industrial waste.
- Conserves natural aggregates.
- o Supports India's Waste to Wealth mission.

### 9. Future Plans

- Replication across Adani's port network.
- Development of standardised steel slag road construction protocols.
- Expansion into other heavy-traffic industrial zones.
- Promotion for adoption in global port infrastructure.





## 10. Mnemonic — SLAG PORT

- S Steel-slag aggregates (core material)
- L Lower cost (28–32% savings vs conventional roads)
- A Aggregates (processed) 100% processed slag used
- **G** *Global-first* inside a port (world's first port-based steel-slag road)
- **P** *Port link* (MPB-1 to coal yard; improves intra-port logistics)
- **O** *Operational durability* (designed for heavy port traffic, all-weather)
- **R** *Resource circularity* (waste → wealth; landfill reduction)
- T Technical design by CSIR-CRRI (R&D & monitoring)





## 21. <u>Bulgaria Joins the Eurozone – 21st Member (and India-Bulgaria Relations)</u>

## 1. Official Approval & Timeline

- Final EU Approval (8 July 2025): The Council of the European Union formally approved Bulgaria's entry into the Eurozone, effective 1 January 2026.
- Conversion Rate: Fixed at 1 EUR = 1.95583 BGN (Bulgarian lev), the same central rate Bulgaria has maintained under ERM II since joining in July 2020.
- ECB Endorsement (4 June 2025): The European Central Bank confirmed Bulgaria met all Maastricht convergence criteria:
  - o Price stability
  - Budget deficit under 3% of GDP
  - Public debt under 60% of GDP
  - o Stable exchange rate for 2+ years
  - o Long-term interest rates below reference
- Eurogroup Recommendation (19 June 2025): Finance ministers of the Eurogroup backed Bulgaria's entry; ECOFIN and the EU Council later ratified this decision.
- European Parliament Vote: Passed 531–69–79 in favor.

## 2. Convergence Criteria Fulfilled

Criteria	Bulgaria's Status	Reference Value
Inflation (HICP)	2.6%	≤ 3.5%
Deficit/GDP	< 3%	≤ 3%
Public Debt/GDP	< 60%	≤ 60%





Criteria	Bulgaria's Status	Reference Value
ERM II Participation	Since July 2020	2+ years without severe tension
Long-term Interest Rates	2.8%	≤ 5.3%

#### 3. Public Sentiment & Political Reactions

## • Mixed Opinions:

- Supporters: View euro adoption as a "landmark moment", promoting European integration, investment inflows, and monetary stability.
- Opponents: ~50% of Bulgarians oppose, citing fears of inflation, loss of monetary sovereignty, and erosion of purchasing power.
- **Protests:** Large-scale demonstrations in Sofia and other cities.

#### • EU Leaders' Praise:

- Ursula von der Leyen (EC President) called it "big benefits for people and businesses."
- o Christine Lagarde (ECB President) welcomed Bulgaria to the euro area.

## 4. Significance & Future Outlook

- **Economic Integration:** Removes currency exchange risks, reduces transaction costs, and integrates Bulgaria into the ECB's banking supervision.
- **Investor Confidence:** Boosts financial stability and attractiveness for foreign investment.
- Eurozone Growth: Bulgaria becomes the 21st member (after Croatia in 2023).

## 5. Historical Foundations of India-Bulgaria Relations

- Early Links: Cultural contact since the 8th century AD, formal diplomatic relations since 1954.
- Notable Indian Visits to Bulgaria:



## **CLAT WHISPERS**



## (WEEKLY GK NOTES)

- Presidents: S. Radhakrishnan (1954), V.V. Giri (1976), Neelam Sanjiva Reddy
   (1980), A.P.J. Abdul Kalam (2003), Ram Nath Kovind (2018).
- PM Indira Gandhi: 1967, 1981.
- Bulgarian Visits to India:
  - o President Petar Stoyanov (1998)
  - PM Stanko Todorov (1974, 1980)
  - o PM Sergei Stanishev (2007)
- Recent Diplomacy (2023–24): EAM Dr. S. Jaishankar met Deputy PM Mariya Gabriel; Bulgarian Speaker Rosen Zhelyazkov visited India (Jan 2024).

## 6. Trade & Economic Cooperation

Year	Bilateral Trade (USD mn)
2019–20	~303
2022–23	645 (peak)
2023–24	416

- India → Bulgaria Exports: Pharmaceuticals, organic chemicals, machinery, ceramics, metals.
- Bulgaria → India Exports: Electrical equipment, pharmaceuticals, animal feed, scrap metals, aerospace components.
- **Business Links:** Indian IT firms like TCS, Infosys, Wipro, HCL, Tech Mahindra active in Bulgaria.

## 7. Cultural & Educational Exchanges

- **Historic Cultural Links:** Rabindranath Tagore visited Bulgaria (1926).
- Educational Cooperation:



## **CLAT WHISPERS**



## (WEEKLY GK NOTES)

- Sofia University hosts a Hindi Chair (ICCR-sponsored).
- o Delhi University teaches Bulgarian language.
- o ITEC scholarships have trained hundreds of Bulgarians.
- Symbolic Ties: Gandhi statues in Sofia and Varna.

## 8. Strategic Importance

- **For Bulgaria:** Strengthens Western European alignment, economic security, and geopolitical positioning.
- For India: Bulgaria offers a gateway to Eastern Europe for trade, IT, and cultural diplomacy.

## Mnemonic for Quick Recall - "BULGARIA EURO WIN"

- **B B**GN pegged at 1.95583 EUR (fixed rate)
- U Unity with EU leaders' support (Von der Leyen, Lagarde)
- L Landmark economic integration (21st Eurozone member)
- **G G**reat historical ties with India since 8th century
- A All convergence criteria met (inflation, debt, deficit)
- R Robust bilateral trade (pharma, chemicals, metals)
- I ITEC scholarships & cultural exchange (Hindi Chair)
- A Active Indian IT sector presence in Bulgaria





## 22. <u>U.S.-South Korea-Japan Joint Air Drills (July 2025)</u>

#### 1. Exercise Overview

- Date & Location: 11 July 2025, international airspace south of Jeju Island, South Korea.
- Mission Type: Combined bomber escort & defensive counter-air maneuvers.
- Objective: Strengthen deterrence against North Korea, enhance interoperability, and demonstrate unified resolve.
- Aircraft Deployed:
  - U.S.: 2 × B-52H Stratofortress strategic bombers (1st deployment to Korean Peninsula in 2025, from Guam).
  - South Korea: 6 × KF-16 Fighting Falcons.
  - $\circ$  Japan: 2 × F-2 fighter jets.

## 2. Operational & Strategic Context

- **Prior Drill (18 June 2025):** Featured U.S. F-16s, South Korean F-15Ks, and Japanese F-2s—no bombers involved.
- High-Level Coordination: Concurrent Joint Chiefs of Defense meeting in Seoul:
  - o U.S.: Gen. Dan Caine
  - o **ROK:** Adm. Kim Myung-soo
  - o Japan: Gen. Yoshihide Yoshida

## • Regional Security Setting:

- North Korea expanding nuclear & missile capabilities.
- o Concerns over China's military buildup.





Emphasis on maintaining a Free & Open Indo-Pacific.

## 3. Technical & Tactical Insights

Component	Key Details	
B-52 Integration	Demonstrated long-range strategic bomber escort ops with allied fighters.	
Fighter Tactics	Day/night formation escort, interception drills, electronic warfare coordination.	
Interoperability	eroperability Unified comms protocols, radar cross-section management, mission planning integration.	

## 4. Diplomatic & Military Significance

- **Unified Deterrence:** Nuclear-capable assets + allied fighters send a strong signal of joint defense readiness.
- **Institutionalized Cooperation:** Builds on Camp David 2023 Summit pledge for annual trilateral drills.
- Future Engagements: Joint antisubmarine warfare exercise in Yellow Sea expected in Q4 2025.

### 5. Historical & Economic Context of Trilateral Ties

### **U.S.-South Korea**

- Origins: Treaty of Amity (1882), solidified post-Korean War through defense alliances.
- **Economics:** ~\$100B trade; KORUS FTA (2012) boosted flows.
- Industry Links: Samsung, Hyundai, LG strong U.S. market presence.

## U.S.-Japan

• **Post-WWII Rebuild:** U.S. aid + trade reforms led to rapid growth; joined OECD (1964).



## **CLAT WHISPERS**



## (WEEKLY GK NOTES)

• Economics: Deep tech, R&D, and manufacturing ties.

## South Korea-Japan

- **History:** Colonial past (1910–45) strains relations; recent thaw with 2024 UNESCO Sado mine agreement.
- Trade: Interdependent in tech & cultural industries despite disputes.

## 6. Economic Profiles (Nominal GDP, 2025)

Country	Global Rank	GDP (US\$ Trn)	GDP/Capita
U.S.	1	30.5	89k
Japan	~5	4.19	34k
S. Korea	~12	1.79	

## Mnemonic - "JET FORCE"

- J Jeju Island drill location
- E Escort mission with nuclear-capable B-52 bombers
- T Trilateral defense: U.S., South Korea, Japan
- F Fighter jets (KF-16, F-2) in tactical integration
- **O O**perational meeting of Joint Chiefs in Seoul
- **R R**esponse to NK nuclear & missile threats
- C Camp David 2023 as the cooperation blueprint
- E Economic powerhouses with interlinked trade & tech ties





## 23. <u>Four Eminent Indians Nominated to the Rajya Sabha (July</u> 2025)

## Why in News?

On 13 July 2025, President Droupadi Murmu nominated four distinguished individuals — Harsh Vardhan Shringla, Ujjwal Deorao Nikam, Dr. Meenakshi Jain, and C. Sadanandan Master — to the Rajya Sabha under Article 80(1)(a) of the Constitution.

These appointments fill vacant nominated seats and bring expertise from diplomacy, law, history, and social service. They will serve six-year terms from 21 July 2025 to 20 July 2031.

## About Rajya Sabha

Feature	Details	
Constitutional Basis	Article 80 of the Indian Constitution	
Nature	Permanent body; not subject to dissolution	
Composition	Max 250 members: 238 indirectly elected + 12 nominated by the President	
Term	6 years (RPA, 1951); one-third retire every 2 years	
Nomination Criteria	Article 80(3) – Special knowledge or practical experience in literature, science, art, or social service	
Election to RS	Indirect, by elected MLAs of State Legislative Assemblies through Proportional Representation by Single Transferable Vote (STV)	
Seat Allocation	Based on state population (e.g., UP: 31 seats; Goa: 1 seat)	
Special Powers	Art. 249: Authorise Parliament to legislate on State List in national interest Art. 312: Authorise creation of new All-India Services	

## **Profiles of the Four Nominees**





Name	Domain	Notable Contributions		
Harsh Vardhan Shringla	Diplomacy	1984-batch IFS officer; Former Foreign Secretary; Ambassador to US & Thailand; High Commissioner to Bangladesh; Chief Coordinator of India's G20 Presidency (2023); Organised "Howdy Modi" (2019); Expert in strategic affairs, multilateral diplomacy, foreign policy formulation.		
Ujjwal Deorao Nikam	Law & Justice	Senior Public Prosecutor in major cases: 26/11 Mumbai attacks, 1993 Bombay blasts, Khairlanji massacre; Known for tough stance on terrorism and courtroom acumen.		
Dr. Meenakshi Jain	History & Education	Former University of Delhi professor (30+ years); Author of NCERT Medieval India textbook; Padma Shri awardee (2020); Former member of ICHR & ICSSR; Specialist in Indian civilisation, religious identity, alternative historiography.		
C. Sadanandan Master		Kerala-based teacher, columnist, social worker; Survivor of 1994 political attack; Advocate for persons with disabilities and youth empowerment; Symbol of resilience and grassroots service.		

## **Prime Minister's Commendations**

- Ujjwal Nikam: Upheld constitutional values, defended citizen dignity.
- Harsh Vardhan Shringla: Diplomatic expertise will enrich parliamentary debates.
- Dr. Meenakshi Jain: Scholarship has enriched academic and cultural discourse.
- C. Sadanandan Master: Courageous figure dedicated to youth empowerment.

## Rajya Sabha Election - Key Facts

## **Indirect Election Process**

• Electoral College: Elected MLAs of State Legislative Assemblies.





## **Cross-Voting Safeguards**

- 2003 amendment to RPA, 1951 introduced open ballot for party MLAs (must show vote to authorised agent).
- Independent MLAs cannot reveal their vote.

## **Significance of Nominations**

- Infuses diverse expertise in parliamentary law-making.
- Ensures representation from diplomacy, justice, history, and grassroots social work.
- Fulfils constitutional intent to include eminent persons for richer debate and policymaking.

### Mnemonic: "NOMI-2025"

N – Nominated seats under Article 80(1)(a) filled

O - Outstanding figures from diplomacy, law, history, social service

M – Murmu, Droupadi — President making the nominations

I – Inclusion of diverse expertise for richer debate

**2025** – Term: 21 July 2025 to 20 July 2031





## 24. <u>India-UK Comprehensive Economic and Trade Agreement</u> (CETA) – July 2025

## Why in News?

On 22 July 2025, the Union Cabinet, chaired by Prime Minister Narendra Modi, approved the India–UK Free Trade Agreement (FTA), formally termed the Comprehensive Economic and Trade Agreement (CETA).

The agreement is scheduled to be signed on 24 July 2025 in London by PM Modi and UK PM Keir Starmer, with Commerce Minister Piyush Goyal in attendance.

This landmark pact aims to double bilateral trade to USD 120 billion by 2030 and marks India's most significant strategic trade partnership with an advanced economy since exiting RCEP.

#### **Overview & Timeline**

Stage	Date	Details
Finalised in Principle	6 May 2025	Negotiations concluded after multiple rounds
Cabinet Approval	22 July 2025	Cleared by Union Cabinet
(India)	,	
Signing	24 July 2025	London; PM Modi & PM Starmer
Ratification	Late 2025–Mid 2026	Requires approval by UK Parliament and Indian
		Parliamentary procedures
Expected	Within ~12 months	Six-month dual-circulation period before full
Implementation	of signing	tariff application

## **Key Features of the Agreement**

## Scope

• Goods, services, investment, digital trade, intellectual property, government procurement.





### (WEEKLY GK NOTES)

- Includes social security agreement exempting professionals from double contributions for up to 3 years.
- Covers regulatory cooperation in pharmaceuticals, medical devices, and digital standards.

### **Tariff Concessions**

Sector	India's Gains	UK's Gains
Textiles & Apparel	99% of Indian exports to UK at zero tariffs	
Leather & Footwear	Immediate duty elimination	_
Gems & Jewellery	Zero-duty access	_
Electric Vehicles & Cars	_	Phased duty cuts from 100% → 10% under quota
Scotch Whisky & Alcohol	_	Tariffs cut from $150\% \rightarrow 75\%$ immediately; to 40% over 10 years
Other Goods		Covers 90% of UK tariff lines; applied tariff avg falls from $15\% \rightarrow 3\%$

### **Services & Mobility**

- Liberalised access in financial, professional, telecom, and digital services.
- 1,800 UK visas annually for Indian professionals (chefs, yoga instructors, musicians, IT experts, etc.).
- Social security exemption extended to 3 years for eligible professionals.

### **Government Procurement**

• India gains limited UK procurement access.





### Strategic & Sectoral Cooperation – Vision 2035

- Defence collaboration, clean energy, climate action.
- Education, innovation, and joint technology development.
- No Carbon Border Adjustment Mechanism (CBAM) included.

### **Economic Impact**

Country	Gains	
India	Boost to export-driven sectors: textiles, leather, gems, engineering goods; higher FDI inflow and remittances	
UK	GDP gain of £4.8 bn/year; £2.2 bn in wages; £1.8 bn in tax revenue	

### **Broader Significance**

Feature	Details
Major Western Partnership	Largest trade pact with an advanced economy post-RCEP
Template for Future FTAs	Serves as roadmap for India–EU and India–US negotiations
Political	Deepens post-Brexit UK-India strategic ties
Social	Facilitates mobility for business visitors, cultural exchange
Ratification	Pending in both countries; implementation likely 2026

### **Historical Context - India-UK Relations**

### Phase 1: Colonial Legacy to Partnership (1947–1991)

- 1947: Independence; Nehru visits London (1948) to strengthen Commonwealth links.
- 1961: Queen Elizabeth II's state visit strengthens goodwill.
- 1970s–80s: Growth in economic and cultural cooperation.

### Phase 2: Liberalisation & Expansion (1991–2016)





### (WEEKLY GK NOTES)

- 1991 reforms open India's market; UK invests in IT, pharma, services.
- 1997: PM Tony Blair addresses Indian Parliament; bilateral trade crosses \$20 bn by 2004.

### Phase 3: Strategic Convergence (2016–2025)

- 2016 Brexit shifts UK's focus to non-EU partners; India becomes a priority.
- 2020: Modi's visit launches JETCO for enhanced market access.
- 2022–25: Strengthened defence, green energy, and space cooperation.

**People-to-People**: 1.5 million Indian diaspora in the UK; 250,000 British nationals in India; 4 million annual reciprocal visits.

### **Summary Table**

Area	Highlights
Market Access	99% duty-free access for Indian goods; 90% for UK exports
Tariff Cuts	Scotch whisky, automobiles, cosmetics, machinery, EVs
Labour Mobility	1,800 visas; 3-year NI exemption
Procurement	UK access to £38 bn Indian tenders
Strategic Cooperation	Vision 2035 on defence, clean energy, education
Economic Gains	£4.8 bn UK GDP boost; \$34 bn projected bilateral trade boost
Ratification	Pending; expected late 2025

### Significance for India

- Enhances market share in the UK for Indian goods and services.
- Boosts strategic ties with a major G7 economy.
- Supports India's positioning as a trade partner for developed economies post-RCEP.

Mnemonic: "UK-INDIA CETA"





- U UK tariffs cut on whisky, cars, machinery
- **K** Key partner for post-Brexit "Global Britain"
- I India's exports (99%) get zero-duty access
- N New mobility opportunities for professionals
- **D** Double trade target to \$120 bn by 2030
- I Intellectual property & digital trade chapter included
- A Access to UK public procurement (~£38 bn)
- C Climate & innovation cooperation (Vision 2035)
- **E** Economic gains for both sides
- T Template for India–EU FTA negotiations
- A Agreement to be signed in London, July 2025





### 25. Henley Passport Index 2025 – India Rises to 77th Rank

Why in News?

On 22 July 2025, the Q2 edition of the Henley Passport Index was released, showing India's passport rising from 85th (2024) to 77th rank — the country's largest six-month jump in two decades.

Indian passport holders now enjoy visa-free or visa-on-arrival access to 59 destinations (29 visa-free + 30 visa-on-arrival/e-visa).

### **About Henley Passport Index**

Feature	Details	
Nature	Global mobility ranking measuring the number of destinations a passport holder can enter without a prior visa	
Publisher	Henley & Partners, global citizenship and residence advisory firm	
Data Source	International Air Transport Association (IATA) Timatic database + in-house research	
Coverage	199 passports ranked, 227 destinations considered	
Criteria	Counts visa-free, visa-on-arrival, and electronic travel authorisations (ETAs)	
Update	Quarterly	
Significance	Benchmark for travel freedom; indicator of diplomatic strength	

#### **India's Performance**

Year	Rank	Visa-Free Destinations	
2025	77	59 (29 visa-free + 30 visa-on-arrival/e-visa)	
2024	85	57	
2023	84		
2022	87	_	





	Year	Rank	Visa-Free Destinations
	2021	90	_
Ī	2006	71 (Best)	_

Recent Additions (2025): Vietnam (visa-free, 15 days), Thailand (visa-free, 30 days)

### **Visa-Free Destinations (29)**

- Africa (6): Angola, Kenya, Madagascar, Mauritius, Rwanda, Senegal
- Asia (8): Bhutan, Iran, Kazakhstan, Macao (SAR China), Malaysia, Nepal, Philippines,
   Thailand
- Oceania (6): Cook Islands, Fiji, Kiribati, Micronesia, Niue, Vanuatu
- Caribbean (8): Barbados, Dominica, Grenada, Haiti, Jamaica, Montserrat, St Kitts & Nevis, St Vincent & the Grenadines

Visa-on-Arrival / e-Visa Destinations (30)

Includes: Bolivia, Cambodia, Cape Verde, Djibouti, Guinea-Bissau, Indonesia, Jordan, Laos, Maldives, Marshall Islands, Mozambique, Myanmar, Samoa, Sri Lanka, Tanzania, Timor-Leste, Tuvalu, Zimbabwe, etc.

### Global Rankings 2025 – Top 10

Rank	Countries	Visa-Free Destinations
1	Singapore	193
2	Japan, South Korea	190
3	Denmark, Finland, France, Germany, Ireland, Italy, Spain	189
4	Austria, Belgium, Luxembourg, Netherlands, Norway, Portugal, Sweden	188
5	Greece, New Zealand, Switzerland	187





Rank	Countries	Visa-Free Destinations
6	United Kingdom	186
7	Australia, Czechia, Hungary, Malta, Poland	185
8	Canada, Estonia, United Arab Emirates	184
9	Croatia, Latvia, Slovakia, Slovenia	183
10	Iceland, Lithuania, United States	182

**Lowest:** Afghanistan – 25 destinations

### **Key Global Trends (2025)**

- Asian dominance: Singapore, Japan, South Korea occupy top ranks.
- Major climbers: UAE (42nd  $\rightarrow$  8th in a decade), China (94th in 2015  $\rightarrow$  60th in 2025).
- **Declining powers:** USA drops to 10th; UK falls to 6th.
- Saudi Arabia: Gains 4 new destinations (total 91).

#### **Drivers of India's Rise**

- Bilateral visa-waiver pacts (e.g., Barbados, Saudi Arabia, Russia).
- Expansion of e-Visa facilities (e.g., Seychelles, Guinea-Bissau).
- Increased diplomatic outreach under "Global India" initiatives.
- Improved consular processes and digital visa facilitation.

### **Significance for Indian Travellers**

Sector	Benefit	
Business	Reduced paperwork for short-notice travel to growth markets	
Tourism	New access across Asia-Pacific, Africa, Caribbean without embassy visits	





Sector	Benefit
Education	Easier student mobility for exchanges/internships
Diaspora	Simplified family-visit arrangements

### Limitations

- Major economies USA, UK, Canada, Schengen Area, Australia, Japan, New Zealand
   still require pre-travel visas.
- Global average visa-free score in 2025: 109 destinations; India's score of 59 shows room for growth.

#### **Future Outlook**

- Targeting 70+ additional destinations via:
  - o Bilateral aviation treaties
  - o Digital nomad visa schemes
  - o Third-country working holiday arrangements
- Potential to reach mid-70s rank by 2026.

### **Mnemonic: "PASSPORT 77"**

- P Philippines & Vietnam newly added
- A Access to 59 countries without prior visa
- S Singapore leads with 193 destinations
- **S** Significant 8-place jump in 6 months
- P Pacts with Saudi Arabia, Russia, Barbados boost score
- **O** On-arrival/e-visa for 30 nations
- **R** Rank best in 19 years since 2006 high of 71
- T Trend shows steady recovery post-2021 low of 90
- 77 India's current global rank









26. <u>India's First Private AI-Augmented Multidisciplinary</u> University – Chandigarh University, Unnao (Uttar Pradesh)

### Why in News?

On 26 July 2025, Uttar Pradesh Chief Minister Yogi Adityanath inaugurated India's first private AI-augmented multidisciplinary university campus in Unnao, established by Chandigarh University under the state's AI Pragya initiative.

The campus integrates artificial intelligence into academics, research, administration, and student services, aligning with the National Education Policy (NEP) 2020 and UP's AI-led development plans.

### **Key Features of the Unnao Campus**

Feature	Details
Campus Size & 100+ acres along Lucknow–Kanpur Highway; ₹1,200–2,500 crore	
Investment	investment
	39–43 UG, PG, and doctoral programmes across engineering,
Academic Scope	management, health sciences, humanities, legal studies, agriculture, and
	design
AI Integration	AI-enabled personalised learning assistants ("learning buddies"),
At Integration	adaptive curriculum, real-time performance tracking
	AI-driven robotics & automation labs (ABB, KUKA); bioinformatics &
Smart Labs	precision agriculture labs (IISc, IARI); VR simulation suites for medical
	& legal studies
Administrative	Smart energy grids, predictive maintenance, AI chatbots, autonomous
Automation	shuttle services
Centres of	AI & Machine Learning (with KPMG, SAS); Universal Business &
Excellence	Entrepreneurship (CUBE) for startups





Feature	Details	
Scholarships	₹40 crore scholarships in year one; ₹3 crore C.V. Raman Scholarship for scientific research	

### **Strategic Context**

Context	Details		
National	NEP 2020 focus on multidisciplinary & technology-driven education;		
Alignment	supports National AI Mission (target: 500M AI learners by 2030)		
	AI Pragya scheme to train 1.5 lakh citizens/month in AI, ML,		
State Initiatives	cybersecurity; AI City in Lucknow aiming for 50,000+ jobs & 400+		
	companies		
UP Higher	23 new private universities; 1st Ayush University (Gorakhpur); Major		
Education	Dhyan Chand State Sports University; land norms eased to 50 acres (rural)		
Growth	/ 20 acres (urban)		
Startup	3rd-largest in India — 7,200+ startups, 8 unicorns, 1 lakh+ jobs		
Ecosystem	514-1argest in maia — 7,200+ startups, 6 unicomis, 1 takir+ jous		

### **AI Pragya Scheme Integration**

- Training Hub Role: Unnao campus as flagship for AI Pragya, offering short-term certifications & executive programs.
- Industry Partners: Microsoft, Google, Intel, Guvi for skill delivery.

### **Impact & Future Plans**

Area	Impact	
Student Capacity	20,000 students annually	
Research Agenda	5 AI Research Centres of Excellence — healthcare AI, agritech, smart cities, fintech, AI ethics	





Area	Impact	
Industry Collaboration	MoUs with 50+ companies for internships, R&D, placements	
Expansion	New campuses planned in Gorakhpur & Bundelkhand by 2027	

### **Inauguration Highlights**

- CM Yogi: Universities must be career & opportunity hubs linked to govt schemes and industry.
- Attendees: Ministers, IIT Kanpur & IIM Lucknow faculty, global tech firm leaders.
- Message: Positioning UP as India's "AI Capital" and global AI innovation hub.

### Significance

- **Education:** First-of-its-kind AI-embedded multidisciplinary model in India's private sector.
- Economy: Strengthens UP's AI ecosystem alongside AI City & startup growth.
- Policy: Showcases govt-industry-academia collaboration under NEP 2020 and National AI Mission.

### Mnemonic: "UP-AI UNNAO"

- U UP leads with India's first AI-augmented private university
- P Partnerships with ABB, KUKA, KPMG, SAS, Microsoft, Google
- A AI Pragya flagship training hub for 1.5 lakh citizens/month
- I Infrastructure: 100+ acre smart campus, ₹2,500 cr investment
- U Unicorn-rich UP: 7,200 startups, 8 unicorns
- N NEP 2020-aligned multidisciplinary courses
- N New research centres in AI & ethics, agritech, fintech, healthcare





A – AI City synergy with Lucknow project (50,000+ jobs)

**O** – Opportunities via ₹40 cr scholarships & ₹3 cr research grants





## 27. <u>India's First Hydrogen-Powered Train Coach Tested – July</u> 2025

### Why in News?

On 29 July 2025, Indian Railways successfully tested its first hydrogen-powered train coach—a Driving Power Car prototype—at the Integral Coach Factory (ICF), Chennai.

Railway Minister Ashwini Vaishnaw called it a "landmark moment" towards building a future-ready and sustainable India.

The project is part of the "Hydrogen for Heritage" initiative and positions India among the global leaders in hydrogen rail technology.

### **Key Specifications**

Attribute	Details	
Prototype Type	Driving Power Car (converted DEMU coach)	
Power Output	1,200 HP hydrogen fuel-cell engine — highest in the world (~double European average of 500–600 HP)	
Power Source	Hydrogen fuel cell + onboard battery storage	
Refuelling Infrastructure	3,000 kg capacity station at Jind, Haryana	
<b>Test Location</b>	Integral Coach Factory, Chennai	
Target Routes	Heritage & hill lines; pilot on Jind-Sonipat section (Northern Railway)	

### **Program Context – Hydrogen for Heritage**

Launched: 2023

- Planned Deployment: 35 hydrogen-powered trains, prioritising heritage and hill routes.
- Cost Estimate: ₹80 crore per train + ₹70 crore per route for infrastructure.





### (WEEKLY GK NOTES)

• Pilot Retrofit Project: ₹111.83 crore project to convert an existing DEMU rake to hydrogen, with supporting ground infrastructure.

### **Testing & Deployment Timeline**

- 1. Fuel Cell Integration Test Completed at ICF.
- 2. Battery Endurance & Safety Trials Ongoing.
- 3. Full Coach Integration By late August 2025.
- 4. **Track Trials** Expected before end of 2025.
- 5. Commercial Operations Target early 2026.

### **Advantages of Hydrogen Propulsion**

Benefit	Details	
Zero Emissions	Emits only water vapour; eliminates CO <sub>2</sub> and particulate matter.	
High Energy Density	Greater energy-to-weight ratio than batteries; suitable for heavy rail.	
Grid Integration	Enables storage of surplus renewable electricity via electrolysis.	
Decarbonisation Roadmap	Supports India's National Green Hydrogen Mission and Net Zero 2070 target.	
Infrastructure Compatibility	Can run on existing tracks without electrification.	

### **Environmental Impact**

• Replacing one diesel train with hydrogen can cut emissions equal to the annual CO<sub>2</sub> output of ~400 cars.

### **Challenges in Adoption**





### (WEEKLY GK NOTES)

- Green Hydrogen Production: Most hydrogen in India is currently "grey" (from natural gas).
- Electrolyser Gap: Lack of large-scale proton-exchange membrane electrolyser capacity.
- **Policy Roadmap:** No finalised plan for network-wide hydrogen adoption.
- Cost: High initial costs for rolling stock and refuelling infrastructure.

### **Way Forward**

- Expand pilots beyond heritage routes.
- Build hydrogen supply chains (production, storage, transport, refuelling).
- Prioritise low-frequency and remote routes for initial deployment.
- Collaborate with ministries, PSUs, and private sector to scale green hydrogen production.

### **Significance**

- Positions India as a pioneer in hydrogen rail mobility.
- Integrates cutting-edge clean energy solutions into public transport.
- Demonstrates commitment to innovation in sustainable transport, especially for nonelectrified routes.

#### **Mnemonic: "HYDRO TRAIN INDIA"**

- H Heritage & hill routes targeted for deployment
- Y Yards equipped with refuelling (3,000 kg Jind station)
- **D** Diesel DEMU retrofitted for green propulsion
- **R** RDSO-designed fuel-cell integration
- O Output of 1,200 HP highest globally
- T Trials at ICF, Chennai successful
- **R** Roadmap aligned with National Green Hydrogen Mission





- **A** Annual CO<sub>2</sub> savings  $\approx$  emissions of 400 cars
- I Infrastructure cost: ₹80 cr/train + ₹70 cr/route
- N Net Zero 2070 target support
- I India leads hydrogen rail tech adoption globally
- A Adoption challenges: cost, electrolyser capacity, production shift to green H<sub>2</sub>





### 28. <u>National Achievement Survey (NAS) 2024 – December 4, 2024</u>

### Why in News?

The National Achievement Survey (NAS) 2024 was conducted on 4 December 2024 to assess student learning at foundational, preparatory, and middle stages in alignment with the National Education Policy (NEP) 2020.

Covering ~5 million students across 792 districts in 36 States/UTs, the survey is India's largest school-based learning assessment exercise.

### **Survey Coverage**

Attribute	Details
Grades Assessed	Classes 3, 6, 9
Students	~5 million (~23 lakh as per MoE sample-based methodology)
Schools	~88,000 government, aided, and private schools
Districts	782–792 districts across 36 States/UTs
Languages	26 languages (including 6 new: Kashmiri, Sanskrit, Sindhi, Santhali, Maithili, Dogri)
Subjects	Class 3 – Language, Mathematics, Environmental Studies; Class 6 – Language, Mathematics, "The World Around Us"; Class 9 – Language, Mathematics, Science, Social Science
Format	Multiple-choice questions (MCQs) with OMR sheets; Class 3 – 45 MCQs (90 min), Class 6 – 51 MCQs, Class 9 – 60 MCQs (120 min)

### **Objectives**

• Learning Gap Identification – Diagnose subject-specific competencies and deficiencies.





### (WEEKLY GK NOTES)

- Evidence-Based Policy Data at national, state, and district levels to guide reforms.
- **NEP 2020 Alignment** Evaluate competency-based, multidisciplinary education.
- System-Level Insight Assess entire school ecosystem, not just individual performance.

### **Implementation & Oversight**

- Lead Agency: PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development), NCERT's assessment arm.
- Administered by: CBSE with State/UT education departments.
- Steering Committee: Chaired by Secretary, Department of School Education & Literacy.
- **Field Personnel:** 95,000 field investigators, 76,000 observers, 3,000 district officers, 180 state nodal officers, 38 national observers all trained in standardised procedures.

#### **Process Features**

- **Sampling:** Stratified random sampling for representativeness.
- **Assessment Tools:** Paper-based OMR tests; contextual background questionnaires for students, teachers, and schools.
- Capacity Building: Cascaded training model for quality control.

### Reporting

- Levels: National, state, and district diagnostic reports.
- Analysis: Performance correlated with contextual factors to identify socio-economic and regional disparities.
- Release: Reports expected early 2025.

### **Past Trends & Significance**





### (WEEKLY GK NOTES)

- NAS 2021: Declines noted with higher grades Language: Class 3 (64.6%) → Class 10 (52%); Mathematics: Class 3 (61.2%) → Class 10 (44%), attributed to COVID-19 disruptions.
- NAS 2024 Expectation: Recovery signs anticipated, with focus on NEP-driven reforms.
- Policy Relevance: Informs teacher training, curriculum revision, and targeted remedial measures.

### **Quick Facts for Exams**

- NAS: Conducted every 3 years to assess learning outcomes at system level.
- **NEP 2020:** Aims for universal quality education by 2030.
- NCERT: Autonomous educational body developing curriculum and assessments.
- PARAKH: NCERT's national assessment centre for standardised learning evaluation.

### Mnemonic - "LEARN 2024"

- L Learning gaps identified at foundational, preparatory, middle stages
- **E** Evidence-based policy for reforms
- A Assessment in 26 languages, expanded from 20 in 2021
- **R** Reports at national, state, district levels
- N NEP 2020 alignment for quality education
- **2** 2 CBSE–NCERT collaboration
- **0** Zeroing in on system-level improvement
- $2 2 \times$  MCQ structure tailored by grade
- 4 4 December 2024 survey date





### 29. **World Population Day 2025 – 11 July 2025**

### Why in News?

World Population Day 2025 was observed globally on 11 July 2025, marking its 36th anniversary since being established by the United Nations in 1989 following the landmark "Day of Five Billion" on 11 July 1987, when the global population reached 5 billion.

This year's observance focuses on youth empowerment, reproductive rights, and sustainable development at a time when the global population exceeds 8.1 billion and India remains the world's most populous country.

#### **Theme 2025**

"Empowering young people to create the families they want in a fair and hopeful world."

- Advocates youth agency in making informed reproductive choices.
- Calls for investment in education, healthcare, economic opportunities, and family-friendly policies.
- Links to SDG 3 (Good Health & Well-being) and SDG 5 (Gender Equality).

### **Origin & History**

Year/Date	Event
11 July 1987	"Day of Five Billion" — world population reached 5 billion.
1989	UNDP Governing Council designated World Population Day.
1990	UNGA Resolution 45/216 formalised the annual observance.
11 July 1990	First World Population Day observed in over 90 countries.

### **Objectives of World Population Day 2025**

• Awareness – Promote understanding of population trends, challenges, and opportunities.





### (WEEKLY GK NOTES)

- **Reproductive Rights** Advocate universal access to family planning and maternal health services.
- **Gender Equality** Empower women and girls through education and healthcare.
- Youth Focus Engage the largest-ever youth generation in population and development dialogues.
- **Policy Integration** Align initiatives with SDGs to ensure sustainable development.

### **Global Population Snapshot – Mid-2025**

Indicator	Value
Total population	~8.1 billion
Annual growth rate	1.03%
Median age	30.4 years
Fertility rate	2.4 children/woman
Projected peak	~10.4 billion by 2100

### **Top 10 Most Populous Countries (2025)**

Rank	Country	Population
1	India	1,463,865,525
2	China	1,416,096,094
3	USA	347,275,807
4	Indonesia	285,721,236
5	Pakistan	255,219,554
6	Nigeria	237,527,782
7	Brazil	212,812,405
8	Bangladesh	175,686,899





Rank	Country	Population
9	Russia	143,997,393
10	Ethiopia	135,472,051

### **Key Challenges (2025)**

- Unmet family planning need ~260 million women.
- Adolescent pregnancies Over 12 million annually.
- Maternal mortality 152 deaths per 100,000 live births.
- Urban pressures Half the world's urban population lives in slums.
- **Youth barriers** Economic instability, housing shortages, climate anxiety, limited access to healthcare and education.

#### 2025 Global & National Activities

- UNFPA Launch of State of World Population report on reproductive rights financing.
- **National Governments** Policy dialogues on universal health coverage, youth empowerment.
- **Civil Society** Campaigns using #InvestInOurFuture hashtag.
- Educational Institutions Debates, hackathons, art contests on population trends.
- **Health Outreach** Free family planning and maternal health services in rural and underserved areas.

### **Significance**

World Population Day serves as a global platform to:

- Advocate for rights-based approaches to population and development.
- Address the intersection of demography, environment, and economy.





- Prepare for urbanisation trends and ageing societies.
- Ensure inclusive growth by reducing inequality in reproductive health access.

### Mnemonic - "POP 2025"

- **P** People's rights at the centre of development
- O Origin in "Day of Five Billion" (1987)
- **P** Prioritising youth, gender equality, and sustainability
- 2 Two global milestones 1987 & 1989
- **0** Zero discrimination in reproductive health access
- 2 Two key SDGs (3 & 5) at the heart of theme
- 5 Five billion in  $1987 \rightarrow 8.1$  billion in 2025





### 30. <u>India-Brazil Strategic Partnership - Five Priority Pillars (8</u> July 2025)

### Why in News?

During Prime Minister Narendra Modi's state visit to Brazil on 8 July 2025—following the 17th BRICS Summit in Rio de Janeiro—India and Brazil adopted a decade-long strategic roadmap anchored in five priority pillars to deepen bilateral relations.

PM Modi was conferred Brazil's highest civilian honour, the Grand Collar of the National Order of the Southern Cross, in recognition of his role in strengthening ties.

### The Five Priority Pillars

### 1. Defense & Security Cooperation

- Agreements:
  - o Exchange & Mutual Protection of Classified Information.
  - Cooperation in Combating International Terrorism & Transnational Organized
     Crime.
- **Initiatives**: Bilateral Cybersecurity Dialogue, joint military exercises, high-level defence delegations.
- **Future plans**: MoU on Defence Industry Cooperation; strengthening defence manufacturing partnerships.

### 2. Food & Agricultural Security

- MoU: Between EMBRAPA (Brazil) & ICAR (India) on agricultural research.
- **Focus areas**: Sustainable agriculture, joint R&D in crop productivity, animal genetics, biotechnology.
- **Policy stance**: Opposition to unilateral trade restrictions on food/fertilizers.
- Collaboration: Precision agriculture, climate-resilient crops, food processing.





### 3. Energy Transition & Climate Action

- MoU: Cooperation in Renewable Energy.
- Global Biofuels Alliance: Both as founding members; push for sustainable biofuels & flex-fuel tech.

### • Climate cooperation:

- o India's support for Brazil's COP30 Presidency (Belém, Nov 2025).
- o Partnership in Brazil's *Tropical Forests Forever Fund*.
- o Joint work on \$1.3 trillion climate finance roadmap (Baku to Belém).

### 4. Digital Transformation & Emerging Technologies

- MoU: Sharing of successful large-scale digital solutions.
- Key initiatives:
  - Expansion of India's UPI in Brazil.
  - o Cooperation in AI, quantum tech, renewable energy, space technology.
  - o Joint Commission on Scientific & Technological Cooperation.

### 5. Industrial Partnerships in Strategic Sectors

- Trade target: Double bilateral trade to \$20 bn by 2030.
- Agreements: Intellectual Property cooperation; addressing non-tariff barriers.
- **Key sectors**: Pharmaceuticals, critical minerals, oil & gas, aerospace, clean energy tech, agri-processing.
- **Institutional mechanisms**: Brazil–India Business Council; ministerial-level trade monitoring.

### **Key Context**

**Political ties** – Diplomatic relations since 1948; Strategic Partnership since 2006.

**Trade** – USD 12.2 bn in 2024–25; Indian exports: petrochemicals, agrochemicals, pharma;





(WEEKLY GK NOTES)

Brazilian exports: crude oil, soy oil, sugar, gold, iron ore.

Multilateral coordination – BRICS, G20, UN reform advocacy, ISA, GBA.

Cultural links – First Indian cultural centre in Latin America opened in São Paulo (2011).

### Challenges

- Limited economic diversification; non-tariff barriers.
- High logistics costs & no direct flights.
- Competition in sugar/ethanol markets.
- Limited cultural familiarity and media exchange.
- Diverging regional priorities (Indo-Pacific vs Latin America).

### **Significance**

- Reinforces Global South leadership narrative.
- Strengthens South–South cooperation in technology, energy, and food security.
- Positions India—Brazil as co-architects of **inclusive**, **sustainable growth** in the next decade.

### Mnemonic - "DEFInE IB"

- **D** Defense & security
- **E** Energy & climate
- **F** Food & agriculture
- In Industrial partnerships
- E Emerging tech & digital
- **IB** India–Brazil strategic vision





### 31. India Becomes the 4th "Most Equal" Country Globally

### Why in News?

According to the World Bank's Spring 2025 Poverty and Equity Brief, India's Gini Index has fallen to 25.5, placing it as the 4th most equal country in the world, behind the Slovak Republic (24.1), Slovenia (24.3), and Belarus (24.4).

India now ranks ahead of all G7 and G20 nations, including China (35.7) and the United States (41.8).

#### What is the Gini Index?

- Origin: Developed in 1912 by Italian statistician Corrado Gini.
- **Purpose**: Measures income inequality within a population.
- Method:
  - Based on the Lorenz curve, which plots cumulative income share against population percentiles.
  - Gini coefficient = Area between Lorenz curve & perfect equality line ÷ Total area under perfect equality line.

#### • Scale:

- o 0 (or 0%) = Perfect equality.
- $\circ$  1 (or 100%) = Perfect inequality.
- **Interpretation**: Lower Gini = More equitable income distribution.

#### **India's Performance & Progress**

Year	Gini Index	Category
2011–12	28.8	Moderately low inequality





Year	Gini Index	Category
2022–23	25.5	Moderately low inequality

- **Improvement**: Steady decline from 28.8 (2011) to 25.5 (2022).
- Global rank: 4th most equal society.
- Category: Moderately low inequality (25–30 range).
- Comparison:
  - o China − 35.7 (moderate inequality)
  - $\circ$  USA 41.8 (high inequality)

### **Key Drivers of India's Equity Gains**

### 1. Poverty Reduction

- 171 million people moved out of extreme poverty (2011–2023).
- Poverty rate fell from 27.1% (2011–12) to 5.3% (2022–23) at the \$3/day threshold.
- Extreme poverty at \$2.15/day threshold down to 2.3%.

#### 2. Financial Inclusion & Direct Transfers

- PM Jan Dhan Yojana 55.69 crore bank accounts (June 2025).
- Aadhaar 142+ crore issued, enabling targeted benefits.
- Direct Benefit Transfer (DBT) ₹3.48 lakh crore saved (as of 2023).

#### 3. Healthcare Access

- Ayushman Bharat ₹5 lakh coverage; 41.34 crore cards issued (July 2025).
- Ayushman Bharat Digital Mission 79 crore health accounts created.

### 4. Food & Nutritional Security

• PMGKAY – Free food grains to 80.67 crore beneficiaries.

#### 5. Empowerment Schemes





### (WEEKLY GK NOTES)

- Stand-Up India 2.75 lakh sanctioned applications; ₹62,807 crore funding.
- PM Vishwakarma Yojana 29.95 lakh artisan registrations; toolkit & loan support.

### **Challenges & Structural Concerns**

- High Poverty under Wider Threshold: At 3.65/day, poverty rate = 28.1% ( $\sim 300+$  million people).
- Wealth Inequality: Richest 1% hold 40%+ of wealth; bottom 50% own only 3%.
- Wage Gap: Top 10% earn 13× more than bottom 10%.
- Measurement Limitations: Gini index measures income/consumption, not wealth.
- Outdated Poverty Line: Still based on Rangarajan Committee (2014) figures; may understate true poverty.
- Unequal Opportunity Access: Rural areas, women, SC/STs, and informal workers face persistent gaps.

### **Way Forward**

- 1. **Revise Poverty Line** to reflect 2024–25 cost-of-living realities.
- 2. **Strengthen Labour Protections** fair wages, social security, especially for informal sector.
- 3. **Increase Public Investment** education, health, and nutrition programs.
- 4. **Bridge Digital Divide** BharatNet expansion, digital literacy, affordable devices.
- 5. **Address Gender Inequality** recognise unpaid labour, improve access to land, credit, and healthcare.

### Significance for India

• Challenges perception of India as a highly unequal society.





### (WEEKLY GK NOTES)

- Shows broad-based income growth across lower income brackets.
- Signals effectiveness of social protection, digital public infrastructure, and welfare schemes in reducing inequality.

### Mnemonic - "Gini's 5P Formula"

- **P** Poverty reduction
- **P** PM Jan Dhan (financial inclusion)
- **P** Public health (Ayushman Bharat)
- **P** Public food security (PMGKAY)
- **P** People empowerment (Stand-Up India, Vishwakarma)





### 32. Bonn Climate Change Conference 2025 (SB 62 / SB 64)

### Why in News?

The Bonn Climate Change Conference 2025 was held in Bonn, Germany in two sessions — SB 62 (16–26 June 2025) and SB 64 (1–11 June 2025) — as mid-year meetings under the United Nations Framework Convention on Climate Change (UNFCCC).

It set the stage for key negotiations ahead of COP30 (Belem, Brazil, Nov 2025) and COP31 (Dubai, Nov 2025), focusing on adaptation, finance, just transition, loss & damage, and operationalizing Paris Agreement mechanisms.

### **About the Bonn Climate Change Conference**

- Nature: Mid-year UNFCCC summit alongside the annual COP.
- Format: Sessions of the Subsidiary Bodies (SBs)
  - SBI (Subsidiary Body for Implementation) reviews implementation & supports technical/financial needs.
  - SBSTA (Subsidiary Body for Scientific & Technological Advice) provides scientific inputs from IPCC to policymakers.
- **Participants**: Parties to UNFCCC, Indigenous groups, scientists, NGOs, and civil society.
- **Purpose**: Translate scientific insight into policy, review national progress, and prepare decision texts for COP adoption.

#### **Key Themes & Outcomes**

#### 1. Global Goal on Adaptation (GGA)

• Aimed at operationalizing the GGA framework adopted at COP28 (Dubai).





### (WEEKLY GK NOTES)

- Progress on refining ~100 measurable indicators, but no consensus; draft adoption likely at COP30.
- GGA origin: Paris Agreement (2015) goal to enhance adaptive capacity, resilience, and climate impact reduction.

### 2. Climate Finance & "Baku to Belém Roadmap"

- Developing countries (India, G77+China, LMDC, AOSIS, LDCs, AGN) demanded **public, grant-**based finance.
- Wealthy nations leaned toward private finance, sparking disagreement.
- Baku to Belém Roadmap launched to guide operationalization of the NCQG (New Collective Quantified Goal) of USD 1.3 trillion/year till 2030.
- Context: Climate Policy Initiative estimates USD 9 trillion/year needed by 2030 to meet Paris targets.

### 3. Just Transition Work Programme (JTWP)

- Focus on fair & equitable transitions away from fossil fuels.
- Agreement to establish the Belém Action Mechanism for sharing transition strategies that safeguard human rights, Indigenous communities, and workers.
- Origin: COP27 (2022) part of Sharm el-Sheikh Implementation Plan.

### 4. Mitigation & Article 6

- First Article 6.2 Ambition Dialogue on international emissions trading.
- Progress on digital platforms for tracking mitigation actions.
- Draft reporting templates for cooperative approaches provisionally adopted; final text deferred to COP31.

### 5. Loss & Damage

 Fund remains underfunded: USD 768 million pledged, USD 495 million in signed agreements, only USD 321 million paid.





### (WEEKLY GK NOTES)

 Santiago Network operational guidelines adopted to enable technical assistance on noneconomic losses.

### 6. Transparency & Global Stocktake (GST)

- Over 110 countries submitted Biennial Transparency Reports.
- Agreement on common tabular formats for greenhouse gas inventories and NDC progress tracking.
- Technical GST guidelines adopted includes sectoral trajectories, adaptation benchmarks, and finance metrics.

### 7. UNFCCC Budget

- Core budget increased by 10% to €81.5 million (2026–27).
- China's share: 20% (second after the U.S. at 22%); Bloomberg Philanthropies to cover U.S. share.

### **Nationally Determined Contributions (NDCs)**

**Definition**: Country-specific climate action plans under the Paris Agreement, updated every 5 years.

#### Global Status (Feb 2025 deadline for 2035 NDCs):

- Most countries missed the deadline; current pledges insufficient for 1.5°C goal.
- Brazil urged submission of stronger NDCs by Sept 2025.

### **India's NDC Progress:**

- First NDC (2015): 33–35% cut in emission intensity; 40% non-fossil fuel capacity by 2030 achieved early.
- Updated NDC (Aug 2022):
  - o 45% cut in emission intensity by 2030.
  - 50% non-fossil fuel capacity.
  - o Additional 2.5–3 billion tonnes carbon sink.





## (WEEKLY GK NOTES)

• BUR-4 (2024): 36% cut in emission intensity; 47.1% non-fossil fuel capacity; 2.29 billion tonnes carbon sink achieved by Dec 2024.

### **Challenges Highlighted**

- Finance gap between pledged & required levels.
- Persistent developed—developing country divide over responsibility and finance sources.
- Delay in NDC submissions undermines Paris temperature targets.
- Underfunded Loss & Damage facility.
- Disagreements on non-market approaches under Article 6.

### **Next Steps**

- June-Oct 2025: Draft decision texts from SB Chairs.
- July-Aug 2025: Circulation of technical papers on GST & Article 6.
- Sept 2025: High-level ministerial meeting on finance at UNGA, New York.
- COP30 (Nov 2025): Adopt GGA indicators & advance finance goals.
- COP31 (Nov 2025): Finalize GST, Article 6 rules, NCQG, and Paris Rulebook.

### **Significance**

- Strengthened adaptation measurement framework.
- Clearer finance roadmap toward post-2025 targets.
- Steps toward operationalizing just transition principles globally.
- Enhanced transparency framework to track climate action.

#### Mnemonic - "Bonn's 7G Pact"





- **G** Goal on Adaptation (GGA)
- G Grant-based climate finance & Baku–Belém Roadmap
- G Green jobs via Just Transition Work Programme
- **G** Global carbon markets (Article 6)
- **G** Gaps in Loss & Damage funding
- ${f G}-{f Global}$  Stocktake & transparency boost
- ${f G}$  Governance budget boost for UNFCCC





## 33. <u>Convention on International Trade in Endangered Species of</u> Wild Fauna and Flora (CITES) – 50 Years

### Why in News?

On 1 July 2025, CITES marked 50 years since entering into force (1975). This anniversary coincides with global celebrations of World Wildlife Day (3 March), and precedes the 20th Conference of the Parties (CoP20) in Samarkand, Uzbekistan (24 Nov – 5 Dec 2025).

#### **About CITES**

- Nature: Multilateral treaty regulating international trade in wild animals and plants to ensure it does not threaten their survival.
- Origin:
  - o Conceived 1963, IUCN meeting.
  - o Signed 3 March 1973, Washington D.C. (21 countries).
  - Entered into force 1 July 1975 (after 10th ratification; U.S. was first to ratify in Jan 1974).
- Legal Status: Legally binding, but implemented via national laws.
- Headquarters: Geneva, Switzerland.
- **Secretariat**: Administered by UNEP.
- **Parties**: **185** (183 countries + EU).
- **Species Covered**: ~40,900 (6,610 animals; 34,310 plants).

#### Structure & Mechanism

• Appendices:





### (WEEKLY GK NOTES)

- Appendix I Most endangered; commercial trade banned (e.g., gorillas, giant panda, sea turtles).
- Appendix II Not threatened now but may become so without control; trade regulated (e.g., mahogany, corals).
- Appendix III Protected in at least one country; needs cooperation for control (e.g., map turtles).
- **Permit System**: Import/export/re-export/introduction from the sea requires authorisation.

#### • Authorities:

- o Management Authority Issues permits.
- o Scientific Authority Ensures trade is non-detrimental (NDFs).

### **Key Achievements in 50 Years**

#### Conservation Successes:

- o African elephant MIKE Programme reduced illegal killings.
- o Pangolins Stronger listings & enforcement.
- o Crocodiles Recovery through regulated trade.
- Markhor & white rhino Successful population rebounds.
- $\circ$  Marine species ->2,000 now protected.

#### • Institutional Growth:

- o Transition from wild-caught to largely captive-bred/cultivated trade.
- CITES Trade Database ->25 million trade records.
- o Compliance action plans and technical missions.

### **Modern Challenges**





### (WEEKLY GK NOTES)

- Triple Planetary Crisis Climate change, biodiversity loss, pollution.
- Wildlife crime Worth USD 5–20 billion/year; driven by organised networks.
- **Rising demand** Human population doubled since 1975.
- **Online trade** Growth of digital wildlife markets.

### **Technological & Policy Innovations**

- eCITES Electronic permitting for transparency.
- Wildlife TradeView, Species+ Real-time data platforms.
- Forensic tools Species ID & trade verification.
- **Expanded coverage** CoP19 (2022) added >500 species (e.g., sharks, rays, amphibians, trees).

#### **India & CITES**

- Party since 1976; hosted CoP3 (1981) in New Delhi.
- Mega-diverse nation 7–8% of world's species; 4 biodiversity hotspots.
- Proposals at CoP:
  - o Remove rosewood (*Dalbergia sissoo*) from Appendix II.
  - Uplisting small-clawed otter, smooth-coated otter, Indian star tortoise to Appendix I.
  - o Include Gekko gecko and wedgefish in Appendix II.

#### Domestic Role:

- o Strict trade controls; certificates & permits for exports/imports.
- o Enforcement via wildlife protection laws & training for officials.





### 50th Anniversary Highlights (2025)

- Theme: "Wildlife Conservation Finance: Investing in People and Planet" (World Wildlife Day).
- Celebrations: UN events, youth art contest, global campaigns (#TES50, #WWD2025).
- **Outlook**: Secretary-General Ivonne Higuero calls CITES a "living promise" requiring unity, focus, action, finance, and tech integration.

### **Looking Ahead - Next 50 Years**

- Align with Global Biodiversity Framework.
- Strengthen marine & timber trade regulation.
- Harness AI, blockchain for monitoring.
- Mobilise private investment for conservation.
- Boost Indigenous & local community roles.

### **Key Facts Recap**

- **Signed**: 3 March 1973 (Washington D.C.).
- **In Force**: 1 July 1975.
- Parties: 185.
- Species: ~40,900.
- **HQ**: Geneva.
- Admin: UNEP.
- Next CoP: Samarkand, Uzbekistan (Nov–Dec 2025).

### Mnemonic - "CITES 5P"





- P Protect species via Appendices I–III
- **P** Permit-based trade regulation
- P Partnerships with UNEP & global enforcement bodies
- **P** Promote tech tools (eCITES, databases)
- **P** Push for future-ready finance & cooperation





### 34. World Bioproduct Day 2025 & India's BioE<sup>3</sup> Policy

### Why in News?

On 10 July 2025, World Bioproduct Day was observed globally to raise awareness of bio-based products as sustainable alternatives to fossil-derived materials.

India marked the day with national events under the BioE<sup>3</sup> Policy framework, reaffirming its goal of building a USD 300 billion bioeconomy by 2030.

### **World Bioproduct Day**

- **Origin**: Declared in 2023 by UNEP & International Bioproducts Association (IBPA) (inaugural celebration).
- **Date**: Annually on 10 July (some Indian events referenced 7 July for national theme launch).
- 2025 Global Theme: "Bio-Innovation for a Circular Future".
- India's 2025 Theme: "The BioE's Way" linking Economy, Environment, Employment.
- **Objective**: Promote sustainable bioproducts (bio-polymers, bio-composites, biofuels, bio-based chemicals) to support circular economy & climate action.

### 2025 Highlights:

#### Global:

- Virtual summit (IBPA–UNEP) ministerial roundtables (Brazil, EU, India, Japan).
- o Corporate showcases: next-gen bioplastics, mycelium packaging, algae fuels.
- o "Bioproducts Innovation Challenge" \$500k grants for Global South startups.
- o Global Bioproducts Outlook 2025 market projected to hit \$300B by 2030.
- India:





- DST, BIRAC, iBRIC+ hosted events in 8 cities.
- Led by Dr. Jitendra Singh; showcased algae, agri-residues, bamboo-based innovations.
- National dialogue series emphasised inclusive participation & rural livelihood generation.

### What are Bioproducts?

- **Definition**: Fuels, materials, and chemicals made from renewable biomass (e.g., crops, trees, algae, agricultural waste).
- Examples: Ethanol, biogas, bioplastics, bio-based lubricants, plant-derived medicines.
- Benefits: Reduce fossil-fuel dependence, cut GHG emissions, support rural economies.
- **Production Methods**: Fermentation, pyrolysis, enzymatic conversion, chemical synthesis.
- Note: Not all bioproducts are biodegradable; depends on intended use.
- Feedstocks: Agricultural residues, forestry waste, algae, bamboo, mycelium, oilseeds.

### India's BioE<sup>3</sup> Policy (Biotechnology for Economy, Environment & Employment)

- Launch: Approved by Union Cabinet 24 Aug 2024; operationalised in 2025.
- Aim:
  - o Position India as a global biomanufacturing hub.
  - o Build USD 300B bioeconomy by 2030.
  - o Integrate biotechnology into key sectors for green growth & jobs.
- **Alignment**: Net Zero 2070, LiFE (Lifestyle for Environment), Circular Bioeconomy goals.

#### **Core Themes / Focus Areas:**





### (WEEKLY GK NOTES)

- 1. **Bio-Based Chemicals & Enzymes** eco-friendly petrochemical alternatives.
- 2. Functional Foods & Smart Proteins sustainable, nutrient-rich food.
- 3. **Precision Biotherapeutics** advanced diagnostics & targeted therapies.
- 4. Climate-Resilient Agriculture biotech-enabled adaptation.
- 5. Carbon Capture & Utilization (CCU) tech to reuse captured CO<sub>2</sub>.
- 6. **Marine & Space Biotechnology** novel solutions from deep-sea & extraterrestrial environments.

### **Key Policy Features**

### • Bio-Enabling:

- o ₹10,000 cr investment in Biorefinery Parks (Andhra Pradesh, Gujarat, Assam).
- Biofuel & Bioproduct Corridors linking rural clusters to industry hubs.
- Fast-track clearances for 2G ethanol, biodiesel, bio-aromatics.

### • Bio-Equitable:

- ≥30% small farmer & tribal participation in feedstock supply chains.
- o Community bio-enterprises for bamboo, algae, NTFPs.
- o Gender-responsive training via DDU–GKY.

#### • Bio-Efficient:

- Mandate 50% lower carbon intensity vs. fossil products by 2030.
- o National Bio-Product Standards & Certification Body.
- 25% green procurement target for govt-sourced plastics & chemicals by 2028.

### **Implementation Timeline**

• 2025–27:





- o 3 Biorefinery Parks operational.
- 6 community bio-enterprises in tribal districts.

#### 2028:

- o 1 bn L/year 2G ethanol capacity.
- 1 mt/year industrial biochemicals output.

#### • **2030**:

- o 25% cut in virgin plastic use (packaging & consumer goods).
- o 30M rural livelihoods integrated into bioeconomy chains.

### **Strategic Impact**

- Climate: 50 Mt CO<sub>2</sub> removal/year via bio-substitution.
- **Economy**: Boosts Atmanirbhar Bharat by leveraging indigenous biomass.
- **Society**: Decentralised hubs drive rural jobs & inclusion.
- Global: Positions India as leader in circular bioeconomy; fosters South–South cooperation via IBPA & G20.

### Mnemonic - "BIO C3 FEED" (for BioE3 Policy 6 verticals + core aims)

- **B** Bio-based Chemicals & enzymes
- I Innovative Functional foods & smart proteins
- O On-point Precision biotherapeutics
- C¹ Climate-resilient agriculture
- C<sup>2</sup> Carbon capture & utilization
- C<sup>3</sup> Coastal & space (Marine & space biotech)
- FEED Fostering Economy, Environment, Employment through Decarbonisation