

TODAY AT A GLANCE — 10 THINGS TO REMEMBER

- **18th BRICS Summit** opens at **Bharat Mandapam, New Delhi (12-13 Sept)**.
- **ISRO** hot-tests the **CE20 cryogenic engine** at **220 kN** for **LVM3**.
- **Forex reserves** hit a record **USD 785.7 billion**; India is now **4th** largest.
- **E-Commerce Amendment Rules, 2026** notified - effective **1 January 2027**.
- **DILRMP 3.0** launched with the **14-digit Bhu-Aadhaar (ULPIN)**.

- **State of India's Environment 2026**: extreme weather on **99% of days**.
- **Yudh Abhyas 2026** (India-US) runs **9-28 Sept** at **Bikaner** and **Auli**.
- **Odisha** signs MoUs worth **Rs 2,10,500 crore** across **14 projects**.
- **Bankers' Books Evidence Act, 2026** takes effect **1 October 2026**.
- **BharatNet**: **Rs 1,684 crore** pact with **Jharkhand** for **4,395 GPs**.

SECTION A | GS-III | SCIENCE & TECH | ECONOMY | SECURITY

ISRO hot-tests CE20 cryogenic engine at uprated 220 kN thrust

SCI-TECH COMMON: Prelims + Mains GS3

SYLLABUS LINKAGE	GS-III: Science & Technology - Space (indigenisation, launch vehicles). Prelims: CE20 engine, LVM3, C32 stage, gas-generator vs staged-combustion cycle.												
CONTEXT	ISRO has successfully completed a ground hot test of its indigenous CE20 cryogenic engine at an uprated thrust level of 220 kN , a step that directly raises the payload capacity of the LVM3 heavy-lift launcher.												
KEY FACTS	■ Test conducted at the ISRO Propulsion Complex, Mahendragiri (Tamil Nadu); engine qualified for the new C32 cryogenic upper stage. ■ CE20 is India's first indigenously designed cryogenic engine using the gas-generator cycle; propellants are liquid hydrogen (LH2) + liquid oxygen (LOX). ■ Thrust raised in stages: 19 tonne (186 kN) to 20 tonne (196 kN) to 22 tonne (220 kN). ■ Uprating lifts LVM3 payload to Geosynchronous Transfer Orbit (GTO) beyond the current ~4 tonne class. ■ Feeds directly into the Gaganyaan human spaceflight programme and future commercial heavy launches.												
CE20 thrust uprating for LVM3 <table><tr><th>Thrust (kN)</th><th>Stage</th><th>Notes</th></tr><tr><td>186 kN</td><td>19 t</td><td>Hot-tested at Mahendragiri</td></tr><tr><td>196 kN</td><td>20 t</td><td>Feeds LVM3 payload</td></tr><tr><td>220 kN</td><td>22 t</td><td>Gaganyaan</td></tr></table>		Thrust (kN)	Stage	Notes	186 kN	19 t	Hot-tested at Mahendragiri	196 kN	20 t	Feeds LVM3 payload	220 kN	22 t	Gaganyaan
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WAY FWD	Sustained uprating plus a semi-cryogenic SCE-200 stage is the cheapest route to a Next Generation Launch Vehicle (NGLV) and a larger share of the global launch market.												
CONCEPT	Cryogenic engines burn propellants stored below -183 degC (LOX) and -253 degC (LH2) , giving the highest specific impulse (Isp) of any chemical engine - critical for upper stages. Only a handful of nations master this technology.												

Record forex, weak citations: India's research volume-impact paradox

REPORT COMMON: Prelims + Mains GS3 + GS2

SYLLABUS LINKAGE	GS-III: Science & Technology - R&D ecosystem, IPR. GS-II: Education & institutions. Prelims: h-index, NIRF, patent working statement.
CONTEXT	New analysis of India's research output shows the country is now third globally in publication volume but continues to lag badly on citation impact, patent grant rates and commercialisation - a classic quantity-versus-quality gap.

KEY FACTS

- India produced about **1.6 million internationally indexed research papers (2020-2025)**, ranking **3rd in the world** by volume.
- Aggregate **h-index of 925** places India **19th globally**, against the **United States' 3,213**.
- University patent filings jumped from **11,150 (2020-21)** to **45,776 (2024-25)**, but the **grant rate is only about 3%**.
- **Commercial working rate** of granted patents collapsed from **12.1% (2022-23)** to **1.6% (2024-25)**.
- India is **3rd in retractions** (rate doubled to **3.5 per 1,000 papers**); **NIRF** gives about **30% weightage** to volume.

WAY FWD

Shift ranking and funding incentives from **counting outputs** to **field-weighted citation impact, replication and technology transfer**, and strengthen research-integrity offices in universities.

CONCEPT

h-index: a researcher/nation has index h if h papers have at least h citations each. **Working of a patent** (Section 146, Patents Act, 1970) requires patentees to file **Form 27** annually on commercial use - a key indicator of innovation actually reaching markets.

Centre tightens e-commerce rules: prior price, dark-pattern audits

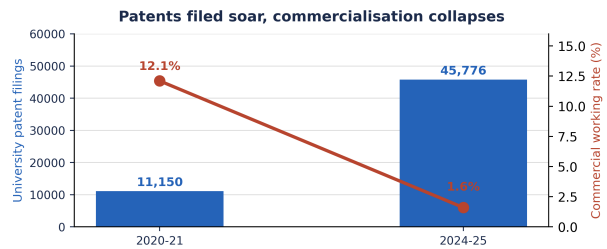
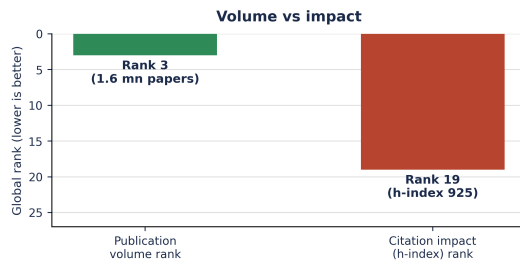
ECONOMY

COMMON: Prelims + Mains GS3 + GS2

SYLLABUS LINKAGE	GS-III: Indian Economy - consumer markets, digital economy regulation. GS-II: Statutory bodies (CCPA). Prelims: Consumer Protection Act 2019, dark patterns, CCPA.
CONTEXT	The Department of Consumer Affairs has notified the Consumer Protection (E-Commerce) Amendment Rules, 2026 , overhauling the 2020 Rules to curb misleading discounts, manipulated search rankings and dark patterns on online platforms.
KEY FACTS	■ Notified on 10 September 2026; comes into force from 1 January 2027. ■ Platforms must show a 'prior price' - defined as the lowest price offered in the preceding 30 days - alongside any discount claim. ■ Sponsored listings must be clearly labelled and separated from organic results; search rankings cannot be manipulated to reduce relevance. ■ Mandatory annual self-audit for compliance with the Dark Patterns Guidelines, 2023, plus a published compliance certificate. ■ National Consumer Helpline logged about 5,11,196 e-commerce complaints in 2025 - roughly 29% of all complaints.
WAY FWD	Pair disclosure mandates with algorithmic audit capacity in the CCPA , and align with the Digital Personal Data Protection Act, 2023 on consent for consumer data use.
CONCEPT	Dark patterns are deceptive interface designs (false urgency, basket sneaking, drip pricing, confirm-shaming) that nudge consumers into unintended choices. The Central Consumer Protection Authority (CCPA) is a statutory regulator under the Consumer Protection Act, 2019 .

India's research paradox — third in output, nineteenth in impact

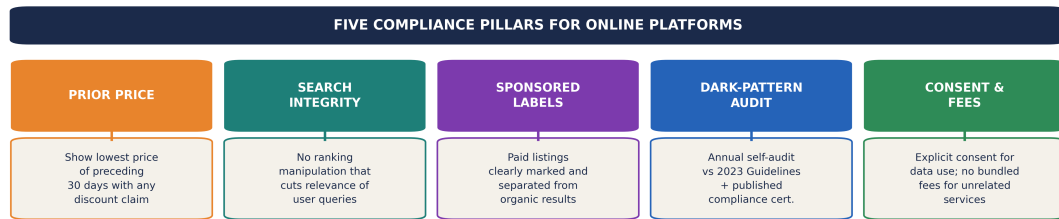
Patent grant rate only ~3% • retractions doubled to 3.5 per 1,000 papers • NIRF gives ~30% weight to volume



Grouped bar chart comparing India's publication rank versus h-index rank, and patent filings versus grant and commercial working rates.

Consumer Protection (E-Commerce) Amendment Rules, 2026

Notified 10 September 2026 • in force from 1 January 2027 • under the Consumer Protection Act, 2019



Trigger: 5,11,196 e-commerce complaints on the National Consumer Helpline in 2025 — about 29% of all complaints

Five-pillar flowchart of the Consumer Protection E-Commerce Amendment Rules 2026 showing prior price, search integrity, dark-pattern audits, consent and fee bundling.

Exercise Yudh Abhyas 2026 underway across desert and Himalayan theatres

DEFENCE

COMMON: Prelims + Mains GS3

SYLLABUS LINKAGE	GS-III: Security - defence cooperation, joint exercises. GS-II: India-US relations. Prelims: exercise name-country pairs (high-yield).
CONTEXT	The 22nd edition of Exercise Yudh Abhyas , the annual India-United States bilateral army exercise, is being held in India across two very different terrains - the Thar desert and the high-altitude Himalaya .
KEY FACTS	- Dates: 9 to 28 September 2026; venues Bikaner (Rajasthan) and Auli (Uttarakhand). 22nd edition; the 2025 edition was held in Alaska, United States - the exercise alternates between the two countries. - Aligned to a United Nations Chapter VII peace-enforcement mandate, focusing on integrated battle groups and joint sub-conventional operations. - Drills cover desert mechanised warfare, high-altitude acclimatised operations, drone and counter-drone action and combat medical care. - Other India-US exercises: Vajra Prahar, Tiger Triumph, Cope India and Malabar.
WAY FWD	Convert exercise-level interoperability into logistics and ISR sharing under LEMOA , COMCASA and BECA , while retaining India's strategic autonomy in defence procurement.
CONCEPT	Interoperability is the ability of forces of different nations to operate together using common procedures, communications and logistics. Chapter VII of the UN Charter permits the Security Council to authorise the use of force to restore international peace.

State of India's Environment 2026: extreme weather on 99% of days

ENVIRONMENT

COMMON: Prelims + Mains GS3 + GS1

SYLLABUS LINKAGE	GS-III: Environment - climate change, disaster management, pollution. GS-I: Geography (climatic hazards). Prelims: extreme weather metrics, NCAP, CPCB monitoring.
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CONTEXT

The annual **State of India's Environment 2026** assessment finds that India recorded **extreme weather events on 99% of days in 2025**, alongside worsening human-wildlife conflict and severe gaps in air-quality monitoring.

KEY FACTS

- Extreme weather on **99% of days in 2025**, causing **4,419 deaths** and damaging **17.41 million hectares** of crop area.
- At least **43 people** were killed in **tiger attacks** near reserves between **January and June 2025**, linked to habitat saturation and prey decline.
- Only about **15% of India's population (around 200 million)** lives near a functioning **air-quality monitoring station**; over **1.2 billion** live in effectively unmonitored zones.
- Report flags **encroached floodplains** and inadequate urban drainage as multipliers of flood risk under intensifying rainfall.
- Recommends a shift from **post-disaster relief** to **climate-resilient planning** and **nature-based solutions** such as wetland restoration.

STATE OF INDIA'S ENVIRONMENT 2026

climate risk • wildlife conflict • monitoring gaps

99%	of days in 2025 saw an extreme weather event
4,419	deaths from extreme weather in 2025
17.41 mn ha	of crop area damaged
43	killed in tiger attacks, Jan-Jun 2025

Air-quality monitoring coverage of population

15% 1.2 bn+ people in unmonitored zones

WAY FWD

Expand **continuous ambient air-quality monitoring** beyond **NCAP** cities, mainstream **local disaster risk reduction plans**, and fund **ecosystem-based adaptation** at panchayat level.

CONCEPT

Extreme weather event: a weather occurrence rare for a place and time of year, usually above the 90th/below the 10th percentile. **Nature-based Solutions (NbS)**: actions to protect and restore ecosystems that simultaneously deliver human well-being and biodiversity benefits.

Odisha signs Rs 2.10 lakh crore project MoUs across 14 projects

ECONOMY

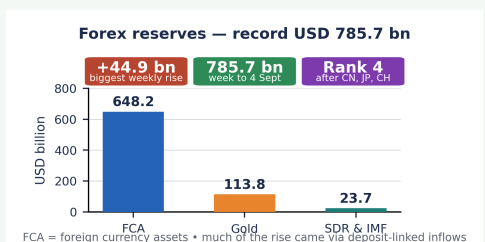
COMMON: Prelims + Mains GS3

SYLLABUS LINKAGE	GS-III: Indian Economy - investment, infrastructure, industrial policy; data centres and energy transition. Prelims: FDI routes, coal-to-chemicals.
CONTEXT	The Government of Odisha has signed memoranda of understanding covering an indicative Rs 2,10,500 crore (about USD 25 billion) across 14 projects , spanning AI data centres, ports, energy and chemicals.
KEY FACTS	- Partners: the Adani Group and Abu Dhabi's International Holding Company (IHC); total indicative outlay Rs 2,10,500 crore. - Largest components: an AI Data Centre Hub (Rs 50,000 crore) and a Coal-to-Chemicals Complex (Rs 40,000 crore). - Portfolio spans ports, renewable energy, metals and digital infrastructure. - Signals a shift of hyperscale data-centre capacity to eastern India, drawn by power availability and coastal cable landing access. - MoUs are indicative commitments, not committed capital expenditure - conversion to ground investment is the real test.
WAY FWD	Track MoU-to-commissioning conversion ratios , secure water and renewable power for data centres, and ensure rehabilitation and resettlement safeguards for land-intensive projects.
CONCEPT	Coal-to-chemicals converts coal into methanol, ammonia and olefins via gasification, reducing import dependence but raising carbon intensity unless paired with carbon capture . Hyperscale data centre : a facility above roughly 5,000 servers designed for elastic cloud/AI workloads.

SECTION B | DATA POINT OF THE DAY

India's Foreign Exchange Reserves - record high USD 785.7 billion

Reserves rose by a record **USD 44.9 billion** in the week ended **4 September 2026** to an all-time high of **USD 785.7 billion**, lifting India to the **4th largest reserve holder** globally after **China, Japan and Switzerland**. **Foreign Currency Assets** stood at **USD 648.2 billion** (up USD 47.5 billion) while **gold reserves** slipped to **USD 113.8 billion**. A large part of the surge came through **deposit and borrowing-linked inflows**, which carry future repayment obligations - so headline reserves overstate the unencumbered buffer.



SECTION C | GS-II | GOVERNANCE | POLITY | INTERNATIONAL RELATIONS

18th BRICS Summit opens in New Delhi under India's chairship

IR

COMMON: Prelims + Mains GS2

SYLLABUS LINKAGE	GS-II: International Relations - groupings and agreements involving India; global governance reform. Prelims: BRICS membership, NDB, CRA, chairship sequence.
CONTEXT	India is hosting the 18th BRICS Leaders' Summit at Bharat Mandapam, New Delhi on 12-13 September 2026 , its fourth chairship , in the grouping's 20th anniversary year .
KEY FACTS	- Theme: 'Building for Resilience, Innovation, Cooperation and Sustainability'; chaired by Prime Minister Narendra Modi. - BRICS now has 11 full members - BRICS plus Egypt, Ethiopia, Iran, UAE, Indonesia and Saudi Arabia - plus partner countries. - Members account for about 49.5% of world population, 40% of global GDP and 26% of global trade. - The New Delhi Declaration is the principal outcome document; day two opens to partner countries on inclusive global growth. - India assumed the chair on 1 January 2026, succeeding Brazil; new cooperation platforms launched in agriculture, health and MSMEs/startups.

18th BRICS Summit — New Delhi

12-13 September 2026 • India's 4th chairship • 11 members



Theme: **"Building for Resilience, Innovation, Cooperation and Sustainability"**
BRIC 2006 • South Africa 2010 • NDB 2014 • 11 members 2024-25 • New Delhi Declaration 2026

WAY FWD	Use the chairship to push UN Security Council and IMF quota reform , scale local-currency settlement pragmatically, and keep BRICS a non-Western rather than anti-Western platform.
CONCEPT	BRICS began as BRIC (2006) , with South Africa joining in 2010. Institutions: the New Development Bank (NDB, 2014, Shanghai) and the Contingent Reserve Arrangement (CRA, USD 100 billion) . Decisions are by consensus ; the chair rotates annually.

DILRMP 3.0 launched: Bhu-Aadhaar for every land parcel by 2031

POLITY

COMMON: Prelims + Mains GS2 + GS3

SYLLABUS LINKAGE	GS-II: Governance - e-governance, service delivery, transparency. GS-III: Land reforms, agricultural credit. Prelims: ULPIN, NAKSHA, PFMS, Department of Land Resources.
CONTEXT	The Union Government has launched the Digital India Land Records Modernisation Programme (DILRMP) 3.0 for 2026-2031 , aiming to give every land parcel a unique digital identity and build a GIS-based national land stack.
KEY FACTS	- Implemented by the Department of Land Resources, Ministry of Rural Development; outlay about Rs 565.50 crore for 2026-2031. Bhu-Aadhaar is a 14-digit Unique Land Parcel Identification Number (ULPIN) to be assigned to every parcel. - Components: cadastral map georeferencing, scaling of NAKSHA (urban survey), paperless registration, Urban Property Cards and integrated revenue courts. 100% centrally funded, with performance-linked fund releases through the Public Financial Management System (PFMS). - Expected benefits: faster collateral-backed agricultural credit, fraud prevention and fewer land-title disputes.
DILRMP 3.0 (2026-2031) Dept of Land Resources • Ministry of Rural Development Rs 565.50 cr central outlay 14-digit Bhu-Aadhaar 100% centrally funded FIVE BUILDING BLOCKS OF THE NATIONAL LAND STACK Bhu-Aadhaar (ULPIN) Cadastral geo-ref. NAKSHA survey Paperless registry Revenue courts OUTCOME Faster collateral-backed farm credit • fraud prevention fewer title disputes • performance-linked releases via PFMS	
WAY FWD	Move from presumptive to conclusive land titling with a state-backed indemnity fund, and integrate the land stack with Agri Stack and PM-KISAN beneficiary verification.
CONCEPT	India follows presumptive titling - registration records a transaction, not guaranteed ownership. Conclusive titling (Torrens system) guarantees title with state indemnity. Cadastral maps record parcel boundaries for revenue and ownership.

WAY FWD

Amend **Section 29A** to allow **de-registration after 10 consecutive years of non-participation**, mandate digital audit filing, and cap cash donations to curb **shell-party money laundering**.

CONCEPT

Recognised party (national/state) gets a **reserved symbol**, free broadcast time and more star campaigners under the **Election Symbols (Reservation and Allotment) Order, 1968**. **RUPPs** are registered under Section 29A but do not meet recognition thresholds.

Unrecognised political parties: Rs 1,700 crore, no de-registration power

POLITY

COMMON: Prelims + Mains GS2

SYLLABUS LINKAGE	GS-II: Polity - Election Commission, political parties, electoral reforms, transparency in political funding. Prelims: Section 29A RPA 1951, Section 80GGC IT Act.
CONTEXT	Scrutiny of Registered Unrecognised Political Parties (RUPPs) has revealed large donation inflows with negligible electoral activity, exposing a structural gap in the Election Commission's regulatory powers.
KEY FACTS	- Six Gujarat-based RUPPs reportedly received about Rs 1,700 crore in FY 2023-24 while fielding only 15 candidates in the 2024 Lok Sabha elections. - Over 2,800 RUPPs are registered; only around 750 contested in 2024 - roughly 70% are electorally inactive. - Only about 26-27% of RUPPs file their annual audit reports on time. - Registration is under Section 29A, Representation of the People Act, 1951; Section 80GGC, Income Tax Act allows 100% deduction on donations to parties. - In Indian National Congress vs Institute of Social Welfare (2002), the Supreme Court held the ECI has no statutory power to de-register a party except in narrow cases.

SECTION D | PRELIMS RAPID-FIRE

1. Bankers' Books Evidence Act, 2026 takes effect **1 October 2026** (assent **13 August 2026**) - **digital, cloud-hosted and virtual banking records** become admissible evidence, replacing the **1891** framework.

2. BharatNet: Digital Bharat Nidhi signs a **Rs 1,684 crore** pact with **Jharkhand** covering **4,395 Gram Panchayats** and **26,777 villages**; DBN replaced the **USOF** under the **Telecommunications Act, 2023**.

3. Schizopygopsis waddellii - a Tibetan snowtrout (family **Cyprinidae**) recorded in India for the first time from **Pangkang Teng Tso Lake, Tawang, Arunachal Pradesh** (about **12,800 ft**).

4. Acharya Vinoba Bhave (11 Sept 1895 - 15 Nov 1982) - 'National Teacher of India', **first individual Satyagrahi (1940)**, led the **Bhoodan** movement; wrote **Geetai**.

5. 79th WHO South-East Asia Regional Committee (Dili, Timor-Leste) adopted the **Dili Declaration on Human Resources for Health**; India recognised for sustaining **maternal and neonatal tetanus elimination**.

6. PMMSY: fish production up from **141.64 to 197.75 lakh tonnes**; fisheries exports up from **Rs 46,663 crore to Rs 73,890 crore**; **Rs 2,500 crore** allocated in Budget 2026-27.

SECTION E | PRACTICE CORNER

Q1. With reference to the CE20 engine recently in the news, consider the following statements:
1. It is an indigenously developed cryogenic engine operating on the staged-combustion cycle.
2. It uses liquid hydrogen and liquid oxygen as propellants.
3. It powers the upper stage of the LVM3 launch vehicle.
Which of the statements given above is/are correct?

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

ANS (b) CE20 uses the **gas-generator cycle**, not staged combustion - so statement 1 is incorrect. It burns **LH2 + LOX** and powers the **cryogenic upper stage (C25/C32) of LVM3**, so statements 2 and 3 are correct.

Q2. Consider the following statements regarding Registered Unrecognised Political Parties (RUPPs) in India:
1. They are registered with the Election Commission under Section 29A of the Representation of the People Act, 1951.
2. The Election Commission has express statutory power to de-register a party that fails to contest elections for ten years.
3. Donations made to registered political parties can qualify for deduction under Section 80GGC of the Income Tax Act.
Which of the statements given above are correct?

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

ANS (b) Registration is under **Section 29A, RPA 1951** (1 correct) and **Section 80GGC** allows deduction on donations (3 correct). Following **Indian National Congress vs Institute of Social Welfare (2002)**, the ECI has **no general power of de-registration** - so statement 2 is incorrect.

MAINS India today ranks among the top three nations in research publication volume, yet remains far down the global ladder on citation impact and patent commercialisation. Examine the structural causes of this volume-impact paradox and suggest reforms in evaluation, funding and technology transfer to close the gap. (250 words, 15 marks)

HINT Anchor with data - **1.6 million indexed papers (2020-25)**, **rank 3** but **h-index 925**, **rank 19**; patent grant rate **3%**, commercial working **1.6%**. Causes: volume-weighted incentives (**NIRF ~30%**), weak industry-academia linkage, publish-or-perish driving **retractions (3.5 per 1,000)**, low **GERD (~0.65% of GDP)**. Reforms: field-weighted citation impact in rankings, **ANRF** mission-mode funding, university technology transfer offices, research-integrity offices. Conclude with **Viksit Bharat 2047**.

ONE-LINE REVISION

18th BRICS Summit at Bharat Mandapam | CE20 hot-tested at 220 kN | Forex reserves at a record USD 785.7 billion | E-commerce Rules amended (prior price = lowest in 30 days, effective 1 Jan 2027) | DILRMP 3.0 rolls out the 14-digit Bhu-Aadhaar.

Compiled & simplified by the StudyForGS.com Research Team

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