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JULY 2025

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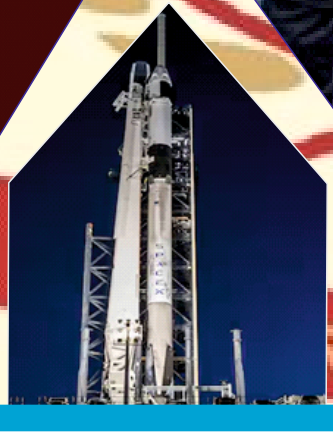

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Foreword

Dear Aspirants,

This magazine by the Plutus IAS team is designed in such a fashion that it holistically covers all the relevant and important topics for the Civil Services Exam to make aspirants exam-ready. Plutus IAS Current Affairs Magazine is a secondary source of information; the newspaper will remain the primary source for the preparation of Current Affairs.

Now, Current Affairs are no longer merely current; they are Contemporary Affairs. Questions asked in both Prelims as well as the Mains assess the conceptual clarity of an aspirant. This magazine is prepared with the aim ofhelpingyou understand the interlinkages of both Static and Dynamic news events and internalize the concepts required to crack this examination.

The Plutus IAS team wishes you all the best. Prepare for the UPSC Civil Services Examination with a calm, composed, or serene mind and some patience to crack this examination in one go.

Team
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Sources:
The Hindu ı The Indian Express ı The Economic Times ı Press Information Bureau ı PRS Legislative Research ı IDSA: Institute for Defense Studies and Analysis ı Yojana and Kurukshetra ı Lok Sabha and Rajya Sabha Debates.

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NATIONAL COMMISSION FOR PROTECTION OF CHILD RIGHTS (NCPCR): SAFE-GUARDING CHILDHOOD

WHY IN THE NEWS?

Recent deaths of students on the campus of Ashoka University in Haryana led the NCPCR to issue a notice to the DGP of Haryana to take detailed action.

WHAT IS NCPCR?

The National Commission for Protection of Child Rights (NCPCR) is a statutory body established under the Commission for Protection of Child Rights Act, 2005, by the Government of India. It is mandated to ensure the protection and promotion of the rights of all children aged 0–18 years. NCPCR upholds the principles of universality and inviolability of child rights, emphasising the urgency in implementing child-related policies. While prioritising vulnerable children, such as those in backwards regions or distressing circumstances, it warns against the "fallacy of exclusion", where many deserving children may be overlooked due to narrow targeting. The Commission advocates a holistic, inclusive approach to ensure that no child is left behind, thereby strengthening the overall impact of child welfare programs.

STRUCTURE OF THE NATIONAL COMMISSION FOR PROTECTION OF CHILD RIGHTS (NCPCR)

1. **Chairperson**: The Commission is headed by a Chairperson, who must be a person of eminence with an outstanding record in promoting child welfare.
2. **Total Members:** The Commission comprises six members, in addition to the Chairperson.
3. **Gender Representation:** Out of the six members, at least two must be women, ensuring gender sensitivity in the Commission's composition.
4. **Appointing Authority:** All members, including the Chairperson, are appointed by the Central Government.
5. **Eligibility Criteria:** Members must be persons of eminence, ability, integrity, and experience in relevant fields concerning children.
6. **Field 1 – Education:** Members may be experts in education, especially in areas impacting child learning and access.
7. **Field 2 – Child Development and Care:** Includes experience in child health, care, welfare, or child development.

CONSTITUTIONAL PROVISIONS RELATED TO CHILDREN IN INDIA

1. **Right to Life with Dignity – Article 21:** Ensures every child the right to life and personal liberty, including the right to live with dignity, privacy, and personal security.
2. **Right to Equality and Non-Discrimination – Articles 14 and 15:** Article 14 guarantees equality before the law. Article 15 prohibits discrimination on the grounds of religion, race, caste, sex, or place of birth, safeguarding children from biased treatment.

3. **Right Against Exploitation – Articles 23 and 24:** Article 23 prohibits trafficking in human beings and forced labour. Article 24 prohibits the employment of children below 14 years in hazardous industries or occupations.
4. **Right to Free and Compulsory Education – Article 21A:** Guarantees free and compulsory elementary education to all children aged 6 to 14 years as a Fundamental Right.
5. **Holistic Development and Protection – Article 39(f) (DPSP):** Directs the State to ensure that children are given adequate opportunities to develop in a healthy manner and are protected from exploitation, abuse, and neglect.
6. **Early Childhood Care and Education – Article 45 (DPSP):** Mandates the State to strive towards providing early childhood care and education for all children below the age of six years.
7. **Role of Panchayats in Child Welfare – Article 243G:** Empowers Panchayats to undertake programs related to women and child development, thereby institutionalising child care at the grassroots level.

MANDATE AND RESPONSIBILITIES OF NCPCR

1. **Review Legal Safeguards:** Examine existing laws protecting child rights and recommend measures for their effective implementation.
2. **Investigate Violations:** Inquire into child rights violations and suggest legal or remedial actions against offenders.
3. **Identify Hindrances to Child Rights:** Assess factors limiting children's rights, such as terrorism, violence, trafficking, abuse, and exploitation, and recommend preventive and corrective measures.
4. **Protect Vulnerable Children:** Focus on children needing special care, including those in distress, marginalised groups, juveniles in conflict with the law, or children without family support, and propose suitable interventions.
5. **Review International Treaties and Policies:** Study global treaties and evaluate national policies to ensure alignment with international child rights standards.
6. **Complaint Redressal and Suo Motu Action:** Address complaints related to child rights violations and take suo motu action on serious issues affecting children.

RECENT INITIATIVES TO PROTECT CHILDREN

1. **Addiction Free Amrit Kaal Campaign:** Launched on 31st May 2023 (World Tobacco Day), this national campaign aims to protect children from substance abuse. 'Prahari Clubs' have been formed in schools to involve children in raising awareness against tobacco and drug use.
2. **GHAR Portal (Go Home and Reunite):** Developed during the COVID-19 pandemic, this portal facilitates the repatriation and rehabilitation of children from child care institutions to their families in a structured manner.
3. **MASI Portal (Monitoring App for Seamless Investigation):** A real-time digital monitoring tool for overseeing the functioning and investigations related to Child Care Institutions (CCIs), ensuring timely action and accountability.
4. **Directive Against Exploitation in Fundraising:** NCPCR issued guidelines to civil society organizations to prevent the misuse of images and information of vulnerable children for fundraising purposes, upholding their dignity and rights.
5. **Bal Swaraj Portal:** An online platform for tracking and monitoring children in need of care and protection, ensuring timely interventions and better coordination among child protection authorities.

CHALLENGES IN THE PROTECTION OF CHILD RIGHTS

1. **Non-Binding Nature of Recommendations:** NCPCR's recommendations are not legally binding, limiting their impact and weakening the enforcement of child rights protections.
2. **No Time Frame for Case Disposal:** The absence of statutory timelines for inquiries and investigations leads to delays in resolving cases and undermines the delivery.
3. **Underreporting of Complaints:** While the NCPCR received 50,857 complaints from 2016–

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2021, NCRB reported 1,28,531 cases of crimes against children in 2021 alone, indicating low public awareness and trust in reporting to the Commission.

4. **Lack of Proactive Functioning:** Parliamentary reports highlight that NCPCR is often reactive, not taking timely suo motu action or highlighting critical child rights issues effectively.
5. **Limited Involvement in Policy Formulation:** The Commission is rarely consulted during the initial stages of policy-making, reducing its role in shaping child-focused policies.

WAY FORWARD

1. **Strengthen Institutional Synergy:** Improve coordination between the Ministry of Women and Child Development and NCPCR without compromising the Commission's autonomy.
2. **Enhance Civil Society Engagement:** Collaborate more actively with NGOs and civil society to raise awareness, encourage reporting, and ensure broader outreach.
3. **Expand Commission's Powers:** Grant powers such as awarding monetary relief or imposing penalties to make the Commission more effective and authoritative.
4. **Optimise Use of Existing Powers:** Train members to fully utilise current powers, such as conducting inspections, summoning individuals, and launching inquiries.
5. **Timely Case Disposal through Reforms:** Introduce structured timelines and case-tracking systems to ensure timely and transparent resolution of child rights cases.

CONCLUSION

The National Commission for Protection of Child Rights (NCPCR) plays a pivotal role in safeguarding and promoting the rights of India's children. Its mandate to monitor laws, investigate violations, and advocate for policy reforms reflects the country's constitutional and moral commitment to child welfare. However, to translate this mandate into tangible outcomes, the Commission must be empowered with enforceable authority, strengthened institutional mechanisms, and greater engagement with civil society. Bridging the gap between intent and implementation, and ensuring timely, child-centric interventions, is crucial for building a secure and inclusive future for all children. A rights-based, proactive, and collaborative approach will be key to fulfilling the vision of a child-friendly India.

GOA ACHIEVES 100% FUNCTIONAL LITERACY: A LANDMARK IN EDUCATION

WHY IN THE NEWS?

Goa has been officially declared fully functionally literate under the ULLAS – Nav Bharat Saaksharta Karyakram (New India Literacy Programme). The announcement was made by Chief Minister Dr. Pramod Sawant during the celebration of Goa's 39th Statehood Day on 30th May 2025. With this, Goa becomes the second state in India to cross the nationally prescribed benchmark of 95% functional literacy, marking a key milestone towards achieving the NEP 2020 vision of full literacy by 2030.

DEFINE FULL FUNCTIONAL LITERACY

Full Functional Literacy refers to the ability of an individual not only to read and write simple text but also to apply these skills effectively in daily life. It encompasses foundational literacy and numeracy, enabling individuals to comprehend, communicate, and perform basic arithmetic operations essential for everyday tasks. Functional literacy goes beyond basic education by integrating critical life skills, vocational training, and digital awareness, empowering people to make informed decisions and participate actively in socio-economic activities.

It plays a vital role in fostering self-reliance, enhancing employability, and promoting inclusive development. Under schemes like ULLAS – Nav Bharat Saaksharta Karyakram, functional literacy is a key benchmark in the national mission to achieve universal adult education.

ULLAS – NAV BHARAT SAAKSHARTA KARYAKRAM: KEY DATA & MILESTONES (2025)

Parameter	Details
Programme Duration	2022–2027
Target Group	Adults aged 15 years and above who missed formal schooling
Total Beneficiaries	Over 77 lakh individuals have benefited nationwide
ULLAS Mobile App Registrations	More than 1.50 crore learners and 37 lakh volunteer teachers registered
FLNAT (Foundational Literacy and Numeracy Assessment Test)	
– 1st Test (19 Mar 2023)	11 States/UTs participated; 22.37 lakh learners appeared; 91.27% pass rate
– 2nd Test (24 Sep 2023)	13 States/UTs participated; 17.57 lakh learners appeared; 89.64% pass rate
– 3rd Test (17 Mar 2024)	23 States/UTs participated; 33.29 lakh learners appeared; 88.6% pass rate
States/UTs Achieving Full Functional Literacy	
– Mizoram	Achieved 98.2% literacy rate; first state to surpass the 95% benchmark
– Goa	Declared 100% literate under ULLAS on 30 May 2025
– Ladakh	Achieved over 97% literacy; first Union Territory to attain full functional literacy
Financial Outlay	Total: ₹1037.90 crore (Central Share: ₹700 crore; State Share: ₹337.90 crore)

WHAT IS THE SIGNIFICANCE OF FULL FUNCTIONAL LITERACY

1. **Empowers Individuals:** It equips citizens with essential reading, writing, and numeracy skills, enabling them to participate confidently in daily life, work, and community affairs.
2. **Promotes Inclusive Development:** Ensures that marginalised groups, especially women and rural populations, are not left behind in the socio-economic progress of the country.
3. **Improves Governance and Civic Participation:** Literate citizens are likelier to engage in democratic processes, access government schemes, and hold institutions accountable.
4. **Boosts Economic Productivity:** A functionally literate workforce contributes more effectively

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to the economy, especially in informal sectors and microenterprises.

5. **Supports Public Health and Hygiene:** Literacy improves understanding of healthcare, nutrition, sanitation, and hygiene, leading to better public health outcomes.
6. **Fosters Gender Equality:** Literacy among women promotes greater decision-making power, financial independence, and educational opportunities for future generations.
7. **Accelerates Digital Inclusion:** Functional literacy is the foundation for digital literacy, helping people access online services, mobile apps, e-learning, and digital banking.
8. **Contributes to Viksit Bharat Vision 2047:** Full functional literacy is essential to achieving the larger national goal of a developed, inclusive, and empowered India.

GOVERNMENT. INITIATIVE TO IMPROVE FULL FUNCTIONAL LITERACY

Initiative	Launched By / Year	Key Features	Objective
ULLAS – Nav Bharat Saaksharta Karyakram	Ministry of Education / 2022	It covers foundational literacy, numeracy, life skills, and basic and vocational education. Uses tech and volunteerism.	Achieve full functional literacy by 2030 under NEP 2020
Saakshar Bharat Mission	Govt. of India / 2009–2018	Adult literacy in low-literacy districts: special focus on women. Lok Shiksha Kendras at the panchayat level.	Improve literacy among adults, especially women.
National Digital Literacy Mission (NDLM)	Govt. of India	Imparts digital skills to underserved individuals; enables access to online services.	Promote digital inclusion.
Padhna Likhna Abhiyan	Ministry of Education / 2020–21	Community-driven campaign; use of volunteers to teach adult non-literates.	Eradicate adult illiteracy.
NEP 2020 Vision	Ministry of Education / 2020	Lifelong learning focus: literacy and numeracy for all by 2026–27.	Universal literacy & numeracy; adult education.

WHAT ARE THE CHALLENGES TO ACHIEVING FULL FUNCTIONAL LITERACY?

1. **High Adult Illiteracy Rate:** Many adults missed formal education, making literacy efforts complex and time-consuming.
2. **Quality of Education:** Poor teaching standards and a lack of trained educators affect foundational literacy and numeracy.
3. **Socio-economic Barriers:** Poverty, child labour, and household responsibilities limit access to education, especially for women and marginalised groups.
4. **Language Diversity:** India's multilingual environment complicates uniform literacy programs and learning materials.

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5. **Digital Divide:** Limited access to digital tools and the internet restricts digital literacy, which is crucial in the modern context.
6. **Dropout Rates:** High school dropout rates reduce literacy continuity and skill development.
7. **Cultural Attitudes:** Some communities undervalue formal education, especially for girls and adult learners.
8. **Resource Constraints:** Insufficient funding, infrastructure, and educational materials hamper literacy campaigns and outreach programs.

WAY FORWARD

1. **Strengthen Adult Education Programs:** Expand and improve adult literacy initiatives with flexible timings and relevant content.
2. **Improve Quality of Teaching:** Train teachers better and use innovative teaching methods focused on foundational skills.
3. **Leverage Technology:** Use digital tools, mobile apps, and e-learning platforms to reach remote and underserved populations.
4. **Promote Multilingual Education:** Develop learning materials in local languages to ensure better understanding and retention.
5. **Increase Community Engagement:** Involve local communities, NGOs, and volunteers to encourage education participation, especially for women and marginalised groups.
6. **Address Socio-economic Barriers:** Provide incentives, scholarships, and midday meals to reduce dropouts and support learners from poor backgrounds.
7. **Integrate Literacy with Livelihood Skills:** Combine literacy programs with vocational training to make education more practical and motivating.
8. **Sustain Government Commitment:** Ensure consistent funding, policy support, and monitoring mechanisms to maintain momentum in literacy efforts.

CONCLUSION

Achieving full functional literacy is a cornerstone for building an empowered, inclusive, and progressive society. Goa's recent declaration as fully functionally literate under the ULLAS – Nav Bharat Saaksharta Karyakram reflects the effective collaboration between government agencies, community volunteers, and citizens, setting a valuable example for other states. While significant progress has been made, challenges such as socio-economic barriers, quality of education, and digital divides must be addressed through sustained efforts, innovative approaches, and community involvement. Strengthening adult education, leveraging technology, and integrating literacy with livelihood skills are crucial to ensuring that no one is left behind in India's ambitious journey towards universal literacy by 2030.

INDIA AND EUROPEAN UNION SET TO CONDUCT JOINT NAVAL EXERCISE

WHY IN THE NEWS?

India and the European Union (EU) are set to conduct a joint naval exercise in the Indian Ocean from June 1 to 3, marking a significant step in their growing maritime security cooperation. The exercise will focus on advanced counter-piracy operations, tactical manoeuvres, interoperability, and enhanced communication protocols. It underscores the shared commitment of both sides to a free, open, inclusive, and rules-based maritime order in the Indo-Pacific, rooted in principles such as respect for sovereignty, rule of law, freedom of navigation, and peaceful dispute resolution as per UNCLOS. Indian Navy ships and two EU Naval Force (EUNAVFOR) frigates from Operation ATLANTA will participate in this engagement.

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KEY AREAS OF COOPERATION

1. **Trade and Investment:** The EU is India's largest trading partner, with bilateral trade volumes reaching new highs. Ongoing negotiations for a Free Trade Agreement (FTA), an Investment Protection Agreement, and an Agreement on Geographical Indications aim to further liberalize and protect trade and investment flows.
2. **Technology and Innovation:** The India-EU Trade and Technology Council (TTC) drives cooperation on trusted technology, digital governance, and innovation. Focus areas include artificial intelligence, 5G/6G, quantum computing, and harmonisation of standards for emerging technologies.
3. **Climate Change and Green Transition:** Both partners are committed to achieving net-zero emissions, with cooperation on clean energy, sustainability, and green industrial transition. Collaboration includes initiatives in solar energy, disaster-resilient infrastructure, and biofuels.
4. **Security and Defence:** Enhanced cooperation on maritime security, cyber defence, and intelligence sharing to address regional and global security threats. Both sides support a free, open, and peaceful Indo-Pacific, with the EU joining India's Indo-Pacific Oceans Initiative.
5. **Connectivity and Infrastructure:** The India-Middle East-Europe Economic Corridor (IMEC) is a flagship initiative to improve connectivity between India, the Middle East, and Europe. Efforts focus on resilient infrastructure and sustainable logistics networks.
6. **People-to-People Exchanges:** Strengthening ties in higher education, research, tourism, culture, sports, and youth exchanges. Promoting legal, safe, and orderly migration, particularly for skilled professionals.
7. **Global Governance and Multilateral Cooperation:** Commitment to upholding the rules-based international order, democracy, and multilateralism. Joint efforts to tackle global issues such as climate change, terrorism, and the governance of artificial intelligence.

STRATEGIC SIGNIFICANCE OF THE EUROPEAN UNION FOR INDIA

1. **Trade & Investment:** EU is India's 3rd largest trading partner with €87 bn FDI (2000–2022). The relationship has matured into one of mutual economic interdependence.
2. **Technology Cooperation:** Collaboration in AI, 5G, cybersecurity via Horizon Europe & Digital Partnership. Combining India's demographic strength with the EU's tech expertise.
3. **Climate & Energy:** Joint work under Clean Energy & Climate Partnership; €2.5 bn EU support. Strengthens India's energy transition and global climate leadership.
4. **Maritime Security:** Anti-piracy ops and Indo-Pacific cooperation through EUNAVFOR ATLANTA. Naval visits reflect deepening strategic maritime ties.
5. **Multipolarity & Strategic Autonomy:** Shared support for multilateralism, UNSC reform, and global rule-based order . Both resist bipolar dominance and seek equitable governance.
6. **Supply Chain Diversification:** TTC (2023) focuses on semiconductors, pharma, and critical minerals. India seen as a trusted partner amid global tech rivalries.
7. **People-to-People Links:** 100,000+ Indian students in EU; Erasmus+ and diaspora deepen ties. Education and mobility foster long-term strategic identity.
8. **China Balancing:** Converging concerns over China's assertiveness and trade practices. The EU sees India as a key Asian partner to balance Chinese influence.

KEY ISSUES AFFECTING INDIA-EU BILATERAL TIES

1. **Trade Barriers:** The EU faces TBT and SPS hurdles in India; Indian pharma exports face complex EU certifications.
2. **Non-Tariff Barriers (NTBs):** EU rules (e.g. local office requirement for IT firms) raise compliance costs and restrict remote services.
3. **Market Access Constraints:** High Indian tariffs on EU cars, wines; limited access to public procurement.

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4. **IPR Concerns:** EU demands stricter patent laws and data exclusivity; India defends generics and public health.
5. **Carbon Border Tax (CBAM):** EU's green regulations raise competitiveness concerns for Indian steel, aluminium exports.
6. **Suspension of GSP:** Loss of tariff benefits for Indian textiles and leather after crossing EU safeguard limits.
7. **Investment Protection:** Disagreements over investor-state dispute resolution and investment security persist.
8. **Mobility & Visa Issues:** Cumbersome EU visa rules for Indian students/professionals; EU seeks reciprocal access.
9. **Geopolitical Divergences:** India's neutrality on Russia-Ukraine war contrasts with the EU's position, causing friction.
10. **Cyber & Digital Policy Gaps:** Divergence on data protection, cybercrime treaties (e.g. India not part of Budapest Convention) limits cooperation.

WAY FORWARD TO STRENGTHEN INDIA-EU TIES

1. **Fast-Track FTA Negotiations:** Adopt a phased approach to resolve tariff, IPR, and regulatory issues; prioritise convergence on key sectors like pharmaceuticals, dairy, and wines.
2. **Promote Mutual Policy Sensitivity:** Encourage political engagement based on mutual respect; avoid value-based criticism that may strain strategic trust.
3. **Joint Climate Action with Equity:** Strengthen cooperation in climate finance, green tech, and capacity building while addressing concerns over mechanisms like CBAM.
4. **Institutionalise Strategic Dialogues:** Leverage platforms like the Trade and Technology Council (TTC) for collaboration in AI, semiconductors, cybersecurity, and disaster response.
5. **Expand Trilateral & Multilateral Cooperation:** Implement joint development and connectivity projects in Africa and the Indo-Pacific to counterbalance China's BRI.
6. **Boost Educational and Cultural Exchanges:** Enhance academic mobility, vocational training, and cultural ties through programs like Erasmus+ to deepen people-to-people bonds.
7. **Strengthen Cyber & Maritime Security:** Advance cooperation on cybercrime, data governance, and conduct regular joint naval exercises to ensure Indo-Pacific maritime stability.

CONCLUSION

The India-EU partnership stands at a strategic crossroads amid evolving global geopolitical shifts. While there are immense opportunities in trade, technology, climate action, and security cooperation, realising the full potential of this relationship requires greater mutual understanding and trust. It is crucial for the EU to adopt a more nuanced appreciation of India's complex socio-political realities to avoid friction and foster meaningful engagement. With sustained strategic dialogue, policy alignment, and respect for each other's domestic priorities, India and the EU can emerge as key partners in shaping a resilient, rules-based, and multipolar global order.

Source: TH- 02 June 2025 - page-06

https://chintan.indiafoundation.in/articles/india-eu-ties-emerging-opportunities-persisting-challenges/.

MANIPUR IN TRANSITION: ELECTED REPRESENTATIVES DEMAND GOVERNMENT FORMATION

WHY IN THE NEWS?

A delegation of 10 MLAs from Manipur, including members from the Bharatiya Janata Party (BJP), National People's Party (NPP), and an Independent, met with Governor Ajay Kumar Bhalla at the Raj Bhavan in Imphal. They submitted a memorandum asserting the support of 44 MLAs, expressing readiness to form a new government in the state, which has been under President's Rule since February 13, 2025. The imposition of President's Rule followed the resignation of Chief Minister N. Biren Singh amid criticism over his handling of ethnic clashes

between the Meitei and Kuki-Zo communities. The MLAs emphasised the urgent need to restore a democratically elected government to address ongoing challenges and reflect the will of the people.

WHAT IS PRESIDENT'S RULE?

Article 356 is invoked to impose President's Rule in a State after removing the State government. While there are duties cast on federal governments in the U.S. and Australia to protect the States, their constitutions do not have any provision for removing State governments. Under Article 356, the President (Central government) may take over the governance of a State when it cannot be carried out in accordance with the provisions of the Constitution. The President can make such a proclamation based on a receipt of a report from the Governor of a State or otherwise. The latter situation may arise under Article 365 due to the failure of a State to comply with or give effect to any directions of the Union government.

KEY PROVISIONS OF ARTICLE 356 – PRESIDENT'S RULE

1. **Invocation Based on Governor's Report:** The President can impose President's Rule in a state if the Governor reports that the state cannot be run in accordance with the Constitution.
2. **Breakdown of Constitutional Machinery:** It is invoked when there is a failure of the constitutional machinery, such as no party securing a majority, loss of majority by the ruling party, or breakdown of law and order.
3. **President Assumes State Functions:** Under President's Rule, the President assumes all or any of the functions of the state government, including the powers of the Governor and the State Legislature.
4. **Suspension or Dissolution of Assembly:** The Legislative Assembly can be either suspended or dissolved, and the Council of Ministers is dismissed.
5. **Parliamentary Approval:** The proclamation must be approved by both Houses of Parliament within two months, failing which it ceases to operate.
6. **Time Limits and Extensions:** Once approved, the rule lasts for 6 months and can be extended every 6 months up to 3 years, with additional conditions like a National Emergency in force.
7. **Judicial Review:** The Supreme Court in the S.R. Bommai case (1994) ruled that the proclamation under Article 356 is subject to judicial review, preventing its arbitrary use.
8. **Safeguard Against Misuse:** Due to past misuse for political gains, judicial and parliamentary checks now ensure that President's Rule is used sparingly and constitutionally.

CONSTITUTIONAL PROVISIONS

1. **Basis of Imposition:** President's Rule is imposed when the Governor submits a report stating that the government of the state cannot be carried on in accordance with the Constitution.
2. **Failure of Constitutional Machinery:** It applies when there is a breakdown of constitutional machinery, such as political instability, no clear majority, or administrative collapse.
3. **Non-Compliance with Union Directions:** Under Article 365, failure of a state to comply with directions of the Union can be treated as an inability to function constitutionally, leading to President's Rule.
4. **Parliamentary Approval:** The proclamation must be approved by both Houses of Parliament within two months, or it ceases to operate.
5. **Duration and Extensions:** Once approved, it lasts for six months and can be extended every six months, up to a maximum of three years under special conditions.
6. **Conditions for Extension Beyond One Year:** For continuation beyond one year, a National Emergency must be in force or the Election Commission must certify that elections cannot be held.
7. **Effect on State Legislature:** The Legislative Assembly may be either suspended or dissolved, depending on the situation and President's discretion.
8. **Dismissal of State Government: With** the imposition of President's Rule, the Council of Ministers is dismissed, and the executive powers are exercised by the President through the Governor.

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ROLE OF GOVERNORS AND DISSOLUTION OF ASSEMBLIES

Aspect	Explanation	Examples/Remarks
Discretionary Power	Governors can recommend President's Rule and advise dissolution based on their assessment.	Subject to constitutional interpretation and judicial review.
Refusal to Dissolve	Some Governors preferred to keep the Assemblies in suspended animation till fresh elections.	E.g., Bihar (2005) – Assembly was kept in suspended animation.
Recommendation for Dissolution	Governors have recommended dissolution, citing lack of majority or breakdown of governance.	E.g., Kerala (1959) – First elected communist govt dismissed.
Controversial Use	Several instances where Governors acted allegedly under political pressure.	E.g., Uttarakhand (2016) – SC restored the dismissed Congress govt.
Historical Precedent	Some actions had long-term implications for Centre-State relations and federalism.	E.g., Punjab (1951) – First use of Article 356.
Judicial Oversight	Supreme Court has reviewed the Governor's actions in the S.R. Bommai case (1994).	Set guidelines limiting the misuse of Article 356.
Partisan Allegations	Accusations that the Governors acted in favour of the ruling party at the Centre.	Common in politically fragmented states.
Need for Reforms	Experts advocate for clearer norms and accountability in the exercise of the Governor's discretion.	Recommended by the Sarkaria and Punchhi Commissions.

CONCLUSION

President's Rule, as envisaged under Article 356, is meant to serve as a constitutional safety valve to address exceptional situations where a State government cannot function according to constitutional norms. However, it must not be reduced to a political weapon to destabilise elected governments. Its imposition must be guided by the principles of federalism and democracy, and therefore should be exercised sparingly, objectively, and with utmost transparency. To uphold the spirit of the Constitution, it is imperative to strengthen institutional checks and balances, ensure the neutrality and accountability of Governors, and maintain robust judicial oversight.

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CRACKS IN THE CORNERSTONE: WHY INDIA'S ELECTION LAW NEEDS AN UPGRADE

WHY IN THE NEWS?

Rahul Gandhi's challenge to the Election Commission of India (ECI) has become a significant news story following the ECI's dismissal of his allegations of "industrial scale rigging" in the 2024 Maharashtra assembly elections as "unsubstantiated." In response, the opposition leader in the Lok Sabha has intensified the debate by demanding the ECI publish "consolidated, digital, machine-readable voter rolls" for all recent elections. This demand highlights ongoing concerns about electoral transparency and the integrity of voter data, making the issue a focal point in discussions about election fairness and accountability in India.

WHAT IS THE REPRESENTATION OF PEOPLE ACT 1951?

The Representation of the People Act 1951 (RPA) is a crucial legislative framework that guides India's electoral process, ensuring transparency, fairness, and efficiency in the democratic system. Enacted in 1951, the Act defines rules for conducting elections, candidate eligibility, registration of political parties, and disqualification criteria, promoting a balanced and ethical electoral environment. Below are the primary highlights and sections that make RPA essential for maintaining India's democratic integrity.

CONSTITUTIONAL PROVISION RELATED TO ELECTIONS IN INDIA

Article	Title	Summary
324	Superintendence, direction and control of elections	Empowers the Election Commission of India to supervise, direct, and control elections to Parliament, State Legislatures, President, and VP.
325	No person to be ineligible by reason of religion, race, caste or sex	Ensures no discrimination in inclusion in electoral rolls based on religion, race, caste, or sex.
326	Elections on the basis of adult suffrage	Elections to Lok Sabha and State Assemblies shall be based on universal adult suffrage (18 years and above).
327	Power of Parliament to make provision with respect to elections	Parliament is empowered to make laws for elections to Parliament and State Legislatures, including electoral rolls and delimitation.
328	Power of State Legislature to make provision with respect to elections	State Legislatures can make laws for elections to their own assemblies, subject to Parliament's laws.
329	Bar to interference by courts in electoral matters	Courts cannot interfere in electoral matters except through election petitions as per the law made by Parliament.
330	Reservation of seats for SCs and STs in the Lok Sabha	Provides for the reservation of seats for Scheduled Castes (SCs) and Scheduled Tribes (STs) in the House of the People (Lok Sabha).

FEATURES OF THE REPRESENTATION OF THE PEOPLE ACT, 1951

1. **Conduct of Elections:** It provides the legal framework for conducting elections to the Parliament and State Legislatures in India.
2. **Qualifications and Disqualifications:** It lays down the qualifications for contesting elections and enumerates grounds for disqualification, such as holding an office of profit, insolvency, or criminal conviction.
3. **Electoral Offences and Corrupt Practices:** The Act defines corrupt practices like bribery, undue influence, impersonation, and also lists electoral offences with associated penalties.
4. **Election Disputes:** It allows for the filing of election petitions to High Courts in case of disputes regarding elections, with the Supreme Court being the final appellate authority.
5. **Vacancies and By-elections:** It prescribes procedures for conducting by-elections in case of vacancies due to resignation, death, or disqualification of members.
6. **Role of Election Commission:** The Act gives the Election Commission the authority to supervise and conduct elections, ensuring free and fair electoral processes.
7. **Declaration of Results and Expenditures:** It mandates candidates to declare their election expenses and allows the EC to monitor and enforce spending limits.
8. **Use of Voting Technology:** It provides for the use of Electronic Voting Machines (EVMs) and other technological means to enhance transparency and efficiency in elections.

SIGNIFICANCE OF THE ELECTION IN INDIA

1. **Foundation of Democracy:** Elections are the cornerstone of India's democratic setup, enabling citizens to choose their representatives and form governments.
2. **Political Equality:** Through the principle of universal adult suffrage, elections ensure that every citizen above 18, regardless of caste, religion, or economic status, has an equal vote.
3. **Government Accountability:** Elections empower the people to hold the government accountable for its performance, policies, and promises.
4. **Peaceful Transfer of Power:** Regular and free elections ensure non-violent, constitutional transitions of power, maintaining political stability.
5. **Public Participation:** Elections promote people's participation in governance, making them active stakeholders in the democratic process.
6. **Strengthening Federalism:** Elections at the national, state, and local levels strengthen India's federal structure by decentralising political power.
7. **Check on Authoritarianism:** Free and fair elections act as a check against authoritarianism by ensuring no single party or leader remains in power indefinitely.
8. **Encouragement of Political Awareness:** Elections stimulate public debate, awareness of national issues, and civic engagement, strengthening democratic culture.

WHAT ARE THE ISSUES WITH THE ACT

1. **Criminalisation of Politics:** The Act disqualifies only after conviction, allowing candidates with serious criminal charges to contest elections.]
2. **Money and Muscle Power:** Spending limits are often bypassed, and there's inadequate enforcement against the use of black money and voter bribery.
3. **Delayed Disqualification:** Disqualification processes are slow, especially due to delays in judicial proceedings and inaction by constitutional authorities.
4. **Opaque Political Funding:** Despite expenditure disclosures, lack of donor transparency (e.g., via electoral bonds) weakens accountability.
5. **Model Code of Conduct (MCC) Lacks Legal Status:** Violations of the MCC are hard to penalize due to its non-statutory nature under the Act.
6. **Weak Regulation of Political Parties:** The Act does not ensure internal democracy, transpar-

ency in candidate selection, or accountability of parties.

7. **Concerns over EVMs and VVPATs:** Though legally backed, limited VVPAT verification and technical concerns raise questions about transparency.
8. **Outdated Provisions:** The Act does not adequately address modern challenges like digital campaigning, deepfakes, and social media manipulation.

WAY FORWARD

1. **Decriminalisation of Politics:** Amend the Act to bar candidates facing serious criminal charges (with charges framed by a court) from contesting elections, as recommended by the Law Commission.
2. **Strengthening Election Funding Transparency:** Ensure full disclosure of political donations, including reforms to electoral bonds, to promote transparency and curb black money.
3. **Time-Bound Disqualification Mechanism:** Establish fast-track courts to decide on disqualification and election disputes within a stipulated time.
4. **Legal Backing to Model Code of Conduct:** Give statutory status to the MCC with clear punitive provisions to deter violations during elections.
5. **Internal Democracy in Political Parties:** Mandate regular intra-party elections, financial disclosures, and democratic candidate selection to improve party accountability.
6. **Robust Electoral Technology Oversight:** Enhance VVPAT verification coverage and ensure independent technical audits of EVMs to address transparency concerns.
7. **Regulation of Digital Campaigns:** Update the RPA to address challenges from digital platforms, including misinformation, deepfakes, and unregulated online spending.
8. **Empowering the Election Commission:** Provide the ECI with greater autonomy and legal authority for enforcement, along with institutional support to ensure free and fair elections.

CONCLUSION

The Representation of the People Act, 1951, remains the cornerstone of India's electoral democracy, offering a robust legal framework to conduct free and fair elections. However, evolving political dynamics, digital disruption, and increasing public scrutiny call for urgent reforms to address emerging challenges. Rahul Gandhi's recent allegations and the subsequent response from the Election Commission highlight the growing demand for greater transparency, accountability, and digital modernisation in electoral processes. Strengthening the RPA through timely amendments, especially on issues like criminalisation, opaque funding, EVM trust, and digital manipulation, is essential to uphold the sanctity of elections.

PRELIMS QUESTIONS

1. Consider the following statements about the National Commission for Protection of Child Rights (NCPCR):

1. It is a constitutional body established under Article 45 of the Indian Constitution.
2. It has the power to take suo motu cognisance of child rights violations.
3. It falls under the administrative control of the Ministry of Women and Child Development.

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

2. With reference to the ULLAS – Nav Bharat Saaksharta Karyakram, consider the following statements:

1. It is a centrally sponsored scheme launched for adult education and lifelong learning.
2. It targets individuals aged 15 years and above who missed formal schooling.
3. The scheme includes components such as digital skills, financial literacy, and vocational training.

Which of the above statements is/are correct?

(a) 1 and 2 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2 and 3

3. Which of the following organisations has implemented the Carbon Border Adjustment Mechanism (CBAM)?

(a) World Trade Organisation (WTO)

(b) European Union (EU)

(c) United Nations Framework Convention on Climate Change (UNFCCC)

(d) G20

4. Consider the following statements regarding President's Rule:

1. It can be imposed only after receiving a report from the Governor of the State.
2. It must be approved by both Houses of Parliament within two months.
3. It can be extended for an indefinite period with parliamentary approval.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 only

(c) 1 and 3 only (d) 2 and 3 only

5. Which of the following statements about the Representation of the People Act, 1951 is/are correct?

1. It defines rules for conducting elections to the Parliament and State Legislatures.
2. It allows for the disqualification of candidates only after a criminal conviction.
3. It mandates a minimum Out Turn Ratio (OTR) for rice procurement by FCI.

Select the correct answer using the code given below:

(a) 1 only (b) 1 and 2 only

(c) 2 and 3 only (d) 1, 2 and 3

ANSWER-KEY

1.(b)	2.(d)	3.(b)	4.(a)	5.(b)

MAINS QUESTIONS

1. Discuss the mandate, structure, and recent initiatives of the National Commission for Protection of Child Rights (NCPCR). Highlight the major challenges faced by the Commission and suggest measures to strengthen its effectiveness in safeguarding child rights in India

(250 words, 15 marks)

2. What is meant by full functional literacy? Highlight its significance in the context of India's developmental goals. Discuss the key government initiatives and challenges in achieving universal functional literacy by 2030 under the New Education Policy.

(250 words, 15 marks)

3. Discuss the significance of the recent India-EU engagement in the context of global geopolitics. What are the key challenges in concluding a comprehensive Free Trade Agreement (FTA) between India and the EU, and what measures to strengthen this strategic partnership?

(250 words, 15 marks)

4. How is President's Rule imposed in a State under Article 356 of the Constitution? Discuss the constitutional safeguards, judicial interventions, and the role of Governors in this context. Highlight the challenges and suggest reforms to prevent misuse.

(250 words, 15 marks)

5. Evolving political dynamics, digital disruption, and increasing public scrutiny have exposed new challenges to India's electoral process. Critically examine the limitations of the Representation of the People Act, 1951 in addressing these challenges, and suggest comprehensive reforms to strengthen the integrity of India's elections."

(250 words, 15 marks)

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NORTHEAST INDIA: GATEWAY FOR TRADE WITH SOUTHEAST ASIA

WHY IN THE NEWS?

Prime Minister Narendra Modi, while inaugurating the Rising Northeast Summit, declared that India's Northeast is no longer a 'frontier region' but a 'frontrunner of growth', highlighting its transformation into a vital hub for economic and industrial opportunities. He emphasised the region's rich potential in sectors such as infrastructure, tourism, agriculture, energy, and connectivity, and urged both domestic and international investors to explore and invest in the eight Northeastern states. The summit aims to showcase the region's development, promote entrepreneurship, and strengthen its integration with national and global economic networks.

HOW DID THE PRIME MINISTER REDEFINE THE NORTHEAST REGION, AND WHY?

Prime Minister Narendra Modi described the Northeast not as a "frontier region" anymore, but as a "frontrunner of growth", emphasising its rising role in India's developmental journey. This transformation is reflected across multiple dimensions:

1. **Frontrunner of Growth:** The Prime Minister highlighted the Northeast's growing economic significance during the Rising Northeast Summit, which was organised to attract investment and showcase the region's industrial and developmental potential.
2. **Gateway to Southeast Asia:** The region's strategic location makes it a natural link between India and Southeast Asia. Under the Act East Policy, key infrastructure and connectivity projects are being implemented to strengthen ties with countries like Myanmar, Thailand, Laos, and Vietnam, making the Northeast a crucial hub for international trade.
3. **Powerhouse of Energy:** The Northeast is endowed with abundant natural resources, particularly in sectors like hydropower and agriculture. For example, Arunachal Pradesh's hydroelectric potential and Assam's globally recognised tea industry make it a vital contributor to India's energy and agricultural economy.
4. **Cultural and Economic Diversity:** The region's rich cultural heritage and economic diversity are catalysts for innovation in tourism, handicrafts, and local industries.
5. **Ashta Lakshmis:** The Eight Jewels: Referring to the eight Northeastern states as "Ashta Lakshmis" (Eight Goddesses of Wealth), the PM highlighted their unique contributions to national prosperity.

SIGNIFICANCE OF NORTHEAST INDIA

1. **Biodiversity Hotspot:** The region is rich in flora and fauna, housing several national parks and biodiversity hotspots, contributing to ecological balance and environmental security.
2. **Cultural Diversity:** Home to numerous tribal communities with distinct languages, traditions, and cultures, it enriches India's social fabric.
3. **Natural Resources:** The Northeast is endowed with abundant natural resources, including oil, natural gas, coal, minerals, and extensive forests.

4. **Agriculture and Horticulture:** The region is a major producer of tea, spices, bamboo, and horticultural products, supporting livelihoods and export earnings.
5. **Tourism Potential:** Scenic landscapes, unique cultural heritage, and eco-tourism opportunities make it an emerging tourism hub.
6. **Hydropower Potential:** The region has significant hydropower resources, capable of generating large-scale renewable energy to support India's energy needs.

VISION FOR NORTHEAST INDIA

1. **Economic Growth Hub:** Transform the Northeast from a frontier region into a frontrunner of economic growth and industrial development.
2. **Gateway to Southeast Asia:** Position the region as India's strategic gateway for trade and connectivity with ASEAN countries.
3. **Inclusive and Sustainable Development:** Promote development that respects the region's cultural diversity and ecological sensitivity.
4. **Integration with National Growth:** Fully integrate the Northeast's economy and infrastructure with the rest of India to reduce regional disparities.
5. **Peace and Stability:** Ensure peace, security, and good governance to create a conducive environment for investment and development.

GOVERNMENT'S APPROACH

1. **Infrastructure Development:** Invest heavily in roadways, railways, airports, and connectivity projects to link the Northeast internally and with neighbouring countries.
2. **Economic Incentives and Investment:** Promote industrial clusters, special economic zones, and offer incentives to attract investors in sectors like bio-economy, bamboo, tea, petroleum, and tourism.
3. **Closing Land Ports with Bangladesh:** To give the Northeast's supply chains a competitive edge and promote local manufacturing.
4. **Focus on Renewable Energy:** Harness hydropower and other renewable resources to make the Northeast a powerhouse of clean energy.
5. **Frequent Political Engagement:** Regular visits by Union Ministers and collaboration with state governments to ensure tailored development.
6. **Security and Connectivity:** Strengthen border infrastructure and security to enhance stability and promote regional cooperation.

ECONOMIC AND INFRASTRUCTURE DEVELOPMENT INITIATIVES IN NORTHEAST INDIA

Initiative	Description
Act East Policy Implementation	Focus on active trade, investment, and connectivity with Southeast Asia through Northeast India.
Connectivity Projects	Development of roads, highways, railways, and airports to improve regional and international links.
Border Infrastructure	Strengthening border roads and trade facilities to promote legal trade and enhance security.
Industrial Development	Establishment of SEZs and industrial clusters in bamboo, tea, bio-economy, petroleum, and textiles.
Power and Energy Projects	Harnessing hydropower and renewable energy, promoting rural electrification in remote areas.
Manufacturing & Supply Chain Boost	Closing certain land ports with Bangladesh to enhance local manufacturing competitiveness.
Tourism Infrastructure	Development of eco-tourism and cultural tourism facilities and circuits.
Financial Incentives & Funding	Increased budgetary allocations, special grants, and encouragement of PPP and FDI investments.

REGIONAL COOPERATION AND TRADE POTENTIAL OF NORTHEAST INDIA

1. **Strategic Location:** Northeast India shares borders with five countries — Bangladesh, Myanmar, China, Bhutan, and Nepal — making it a critical hub for cross-border cooperation.
2. **Gateway to ASEAN:** The region serves as India's gateway for trade and connectivity with ASEAN countries like Thailand, Vietnam, and Myanmar.
3. **Trade Connectivity Projects:** The government is developing infrastructure such as roads, railways, and waterways to connect the Northeast with Southeast Asia, enhancing regional trade.
4. **Cross-border Trade Facilitation:** Initiatives like border haats and land ports are promoted to facilitate legal trade and boost local economies.
5. **Diplomatic Engagements:** India collaborates with neighbouring countries to enhance security, trade, and infrastructure development in the region.
6. **Economic Corridors:** Plans for regional economic corridors aim to link Northeast India with South Asia and Southeast Asia, fostering economic integration.
7. **Challenges:** The region faces hurdles like being landlocked, difficult terrain, security concerns, and bureaucratic delays that affect trade flow.
   8. Government Support: Policies under the Act East policy, focused infrastructure funding, and diplomatic efforts are strengthening regional cooperation and integration.

CHALLENGES AHEAD FOR NORTHEAST INDIA

1. **Geographical Isolation:** Difficult terrain and lack of connectivity make transportation and communication within and outside the region challenging.
2. **Landlocked Nature:** Being landlocked limits direct access to seaports, increasing dependence on neighbouring countries for trade routes.
3. **Infrastructure Deficit:** Inadequate infrastructure in roads, railways, air connectivity, and power supply hampers economic growth and integration.
4. **Security Concerns:** Insurgency and ethnic conflicts in some areas affect peace, stability, and investor confidence.
5. **Bureaucratic and Regulatory Hurdles:** Complex administrative procedures and delays discourage investment and slow development projects.
6. **Limited Industrialization:** The region's economy is largely agrarian with a limited industrial base and manufacturing capacity.
7. **Environmental Sensitivity:** Fragile ecosystems require sustainable development models, limiting large-scale industrial projects.

WAY FORWARD

1. **Enhance Connectivity:** Prioritise the development of roads, railways, air links, and digital infrastructure to improve accessibility and integration with the rest of India and neighbouring countries.
2. **Boost Trade and Industry:** Promote industrial clusters, special economic zones, and entrepreneurship in sectors like bamboo, tea, bio-economy, tourism, and renewable energy.
3. **Strengthen Regional Cooperation:** Deepen collaboration with neighbouring countries through trade agreements, cross-border infrastructure, and security partnerships.
4. **Promote Sustainable Development:** Adopt environmentally friendly practices to preserve biodiversity and support eco-tourism and responsible industrial growth.
5. **Ensure Peace and Stability:** Address security issues through dialogue, development, and community engagement to create a peaceful environment for growth.
6. **Simplify Regulatory Processes:** Streamline bureaucratic procedures and improve ease of doing business to attract investment and accelerate project implementation.
7. **Empower Local Communities:** Focus on skill development, education, and healthcare to improve human capital and ensure inclusive growth.

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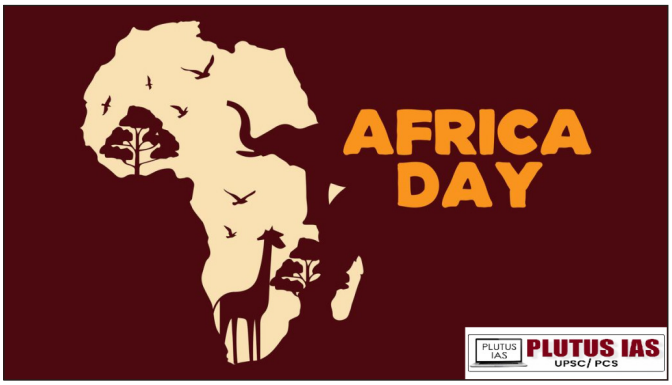
CONCLUSION

Northeast India stands at the threshold of a transformative journey from being perceived as a distant frontier to becoming a dynamic frontrunner of India's economic growth. With its strategic geographic location as a gateway to Southeast Asia, rich cultural diversity, and abundant natural resources, the region holds immense potential for trade, industry, and sustainable development. The government's focused approach through initiatives like the Act East Policy, infrastructure development, and regional cooperation aims to unlock this potential by addressing key challenges such as connectivity deficits, security concerns, and regulatory hurdles.

INDIA-AFRICA DIGITAL COMPACT: BRIDGING THE DIGITAL DIVIDE

WHY IN THE NEWS?

Africa Day is observed annually on May 25 to commemorate the founding of the Organisation of African Unity (OAU) in 1963, which later evolved into the African Union (AU). The day symbolises the continent's continued pursuit of unity, independence, and development. Amid this backdrop, the African Union's Digital Transformation Strategy (2020–2030) has gained prominence for placing digital innovation at the core of Africa's socio-economic development agenda.



INDIA-AFRICA: KEY AREAS OF COOPERATIONS

S.No.	Area of Cooperation	Key Highlights
1.	Digital & Technology	India Stack (Aadhaar, UPI), e-VBAB (tele-education & telemedicine), IT training via ITEC, hackathons, innovation hubs.
2.	Trade & Economy	India as a top African trading partner; duty-free access for African LDCs; MSME and value chain support.
3.	Education & Capacity Building	Scholarships (ITEC, ICCR), vocational training, skill development, e-learning platforms.
4.	Health Cooperation	Generic medicines, Vaccine Maitri (COVID-19 vaccines), telemedicine, healthcare infrastructure.
5.	Energy & Climate	Renewable energy cooperation via ISA; solar parks, mini-grids, green tech, sustainable agriculture.
6.	Agriculture & Food Security	Training in farming techniques, irrigation tech, organic farming, agribusiness promotion.
7.	Defence & Security	Maritime security, anti-piracy, defence training, cybersecurity, counterterrorism, peacekeeping.
8.	Infrastructure & Connectivity	Concessional credit for roads, power, IT parks, digital infra; SAGAR vision for regional growth.
9.	Multilateral Engagement	Joint action in G20, UN, WTO; support for AU in G20; reform of global governance systems.

RECENT ENGAGEMENTS AND INITIATIVES

1. **India Stack Deployment:** India is offering digital public infrastructure solutions like Aadhaar, UPI, DigiLocker, and CoWIN to African countries to help build inclusive digital ecosystems.
2. **e-VBAB (e-VidyaBharati and e-ArogyaBharati) Project:** Provides tele-education and telemedicine services to over 20 African countries, along with more than 20,000 scholarships for online education.
3. **India-Africa Hackathons:** These encourage collaboration among young innovators from both regions in areas like artificial intelligence, fintech, agriculture, and healthcare.
4. **ITEC Digital Training Programs:** Under the Indian Technical and Economic Cooperation (ITEC) programme, Africa receives training in cybersecurity, digital governance, and IT skills.
5. **Concessional Lines of Credit:** India has extended financial support for the development of digital infrastructure such as IT parks, broadband connectivity, and e-governance platforms.
6. **Voice of Global South Summit:** India has used this platform to advocate for South-South digital cooperation, knowledge sharing, and inclusive technological development.
7. **Support to African Union Digital Strategy:** India aligns its digital cooperation efforts with the African Union's Digital Transformation Strategy (2020–2030), focusing on universal broadband, e-commerce, and cybersecurity.
8. **Vaccine Maitri & Digital Health:** India supplied COVID-19 vaccines and extended support for digital health systems, including telemedicine and mobile health units across Africa.

SIGNIFICANCE OF AFRICA FOR INDIA

1. **Strategic and Geopolitical Importance:** Africa lies along critical sea lanes in the Indian Ocean Region (IOR), making it vital for India's maritime security, SAGAR vision (Security and Growth for All in the Region), and Indo-Pacific outreach.
2. **Energy and Natural Resources:** Africa is rich in oil, gas, uranium, and critical minerals (like cobalt and lithium), which are crucial for India's energy security and green transition.
3. **Trade and Economic Partnership:** Africa is one of India's largest trading partners in the Global South, with growing investments in sectors like pharma, IT, agriculture, and infrastructure.
4. **Support in Multilateral Forums:** African nations form a large voting bloc in the UN and other global forums. India seeks their support for global governance reforms and a permanent seat in the UN Security Council.
5. **Development and Soft Power Diplomacy:** India's development cooperation, including capacity building, education, and healthcare, strengthens people-to-people ties and soft power outreach.
6. **South-South Cooperation:** Africa is central to India's South-South cooperation model, promoting mutual growth through shared developmental experiences and digital public goods.
7. **Countering Strategic Rivals:** Deepening ties with Africa helps India balance the growing presence of China and other powers on the continent and assert its own influence constructively.

AFRICAN CONTINENTAL AS LAND OF GAMES: CHALLENGES FOR INDIA

1. **Rising Chinese Dominance:** China's massive investments in infrastructure under the Belt and Road Initiative (BRI) and its deep economic integration with Africa overshadow India's comparatively modest engagements.
2. **Limited Financial Capacity:** India's budgetary constraints restrict its ability to match the scale of aid, credit lines, and investments offered by China, the EU, and Gulf countries.
3. **Geostrategic Competition:** Countries like the US, Russia, Turkey, UAE, and France are also increasing their footprint, turning Africa into a multipolar strategic arena, which dilutes India's relative influence.
4. **Slow Implementation of Projects:** Bureaucratic delays and limited execution capacity hamper

the timely delivery of Indian-funded projects, affecting India's credibility.

5. **Security Instability in Some Regions:** Political instability, terrorism, and civil conflicts in parts of Africa (like the Sahel, Horn of Africa) pose risks to Indian investments and personnel.
6. **Weak Private Sector Presence:** Compared to Chinese SOEs, Indian private sector involvement in Africa is limited due to risk aversion and inadequate government-industry coordination.
7. **Lack of Comprehensive Institutional Frameworks:** Absence of a unified Africa strategy or institutionalized India-Africa FTA and limited engagement with African sub-regional bodies can hinder long-term influence.

INDIA FUTURE APPROACH TOWARDS AFRICA

1. **Digital Partnership:** Promote India Stack (Aadhaar, UPI, DigiLocker) to support Africa's digital transformation and inclusive e-governance.
2. **Development Cooperation:** Scale up ITEC, e-VBAB, and concessional credit to co-create locally suited solutions in health, education, and agriculture.
3. **People-to-People Connectivity:** Expand scholarships, skill development, and cultural diplomacy to build long-term goodwill and soft power.
4. **South-South Cooperation:** Position Africa as a central partner in India's Global South leadership, ensuring mutual growth and respect.
5. **Trade & Investment Boost:** Diversify trade and support African MSMEs; work toward an India-Africa FTA and integrated value chains.
6. **Security & Maritime Engagement:** Strengthen defence ties, peacekeeping, and maritime cooperation under SAGAR and Indo-Pacific frameworks.
7. **Green and Sustainable Development:** Collaborate on renewable energy, climate-resilient agriculture, and green technology through platforms like ISA.

CONCLUSION

India's engagement with Africa is undergoing a strategic shift — from traditional aid and infrastructure to a future-ready, inclusive, and digitally empowered partnership. As Africa rises as a key player in global geopolitics, demography, and the digital economy, India is positioning itself as a trusted development partner rooted in shared colonial experiences, South-South solidarity, and mutual respect. The African Union's Digital Transformation Strategy (2020–2030) presents an unprecedented opportunity for India to leverage its digital public goods, capacity-building expertise, and private sector innovations to support Africa's growth story. However, to remain relevant and competitive amid intensifying geopolitical contests, India must institutionalise its Africa outreach through a coherent long-term strategy, enhanced financial commitments, and deeper integration with African regional and continental institutions.

DIPLOMACY UNDER STRAIN: INDIA, CANADA, AND THE STRATEGIC OPTICS OF THE G7 INVITATION

WHY IN THE NEWS?

Canadian Prime Minister Mark Carney has invited Indian Prime Minister Narendra Modi to attend the upcoming G7 Summit in Alberta, Canada, scheduled for mid-June. This marks a significant development in India–Canada relations, which had deteriorated in recent years. The two leaders spoke over the phone, during which Carney extended the invitation and both sides agreed to remain in contact. PM Modi acknowledged the invitation and expressed his gratitude in a public post on X, stating that he looked forward to meeting Carney at the summit.

INDIA–CANADA RELATIONS

Aspect	Details (2024–25)
Diplomatic Relations	Strained since 2023 after Canadian PM Trudeau accused India in the killing of Khalistani separatist Nijjar; India denies claims; visa suspensions and diplomat expulsions occurred.
Trade & Economy	Bilateral trade around CAD 12 billion; Early Progress Trade Agreement (EPTA) talks paused; Canada supplies potash & pulses; Indian investments in Canada over CAD 6 billion.
People-to-People Ties	770,000+ Indian-origin residents; over 300,000 Indian students in Canada; visa delays affected student inflow due to diplomatic tensions.
Khalistan Issue	Major irritant: India accuses Canada of tolerating extremist elements; Canada stresses free speech protections but faces criticism.
Strategic & Clean Energy Cooperation	Limited defence ties; ongoing collaboration in clean energy, infrastructure, and climate technology; cautious Indo-Pacific engagement by Canada.

RECENT STRAINS IN BILATERAL TIES BETWEEN CANADA AND INDIA:

1. **Diplomatic Expulsions:** Both countries have expelled diplomats in retaliation, reducing diplomatic staff and suspending key services, including visa issuance, escalating the diplomatic crisis.
2. **Allegations of Foreign Interference:** Canada has raised concerns about possible Indian meddling in its domestic affairs, including elections, further straining trust between the two governments.
3. **Impact on Student Mobility:** Strained ties have led to increased visa rejections and longer processing times for Indian students seeking education in Canada, creating uncertainty for families.
4. **Suspension of Visa Services:** India suspended visa services for Canadian citizens amid safety and diplomatic concerns, further impacting bilateral travel and exchanges.
5. **Public and Political Backlash:** The tensions have sparked protests and criticism among diaspora groups and political entities in both countries, particularly within the Sikh community in Canada.
6. **Attempts at Dialogue:** Despite tensions, there have been efforts to mend relations, such as invitations to international summits, but these moves have faced backlash from some Canadian groups.
7. **Broader Strategic Impact:** The strained ties have affected trade, cultural exchanges, and cooperation on global issues, creating challenges for long-term bilateral partnership and trust.

SIGNIFICANCE OF THE G7 INVITATION TO INDIA

1. **Recognition of Economic Status:** India is acknowledged as the world's 5th largest economy, reflecting its growing influence in global trade, investment, and economic policy-making.
2. **Voice of the Global South:** India's participation ensures that the concerns and priorities of developing countries are represented in key G7 discussions, promoting more inclusive global governance.
3. **Repairing Bilateral Relations:** The invitation is a diplomatic effort to ease recent tensions between India and Canada, helping to restore trust and cooperation after political strains.
4. **Countering Separatist Narratives:** It sends a strong message against Khalistani separatist groups active in Canada, reinforcing India's

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stance on sovereignty and territorial integrity.

5. **Strengthening Indo-Pacific Strategy:** India's strategic location and growing maritime capabilities are crucial for regional security, helping the G7 balance China's expanding influence in the Indo-Pacific.
6. **Climate Change Collaboration:** India's leadership in renewable energy and climate initiatives aligns with G7's goals on sustainable development and clean energy transitions.
7. **Technological and Digital Cooperation:** India's advances in digital technology, innovation, and startup ecosystem provide valuable opportunities for partnerships with G7 nations.
8. **Boosting Diplomatic Clout:** Being part of the G7 summit elevates India's standing in global diplomacy, enabling it to shape international policies on economics, security, and development.
9. **Promoting Multilateralism:** India's engagement promotes cooperation on shared challenges like global health, economic recovery, and climate change, reinforcing the importance of collective action.

STRATEGIC IMPORTANCE OF THE G7 INVITATION FOR INDIA

1. **Global Recognition of Power Status:** The invitation affirms India's position as a major global player, not just regionally but also at the highest levels of international diplomacy.
2. **Shaping Global Policy:** Participation allows India to influence discussions on issues like climate change, digital governance, global health, and economic resilience.
3. **Strengthening Ties with Western Democracies:** Deepens strategic and economic partnerships with G7 nations like the US, UK, France, Germany, and Japan, balancing ties with both East and West.
4. **Platform for Global South Leadership:** Positions India as a legitimate voice for developing nations, enabling it to champion equity in global trade, finance, and climate action.
5. **Countering China's Influence:** India's role in G7 talks supports efforts to build resilient supply chains and promote a free, open Indo-Pacific, reducing overdependence on China.
6. **Access to Advanced Technology and Innovation:** Facilitates collaboration on frontier technologies such as AI, quantum computing, green tech, and cybersecurity with leading economies.
7. **Boost to Strategic Autonomy:** G7 engagement strengthens India's ability to maintain strategic independence while cooperating multilaterally, without aligning strictly with any bloc.
8. **Enhanced Economic Diplomacy:** Offers a platform to attract investment, secure trade partnerships, and diversify markets for Indian goods and services.

PEOPLE-TO-PEOPLE TIES

1. **Vibrant Indian Diaspora:** Millions of Indian-origin people live in G7 countries (especially the US, UK, and Canada), serving as a cultural and economic bridge between India and these nations.
2. **Educational Exchange:** G7 countries host a large number of Indian students, with the U.S., UK, and Canada being top destinations, fostering long-term academic and professional linkages.
3. **Tourism and Mobility:** Increasing travel for tourism, work, and study has enhanced mutual understanding and contributed to both economies through remittances and consumer spending.
4. **Cultural Diplomacy:** Initiatives like the International Day of Yoga, film festivals, and Indian cuisine promotion have strengthened cultural engagement with G7 populations.

ECONOMIC TIES

1. **Strong Trade Partnerships:** G7 countries are among India's top trading partners—especially the U.S., UK, Germany, and Japan—accounting for a significant share of exports and imports.
2. **Foreign Direct Investment (FDI):** G7 nations are major sources of FDI into India, supporting

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key sectors like manufacturing, technology, infrastructure, and financial services.

3. **Technology and Innovation Cooperation:** Collaborations in sectors like clean energy, semiconductors, digital economy, and R&D are deepening economic interdependence.
4. **Supply Chain Resilience:** G7-India cooperation aims to diversify and secure global supply chains, especially in critical sectors like pharmaceuticals and electronics.
5. **Energy and Climate Financing:** G7 support for India's clean energy transition, through funding and technology transfer, bolsters India's climate commitments and green growth.

CHALLENGES AHEAD

1. **Bilateral Tensions (e.g., with Canada):** Ongoing friction over issues like Khalistani extremism and political asylum disputes could overshadow India's broader engagement with the G7.
2. **Diverging Climate Priorities:** India seeks climate justice and development space, while G7 nations push for stricter emissions cuts—this divergence may create friction on global climate platforms.
3. **Protectionist Trade Policies:** G7 countries have occasionally adopted protectionist measures that affect Indian exports, such as tariffs, digital taxes, and non-tariff barriers.
4. **Visa and Mobility Restrictions:** Despite strong people-to-people ties, restrictive immigration policies in G7 countries can limit skilled labour movement and educational collaboration.
5. **Technology and Data Sovereignty Concerns:** Differences over digital privacy laws, data localization, and AI governance may lead to regulatory conflicts with G7 tech regimes.
6. **Geopolitical Pressures:** Navigating G7 expectations on issues like Russia-Ukraine and China-Taiwan could strain India's strategic autonomy and neutrality.
7. **Limited Institutional Role:** As a non-member, India lacks formal voting rights or agenda-setting power in G7, which may limit its ability to shape long-term policies.
8. **Dependency Risk in Supply Chains:** Greater economic integration with G7 could increase India's vulnerability to external shocks or policy changes in those economies.
9. **Balancing Global South Solidarity:** Closer ties with wealthy G7 nations may create perceptions of distancing from Global South partners, challenging India's leadership role among developing nations.

WAY FORWARD

1. **Strengthen Strategic Partnerships:** Deepen bilateral ties with key G7 members (like the U.S., UK, France, Germany, and Japan) in defence, Indo-Pacific security, and counter-terrorism cooperation.
2. **Champion Global South Interests:** Continue to act as a bridge between the developed and developing worlds, advocating for fairer global trade, climate finance, and development access.
3. **Promote Sustainable Growth:** Leverage G7 support for clean energy, green finance, and technology transfer to accelerate India's low-carbon development and energy transition goals.
4. **Expand Digital and Technology Collaboration:** Engage in partnerships on AI, cybersecurity, digital public infrastructure, and data governance to boost India's digital economy and global competitiveness.
5. **Push for Inclusive Multilateralism:** Advocate for reforms in global governance institutions (UN, WTO, WHO) and seek greater inclusion of Global South voices in G7 and beyond.
6. **Resolve Bilateral Irritants Diplomatically:** Address issues like diaspora extremism and visa concerns through consistent diplomatic dialogue, especially with countries like Canada and the UK.
7. **Facilitate Talent and Knowledge Exchange:** Promote easier student and skilled worker mobility through bilateral agreements, scholarships, and mutual recognition of qualifications.

8. **Secure Supply Chain Cooperation:** Collaborate with G7 on building resilient and diversified supply chains, especially in semiconductors, pharmaceuticals, and rare earths.

CONCLUSION

India's invitation to the G7 Summit in Canada signifies a pivotal moment in both its bilateral and multilateral diplomacy. It reflects the global recognition of India's growing economic and strategic stature and provides a platform to represent the Global South. While challenges persist—especially with Canada over diaspora politics and diplomatic tensions—the invitation also presents an opportunity to rebuild trust and advance cooperation on trade, technology, climate change, and global governance. For India, engaging proactively with G7 nations, while balancing its strategic autonomy and developmental priorities, is crucial to shaping a more equitable and resilient global order.

INDIA AND CYPRUS: STRENGTHENING TIES IN A CHANGING GEOPOLITICAL LANDSCAPE

WHY IN THE NEWS?

Prime Minister Narendra Modi became the first Indian PM in 23 years to visit Cyprus. The visit holds diplomatic, strategic, and symbolic significance amid shifting geopolitical alignments, particularly concerning Turkey's growing proximity to Pakistan.

HISTORICAL FOUNDATIONS OF INDIA–CYPRUS RELATIONS

1. **Establishment of Diplomatic Relations (1962):** India was among the first non-European countries to recognise the Republic of Cyprus soon after its independence from British rule in 1960.
2. **Leadership Bond:** The bilateral relationship was shaped by the personal rapport between Archbishop Makarios (1st President of Cyprus) and Pandit Jawaharlal Nehru, reflecting shared democratic and anti-colonial values.
3. **Shared Non-Aligned Vision:** Both nations were founding members of the Non-Aligned Movement (NAM), advocating for a world order based on sovereign equality, peaceful coexistence, and non-alignment during the Cold War.
4. **Support for Decolonisation:** India strongly supported Cyprus's struggle against British colonialism and consistently raised its cause in international fora, including the UN General Assembly.
5. **Cyprus's Support for India's Unity:** In return, Cyprus has consistently supported India's stand on Kashmir, recognizing it as an internal matter and backing India in the UN and other multilateral platforms.
6. **Moral and Diplomatic Backing:** India's support extended beyond diplomacy to moral solidarity, reflecting a post-colonial kinship rooted in anti-imperial struggles.
7. **UN Peacekeeping Legacy:** India's support was institutionalized with contributions to the UN Peacekeeping Force in Cyprus (UNFICYP), where Indian commanders served with distinction, deepening historical goodwill.
8. **Symbolic Gestures of Friendship:** Cyprus honoured Gen. K.S. Thimayya, an Indian peacekeeper who died in Cyprus in 1965, by naming a street after him in Larnaca and issuing a commemorative stamp in 1966, symbolizing long-standing gratitude

POLITICAL AND DIPLOMATIC TIES: INDIA–CYPRUS

Aspect	Details
Establishment of Relations	Diplomatic relations were formally established on 10 February 1962.
Bilateral Mechanism	Regular high-level visits, MoUs, and consultations between foreign ministries.
Multilateral Cooperation	Close coordination in UN, Non-Aligned Movement (NAM), Commonwealth, IAEA, and NSG.
Support on Global Governance	Cyprus supports India's bid for a permanent seat in an expanded United Nations Security Council (UNSC).
Nuclear Diplomacy	Cyprus supported the India–U.S. Civil Nuclear Agreement and backed India in NSG and IAEA.
South Asia Peace Recognition	Recognises India's role as a stabilising force in South Asia and a responsible nuclear power.
Peacekeeping Collaboration	Cyprus values India's UN Peacekeeping contributions, especially in the UNFICYP mission.
Shared Democratic Values	Both uphold sovereignty, democratic governance, rule of law, and peaceful dispute resolution.

INDIA'S UN PEACEKEEPING CONTRIBUTION: UNFICYP

1. **Key Role in UNFICYP:** India has played a significant role in the United Nations Peacekeeping Force in Cyprus (UNFICYP), contributing senior military leadership since its early days.
2. **Indian Force Commanders:** India has provided three Force Commanders for UNFICYP — a rare distinction reflecting India's global peacekeeping credibility.
3. **Notable Commanders: Gen. Kodandera Subayya Thimayya –** the first Indian to command UNFICYP; died in Cyprus in 1965 while serving. **Maj Gen. Diwan Prem Chand –** renowned for later leading peacekeeping efforts in Congo and Namibia. **Lt. Gen. Premindra Singh Gyani** contributed to maintaining stability in the post-conflict scenario.
4. **Commemorative Recognition:** In 1966, Cyprus issued a commemorative stamp in Gen. Thimayya's memory — a unique international tribute.
5. **Symbol of India–Cyprus Friendship:** India's contribution to UNFICYP is viewed as a pillar of historical goodwill and trust between the two nations.
6. **Upholding Global Peace Norms:** India's involvement in UNFICYP reflects its principled foreign policy focused on peace, non-alignment, and respect for sovereignty.

HIGH-LEVEL VISITS AND ENGAGEMENTS

Year	Visit / Engagement	Key Outcomes / Highlights
2017	Visit of President **Nicos Anastasiades** (Republic of Cyprus) to India	Strengthening of bilateral ties; discussions on economic and cultural cooperation
2018	Visit of Indian President **Ram Nath Kovind** to Cyprus	Reaffirmed commitment to deepening political and economic relations
2022	Visit of EAM **Dr. S. Jaishankar** to Cyprus	MoUs signed on **Defence Cooperation and Migration & Mobility Partnership**

2022	Cyprus joined **International Solar Alliance**	Membership signed during EAM's visit
2023–24	Engagements on sidelines of **UNGA, CHOGM, Doha Forum,** and **EU–Indo-Pacific Forum**	High-level bilateral discussions on multilateral platforms
2023	India participated in **Cyprus Maritime 2023**	Marked growing maritime cooperation and interest in blue economy
2023	India took part in **Commonwealth Legal Education Association Conference** in Cyprus.	Legal and academic cooperation under Commonwealth framework

INDIA–CYPRUS DEFENCE COOPERATION

1. **MoU on Defence Cooperation:** Signed on 29 Dec 2022 during EAM Dr. S. Jaishankar's visit. Focuses on joint training, capacity building, and defence exchanges.
2. **Bilateral Defence Cooperation Programme (BDCP) – 2025:** Signed on 23 Jan 2025, formalizing structured military collaboration. Includes joint exercises, training, and defence industry ties.
3. **AERO India 2025 Participation:** Cypriot delegation joined the event and discussed expanding defence trade and maritime cooperation.
4. **Strategic Value:** Strengthens India's presence in the Eastern Mediterranean. Supports Make in India and defence diplomacy efforts.

INDIA–CYPRUS ECONOMIC AND COMMERCIAL RELATIONS

1. **Bilateral Trade (2023–24):** Total trade stood at USD 137 million, reflecting a recovering trajectory post COVID-19 disruptions.
2. **India's Major Exports to Cyprus:** Include pharmaceuticals, textiles, iron & steel, ceramics, and machinery, showcasing India's manufacturing strengths.
3. **Cyprus's Exports to India:** Primarily pharmaceuticals, beverages, and other manufactured goods, highlighting niche industry cooperation.
4. **COVID-19 Impact and Recovery:** The pandemic affected trade volumes, but economic engagement is rebounding steadily.
5. **Joint Economic Committee (JEC):** Serves as the main institutional dialogue mechanism; last convened virtually in Oct 2021.
6. **Cyprus–India Business Association (CIBA):** Aims to enhance business-to-business (B2B) ties, promote investment, and foster innovation-led collaboration.
7. **Invest India – Invest Cyprus MoU (2021):** Signed to facilitate bilateral investments, ease of doing business, and partnership in emerging sectors.
8. **Investment Gateway:** Cyprus, being an EU member, serves as a strategic economic entry point for Indian companies into the European Union.

INDIA–CYPRUS: RECENT SECTORAL COOPERATION (2024–25)

1. **Digital Transformation & Innovation:** Collaboration focused on Artificial Intelligence (AI), cybersecurity, and emerging tech innovation.
2. **High-Level Tech Dialogue:** In September 2024, the Deputy Minister of Cyprus for Research, Innovation & Digital Policy participated in the CII India–Mediterranean Business Conclave in New Delhi.
3. **Bilateral Tech Engagement:** Key meeting held with India's Minister of State for Commerce & IT to advance tech sector cooperation.
4. **Legal and Human Rights Exchange:** In October 2024, an Indian judicial delegation visited Cyprus to explore cooperation on legal reforms and child rights/welfare mechanisms.

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CHALLENGES IN INDIA–CYPRUS RELATIONS

1. **Limited Trade Volume:** Bilateral trade remains modest (USD 137 million in 2023–24), despite strong political goodwill.
2. **Low Investment Flow:** Though Cyprus has been a source of FDI into India in the past, recent investment momentum has slowed.
3. **Connectivity Bottlenecks:** Lack of direct air and sea links hinders people-to-people ties, tourism, and logistics-based trade.
4. **Under-utilised Tourism Potential:** Both countries have rich cultural and natural attractions, but tourism exchange is minimal due to low promotion and connectivity.
5. **Limited Educational Exchange:** Student mobility and institutional collaborations are far below potential, despite English-medium education and commonwealth links.
6. **Untapped Fintech and Digital Cooperation**: Opportunities in fintech, blockchain, and digital payments remain largely unexplored.
7. **Lack of Frequent High-Level Engagements:** While ties are cordial, limited frequency of high-level political visits and follow-ups restricts momentum.
8. **Need for Sector-Specific Institutional Mechanisms:** Absence of dedicated platforms in areas like climate change, startups, and green energy cooperation hampers targeted progress.

WAY FORWARD

1. **Diversify Economic Engagement:** Expand bilateral trade beyond traditional sectors by tapping into renewable energy, pharmaceuticals, and the digital economy.
2. **Promote Startups and Innovation:** Facilitate collaborative ecosystems for tech startups, including joint incubators and access to innovation funds.
3. **Strengthen Defence Partnership:** Deepen defence ties through joint training programs, naval cooperation, and technology sharing under the Bilateral Defence Cooperation Programme (BDCP).
4. **Enhance Tourism Connectivity:** Establish direct air links and tourism promotion campaigns to boost two-way travel.
5. **Educational and Academic Exchanges:** Promote student and faculty mobility by forging MoUs between universities and research institutions.
6. **Leverage Diaspora Potential:** Engage the Indian diaspora in Cyprus through cultural events, business forums, and consular outreach.
7. **Boost Maritime and Logistics Cooperation:** Utilise Cyprus's maritime strength to develop India's access to European shipping routes.
8. **Institutionalize Sectoral Dialogues:** Create dedicated bilateral working groups on fintech, cybersecurity, and sustainable development.

CONCLUSION

India–Cyprus relations are rooted in a shared post-colonial legacy, common democratic values, and mutual support in international forums. While historical goodwill and diplomatic warmth remain strong, the partnership is now evolving to embrace new-age priorities such as digital innovation, defence cooperation, and startup ecosystems. However, challenges like low trade volume, limited connectivity, and underutilised sectoral potential require focused policy interventions. Going forward, both nations must institutionalise sectoral engagement, deepen economic and strategic ties, and foster people-centric diplomacy to realise the full potential of this historically friendly and strategically significant partnership in the Mediterranean–Indo-Pacific arc.

PRELIMS QUESTIONS

1. **With reference to Northeast India, consider the following statements:**

    1. Northeast India shares its international borders with five countries, including Bangladesh and Myanmar.
    2. The 'Act East Policy' aims to strengthen India's trade and connectivity primarily with African nations.
    3. The Rising Northeast Summit focuses

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on promoting the region's economic development and attracting investments.

How many of the above-given statements are correct?

(a) Only one (b) Only two

(c) All three (d) None

2. With reference to India's engagement with Africa, consider the following statements:

1. The e-VBAB project is aimed at providing vocational training to African farmers on organic farming practices.
2. India Stack, including UPI and Aadhaar, is being offered to African countries to build inclusive digital infrastructure.
3. India is a founding member of the African Union's Digital Transformation Strategy (2020–2030).

Which of the statements given above is/are correct?

(a) 1 only (b) 2 only

(c) 2 and 3 only (d) 1 and 3 only

3. With reference to recent developments in India's foreign relations, consider the following statements:

1. The G7 is an intergovernmental organisation comprising major advanced economies, including India.
2. In 2025, India was invited to attend the G7 Summit hosted by Canada.
3. India is a permanent member of the G7 grouping.

Which of the statements given above is/are correct?

(a). 1 and 2 only (b). 2 only

(c). 1 and 3 only (d). 1, 2 and 3

4. With reference to India–Cyprus relations, consider the following statements:

1. India has never contributed personnel to the UN Peacekeeping Force in Cyprus (UNFICYP).
2. Cyprus is a member of the International Solar Alliance (ISA).
3. Cyprus supports India's permanent membership in the UN Security Council.

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

ANSWER-KEY

1.(b)	2.(b)	3.(b)	4.(b)

MAINS QUESTIONS

1. Northeast India is no longer a frontier region but a frontrunner of growth." Discuss the significance of the Northeast in India's economic and strategic framework. Explain the major challenges it faces and suggest measures for its holistic development.

(250 words, 15 marks)

2. Discuss the significance of Africa in India's foreign policy and examine the emerging contours of the India-Africa Digital Compact.

(250 words, 15 marks)

3. India's invitation to the 2025 G7 Summit by Canada reflects both global acknowledgement of its strategic importance and an opportunity to ease bilateral tensions. Critically examine the significance of this development in the backdrop of recent strains in India–Canada relations.

(250 words, 15 marks)

4. India and Cyprus share a historical legacy of post-colonial solidarity and democratic values, but the full potential of the partnership remains untapped." Discuss the evolution, key areas of cooperation, recent developments, and the way forward in India–Cyprus relations.

(250 words, 15 marks)

REVIVAL OF RODTEP SCHEME: A STEP TOWARDS EXPORT-LED GROWTH

WHY IN THE NEWS?

The Government of India has restored the Remission of Duties and Taxes on Exported Products (RoDTEP) scheme benefits for Advance Authorisation (AA) holders, Export-Oriented Units (EOUs), and Special Economic Zones (SEZs). This decision, announced on Tuesday, is expected to significantly boost India's export competitiveness by ensuring tax neutrality for these key exporters. The RoDTEP scheme, which reimburses embedded taxes and duties not refunded under any other scheme, had lapsed for these units after February 5, 2024, prompting intense lobbying by export promotion bodies for its revival.

WHAT IS RODTEP?

RoDTEP (Remission of Duties and Taxes on Exported Products) is a government scheme launched on January 1, 2021, to reimburse exporters for the embedded taxes, duties, and levies that are not refunded under any other existing export incentive schemes. It replaced the MEIS (Merchandise Exports from India Scheme), which was found to be incompatible with World Trade Organisation (WTO) rules.

KEY OBJECTIVES OF RODTEP

1. **Enhance Export Competitiveness:** Reimbursing unrefunded duties/taxes (e.g., electricity duty, fuel tax, mandi tax) lowers the cost of Indian goods in global markets.
2. **Ensure WTO Compliance:** Designed to be WTO-compatible, unlike MEIS, ensuring India's export subsidies comply with international trade rules.
3. **Promote Make in India:** Encourages domestic manufacturing and value addition by reducing the cost burden on exporters.
4. **Provide Seamless Reimbursement:** The scheme is digitalized and automated to ensure efficient, transparent, and prompt refunds via a credit ledger on ICEGATE (Indian Customs portal).
5. **Support Broad-Based Export Sectors:** Covers a wide range of sectors and products, ensuring that even sectors with high domestic value addition get fiscal support.
6. **Boost Foreign Exchange Earnings:** By making exports more competitive, the scheme helps increase India's share in global trade and earns more foreign exchange.
7. **Encourage Diversification of Export Basket:** By reducing cost pressures, the scheme incentivises exporters to explore new markets and products, helping diversify India's export portfolio beyond traditional goods.
8. **Support Employment-Intensive Sectors:** RoDTEP especially benefits labour-intensive

sectors like textiles, leather, agriculture, and handicrafts, thus promoting job creation and supporting rural and semi-urban livelihoods.

FEATURES OF RODTEP

1. **Objective:** RoDTEP aims to reimburse embedded taxes, duties, and levies that are not refunded under any other export incentive scheme, thereby ensuring tax neutrality on exported goods.
2. **Coverage of Taxes:** It covers hidden taxes and levies such as state VAT, mandi tax, coal cess, electricity duties, and fuel used in transportation, which were previously non-rebatable.
3. **WTO Compliant:** The scheme is WTO-compliant, replacing earlier schemes like MEIS (Merchandise Exports from India Scheme) that were challenged at the WTO for being export subsidies.
4. **Eligibility:** It applies to all export sectors (initially excluding AA holders, EOUs, and SEZs, now included as of 2025), making it more inclusive and broad-based.
5. **Digital Processing:** The rebate is issued in the form of transferable duty credit/electronic scrips via an automated, digital platform linked to Customs, ensuring transparency and ease of use.
6. **No Double Benefits:** Exporters cannot claim RoDTEP if they have availed benefits under certain other schemes like Advance Authorization (prior to restoration), Duty Drawback for the same taxes, or EOU/SEZ benefits, avoiding double claims.
7. **Dynamic Rates:** The RoDTEP rates vary by product/HS code, and are periodically revised by a dedicated RoDTEP Committee based on data provided by industry stakeholders.
8. **Support for Export Competitiveness:** By neutralising hidden costs in the export value chain, RoDTEP enhances the price competitiveness of Indian exports, supporting the government's goal of boosting outbound trade.

IMPORTANCE OF RODTEP

1. **Enhances Export Competitiveness:** RoDTEP helps Indian exporters compete more effectively in global markets by neutralizing embedded taxes and duties, thereby reducing the overall cost of exported goods.
2. **Ensures Tax Neutrality:** It ensures that no domestic taxes or levies are exported, aligning with the principle that exports should be free from any form of indirect taxes.
3. **WTO Compliance:** RoDTEP replaces the MEIS scheme and ensures that India's export incentive framework remains compliant with WTO rules, reducing the risk of trade disputes and penalties.
4. **Boosts Export Growth:** By lowering the effective cost of exports, RoDTEP encourages greater participation in global trade, especially from MSMEs and sectors with thin margins.
5. **Wider Sectoral Coverage:** Unlike previous schemes, RoDTEP is broad-based, covering all sectors and types of exporters, including the recent inclusion of Advance Authorisation holders, EOUs, and SEZ units, thus expanding its impact.
6. **Promotes Transparency and Efficiency:** The scheme operates through a fully automated IT system, ensuring speedy and transparent processing of rebate claims with minimal human intervention.
7. **Supports Make in India and Atmanirbhar Bharat:** By making Indian goods more price-competitive globally, RoDTEP aligns with the Make in India and self-reliant economy goals, driving both manufacturing and exports.
8. **Encourages Formalisation:** The requirement of digital documentation and Customs integration under RoDTEP pushes exporters towards greater formalisation and compliance, strengthening overall trade governance.

ISSUES OF PROMOTING EXPORTS

1. **High Logistics and Infrastructure Costs:** Poor infrastructure, congested ports, and high inland

transportation costs increase the cost of Indian exports, making them less competitive globally.

2. **Lack of Diversification in Export Basket:** India's exports are heavily concentrated in a few sectors like petroleum, gems & jewellery, and textiles. There's limited presence in high-value and technology-intensive sectors.
3. **Complex Regulatory Framework:** Exporters face multiple clearances, documentation, and overlapping regulations from various departments, which lead to delays and increased compliance costs.
4. **Limited FTAs and Trade Access:** India has fewer Free Trade Agreements (FTAs) compared to competitors like ASEAN nations. This limits preferential market access and affects competitiveness.
5. **Fluctuating Exchange Rates:** Volatile currency movements can hurt exporters' profitability, especially MSMEs that lack proper hedging mechanisms.
6. **Inadequate Credit and Finance Support:** Limited access to affordable credit, especially for small exporters, hampers their ability to scale and meet international standards.
7. **Non-Tariff Barriers in Foreign Markets:** Indian exporters often face sanitary and phytosanitary measures, quality standards, and certification issues in developed markets, which restrict market access.
8. **Low R&D and Innovation in Exports:** There is insufficient focus on value addition, innovation, and branding, leading to a dependence on low-value goods and commodities.
9. **Global Uncertainties and Geopolitical Tensions:** Exporters are vulnerable to external shocks like global economic slowdown, trade wars, and supply chain disruptions (e.g., COVID-19, Red Sea crisis).

WAY FORWARD

1. **Upgrade Infrastructure and Logistics:** Improve ports, roads, and logistics through PM Gati Shakti and National Logistics Policy to reduce export costs and delays.
2. **Simplify Export Procedures:** Ensure digitised and streamlined customs processes via single-window clearance to reduce regulatory burdens.
3. **Diversify Export Basket and Markets:** Promote high-value sectors (electronics, pharma, green tech) and expand to non-traditional markets like Africa and Latin America.
4. **Support MSMEs and Startups:** Improve access to export finance, certifications, and international exposure for smaller exporters and startups.
5. **Strengthen FTAs and Trade Diplomacy:** Conclude balanced FTAs with key partners and enhance India's role in multilateral trade platforms.
6. **Boost Value Chain Integration:** Enhance FDI and manufacturing through PLI and support cluster development in export sectors.
7. **Improve Standards and Quality:** Align with global quality norms and enhance testing and certification capacity to meet international requirements.
8. **Promote Brand India and Market Intelligence:** Launch campaigns to promote Indian products and use data tools for market insights and buyer trends.
9. **Ensure Stable Incentives:** Provide policy stability and continuity in schemes like RoDTEP, SEIS, and DEH to support long-term exporter confidence.

CONCLUSION

The restoration of RoDTEP benefits to AA holders, EOUs, and SEZs is a timely and strategic step toward ensuring tax neutrality and global competitiveness for Indian exports. As global trade dynamics evolve and protectionist tendencies rise, schemes like RoDTEP play a crucial role in safeguarding India's export momentum by lowering hidden costs and enhancing compliance with WTO norms. However, to truly harness the benefits, India must complement incentive-based schemes with broader trade facilitation reforms, including infrastructure upgrades, FTA expansions, and stronger institutional support for MSMEs. A stable, transparent, and supportive export ecosystem is essential for

realising the vision of a self-reliant India with a strong global trade presence, thereby creating jobs, earning foreign exchange, and accelerating economic growth.

SOARING TOWARDS 2047: INDIA'S AVIATION SECTOR AS A PILLAR OF VIKSIT BHARAT

WHY IN THE NEWS?

India hosted the IATA AGM for the first time in 42 years, marking a significant milestone in the country's aviation history. The event brought together over 1,600 global aviation leaders, emphasising India's growing influence in the worldwide aviation landscape.

AVIATION SECTOR:

1. **Passenger Traffic and Growth:** Data on domestic air passenger traffic reaching approximately 165.7 million in FY25, with a 7.8% year-on-year increase, is from ICRA and reported by Financial Express and Mathrubhumi. Projections for continued 7–10% annual growth and expectations of 164–170 million passengers in FY25 are also attributed to ICRA.
2. **Market Position:** India's status as the world's third-largest domestic aviation market and plans for 350 airports by 2047 are cited by Economic Times, referencing statements from the Civil Aviation Minister at the IATA Global Aviation Summit 20252.
3. **Aircraft Fleet and Orders:** The ongoing expansion of airline fleets, including an order book of nearly 1,900 aircraft and continued weekly additions by major carriers, is detailed in ICRA and Alton Aviation Consultancy reports
4. **Airport Infrastructure:** The push for infrastructure growth, including the setup of 150 new airports and a target of 350 airports by 2047, is highlighted by Economic Times and Alton Aviation Consultancy
5. **Industry Challenges and Financials:** The sector's operational and financial challenges, including supply chain issues, engine reliability problems, and projected industry losses of ₹2,000–3,000 crore for FY25 and FY26, are discussed in Financial Express, Mathrubhumi, and Evrim Ağacı, all citing ICRA
6. **Long-Term Potential:** OAG's aviation market analysis outlines the historical and projected growth rates for domestic and international capacity, emphasising the opportunity for further expansion in both segments

Attribute	Details
Full Name	International Air Transport Association
Abbreviation	IATA
Year Founded	1945
Headquarters	Montreal, Canada (executive offices in Geneva, Switzerland)
Membership	Approximately 350 airlines (as of 2025), representing over 80% of global air traffic

Type	Nonprofit, international trade association
Governance	Governed by a General Meeting and a Board of Governors (executive committee)
Leadership	Director General (currently Willie Walsh)
Organizational Structure	Board of Governors, Director General, Advisory Councils, regional and subject experts
Main Objectives	- Ensure safe, regular, and economical air transport - Develop industry policy and standards - Promote collaboration and prevent economic waste - Support tourism and training - Cooperate with ICAO and other bodies
Key Activities	- Industry policy and standard setting - Safety auditing (e.g., IOSA) - Advocacy - Training and education - Financial and data services - Support for travel agents and operators

IMPORTANCE OF AIR TRANSPORT FOR THE INDIAN ECONOMY

1. **Major Economic Contributor:** The Indian aviation industry contributes $53.6 billion annually to the national economy, accounting for 1.5% of the country's GDP. This makes it a significant driver of economic growth and development.
2. **Employment Generation:** The sector supports approximately 7.7 million jobs, both directly and indirectly, across the country, highlighting its vital role in job creation.
3. **Boosts Tourism and Trade:** Aviation is essential for tourism, which itself accounts for 6.5% of India's GDP and 8.9% of total employment. International tourists, who primarily arrive by air, contribute $29.4 billion annually through local purchases, supporting a wide range of businesses and services.
4. **Facilitates Investment and Global Competitiveness:** Enhanced air connectivity increases India's competitiveness, productivity, and attractiveness for investment and trade, linking the country more effectively to global markets.
5. **Enables Industry Growth:** The aviation sector also drives growth in related industries such as aircraft manufacturing, maintenance, repair, and overhaul (MRO), with India targeting a $4 billion share of the global MRO market by 2031.

ROLE IN STRENGTHENING TIES BETWEEN CITIES

1. **Improved Connectivity:** Air transport connects over 100 Indian cities, significantly reducing travel times and making business, education, and healthcare more accessible to people across the country.
2. **Economic Integration:** By linking metropolitan centres with tier-2 and tier-3 cities, aviation promotes balanced regional development and facilitates the movement of goods, people, and ideas.
3. **Growth of Regional Economies:** The expansion of airports and new air routes, especially through government initiatives like the UDAN

scheme, has unlocked economic potential in previously underserved regions, fostering local entrepreneurship and job creation.

4. **Support for National Initiatives:** The government's plan to increase the number of airports to over 350 by 2047 aims to further strengthen intercity ties and support the vision of a developed and integrated India.

GOVERNMENT INITIATIVES IN INDIAN AIR TRANSPORT

1. **UDAN Scheme- Boosting Regional Connectivity:** Launched in 2016, UDAN aims to make air travel affordable by connecting underserved and unserved airports. As of 2024, 625 routes have been operationalized, linking 90 airports, including 2 water aerodromes and 15 heliports, benefiting over 1.49 crore passengers.
2. **Airport Infrastructure Expansion:** The government plans to invest ₹92,000 crore (~US$11 billion) to develop 50 new airports, targeting 350 operational airports by 2047 to meet rising aviation demand.
3. **MRO Sector Development:** To make India a global MRO hub, GST on domestic services was reduced from 18% to 5%, and 100% FDI is allowed. The sector aims to grow into a $4 billion industry by 2030.
4. **Promotion of Sustainable Aviation Fuels (SAF):** India is promoting SAF adoption to cut carbon emissions. Partnerships like Boeing-HPCL aim to scale production and implement sustainable aviation standards.
5. **Air Cargo Infrastructure Strengthening:** Under the National Civil Aviation Policy (2016), the Air Cargo Logistics Promotion Board was set up to reduce dwell times and streamline cargo operations.
6. **Aircraft Leasing Reforms – GIFT City:** Reforms at GIFT City support domestic aircraft leasing and financing, aligned with the Cape Town Convention, to lower leasing costs and reduce foreign dependency.
7. **Digi Yatra – Seamless Travel Experience:** This initiative uses facial recognition for paperless and contactless airport travel, improving passenger convenience, security, and efficiency.
8. **Gender Inclusivity in Aviation:** Aiming for 25% female workforce by 2025, the government promotes scholarships, flexible work policies, and training programs to support women in aviation.

MAJOR CHALLENGES FACED BY THE SECTOR

1. **High Operational Costs:** Indian airlines face high costs, especially due to elevated aviation fuel taxes, making operations less profitable.
2. **Regulatory and Tax Issues:** Uncertainty in tax structures and frequent regulatory changes complicate financial planning for airlines.
3. **Infrastructure Constraints:** Rapid growth in passenger numbers has outpaced the development of airport and air traffic control infrastructure, particularly in smaller cities.
4. **Supply Chain Disruptions:** Delays in aircraft and engine deliveries, as well as shortages of spare parts, have led to a portion of the fleet being grounded.
5. **Market Concentration:** A few major airlines dominate the market, which can limit competition and innovation.
6. **Manpower Shortages:** There is a shortage of skilled professionals such as pilots, engineers, and cabin crew, leading to operational disruptions.
7. **Low Per Capita Air Travel:** Despite growth, the number of air travelers per capita in India is still low compared to other large economies.
8. **Outdated Regulations:** Some aviation laws and policies are outdated and do not reflect the current needs of the industry.
9. **Air Cargo Limitations:** Dominance of Foreign Carriers: 90–95% of international cargo is handled by foreign airlines, highlighting the need for a level playing field for Indian operators

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WAY FORWARD

1. **Reform Taxes and Regulations:** Simplifying and rationalizing aviation fuel taxes and GST can reduce costs and regulatory burdens.
2. **Invest in Infrastructure:** Accelerating the construction and modernization of airports and air traffic systems, especially in smaller cities, will support future growth.
3. **Support Domestic Industry:** Expanding incentives for local aircraft manufacturing and MRO services can lower costs and create jobs.
4. **Focus on Sustainability:** Investing in sustainable aviation fuels and green airport infrastructure will help the sector meet global environmental standards.
5. **Develop Human Resources:** Training more pilots, engineers, and crew members is essential to address manpower shortages.
6. **Encourage Competition:** Supporting new entrants and fostering competition can improve service quality and innovation.
7. **Update Regulations:** Modernizing aviation laws to match global standards will help the industry adapt to new challenges and opportunities.

CONCLUSION

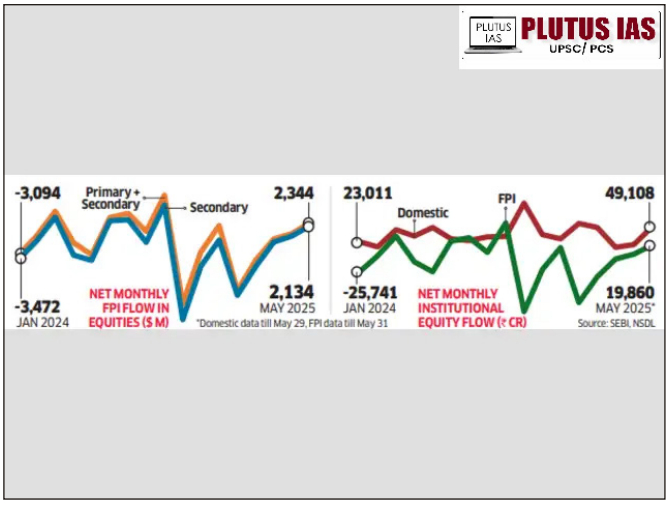
India's aviation sector stands as a cornerstone of the nation's economy and a pivotal pillar in the vision of 'Viksit Bharat' by 2047. It fuels economic growth and connectivity by contributing approximately $53.6 billion to the GDP and supporting around 7.7 million jobs. With plans to expand to 350 airports and accommodate up to 3.5 billion passengers annually by 2047, the sector is poised for significant growth. Government initiatives like the UDAN scheme and investments in sustainable aviation underscore this commitment. As India advances towards becoming a $30 trillion economy, a robust aviation industry will be instrumental in achieving inclusive and sustainable development.

Source: https://ddnews.gov.in/en/pm-modi-highlights-indias-aviation-boom-at-iatas-81st-annual-general-meeting

FPI CAUTION IN 2025: ASSESSING THE SHIFT IN INDIA'S IPO LANDSCAPE

WHY IN THE NEWS?

According to the *ET Intelligence Group*, Foreign Portfolio Investors (FPIs) have become cautious in India's primary market (IPOs) in 2025. They have invested just $1.8 billion (₹15,864 crore) in IPOs up to May, compared to $4 billion (₹33,487 crore) in the same period of 2024, reflecting a marked decline of over 55%.



WHAT IS FOREIGN PORTFOLIO INVESTMENT (FPI)?

Foreign Portfolio Investment (FPI) refers to investments made by foreign investors in a country's financial assets such as stocks, bonds, and mutual funds. Unlike Foreign Direct Investment (FDI), FPI does not involve direct control or management of companies. FPIs are typically more liquid and can be easily bought or sold on financial markets. They bring foreign capital into the economy, helping deepen capital markets and improve liquidity. However, FPIs are often more volatile and can be withdrawn quickly during times of economic uncertainty. Overall, FPI plays an important role in connecting global investors with domestic financial markets.

REASON FOR FPI CAUTION

1. **High Market Volatility:** Global geopolitical tensions and macroeconomic instability have increased volatility, discouraging risk-taking.

2. **Interest Rate Uncertainty:** Fluctuating interest rate outlooks in the US and Europe make emerging markets like India less attractive.
3. **Global Risk-off Sentiment:** Investors are moving away from equities and IPOs toward safer assets amid uncertain global cues.
4. **Slower IPO Activity:** Fewer IPOs are being launched due to subdued sentiment, reducing FPI opportunities.
5. **Muted Retail Participation:** Domestic retail investors have become cautious, impacting IPO subscription strength and momentum.
6. **Overvaluation of IPOs:** Aggressive pricing by issuers, especially in the startup space, has led to valuation concerns.
7. **Poor Post-listing Performance:** Several IPOs from 2024 underperformed post-listing, deterring repeat FPI investment.
8. **Currency Risk:** Fears of rupee depreciation reduce returns in dollar terms and increase repatriation risk for FPIs

SIGNIFICANCE OF FOREIGN PORTFOLIO INVEST -MENT (FPI) IN THE CONTEXT OF THE INDIAN ECONOMY

1. **Capital Inflows and Market Liquidity:** FPI brings substantial foreign capital into India's financial markets, enhancing liquidity and enabling smoother trading.
2. **Market Development and Depth:** It helps deepen and develop Indian stock and bond markets, making them more efficient and attractive to investors.
3. **Price Discovery and Efficiency:** Active participation of global investors through FPI facilitates better price discovery and overall market efficiency.
4. **Support for Economic Growth:** FPI provides companies with funds needed for expansion, infrastructure development, and business growth.
5. **Foreign Exchange Stability:** FPI inflows contribute to foreign exchange reserves, helping stabilize the Indian rupee and improve the balance of payments.
6. **Global Integration of Financial Markets:** FPI promotes integration of Indian financial markets with global capital markets, attracting further foreign investments.
7. **Diversification of Capital Sources:** By bringing in foreign funds, FPI diversifies India's capital sources beyond domestic savings and investments.
8. **Need for Regulation to Manage Volatility:** Given its volatile nature, FPI requires strong regulatory oversight to minimize risks from sudden capital outflows that can destabilize markets.

COMPARATIVE TRENDS

1. **2024 IPO Boom:** Record fundraising and heavy oversubscription, driven by liquidity, tech hype, and investor optimism.
2. **Tech-Sector Enthusiasm:** High interest in digital economy and fintech startups fuelled FPI investment in 2024.
3. **2025 Rationalisation:** Market sentiment has become cautious, with emphasis shifting from quantity to quality.
4. **Profit Booking Trend:** FPIs are now booking profits from earlier investments rather than investing afresh in IPOs.
5. **Selective Participation:** Focus has shifted to larger, stable companies with strong fundamentals.
6. **Smaller IPO Pipeline:** Fewer companies are listing in 2025 due to market conditions and weak investor demand.
7. **Changing Investor Priorities:** Shift from growth to safety due to global economic slowdown and interest rate hikes.
8. **Rise in Diligence:** FPIs are demanding greater transparency and stronger business models before investing.

IMPACT ON INDIAN CAPITAL MARKETS

1. **Lower IPO Demand:** Reduced FPI interest leads to under-subscription or reduced enthusiasm in IPOs.

2. **Capital Raising Challenges:** Startups and mid-cap companies face difficulties in mobilizing equity capital.
3. **Reduced Valuations:** Lack of demand pressure may force companies to lower IPO pricing, affecting valuations.
4. **Shift in Investor Base:** Domestic institutional investors (DIIs) are emerging as more prominent players.
5. **Change in Issuer Strategies**: Companies may delay or alter IPO plans based on funding availability.
6. **Impact on Innovation:** Slower funding may affect innovation and expansion in key sectors like tech and renewable energy.
7. **Short-Term Market Correction:** FPI withdrawals can increase volatility and lead to short-term corrections in equity indices.
8. **Reduced Global Confidence:** Persistent low participation may be seen as a signal of reduced global investor confidence.

WIDER CONTEXT

1. **Global Uncertainty:** Economic slowdown, supply chain disruptions, and geopolitical crises have impacted capital flows globally.
2. **Emerging Market Impact:** Similar cautious FPI behaviour seen across emerging economies, not just India.
3. **US Fed Policy Effect:** Hawkish signals from the US Federal Reserve influence global investment sentiment and FPI strategy.
4. **Inflationary Pressures:** Global inflation makes central banks cautious, leading to capital outflows from riskier markets.
5. **India's Macro Stability:** Despite global uncertainty, India's growth remains strong and inflation under control.
6. **Current Account Deficit:** Concerns over widening CAD and external vulnerabilities weigh on investor decisions.
7. **Oil and Commodity Prices:** Fluctuating global commodity prices impact India's trade balance and investor outlook.
8. **Geopolitical Realignments:** Ongoing global conflicts and sanctions regimes affect long-term FPI strategy and asset allocation.

WAY FORWARD

1. **Enhance Pricing Transparency:** Regulators must ensure that IPOs are fairly priced to avoid future listing losses.
2. **Improve Disclosure Standards:** Strengthening pre-IPO disclosures will help build investor trust.
3. **Boost Corporate Governance:** High governance standards attract long-term investors and reduce risk perception.
4. **Strengthen Investor Education:** Educating retail investors and analysts improves overall market depth.
5. **Policy Stability:** A predictable tax and regulatory regime encourages consistent FPI inflows.
6. **Ease Compliance Norms:** Streamlining procedural hurdles will improve ease of doing business for foreign investors.
7. **Encourage Quality Listings:** Promoting fundamentally strong companies to go public builds sustainable market growth.
8. **Maintain Macro Stability:** Continued economic reforms, fiscal discipline, and stable inflation will enhance India's FPI appeal.

CONCLUSION

The sharp decline in Foreign Portfolio Investor (FPI) participation in India's IPO market during 2025 reflects growing investor caution amidst global volatility, policy uncertainty, and valuation concerns. While the euphoria of 2024 was driven by liquidity and tech optimism, the current environment is marked by selective, quality-focused investing. This shift presents both challenges and opportunities for India's capital markets. To restore FPI confidence and maintain India's attractiveness as a long-term investment destination, policymakers, regulators, and market participants must prioritise transparency, governance, and policy predictability. With its strong macroeconomic fundamentals and

reform momentum, India remains well-positioned to weather global headwinds and attract sustainable foreign capital in the years ahead.

GREEN REVOLUTION 2.0: EMPOWERING THE MODERN INDIAN FARMER

WHY IN THE NEWS?

Agriculture remains the backbone of India's economy and cultural identity, sustaining millions. Under Prime Minister Narendra Modi's leadership over the past eleven years, India's agricultural landscape has witnessed transformational reforms guided by the philosophy of "Beej Se Bazaar Tak" (Seed to Market). This transformation is in the news due to its inclusive approach—prioritizing small and marginal farmers, women-led SHGs, and allied sectors like dairy and fisheries—and positioning India as a rising global agricultural power.

RECENT GOVERNMENT DATA ON INDIAN AGRICULTURE (2024–25

Category	Key Highlights
Total Foodgrain Output	Record 354 million tonnes (Mt) in 2024–25, fastest growth in 8 years.
Wheat Production	117.5 Mt (record high); previous year: 113.3 Mt.
Rice Production	149 Mt, up from 137.8 Mt in 2023–24.
Kharif Estimates (Nov '24)	Foodgrains: 1,647 LMT (Rice: 1,199 LMT; Maize: 245 LMT; Pulses: 69 LMT) Oilseeds: 257 LMT Sugarcane: 4,399 LMT Cotton: 299 L bales
Budget Allocation (2024–25)	Ministry total: ₹1.4 lakh crore PM-KISAN: ₹60,000 cr PMFBY: ₹13,625 cr AIF: ₹5,000 cr Digital Agri: ₹450 cr
Revised Estimates (2025–26)	Ministry total: ₹1.38 lakh crore PM-KISAN: ₹63,500 cr PMFBY: ₹12,242 cr RKVY: ₹8,500 cr Krishi Unnati: ₹8,000 cr
New Initiatives (2025)	PM Dhan Dhaanya Krishi Yojana ₹1,000 cr for Pulses Mission ₹500 cr for Horticulture Mission KCC limit raised to ₹5 lakh

Monsoon Forecast (2025)	Above-normal monsoon expected, boosting kharif sowing and curbing food inflation.
Sugar Sector	Sugarcane output (2025–26): ~35 Mt (+20%) India may resume exports (up to 3 Mt).
Cotton Crop (Punjab)	20% rise in acreage: 2.98 lakh acres planted due to subsidies and diversification push.

RELEVANCE OF INDIAN AGRICULTURE IN THE INDIAN ECONOMY

1. **Major Source of Livelihood:** Agriculture provides direct and indirect employment to over 50% of India's workforce, especially in rural areas.
2. **Contribution to GDP:** Although its share in GDP has declined, agriculture still contributes around 15–18% to India's Gross Value Added (GVA).
3. **Food Security Backbone:** Agriculture ensures national food security by producing essential foodgrains like rice, wheat, and pulses for the 1.4+ billion population.
4. **Raw Material Provider:** It supplies vital raw materials to major industries like textiles (cotton), sugar (sugarcane), food processing, and agrochemicals.
5. **Export Earnings:** India is a leading global exporter of rice, spices, cotton, tea, and marine products. Agri-exports were worth over $50 billion in 2022–23.
6. **Rural Development Engine:** Agriculture drives rural demand, infrastructure, credit flow, and supports allied sectors like animal husbandry, dairy, and fisheries.
7. **Employment for Women:** A significant portion of the female workforce in rural India is engaged in agricultural activities, especially in post-harvest and small-scale farming.
8. **Support to MSMEs:** Many Micro, Small and Medium Enterprises (MSMEs) rely on agriculture for inputs and operate in agri-value chains.
9. **Buffer Against Economic Shocks:** During crises like COVID-19, agriculture showed resilience, recording positive growth when other sectors contracted.

GOVT POLICIES TO IMPROVE INDIAN AGRICULTURE

1. **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):** Provides ₹6,000 per year in three installments to all landholding farmers as direct income support.
2. **Pradhan Mantri Fasal Bima Yojana (PMFBY):** Offers crop insurance against natural calamities, pests, and diseases at low premium rates, ensuring risk coverage.
3. **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY):** Aims for "Har Khet Ko Pani" by promoting micro-irrigation and efficient water use in agriculture.
4. **e-National Agriculture Market (e-NAM):** An online trading platform to ensure transparent and competitive price discovery across more than 1300 mandis.
5. **Soil Health Card Scheme:** Provides farmers with soil quality assessments and crop-specific fertiliser recommendations to promote balanced nutrient management.
6. **Agriculture Infrastructure Fund (AIF):** A ₹1 lakh crore fund to support the creation of post-harvest infrastructure like cold chains, warehouses, and processing units.
7. **Minimum Support Price (MSP) Policy:** Ensures remunerative prices for farmers by guaranteeing MSP for 23 crops and procurement through FCI and other agencies.
8. **Support for Agri Startups & Innovation (e.g., Namo Drone Didi, AgriSURE):** Promotes technology adoption through AI, drones, and digital tools to make farming more precise, data-driven, and productive.

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WHAT ARE THE ISSUES IN INDIAN AGRICULTURE?

1. **Fragmented and Small Landholdings:** Over 85% of farmers are small and marginal with less than 2 hectares, leading to low productivity and poor economies of scale.
2. **Dependence on Monsoons and Poor Irrigation:** Nearly 50% of agricultural land still depends on rainfall; erratic monsoons lead to crop failures and distress.
3. **Low Productivity and Yield:** India's crop yields are lower than global averages, especially in pulses and oilseeds, due to outdated practices and inputs.
4. **Inadequate Infrastructure:** Lack of cold storage, warehousing, rural roads, and processing units causes high post-harvest losses (up to 20-30%).
5. **Market Inefficiencies and Price Volatility:** Farmers often face distress sales due to lack of market access and price discovery; MSP coverage is uneven across crops and regions.
6. **High Input Costs and Debt Burden:** Rising costs of seeds, fertilizers, and diesel with low returns push many farmers into debt traps.
7. **Limited Access to Credit and Insurance:** Formal credit access is limited; despite PMFBY, many farmers remain uninsured or underinsured due to procedural hurdles.
8. **Climate Change and Environmental Stress:** Increasing frequency of droughts, floods, heatwaves, and declining soil health are reducing productivity and increasing risk.

WAY FORWARD

1. **Land Consolidation and Reforms:** Promote cooperative and group farming models to overcome fragmentation and improve productivity.
2. **Expansion of Irrigation Infrastructure:** Speed up implementation of PMKSY and adopt micro-irrigation (drip/sprinkler) to ensure water-use efficiency.
3. **Promotion of Climate-Resilient Agriculture:** Encourage crop diversification, agroforestry, and resilient seed varieties to mitigate climate change impacts.
4. **Strengthening Agri Infrastructure:** Invest in cold chains, warehouses, rural roads, and food processing units under schemes like AIF and PMFME.
5. **Market Reforms and eNAM Integration:** Ensure better price realisation through expanded MSP coverage, eNAM linkage, and removal of APMC barriers.
6. **Boosting Agri-Tech and Innovation:** Promote the use of drones, AI, precision farming, and startups via schemes like the Digital Agriculture Mission and AgriSURE.
7. **Improving Institutional Credit and Insurance:** Expand KCC access and strengthen PM-FBY with faster claim settlement and better coverage.
8. **Enhancing Farmer Income and Welfare:** Ensure timely DBT under PM-KISAN, skill development, and promotion of allied sectors like dairy and fisheries.

CONCLUSION

Indian agriculture remains the cornerstone of the nation's socio-economic fabric, ensuring food security, employment, and rural livelihoods. Despite persistent structural challenges such as low productivity, climate risks, and market inefficiencies, the sector has shown resilience and growth, especially in recent years. Government initiatives like PM-KISAN, PMFBY, AIF, and digital innovations have started reshaping the landscape toward a more inclusive, tech-driven, and market-oriented system. Going forward, a holistic and sustainable approach—focused on farmer welfare, infrastructure, and climate-smart practices—is essential to make Indian agriculture globally competitive, resilient, and profitable for every farmer.

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EMPOWERING BHARAT WITH TECHNICAL TEXTILES: A MAKE IN INDIA SUCCESS STORY

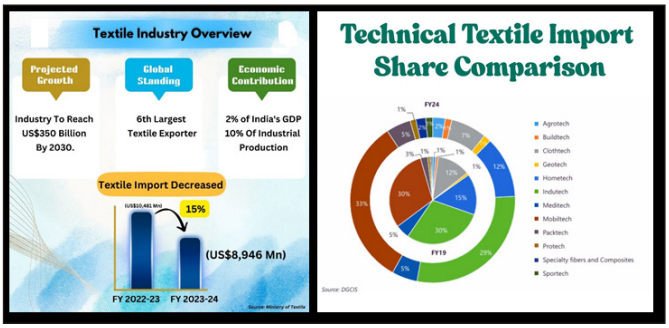
WHY IN THE NEWS?

Prime Minister Shri Narendra Modi recently highlighted the rapid transformation of India's technical textiles sector, citing key government initiatives like the National Technical Textiles Mission (NTTM) and the Production Linked Incentive (PLI) scheme. In response to a post by Union Minister Shri Giriraj Singh on social media platform X, the Prime Minister acknowledged that these initiatives are significantly boosting domestic manufacturing, fostering innovation, and enhancing exports. This growing momentum is positioning India as a global leader in the technical textiles industry.

WHAT IS A TECHNICAL TEXTILE?

Technical textiles are specially engineered fabrics designed for functional purposes rather than aesthetics. They are used in various industries such as automotive, construction, agriculture, healthcare, and defence. These textiles offer properties like high strength, durability, resistance to heat or chemicals, and specialized performance like protection or filtration. Unlike traditional textiles used for clothing or decoration, technical textiles are meant to solve practical problems. Examples include airbags, crop covers, geotextiles, and medical gowns. They play a vital role in modern industry and are increasingly important for innovation and development.

THE TEXTILE TECHNICAL SECTOR IN INDIA:DATA



GOVT INITIATIVES: NATIONAL TECHNICAL TEXTILE MISSION

1. **Grant for Internship Support for Technical Textiles (GIST 2.0):** Launched under NTTM, GIST 2.0 bridges the gap between industry and academia by offering hands-on learning opportunities in technical textiles. It fosters local innovation, supports the Make in India initiative and helps empower young talent to drive growth in the textile sector.
2. **Grant for Research & Entrepreneurship across Aspiring Innovators in Technical Textiles (GREAT) Scheme:** Launched in August 2023, the program provides funding to help translate prototypes into technologies and products for commercialization. So far, 8 startups have been granted ₹50 lakh each for innovations in medical, industrial and protective textiles. Additionally, three educational institutes, including IIT Indore and NIT Patna, received ₹6.5 crore to introduce specialised courses in geotextiles, geosynthetics, and sports textiles.
3. **Skill Development Programs:** To meet the growing demand in the technical textiles sector, NTTM aims to train 50,000 individuals, including undergraduate students, unskilled workers, and professionals. The initiative provides targeted skill development through 12 industry-focused courses developed by organisations like SITRA (South India Textiles Research Association), NITRA (Northern India Textile Research Association) and SASMIRA (South Ahmedabad Silk Mill and Industrial Research Association) in areas like medical, protective, mobile, and agricultural textiles.

4. **Technotex 2024:** Held as part of Bharat Tex 2024, showcased the strength of India's technical textiles sector, offering a platform to explore global investment opportunities. A highlight of the event was the Innovation Zone under the National Technical Textiles Mission (NTTM), spanning 693 square meters. This dedicated pavilion featured 71 cutting-edge projects, with 48 presented as prototypes and 23 through informative posters.

TECHNICAL TEXTILE APPLICATION

1. **Agrotech (Agricultural Textiles):** Used in shade nets, crop covers, and mulch mats to improve crop yield, reduce pesticide use, and protect crops from pests and extreme weather.
2. **Buildtech (Construction Textiles):** Includes materials like geogrids and scaffolding nets used for concrete reinforcement, noise barriers, and structural safety in construction.
3. **Clothtech (Clothing Textiles):** Used in zippers, sewing threads, and interlinings to enhance the durability, functionality, and aesthetics of garments.
4. **Geotech (Geotextiles):** Applied in road construction, drainage, and erosion control to improve soil stability and increase the life of infrastructure projects.
5. **Meditech (Medical Textiles):** Includes surgical masks, gowns, wound dressings, and sanitary products that ensure hygiene, patient care, and infection control.
6. **Mobiltech (Automotive Textiles):** Used in seat belts, airbags, and upholstery to enhance vehicle safety, comfort, and performance.
7. **Packtech (Packaging Textiles):** Encompasses woven sacks, FIBCs, and jute bags used for durable, reusable, and moisture-resistant packaging of goods.
8. **Indutech (Industrial Textiles):** Includes filtration fabrics, conveyor belts, and insulation products that improve industrial efficiency and safety.

TECHNICAL TEXTILE PROMOTION IN INDIA

Initiative/Area	Details
1. NTTM (2020–24)	₹1,480 crore mission to boost domestic production, R&D, education, exports of technical textiles.
2. GIST 2.0	Internship support to students bridges the industry-academia gap.
3. GREAT Scheme	₹50 lakh each to startups; ₹6.5 crore to institutes (e.g., IIT Indore, NIT Patna) for specialized courses.

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4. Skill Development	Target to train 50,000 individuals via 12 industry-specific courses by SITRA, NITRA, SASMIRA, etc.
5. Technotex 2024	Showcased 71 innovations (48 prototypes); platform for investment & global outreach.
6. Education Support	Specialised technical textile courses have been introduced in IITs, NITs, and textile institutes.
7. BIS Standards	500+ standards developed to ensure product quality and global competitiveness.
8. Make in India Focus	Encouragement for indigenous manufacturing of machinery and materials.
9. Export & FDI Promotion	Support via PLI schemes, trade fair participation, and investment facilitation.
10. State-Level Support	States like Tamil Nadu, Gujarat, Maharashtra are offering policy and infrastructure incentives.

CHALLENGES IN TECHNICAL TEXTILES IMPLEMENTATION

1. **Low Awareness:** Limited understanding among industries, consumers, and policymakers about technical textiles and their benefits.
2. **Weak Domestic Demand:** Slow adoption across sectors like agriculture, construction, and healthcare restricts market growth.
3. **Skill Shortages:** Inadequate availability of trained personnel and limited specialised training programs.
4. **High Import Dependence:** Reliance on imported machinery and speciality raw materials raises production costs.
5. **Insufficient R&D and Innovation:** Poor industry-academia collaboration and low investment in research hinder innovation.
6. **Lack of Testing Infrastructure:** Few accredited labs and testing centres limit quality assurance and global competitiveness.
7. **Fragmented Industry Structure:** Dominated by MSMEs with limited resources for scaling, modernisation, and exports.
8. **Regulatory Gaps:** Delayed implementation of BIS standards and lack of mandatory usage norms in key sectors.

WAY FORWARD

1. **Enhance Awareness:** Conduct nationwide awareness campaigns to educate industries and end-users on benefits and applications.
2. **Strengthen Skill Development:** Expand industry-aligned training programs and integrate technical textiles into higher education curricula.
3. **Promote Indigenous Manufacturing:** Encourage domestic production of machinery and specialty fibers under Make in India and Atmanirbhar Bharat.
4. **Boost R&D and Innovation:** Increase funding and industry-academia partnerships to develop cost-effective, market-ready innovations.
5. **Expand Market Demand:** Introduce mandatory usage policies in public infrastructure, defence, agriculture, and healthcare.
6. **Develop Testing Facilities:** Establish more accredited labs for quality certification, standard compliance, and export readiness.
7. **Support MSMEs:** Provide financial and technical assistance to help MSMEs upgrade technology and access global markets.
8. **Streamline Regulations:** Fast-track implementation of BIS standards and create a single-window system for policy facilitation.

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CONCLUSION

The technical textiles sector holds immense potential to revolutionise India's industrial landscape through innovation, value addition, and employment generation. With strategic government interventions like the National Technical Textiles Mission, skill development programs, and startup support schemes such as GIST 2.0 and GREAT, India is steadily emerging as a global hub for technical textiles. However, challenges like low awareness, skill gaps, and weak R&D must be systematically addressed. A collaborative approach involving industry, academia, and the government will be crucial to unlocking the sector's full potential, promoting self-reliance, and achieving sustainable economic growth.

INDIA'S EXPORTS RISE 2.77% IN MAY TO $71.12 BILLION; TRADE DEFICIT NARROWS

WHY IN THE NEWS?

India's overall exports, including both merchandise and services, rose by 2.77% year-on-year in May 2025 to $71.12 billion, up from $69.20 billion in May 2024, as per Commerce Ministry data. This growth was driven by a significant rise in services exports, which increased to $32.39 billion from $29.61 billion, even as merchandise exports dipped slightly to $38.73 billion. Imports declined marginally to $77.75 billion, helping the trade deficit narrow to $6.62 billion from $9.35 billion a year earlier. Over April–May 2025, cumulative exports grew 5.75% to $142.43 billion, while imports rose 6.52% to $159.57 billion. However, the trade deficit during this period widened slightly to $17.14 billion, compared to $15.12 billion in April–May 2024.

TRADE PERFORMANCE OVERVIEW

1. **Overall Growth:** India's exports rose by 2.77% in May 2025 to $71.12 billion, compared to $69.20 billion last year.
2. **Merchandise Exports Dip:** Goods exports fell slightly to $38.73 billion from $39.59 billion in May 2024.
3. **Services Exports Rise:** Services exports increased to $32.39 billion, up from $29.61 billion.
4. **Moderate Import Decline:** Total imports declined to $77.75 billion from $78.55 billion in May 2024.
5. **Improved Trade Balance:** The trade deficit narrowed to $6.62 billion, from $9.35 billion a year ago.
6. **Service Sector Cushioning:** Services played a crucial role in balancing overall trade performance.
7. **Lower Import Bill:** Decline in oil and commodity prices contributed to reduced imports.
8. **Stability Amid Global Uncertainty:** Despite global challenges, India's external sector showed resilience.

SECTORAL BREAKDOWN

1. **Underperforming Sectors:** Exports of textiles, gems & jewellery, and engineering goods witnessed declines.
2. **Export Challenges:** Factors such as weak global demand and higher freight costs affected merchandise trade.
3. **Resilient Sectors:** Electronics, pharmaceuticals, and agro-products showed relative stability.
4. **IT-Led Services Growth:** Growth in software services, BPO, and consulting boosted overall services exports.
5. **Global IT Demand:** India benefited from demand for cloud computing, AI solutions, and cybersecurity services.
6. **Tourism Recovery:** A rebound in travel and tourism services added to services export growth.

7. **Knowledge Services Expansion:** Exports of education, design, and research-based services are gaining traction.
8. **Diversification in Services:** India is evolving from IT-only to a broad-based service exporter.

FISCAL YEAR-TO-DATE PERFORMANCE

Point	Details
April–May Export Growth	India exported $142.43 billion in April–May 2025, showing a 5.75% increase YoY.
Imports Rising Faster	Imports reached $159.57 billion, a 6.52% increase compared to April–May 2024.
Widening Trade Gap	The cumulative trade deficit widened to $17.14 billion, up from $15.12 billion last year.
Positive Export Momentum	Despite headwinds, exports showed resilience and upward momentum.
Services Driving Growth	Services sector led the export growth, cushioning the fall in goods exports.
Goods Under Pressure	Merchandise exports were affected by weak global demand and external shocks.
Import Drivers	Import rise driven by electronics, energy needs, and fertilizers.
Balanced Trade Strategy Needed	Suggests the need for coherent policies on export promotion and import substitution.

IMPLICATIONS FOR THE ECONOMY

1. **Current Account Impact:** Narrower monthly trade deficit helps improve the Current Account Balance (CAB).
2. **Rupee Stability:** Better trade data supports currency stability and investor confidence.
3. **Offsetting Weakness:** Services exports are mitigating the decline in goods exports.
4. **Employment Effects:** Service sector growth supports white-collar employment, particularly in urban hubs.
5. **Forex Reserve Support:** Rising exports contribute to foreign exchange reserves and macro stability.
6. **Inflation Moderation:** Controlled import bill helps manage imported inflation risks.
7. **MSME Concerns:** Merchandise export slowdown may impact MSME-led sectors significantly.
8. **GDP Growth Linkage:** Strong trade performance is essential for sustaining India's GDP growth trajectory.

GOVERNMENT MEASURES AND TRADE POLICY

1. **PLI Incentives:** Production Linked Incentive schemes promote high-value and strategic exports.
2. **FTAs and CEPA:** India is leveraging FTAs with UAE, Australia, and others for greater market access.
3. **Service Export Push:** Special focus on education, healthcare, and fintech services in policy planning.

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4. **Digital Infrastructure:** Platforms like ICEGATE and DGFT portal are streamlining trade logistics.
5. **Market Diversification:** India is exploring Africa, Latin America, and Central Asia to expand export destinations.
6. **Global Trade Engagement:** Active participation in WTO, IPEF, and bilateral dialogues to resolve trade issues.
7. **MSME Export Support:** Capacity building, technology upgradation, and financial aid being extended to MSMEs.

GLOBAL TRADE CONTEXT

1. **Uneven Recovery:** Global trade recovery remains inconsistent, influenced by conflicts and inflation.
2. **Demand Sluggishness:** Export markets like the EU and US are witnessing demand fatigue.
3. **China's Comeback:** China's renewed export push is heightening competition for Indian products.
4. **Monetary Tightening Effects:** High interest rates globally have reduced import appetite.
5. **Rising Protectionism:** Trade barriers and non-tariff restrictions are affecting India's market access.
6. **Opportunity from Friend-shoring:** India is well-placed to benefit from supply chain realignment.
7. **Commodity Price Swings:** Prices of crude oil, fertilisers, and metals are influencing trade costs.
8. **Peer Comparison:** India's performance is relatively strong among emerging economies like Brazil and Indonesia.

WAY FORWARD

1. **Boost Manufacturing:** Strengthen productivity and output in key industrial export sectors.
2. **Make in India Push:** Enhance domestic capacity in electronics, defence, and renewables.
3. **Brand India:** Promote Indian products globally through branding and quality standardisation.
4. **Explore New Markets:** Expand trade relationships with under-tapped regions like Africa and Latin America.
5. **Improve Logistics:** Invest in port infrastructure, logistics parks, and seamless customs processes.
6. **Empower MSMEs:** Provide credit, training, and technology access to small exporters.
7. **Digital Export Expansion:** Promote e-commerce exports, especially in handicrafts and niche sectors.
8. **Reduce Import Dependence:** Encourage domestic alternatives in electronics, energy, and capital goods.

CONCLUSION

India's trade story in May 2025 reveals both resilience and opportunity. Services exports are increasingly becoming the backbone of external trade, even as merchandise faces global headwinds. A balanced and strategic approach — combining manufacturing push, services diversification, and market expansion — will be key to sustaining export momentum, managing the trade deficit, and ensuring macroeconomic stability in an uncertain global environment.

INDIA'S ENERGY SURGE: IEA RANKS NATION JUST BEHIND US AND CHINA IN POWER OUTPUT GROWTH

WHY IN THE NEWS?

India has emerged as the country with the third-highest growth in power generation globally over the past five years, trailing only China and the United States, according to a recent IEA report. This growth is attributed to rising electricity demand driven by expanding residential, commercial, and industrial usage. To meet this demand, India has significantly scaled up power generation across both conventional and renewable sources. A major highlight is the country's strong focus on clean energy, especially solar PV, which accounted for over half of its non-fossil energy investment. In 2024 alone, 83% of power sector investment was

directed toward clean energy. India also became the top recipient of development finance for clean energy, securing $2.4 billion in project-specific funding.

RISING ELECTRICITY DEMAND IN INDIA

1. **Rapid Urbanisation & Smart Cities Push:** Accelerated growth of Tier-2 and Tier-3 cities and urban infrastructure under Smart Cities Mission is increasing electricity consumption.
2. **Industrial Growth & Manufacturing Expansion**: Schemes like PLI (Production Linked Incentive) and 'Make in India' are driving energy demand in industrial hubs and SEZs.
3. **Increased Household Appliance Penetration:** Rising middle-class income has led to higher ownership of energy-intensive appliances such as refrigerators, air-conditioners, and washing machines.
4. **Digitalisation & Electrification of Services:** Expanding data centres, digital payments, and e-governance platforms have raised the base power load across sectors.
5. **Electrification of Transportation**: Growth in Electric Vehicles (EVs) and related charging infrastructure is steadily adding to grid demand.
6. **Wider Rural Electrification & Saubhagya Impact:** Universal household electrification has added millions of new connections, expanding the electricity demand base.
7. **Heatwaves and Climate Change:** Frequent and intense heatwaves in 2024–25 have led to record peak electricity demand for cooling (ACs and fans).
8. **Expansion of Commercial Infrastructure:** Boom in real estate, malls, office complexes, and logistics parks (post-COVID recovery) has contributed to higher energy usage.

DIVERSIFIED GROWTH ACROSS ENERGY SOURCES – INDIA'S STRATEGY

1. **Thermal Power Still Backbone of Base Load:** Despite the green push, coal-based thermal plants continue to supply ~70% of India's electricity due to reliability and load-bearing capacity.
2. **Hydropower Expansion in the Himalayan States:** Major projects like Arun-3 and Pakal Dul in J&K and Sikkim have boosted clean energy generation and grid stability.
3. **Revival of Nuclear Energy Push:** Indigenous PHWR (Pressurised Heavy Water Reactors) development and international collaborations (e.g., with France & Russia) have revived nuclear projects.
4. **Surge in Solar PV Installations:** Solar capacity crossed 85 GW in 2024, driven by the PM-KUSUM, Rooftop Solar Programme, and large-scale solar parks.
5. **Wind Energy Developments Along the Coasts:** Offshore and onshore wind projects, especially in Gujarat and Tamil Nadu, are being scaled up with support from IREDA and MNRE.
6. **Government Policies Encouraging Mix:** National Electricity Plan (NEP 2023), Renewable Energy Targets, and the Energy Transition Roadmap promote balanced growth across sectors.
7. **Battery Storage and Hybrid Projects:** Growth of solar-wind hybrid systems and investment in battery energy storage systems (BESS) ensures efficient energy use and grid reliability.
8. **Private Sector & FDI in All Segments:** Companies like NTPC, Adani Green, and Tata Power are investing across all sources; FDI is allowed up to 100% in power generation (except nuclear)

PUSH TOWARDS RENEWABLE ENERGY – INDIA'S GREEN SHIFT

1. **Solar PV Dominates Clean Energy Investment:** Solar photovoltaic (PV) alone made up over 50% of non-fossil energy investment in India over the past five years.
2. **Large-Scale Solar Parks & Rooftop Installations:** Programs like PM-KUSUM, Rooftop Solar Phase II, and Ultra Mega Solar Parks accelerated solar deployment nationwide.
3. **Renewables Driving Capacity Addition:** Renewable energy accounted for a major share of new power capacity additions, surpassing fossil fuels.
4. **Green Hydrogen & Bioenergy Initiatives:** India launched the National Green Hydrogen Mission and expanded use of biomass, waste-to-energy, and bio-CNG.
5. **83% of Power Sector Investment in 2024 in Clean Energy:** According to IEA, ₹6.6 lakh crore (~USD 80 billion) was invested in clean energy initiatives in 2024 alone.
6. **Integration with Storage and Smart Grids:** Investment in battery energy storage systems (BESS) and smart grid technologies supports intermittent renewables.
7. **Global Support & Climate Commitments:** India's renewables growth is supported by international climate finance, ISA (International Solar Alliance) cooperation, and its net-zero 2070 pledge.

FOREIGN INVESTMENT TRENDS – POWER SECTOR INDIA

1. **FDI Reached USD 5 Billion in 2023:** Foreign direct investment almost doubled compared to pre-pandemic levels, reflecting strong investor confidence.
2. **100% FDI Allowed in Power Sector (Excl. Nuclear):** India allows automatic route FDI in generation, transmission, and distribution, promoting private and global participation.
3. **Key Investment from Energy Majors:** Firms like Brookfield, TotalEnergies, and BlackRock made strategic entries in renewables and transmission infra.
4. **Development Finance Institutions (DFIs) Support:** India received USD 2.4 billion from DFIs in 2024, the highest globally, mainly for solar and wind projects.
5. **Dip in Foreign Portfolio Investment (FPI):** FPI in the power sector declined over the past two years due to global macroeconomic uncertainty and rupee volatility.
6. **Policy Reforms Boosting Investor Confidence:** Initiatives like Electricity Amendment Bill, carbon market development, and renewable purchase obligations (RPOs) improved the ease of doing business.
7. **Infrastructure Push through Gati Shakti & NIP:** Cross-sectoral infrastructure growth under Gati Shakti and the National Infrastructure Pipeline (NIP) created long-term investment opportunities in power logistics.

DEVELOPMENT FINANCE & GLOBAL COOPERATION

1. **India Top Recipient of DFI Funding in 2024:** India received USD 2.4 billion from Development Finance Institutions (DFIs) for clean energy, the highest globally.
2. **Project-Specific Focus:** Funds were allocated to solar PV parks, wind farms, transmission corridors, and green hydrogen projects.
3. **Key International Contributors:** DFIs like the World Bank, ADB, AIIB, and Germany's KfW played a major role in supporting clean energy projects.
4. **Support for Innovation & Pilot Projects:** International funds also backed R&D in energy storage, microgrids, and smart meters under pilot schemes.
5. **Capacity Building & Technical Support:** Cooperation extended to technical training, feasibility studies, and energy planning via bilateral partnerships.
6. **India's Role in Global Climate Platforms:** Active engagement in ISA (International Solar Alliance) and One Sun One World One Grid (OSOWOG) elevated India's global standing.

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7. **Tied to Climate Goals & Just Energy Transition:** Funding aligned with India's Net Zero by 2070 pledge and ensured a just transition for coal-dependent regions.
8. **Catalyst for Private Investment:** DFI backing acted as a risk mitigator, encouraging private equity and FDI into green infrastructure.

CHALLENGES & OPPORTUNITIES IN INDIA'S POWER SECTOR

Challenges	Opportunities
Macroeconomic Headwinds Global inflation, interest rate hikes, and currency volatility affect foreign capital flows and increase financing costs.	**Massive Domestic Demand Growth** Urbanisation, industrialisation, and digitalisation are driving long-term electricity demand.
Grid Bottlenecks Outdated transmission systems cause congestion and hinder renewable energy integration.	**Government Push for Clean Energy** Flagship schemes like PM-KUSUM, PLI, and the Green Hydrogen Mission are creating growth avenues.
Storage Deficit Limited deployment of battery energy storage systems (BESS) affects reliability of renewables.	**Energy Transition for Energy Security** Shift from fossil fuels enhances energy independence and price stability.
Land Acquisition & Clearances Delays in land and environmental clearances slow large-scale RE projects.	**Global Climate Finance Flows** India benefits from Green Climate Fund, JETP, and other international finance avenues.
Financial Health of DISCOMs High debt and poor efficiency reduce DISCOMs' capacity to purchase power or invest.	**Renewable Manufacturing Potential** PLI and 'Make in India' policies position India as a manufacturing hub for clean tech.
Policy Uncertainty Delays or rollbacks in subsidies, open access, and tariffs create investor uncertainty.	**Private Sector Participation** Liberal policies and de-risking frameworks attract private and institutional investment.
Dependence on Imports for Solar Components High reliance on Chinese imports makes supply chains vulnerable.	**International Cooperation Platforms** India's leadership in ISA, G20, and BRICS enhances global collaboration and funding.
Fluctuating FPI Trends A drop in foreign portfolio investment due to short-term risks and macroeconomic instability.	**Emerging Tech Adoption** Focus on AI-powered smart grids, BESS, and green hydrogen is opening new tech-driven growth.

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CONCLUSION

India is steadily emerging as a global leader in the energy transition, driven by rapid growth in clean energy capacity, rising investments, and supportive government initiatives. The country's focus on renewable energy, grid upgrades, and sustainable practices reflects its commitment to meeting climate goals and ensuring energy security. However, addressing challenges like infrastructure bottlenecks, financing gaps, and regulatory uncertainties remains crucial. Sustained policy support, technological innovation, and international cooperation will be key to navigating these hurdles. With the right momentum, India can set an example for inclusive and resilient energy development worldwide.

PRELIMS QUESTIONS

1. With reference to the RoDTEP (Remission of Duties and Taxes on Exported Products) scheme, consider the following statements:

1. It aims to reimburse embedded taxes and duties not refunded under any other export incentive scheme.
2. The scheme is WTO-compliant and replaced the MEIS scheme.
3. Initially, the scheme covered Advance Authorisation holders and SEZ units.

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

2. Consider the following statements regarding the International Air Transport Association (IATA):

1. IATA is a global trade association representing airlines.
2. India has hold the IATA meetings for the first time in 2025.
3. IATA's core functions include developing industry standards, advocating for fair regulations, and organising the World Air Transport Summit (WATS).

Which of the above statements is/are correct?

(a) 1 and 2 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2 and 3

3. Consider the following statements regarding Foreign Portfolio Investors (FPIs) and their role in India's capital market in 2025:

1. FPIs have increased their investments in Indian IPOs in 2025 compared to 2024.
2. High market volatility and rupee depreciation risks have led to cautious FPI participation.
3. FPIs prefer investing in companies with strong fundamentals and robust corporate governance.

Which of the above statements is/are correct?

(a) 1 and 2 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2 and 3

4. With reference to Indian agriculture, consider the following statements:

1. The Agriculture Infrastructure Fund (AIF) provides interest subvention for setting up post-harvest management infrastructure.
2. The PM-KISAN scheme is implemented by the Ministry of Agriculture and Farmers Welfare.
3. India is the world's largest producer of pulses, milk, and spices.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only

(c) 1, 2 and 3 (d) 1 only

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5. With reference to technical textiles in India, consider the following statements:

1. The National Technical Textiles Mission aims to boost both domestic consumption and exports.
2. The GREAT scheme provides funding to promote textile exports only.
3. GIST 2.0 is an initiative to support startups in the technical textiles sector.

Which of the statements given above is/are correct?

(a) 1 only (b) 1 and 2 only

(c)1 and 3 only (d) 2 and 3 only

6. Consider the following statements with reference to India's trade performance in May 2025:

1. India's overall exports grew due to a sharp increase in merchandise exports.
2. Services exports helped narrow the trade deficit.
3. Imports in May 2025 were higher than in May 2024.

Which of the statements is/are correct?

(a) 1 and 2 only (b) 2 only

(c) 1 and 3 only (d) 2 and 3 only

7. With reference to India's power sector, consider the following statements:

1. India was the top recipient of global development finance for clean energy projects in 2024.
2. In 2024, more than 80% of India's power sector investment was directed towards clean energy.
3. Solar photovoltaic accounted for less than 30% of non-fossil energy investment in India from 2019 to 2024.

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

ANSWER-KEY

1.(a)	2.(c)	3.(b)	4.(c)	5.(c)	6.(b)	7.(a)

MAINS QUESTIONS

1. The RoDTEP scheme represents a significant shift in India's export incentive framework. Discuss its key features and importance in promoting export competitiveness. Highlight the major challenges faced by Indian exporters and suggest a way forward for strengthening India's position in global trade.

(250 words, 15 marks)

2. Discuss the key challenges confronting the Indian air transport sector and analyse the policy recommendations proposed by various expert committees to address these issues.

(250 words, 15 marks)

3. Foreign Portfolio Investors (FPIs) have shown increasing caution towards India's IPO market in 2025, marking a sharp contrast to the enthusiasm of 2024. Discuss the reasons behind this shift. What are its implications for India's capital markets, and what policy measures can revive sustained FPI interest?

(250 words, 15 marks)

4. Despite sustained efforts and reforms, Indian agriculture continues to face structural challenges. Discuss the major issues confronting the sector and suggest a way forward to make it more resilient, profitable, and sustainable

(250 words, 15 marks)

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5. Technical textiles are critical to India's aspirations for industrial innovation and self-reliance. Discuss the importance of technical textiles in India, the challenges in their implementation, and suggest a way forward.

(250 words, 15 marks)

6. India's trade performance in May 2025 reflects a mixed outlook for the external sector. While services exports remain strong, merchandise trade faces global headwinds. Discuss the key trends, sectoral dynamics, and implications for the economy. Suggest a policy roadmap to ensure a stable and growth-oriented trade regime

(250 words, 15 marks)

7. India's power sector is undergoing a rapid transformation, balancing the imperatives of clean energy, domestic demand, and energy security. Critically analyse the challenges and opportunities in India's power sector in the post-2023 context.

(250 words, 15 marks)

INTERNATIONAL DAY OF BIODIVERSITY 2025: PROTECTING LIFE'S WEB FOR GENERATIONS TO COME

WHY IN THE NEWS?

International Day for Biological Diversity is an important annual observance that shines a spotlight on the importance of biodiversity and the urgent need to protect it. Celebrated every year on 22 May, this day commemorates the adoption of the text of the Convention on Biological Diversity (CBD) in 1992.

WHAT IS BIOLOGICAL DIVERSITY?

Biological diversity, or biodiversity, refers to the variety of all living organisms on Earth, including plants, animals, microorganisms, and the ecosystems they form. It includes diversity at the genetic, species, and ecosystem levels. Biodiversity plays a crucial role in maintaining ecological balance, supporting food security, and providing resources like medicine and clean air. However, it is under threat from habitat loss, pollution, overexploitation, and climate change. Conserving biodiversity is essential for sustaining life and ensuring a healthy planet for future generations.

GLOBAL INITIATIVES AND FRAMEWORKS

1. **Genetic Diversity:** Refers to the variation of genes within individuals of a species; it allows species to adapt to changing environments and resist diseases.
2. **Species Diversity:** Denotes the variety and abundance of different species in a particular area; crucial for maintaining ecological balance.
3. **Ecosystem Diversity:** Represents the variety of ecosystems within a region; supports a wide range of habitats and ecological processes.
4. **Functional Diversity:** Involves the range of biological functions and ecological roles played by organisms in an ecosystem.
5. **Taxonomic Diversity:** Indicates the degree of genetic and evolutionary relationships among species in a given region.
6. **Structural Diversity:** Describes the physical organization and spatial arrangement of species and habitats within ecosystems.
7. **Temporal Diversity:** Refers to the variation in biodiversity across time, including seasonal, annual, and long-term ecological changes.

IMPORTANCE OF BIODIVERSITY

1. **Ecological Balance:** Maintains the stability of ecosystems by supporting essential functions like nutrient cycling, pollination, and predator-prey relationships.
2. **Ecosystem Services:** Provide critical services such as air and water purification, soil formation, climate regulation, and waste decomposition.

3. **Food Security:** Ensures a variety of crops, livestock, and aquatic species, enhancing nutritional diversity and resilience against pests and diseases.
4. **Medicinal Resources:** Acts as a source of pharmaceutical compounds and traditional remedies essential for healthcare and drug development.
5. **Livelihood Support:** Sustains millions of people through agriculture, forestry, fisheries, and ecotourism, particularly in rural and indigenous communities.
6. **Economic Development:** Contributes significantly to national economies through biodiversity-based industries like biotechnology and green energy.
7. **Cultural and Spiritual Value:** Holds deep cultural, religious, and spiritual significance, reflected in customs, traditions, and conservation practices.
8. **Resilience to Environmental Change:** Enhances the ability of ecosystems to withstand and recover from climate change, natural disasters, and human disturbances.

THEME AND ITS RELEVANCE (2025)

Theme: "Harmony with Nature and Sustainable Development". Link to current global challenges: climate change, ecological degradation, and sustainable development. Alignment with SDGs and the Kunming-Montreal Global Biodiversity Framework (KMGBF).

GLOBAL INITIATIVES AND FRAMEWORKS

1. **Convention on Biological Diversity (CBD):** A 1992 treaty focused on conserving biodiversity, promoting sustainable use, and fair sharing of genetic resources.
2. **Kunming-Montreal Global Biodiversity Framework (KMGBF):** Adopted in 2022, it sets 23 targets for 2030 and long-term goals for 2050 to halt biodiversity loss.
3. **Sustainable Development Goals (SDGs):** Biodiversity links closely with SDGs like climate action, zero hunger, clean water, and life on land.
4. **Cartagena Protocol:** A CBD agreement ensuring safe handling of genetically modified organisms to protect biodiversity.
5. **Nagoya Protocol:** Provides rules for fair sharing of benefits from genetic resource use, supporting conservation and sustainable use.
6. **Global Biodiversity Information Facility (GBIF):** An international network offering free access to biodiversity data to aid research and policy.

INDIA'S LEGAL AND INSTITUTIONAL FRAMEWORK

1. **Biological Diversity Act, 2002:** India's primary law to conserve biodiversity, regulate access to biological resources, and ensure equitable benefit sharing with local communities.
2. **Biological Diversity (Amendment) Act, 2023:** Updates to simplify procedures, encourage research, and maintain benefit-sharing principles.
3. **National Biodiversity Authority (NBA):** Apex body responsible for implementing the Biological Diversity Act, overseeing access and benefit-sharing, and advising the government.
4. **State Biodiversity Boards (SBBs):** State-level bodies coordinating biodiversity conservation and regulation within states.
5. **Biodiversity Management Committees (BMCs):** Local committees managing biodiversity at the community level, including maintaining People's Biodiversity Registers.

INDIA'S BIODIVERSITY INITIATIVES

1. **Sacred Groves Conservation:** Traditional protection of forest patches considered sacred by local communities, preserving native flora and fauna. There are over 14,000 sacred groves in India, crucial for conserving biodiversity hotspots.
2. **Agro-biodiversity Promotion:** Encouraging cultivation of diverse crop varieties and livestock breeds to enhance resilience and food security. India is home to more than 50,000 plant species used in agriculture.

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3. **Traditional Conservation Practices:** Indigenous knowledge systems are used for sustainable harvesting and ecosystem management, passed down through generations.
4. **Sustainable Agriculture and Organic Farming:** Government schemes like Paramparagat Krishi Vikas Yojana (PKVY) promote organic farming to reduce chemical inputs, protect soil biodiversity, and increase farmer incomes.
5. **Protection of Biodiversity Hotspots:** India hosts four biodiversity hotspots—the Himalayas, Western Ghats, Indo-Burma, and Sundaland. Special conservation programs and eco-sensitive zones have been established in these regions.
6. **International Engagement and Leadership:** India actively participates in the Conference of Parties (COP) to the CBD, influencing global biodiversity policies and advocating for the interests of megadiverse countries.

CHALLENGES IN BIODIVERSITY CONSERVATION

1. **Habitat Loss and Fragmentation:** Rapid urbanisation and infrastructure development have led to the loss of around 7% of India's forest cover in the last two decades, threatening species habitats.
2. **Pollution:** Air, water, and soil pollution impact biodiversity, e.g., pesticide overuse affects pollinators and aquatic life, contributing to declines in species populations.
3. **Climate Change:** Rising temperatures and changing rainfall patterns disrupt ecosystems. The IPCC reports show India's Himalayan glaciers retreating, threatening cold-water species.
4. **Invasive Alien Species:** Species like Lantana camara and Water hyacinth have invaded many ecosystems, outcompeting native species and altering habitats.
5. **Overexploitation:** Unsustainable hunting, fishing, and harvesting of medicinal plants threaten biodiversity. Nearly 30% of India's vertebrate species are under threat due to overexploitation.
6. **Human-Wildlife Conflict:** Encroachment into wildlife habitats increases conflicts, leading to loss of both human lives and endangered animals, e.g., tiger and elephant corridors being disrupted.
7. **Insufficient Funding and Capacity:** Conservation programs often face budget constraints; the Ministry of Environment, Forest and Climate Change has an annual budget shortfall impacting enforcement and research.
8. **Lack of Public Awareness:** Many communities remain unaware of biodiversity's importance, limiting participation in conservation efforts.

WAY FORWARD

1. **Strengthen Institutions and Laws:** Improve capacity and funding for biodiversity authorities to enforce laws and support research.
2. **Engage Communities:** Empower local and indigenous people by recognizing their rights and integrating traditional knowledge in conservation.
3. **Restore Habitats:** Expand protected areas, restore degraded ecosystems, and maintain wildlife corridors to support biodiversity.
4. **Combat Climate Change:** Incorporate biodiversity in climate policies through ecosystem-based adaptation and mitigation.
5. **Control Pollution and Invasives:** Enforce stricter pollution control and prevent invasive species spread.
6. **Promote Sustainable Livelihoods:** Support biodiversity-friendly agriculture, eco-tourism, and sustainable resource use.
7. **Raise Awareness and Build Capacity**: Increase public education and train stakeholders in biodiversity management.
8. **Enhance Research and Monitoring**: Use technology and data platforms for better conservation planning and action.
9. **Foster Global Cooperation:** Participate in international frameworks and share knowledge and resources with other countries.

CONCLUSION

Biological diversity is vital for sustaining life on Earth, supporting ecological balance, human well-being, and economic development. Despite serious threats like habitat loss and climate change, effective conservation through strong legal frameworks, community involvement, scientific research, and global cooperation can help protect biodiversity. Ensuring harmony with nature is essential for sustainable development and securing a healthy planet for future generations.

MARINE POLLUTION FROM SHIPS: AN EMERGING THREAT TO OCEAN HEALTH

WHY IN THE NEWS?

Authorities in Kerala have issued an environmental alert after a Liberian-flagged cargo vessel sank off the Kochi coast in the Arabian Sea, leaking oil and hazardous cargo. The incident threatens the ecologically sensitive coastal region, known for its rich marine biodiversity and tourism. While all 24 crew members were rescued, drifting containers and leaked substances—including oil and chemicals—pose serious risks to marine ecosystems, public health, and the local economy. Emergency response teams have been deployed to contain the spill and prevent further damage.

WHAT IS OCEAN POLLUTION DUE TO SHIPS?

Ocean pollution from ships refers to the release of harmful substances such as oil, plastic, chemicals, ballast water, sewage, and air pollutants into the sea through ship-based operations, accidents, or negligence.

SIGNIFICANT SOURCES OF SHIP-INDUCED OCEAN POLLUTION

1. **Oil Spills:** Caused by collisions, groundings, or sinkings of tankers and cargo ships carrying large volumes of fuel oil.
2. **Plastic & Solid Waste Dumping:** Includes improper disposal of packaging, fishing gear, and garbage; container losses during storms release plastic debris.
3. **Ballast Water Discharge:** Introduces invasive species, disrupting marine ecosystems and biodiversity.
4. **Sewage & Greywater Discharge:** Untreated waste from cruise and passenger ships contaminates coastal waters.
5. **Air Pollution & Ocean Acidification:** Emissions of SOx, NOx, and particulates contribute to air pollution and acidify marine waters.
6. **Hazardous & Chemical Spills:** Includes accidental release of toxic cargoes like fertilisers, industrial chemicals, and solvents.

REASONS FOR THE GROWING OCEAN POLLUTION FROM SHIPS

1. **Increased Maritime Traffic:** Rising global trade has led to a higher number of cargo ships, tankers, and cruise liners traversing the oceans.
2. **Ageing and Poorly Maintained Vessels:** Older ships are more prone to technical failures, leaks, and accidents that can result in pollution.
3. **Inadequate Waste Management Systems:** Many ships lack proper facilities to treat sewage, greywater, and garbage before discharge.
4. **Weak Enforcement of International Regulations:** Lax monitoring and enforcement under MARPOL and other conventions, especially on the high seas, allow non-compliance.
5. **Flag of Convenience Practices:** Ships registered in countries with lenient environmental standards often bypass stricter pollution controls.

6. **Container Loss and Marine Litter:** Rough seas and poor cargo securing lead to containers falling overboard, releasing plastic and hazardous materials.
7. **Improper Ballast Water Management:** Discharge of untreated ballast water leads to biological contamination and the spread of invasive species.
8. **Use of Low-Quality Bunker Fuels:** High-sulphur fuels used by ships emit harmful pollutants, contributing to both air and ocean degradation.
9. **Accidental Spills and Collisions:** Increased shipping density raises the chances of accidents that lead to oil and chemical spills

IMPACT OF SHIP-BASED POLLUTION

1. **Marine Ecosystem Degradation:** Oil spills and chemical leaks harm coral reefs, fish, and marine mammals, disrupting food chains.
2. **Biodiversity Loss:** Ballast water discharge introduces invasive species, threatening native marine flora and fauna.
3. **Coastal Pollution:** Solid waste, sewage, and drifting cargo contaminate coastlines, affecting local habitats and livelihoods.
4. **Fisheries Decline:** Contaminated waters reduce fish stocks and breeding grounds, impacting both subsistence and commercial fishing.
5. **Public Health Hazards:** Polluted seafood and contaminated water sources pose risks of disease and long-term health issues for coastal communities.
6. **Tourism Industry Losses:** Polluted beaches, dead marine life, and oil slicks deter tourists, affecting local economies.
7. **Air Quality Deterioration:** Emissions of sulphur oxides, nitrogen oxides, and particulate matter from ships affect coastal and global air quality.
8. **Ocean Acidification and Climate Change:** Shipping emissions contribute to atmospheric CO_2, accelerating ocean acidification and global warming.

INTERNATIONAL LEGAL FRAMEWORK

1. **MARPOL (1973/78):** Main convention to prevent marine pollution from ships (oil, chemicals, sewage, garbage, air emissions).
2. **UNCLOS (1982):** Obligates states to protect the marine environment; allows regulation of ship-based pollution in national waters and EEZ.
3. **Ballast Water Management Convention (2004):** Controls the spread of invasive species via treated ballast water discharge.
4. **London Convention (1972) & Protocol (1996):** Regulates and restricts the dumping of harmful waste and incineration at sea.
5. **Basel Convention (1989):** Governs transboundary movement and disposal of hazardous ship waste (relevant to shipbreaking).
6. **International Maritime Organisation (IMO):** UN body that oversees the implementation and enforcement of global maritime pollution regulations.

CHALLENGES IN ENFORCEMENT

1. **Lack of Monitoring on High Seas:** Difficulty in tracking pollution incidents in international waters due to vast ocean areas.
2. **Flags of Convenience:** Ships registered in countries with weak environmental laws evade stricter regulations.
3. **Inadequate Port State Controls:** Many ports lack the capacity or will to inspect ships and ensure compliance with international norms.
4. **Limited Surveillance Infrastructure:** Developing countries often lack satellite, radar, and marine patrol systems for effective enforcement.
5. **Jurisdictional Issues:** Complexities in prosecuting pollution offences involving multiple countries' laws and waters.
6. **Economic Pressures on the Shipping Industry:** Cost-cutting leads to non-compliance with waste treatment and fuel standards.
7. **Weak Penalties and Deterrents:** Fines or legal actions are often too lenient to deter violations.

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8. **Delayed Incident Reporting:** Many pollution events go unreported or are reported too late for effective response.

CONCLUSION

Ship-induced ocean pollution has emerged as a growing maritime crisis, threatening marine biodiversity, coastal economies, and global ecological balance. Despite comprehensive international conventions like MARPOL and UNCLOS, enforcement gaps, weak surveillance, and rising maritime traffic continue to undermine effective control. The recent incident off the Kerala coast underscores the urgent need for strengthened global cooperation, stricter enforcement of pollution laws, enhanced port-state controls, and investment in pollution-monitoring technologies. Ensuring sustainable maritime practices is crucial not only for protecting oceans but also for securing the livelihoods and well-being of millions who depend on marine resources.

DUGONG CONSERVATION: A MARINE PRIORITY FOR INDIA'S COASTAL FUTURE

WHY IN THE NEWS?

On May 28, World Dugong Day was observed to highlight the conservation needs of dugongs, India's only herbivorous marine mammal. Dugongs are classified as 'regionally endangered' in India,

with their population declining due to habitat loss, pollution, fishing practices, and climate change. India recently created its first Dugong Conservation Reserve in Palk Bay, Tamil Nadu, covering 448 sq. km to protect seagrass habitats vital for dugongs. Conservation efforts involve local communities, NGOs like the OMCAR Foundation, and government agencies. Seagrass beds, critical to dugong survival, also play a key role in carbon sequestration. The article underscores the urgency of habitat protection, regulation of harmful fishing, and promotion of dugong-friendly ecotourism.

SPECIES PROFILE: DUGONG

1. **Scientific Name:** Dugong dugon
2. **Habitat:** Shallow, warm coastal waters – especially in Andaman & Nicobar Islands, Gulf of Mannar, Palk Bay, Gulf of Kutch.
3. **Diet:** Strictly herbivorous – depends on seagrass meadows (Halophila, Halodule).
4. **Lifespan:** Up to 70 years.
5. **Reproductive traits:** Low birth rate, long gestation, calving interval of 3–7 years → leads to slow population growth.

THREATS TO DUGONGS

1. **Habitat Loss and Degradation:** Coastal development, port construction, dredging, and land reclamation destroy or fragment seagrass meadows — the primary habitat and food source for dugongs.
2. **Seagrass Decline:** Pollution, sedimentation, eutrophication, and climate-induced events like cyclones degrade seagrass beds, directly affecting dugong survival.
3. **Fishing Practices:** Accidental entanglement in fishing nets, especially bottom trawling and gillnets, leads to injuries and fatalities among dugongs.
4. **Boat Strikes:** Dugongs often feed near the surface, making them vulnerable to collisions with fast-moving boats, especially in shallow waters.
5. **Pollution and Waste:** Marine pollution from sewage, industrial waste, and plastic harms dugong health and degrades their habitat.
6. **Illegal Hunting:** Despite legal protections, dugongs are sometimes hunted for meat and oil in remote areas.

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7. **Climate Change:** Rising sea temperatures, extreme weather events, and sea-level rise impact seagrass ecosystems and dugong distribution.
8. **Low Reproductive Rate:** Dugongs reproduce slowly, with calving intervals of 3–7 years, making population recovery difficult in the face of external threats.

CONSERVATION MEASURES FOR DUGONGS

1. **Dugong Conservation Reserve (2021):** India's first reserve in Palk Bay, Tamil Nadu (448 sq. km) protects seagrass habitat and dugongs.
2. **Legal Protection:** Dugongs are listed under Schedule I of the Wildlife Protection Act, 1972, ensuring strict protection.
3. **International Commitment:** India is a signatory to the CMS Dugong MoU (2008) for regional cooperation on dugong conservation.
4. **Seagrass Mapping:** Over 5,900 sq. km of seagrass meadows mapped; crucial for dugong feeding and carbon sequestration.
5. **Community Involvement:** Fisherfolk engaged through training, eco-tourism, and awareness programs by NGOs and forest departments.
6. **Research and Monitoring:** Institutions like the Wildlife Institute of India conduct population surveys, habitat studies, and tagging.
7. **Sustainable Fishing Initiatives:** Promotion of dugong-safe fishing practices to reduce bycatch and marine disturbances.

CHALLENGES TO DUGONGS

1. **Seagrass Habitat Loss:** Rapid coastal development, dredging, and pollution lead to degradation of vital seagrass meadows.
2. **Fishing Pressure:** Bycatch in trawl nets and gillnets remains a major threat due to lack of enforcement and awareness.
3. **Boat Traffic and Collisions:** Increasing marine transport in shallow coastal waters leads to frequent collisions with dugongs.
4. **Climate Change Impact:** Rising sea temperatures, ocean acidification, and extreme weather events affect seagrass growth and dugong distribution.
5. **Pollution and Waste:** Marine pollution, including oil spills and plastic debris, harms both dugongs and their habitats.
6. **Low Reproductive Rate:** Dugongs have long gestation periods and low birth rates, making population recovery slow and fragile.
7. **Lack of Awareness:** Many coastal communities remain unaware of dugongs' ecological importance and legal protection status.
8. **Inadequate Monitoring and Data:** Limited data on population trends, migration, and health hinders effective conservation planning.

SIGNIFICANCE OF SEAGRASS ECOSYSTEMS

1. **Primary Food Source for Dugongs:** Seagrass meadows are the exclusive diet of dugongs, essential for their survival and distribution.
2. **Carbon Sequestration:** Seagrass beds act as blue carbon sinks, storing up to 434.9 tonnes of carbon per hectare, aiding climate change mitigation.
3. **Marine Biodiversity Hotspots:** They provide habitat and nursery grounds for fish, turtles, crustaceans, and other marine species.
4. **Coastal Protection:** Seagrass roots stabilise the seabed, reducing erosion and buffering coastlines from storm surges.
5. **Water Quality Improvement:** Seagrass filters nutrients and traps sediments, enhancing water clarity and reducing algal blooms.
6. **Support to Fisheries:** Many commercially important fish species breed and feed in seagrass beds, sustaining local livelihoods.
7. **Indicator of Ocean Health:** The presence and health of seagrass ecosystems reflect overall marine ecosystem stability and productivity.

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WAY FORWARD

1. **Expand Protected Areas:** Establish more Dugong Conservation Reserves in key habitats like the Gulf of Mannar and Andaman & Nicobar Islands.
2. **Restore Seagrass Meadows:** Launch large-scale seagrass restoration projects using scientific techniques and community participation.
3. **Promote Dugong-Safe Fishing:** Encourage eco-friendly fishing practices, ban destructive gears like bottom trawling in dugong zones.
4. **Enhance Community Involvement:** Train and incentivize local fishers as marine stewards for monitoring and reporting dugong sightings.
5. **Strengthen Law Enforcement:** Improve surveillance, patrolling, and enforcement of Wildlife Protection Act provisions.
6. **Invest in Research and Data:** Increase funding for dugong population studies, tagging, migration tracking, and seagrass mapping.
7. **Raise Public Awareness:** Conduct widespread awareness campaigns in coastal areas highlighting dugongs' ecological importance.
8. **Regional and Global Collaboration:** Deepen cooperation under the CMS Dugong MoU for joint research, funding, and knowledge-sharing.

CONCLUSION

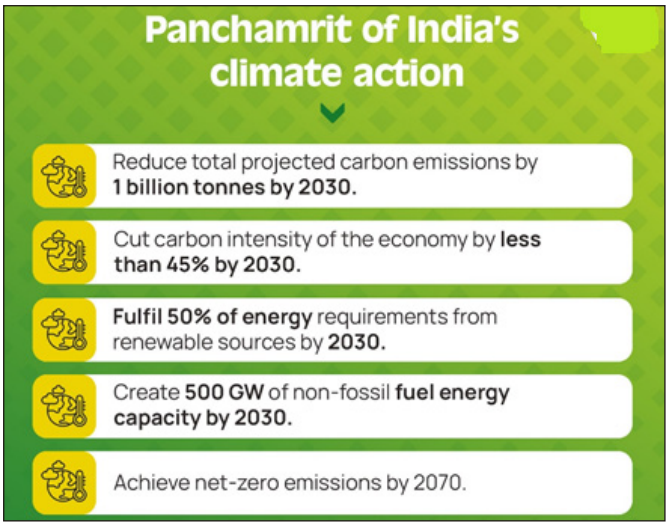
Dugongs, often called the "sea cows" of the Indian Ocean, are not only iconic marine mammals but also vital indicators of healthy coastal ecosystems. Their survival is intricately tied to the well-being of seagrass habitats, which in turn support biodiversity, coastal protection, and climate mitigation. Despite legal safeguards and recent initiatives like the Palk Bay Conservation Reserve, dugongs continue to face severe threats from human activities, habitat loss, and climate change. A multi-pronged approach involving community engagement, habitat restoration, sustainable fisheries, and scientific monitoring is essential to reverse their decline. Strengthening regional cooperation under global frameworks like the CMS Dugong MoU will further enhance conservation outcomes. Saving dugongs is not just about preserving a species—it is about securing the future of India's marine ecology.

INDIA'S GREEN RENAISSANCE: LEADING THE WAY IN ENVIRONMENTAL TRANSFORMATION

WHY IN THE NEWS?

Plastic pollution has once again come into global focus with the theme of World Environment Day 2025 being "Combating Plastic Pollution", highlighting the urgent need for coordinated international action. This continues a consistent emphasis by the United Nations over the past seven years, including previous themes such as 'Beating Plastic Pollution' (2018) and 'Ridding the Environment of Plastic' (2023). World leaders and environmental bodies now acknowledge the severity of the crisis, with growing consensus on the necessity of a legally binding global treaty to curb plastic pollution across its life cycle—from production to disposal.

A CLIMATE CHAMPION ON THE WORLD STAGE



In 2014, India was seen as a hesitant participant in global climate talks. That changed as Government brought in the concepts of climate justice and equity, reshaping the global climate narrative.

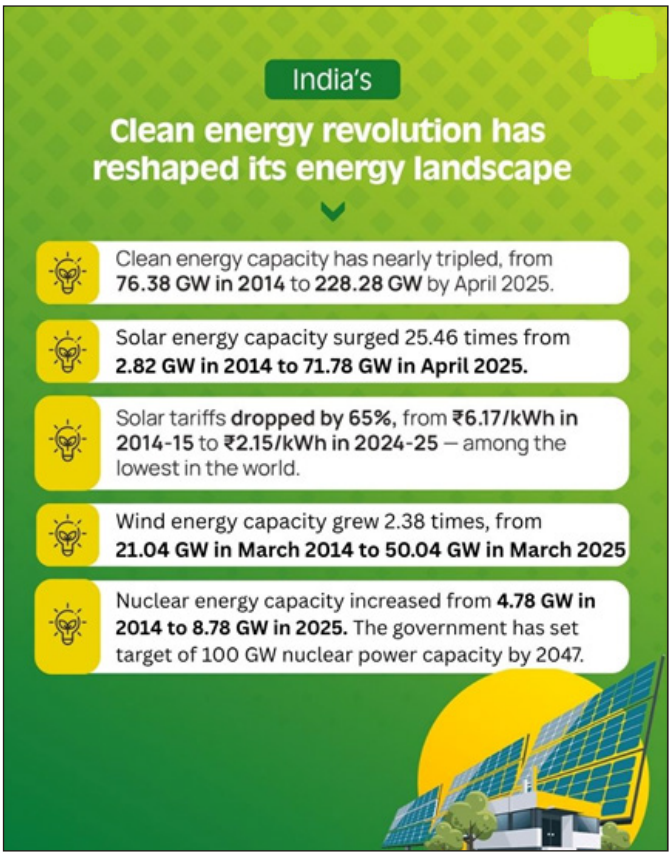
1. **At COP21** (Conference of Parties 21) in Paris, India pledged to achieve 40% of its installed electricity capacity from non-fossil fuel sources by 2030; a goal met ahead of time in November 2021.

2. **At COP26** in Glasgow, PM Modi launched LiFE (Lifestyle for Environment), encouraging sustainable habits and promoting mindful consumption over wasteful use. India also introduced the Panchamrit, which has five key targets for climate action.
3. **At COP29** in Baku (Nov 2024), India showcased its progress in climate adaptation and clean energy through global partnerships. Sessions focused on disaster-resilient infrastructure, industrial decarbonization, solar energy, and women-led climate action, in collaboration with Sweden, CDRI (Coalition for Disaster Resilient Infrastructure), ISA (International Solar Alliance) and NRDC (Natural Resources Defense Council).

HOW INDIAS TRANSFORMING

1. **India's Clean Energy Progress:** In FY 2024–25, India added a record 29.52 GW of renewable energy capacity, increasing the total installed capacity to 220.10 GW, up from 198.75 GW in FY 2023–24. This marks strong progress toward the 500 GW non-fossil fuel target by 2030.
2. **Solar Energy:** India's solar energy installed capacity saw a 25.46-fold increase, rising from 2.82 GW in 2014 to 71.78 GW in April 2025. Solar tariffs dropped by 65%, from ₹6.17/kWh in 2014–15 to ₹2.15/kWh in 2024–25, making them the lowest in the world.
3. **Wind Energy:** Wind energy capacity grew 2.38 times, from 21.04 GW in March 2014 to 50.04 GW in March 2025. The government has set a target of achieving 140 GW of wind power capacity by 2030.
4. **Nuclear Energy:** Nuclear energy capacity has seen an 84% increase since 2014, rising from 4.78 GW to 8.78 GW in 2025. The government has set an ambitious target of 100 GW of nuclear power capacity by 2047.

Global Recognition

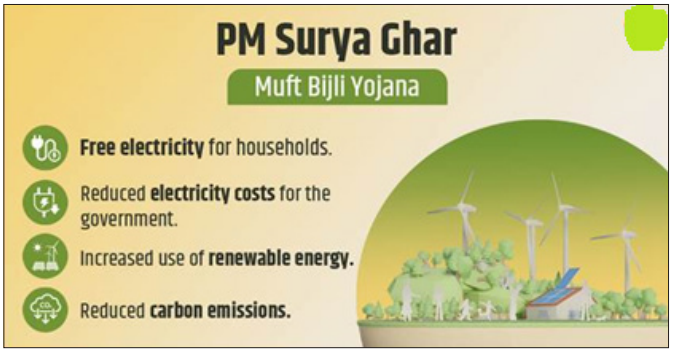


FLAGSHIP INITIATIVES FOR A SUSTAINABLE FUTURE

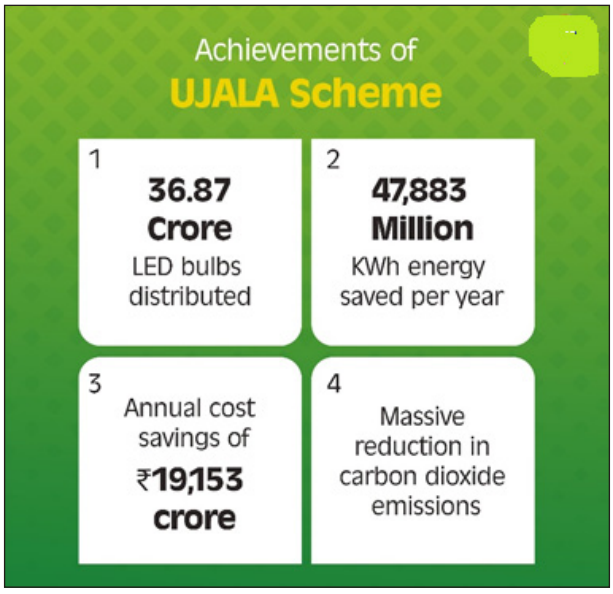
1. **International Solar Alliance (ISA):** Launched by India and France at COP21 in 2015, ISA is a global platform promoting solar energy for energy access and climate action. Headquartered in India, it has 105 member countries and aims to mobilise $1 trillion in solar investments by 2030.
2. **National Green Hydrogen Mission:** Launched in January 2023, the mission aims to make India a global hub for green hydrogen production and export. It targets 5 MMT annual capacity by 2030, with over ₹8 lakh crore in investments,

creation of 6 lakh jobs and reduced fossil fuel dependence.

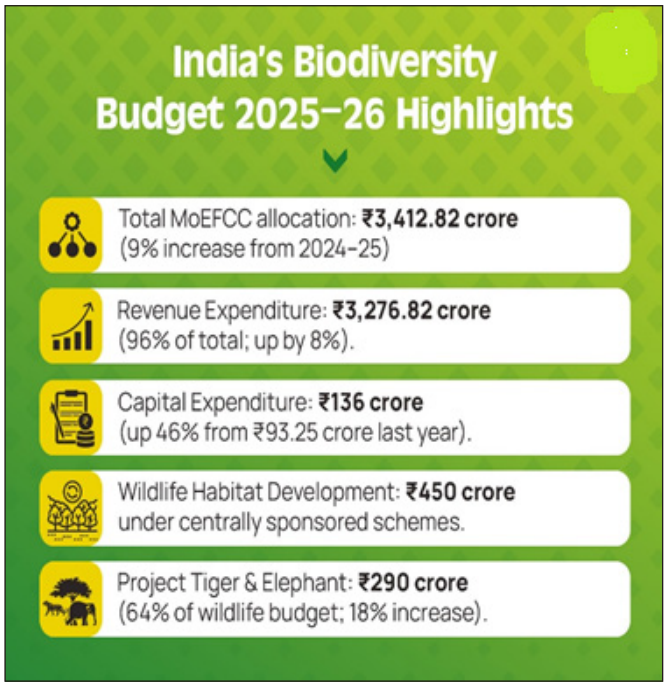
3. **PM Surya Ghar: Muft Bijli Yojana (PMSGMBY)** Launched by Prime Minister Narendra Modi on February 15, 2024, PMSGMBY is the world's largest domestic rooftop solar initiative. Focused on benefiting low-income households, the scheme has already brought rooftop solar to 11.88 lakh homes till April 2025. A dedicated digital platform ensures easy access to subsidies and loans, making clean energy adoption more accessible and efficient.



4. **Model Solar Village | A Key Component of PM Surya Ghar Muft Bijli Yojana:** Under this major component, one solar-powered model village will be developed in every district to promote decentralized solar adoption and rural energy self-reliance. With a total outlay of ₹800 crore, each selected village receives ₹1 crore in Central Financial Assistance. Eligible villages must be revenue villages with populations over 5,000 (or 2,000 in special category states).
5. **PM-KUSUM (Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan) Scheme:** Launched in March 2019, the PM-KUSUM scheme promotes solar energy in agriculture by supporting solar-powered irrigation systems. It offers 30% to 50% central subsidy for new solar pumps and solarising existing ones.
6. **UJALA Scheme (Unnat Jyoti by Affordable LEDs for All):** Launched on 5th January 2015 by Prime Minister Narendra Modi, UJALA (Unnat Jyoti by Affordable LEDs for All) promotes energy efficiency by distributing LED bulbs, tube lights, and fans. Initially called DELP (Domestic Efficient Lighting Programme), the scheme has helped reduce electricity consumption and made sustainable lighting affordable for millions.



CONSERVATION AND WILDLIFE PROTECTION: NATURE STRIKES BACK



Preserving the environment requires more than just schemes, it needs strong funding, effective implementation, and community participation. India, one of the world's most biodiverse countries, is taking key budgetary steps to support conservation.

1. **Biodiversity Richness:** Though covering just 2.4% of Earth's land, India hosts 7–8% of global species, including 45,000+ plants and 91,000+ animals.
2. **Biodiversity Hotspots:** India includes 4 major global hotspots; the Himalayas, Western Ghats, Northeast, and Nicobar Islands.
3. **Tiger population more than doubled:** As per the 5th cycle of the All India Tiger Estimation 2022 (usually done in cycles of four years) summary report, India has a minimum of 3682 tigers and is now home to more than 75% of the world's wild tiger population.
4. **Project Cheetah:** Project Cheetah is the world's first inter-continental large wild carnivore translocation project. It aims to reintroduce cheetahs in India after their extinction, restoring ecological balance and boosting biodiversity. Under Project Cheetah, Prime Minister Narendra Modi released eight wild cheetahs brought from Namibia into Kuno National Park on 17th September 2022.
5. **Project Lion:** Project Lion was announced on August 15, 2020 as a major step to ensure the long-term conservation of the Asiatic lion. This initiative focuses on habitat development, disease control, and a dedicated lion conservation breeding program.
6. **Palli in J&K became India's first carbon-neutral panchayat:** Under the revamped National Panchayat Awards in 2023, Ministry of Panchayati Raj has instituted 'Carbon Neutral Vishesh Panchayat Puraskar' to award Panchayats for exemplary work towards achieving Net-Zero carbon emission.
7. **The "Ek Ped Maa Ke Naam" campaign has seen the planting of over 142 crore trees:** On the occasion of World Environment Day, Prime Minister Narendra Modi launched the 'Ek Ped Maa Ke Naam' campaign, a unique initiative combining environmental responsibility with a heartfelt tribute to mothers. This campaign was inaugurated on June 5, 2024, with the planting of a Peepal tree by the Prime Minister at Buddha Jayanti Park in Delhi.
8. **Ramsar Sites in the country stands at 85:** India is a Contracting Party to the Ramsar Convention, signed in 1971 in Ramsar, Iran. India joined the convention on 1st February 1982. From 1982 to 2013, 26 wetlands were designated as Ramsar sites. Between 2014 and 2024, India added 59 more sites. As of 2024, the total number of Ramsar sites in the country stands at 85. This shows India's growing focus on wetland conservation.

THE NAMAMI GANGE MISSION: A HOLY TRANSFORMATION

1. **Clean Villages, Circular Economy:** India has achieved new milestones through the Swachh Bharat Mission and GOBARdhan. The mission promotes sustainable waste-to-wealth solutions, driving cleaner and healthier communities nationwide.

2. **Swachh Bharat Mission (Urban):** The Swachh Bharat Mission-Urban (SBM-U) was launched on October 2, 2014, to address urban garbage, waste, and sewage issues. SBM-U 2.0 started on October 1, 2021, aiming for safe sanitation and scientific municipal solid waste management by 2026
3. **Swachh Bharat Mission (Grameen) [SBM(G)]:** SBM (G) was launched on October 2, 2014, to achieve Open Defecation Free (ODF) status in rural India. By 2019, sanitation coverage rose from 39% to 100%, with 12 crore toilets built, improving health and hygiene. Phase II, started in 2020, focuses on ODF sustainability and waste management, aiming for ODF Plus by 2025-26.

WHAT ARE THE ISSUE WHERE INDIA IS LACKING

1. **Plastic Waste Management:** Despite bans, single-use plastics persist due to weak enforcement and lack of cost-effective alternatives. Segregation and recycling rates remain low.
2. **Air Pollution:** Many Indian cities rank among the world's most polluted. Measures like the National Clean Air Programme suffer from poor monitoring and slow implementation.
3. **Deforestation and Land Degradation:** Development projects often lead to forest loss. Around 30% of India's land is degraded, affecting agriculture and livelihoods.
4. **Water Pollution and Overuse**: Rivers remain polluted despite clean-up missions. Overextraction of groundwater has led to alarming depletion in many regions.
5. **Coal Dependency and Energy Transition Gaps:** Coal still dominates power generation. Challenges remain in renewable energy storage, grid integration, and clean energy access for all.
6. **Underfunded Climate Adaptation:** Focus is more on mitigation than on supporting vulnerable populations against climate impacts like floods, droughts, and cyclones.
7. **Biodiversity and Habitat Loss:** Human-wildlife conflicts, poaching, and fragmented habitats continue. Community involvement in conservation is often lacking.
8. **Urban Waste and E-waste Management:** Scientific waste disposal systems are inadequate in many cities. E-waste and biomedical waste pose growing health and environmental risks.

WAY FORWARD

1. **Strengthen Implementation & Monitoring:** Ensure strict enforcement of environmental laws and better inter-agency coordination. Fast-track execution of clean energy and waste management projects.
2. **Boost Circular Economy:** Promote recycling, reuse, and eco-design, especially in plastic and e-waste sectors. Support innovation in biodegradable alternatives.
3. **Accelerate Renewable Energy Transition:** Invest in energy storage, smart grids, and green hydrogen. Ensure affordable and reliable clean energy access for all, including remote areas.
4. **Improve Air and Water Quality**: Scale up urban air quality monitoring, clean mobility adoption, and river rejuvenation efforts like Namami Gange with stricter pollution control norms.

5. **Focus on Climate Adaptation:** Allocate more funds for climate-resilient infrastructure, early warning systems, and livelihood protection in vulnerable regions.
6. **Empower Local Governance and Communities:** Involve Panchayats, civil society, and youth in grassroots conservation, afforestation, and water management.
7. **Enhance Environmental Education:** Promote environmental awareness in schools and through campaigns like LiFE to build sustainable lifestyles and informed citizen participation.
8. **Strengthen Biodiversity Protection:** Expand protected areas, invest in wildlife corridors, and incentivise community-led eco-tourism and conservation efforts.

CONCLUSION

As PM Modi aptly put it, "Our planet is one, but our efforts must be many." India's 11-year journey proves that sustainable development is not a distant dream but a vibrant, achievable reality. From the deep cleaning of the Ganga to becoming a global renewable energy giant, and from reviving cheetahs to energizing villages with solar power, India is scripting a new ecological narrative one that blends heritage with innovation, local action with global leadership and vision with relentless execution. India's green transformation is not just a policy shift. It is a people's movement, a planetary commitment, and a promise to future generations.

RAJASTHAN GETS TWO NEW RAMSAR SITES, PM LAUDS MILESTONE

WHY IN THE NEWS?

India has added two more wetlands—Khichan (Phalodi) and Menar (Udaipur) in Rajasthan—to the prestigious list of Ramsar Sites, bringing the total number of such sites in the country to 91. This marks another step forward in India's commitment to wetland and biodiversity conservation. The Prime Minister hailed this development as a reflection of India's strong progress in environmental protection. Union Environment Minister Shri Bhupender Yadav shared the update, highlighting it as a result of PM Modi's consistent focus on ecological preservation.

WHAT IS A WETLAND?

The Wetlands (Conservation and Management) Rules, 2010 and 2017 were enacted by the Government of India under the Environment (Protection) Act, 1986, to ensure the sustainable conservation and management of wetlands across the country. The 2010 Rules marked India's first comprehensive regulatory framework specifically dedicated to wetlands, laying down procedures for their identification, notification, and protection. However, certain gaps and implementation challenges in the 2010 Rules led to the introduction of the Wetlands (Conservation and Management) Rules, 2017. The revised rules aimed to address the shortcomings of the earlier framework by strengthening the role of state authorities, restricting harmful activities, and ensuring better monitoring and management of notified wetlands.

WHAT IS THE RAMSAR CONVENTION?

The Ramsar Convention is an international treaty adopted in 1971 in Ramsar, Iran, for the conservation and sustainable use of wetlands. It came into force in 1975 and aims to halt the worldwide loss of wetlands and ensure their wise use through local, regional, and national actions and international cooperation. Wetlands designated under this convention are known as Ramsar Sites and are recognized for their ecological, botanical, zoological, limnological, or hydrological significance. India became a contracting party to the Ramsar Convention in 1982, and as of 2025, it has 91 Ramsar Sites, reflecting its commitment to wetland conservation.

PRINCIPLE OF THE RAMSAR SITE

1. **Wise Use Principle:** Wetlands should be used sustainably to maintain their ecological character and provide ecosystem services for present and future generations.
2. **Ecological Character Maintenance:** Member countries must maintain the ecological character of designated wetlands and monitor any changes.
3. **Integrated Management:** Wetlands should be managed in an integrated manner, considering their role in water cycles, biodiversity, and local livelihoods.
4. **International Cooperation:** Countries sharing transboundary wetlands are encouraged to collaborate on their conservation and management.
5. **Designation of Wetlands of International Importance:** Parties commit to identifying and designating suitable wetlands to the Ramsar List and ensuring their effective protection.
6. **Public Awareness and Participation:** Local communities and stakeholders should be involved in the conservation and sustainable use of wetlands.

KEY FACTS ABOUT THE RAMSAR TWO-SITE

S. No.	Ramsar Site	Location	Year of Designation	Key Features
1	Khichan Wetland	Phalodi (Jodhpur)	2025	Renowned for hosting thousands of migratory Demoiselle cranes, the community-led conservation efforts.
2	Menar Wetland	Udaipur	2025	Known as the 'Bird Village' of Rajasthan, it supports over 180 bird species and is exemplary community-driven conservation.
3	Keoladeo National Park	Bharatpur	1981	UNESCO World Heritage Site; critical habitat for migratory waterfowl.
4	Sambhar Lake	Sambhar (Jaipur)	1990	India's largest inland saline wetland is significant for flamingoes and salt production.

LIMITATIONS OF WETLANDS (CONSERVATION AND MANAGEMENT) RULES, 2010

1. **Limited Focus on Livelihood and Water Security:** The rules do not specifically protect wetlands that are critical for local livelihoods or as sources of drinking water for dependent communities.
2. **Exclusion of Small but Important Wetlands:** Many smaller wetlands, jheels, tanks, and ponds that provide important ecological and social functions were left out of the regulatory framework.
3. **No Decentralized Regulatory Bodies:** The absence of state and district-level Wetland Regulatory Authorities limited local-level participation and effective management.
4. **Lack of Community Involvement:** There was no provision for including community

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representatives such as farmers, fishers, or local stakeholders in the decision-making process.

5. **Centralized Control:** The rules centralized authority with the Central Wetlands Regulatory Authority, reducing the scope for localized adaptive management.
6. **Inadequate Protection for Urban Wetlands:** Many urban wetlands, facing intense development pressures, were not adequately covered or protected.
7. **Weak Enforcement Mechanism:** The rules lacked clear mechanisms for enforcement and monitoring, leading to poor compliance and continued degradation.
8. **No Provisions for Wetland Restoration:** The focus was mostly on protection, with insufficient emphasis on restoration and rejuvenation of degraded wetlands.

CONCLUSION

The addition of Khichan and Menar wetlands to India's Ramsar Sites list underscores the country's growing commitment to preserving its rich wetland biodiversity. While the Wetlands (Conservation and Management) Rules of 2010 laid the groundwork for protecting these vital ecosystems, addressing their limitations through the 2017 Rules has strengthened local management and regulatory frameworks. Effective conservation of wetlands is crucial not only for maintaining biodiversity but also for sustaining livelihoods, water security, and climate resilience. Continued efforts involving community participation, decentralized governance, and strong enforcement will be essential for safeguarding India's wetlands for future generations.

BLAZING CITIES: INDIA'S URBAN STRUGGLE AGAINST HEATWAVES

WHY IN THE NEWS?

Delhi continues to reel under an intense heatwave, with the India Meteorological Department (IMD) issuing a red alert for Thursday due to dangerously high temperatures. On Wednesday, mercury levels soared across the city, ranging from 40.9°C to a scorching 45°C. The heat index, which factors in humidity to reflect the actual feel of the heat, reached a staggering 51.9°C. Ayanagar emerged as the hottest location at 45°C, followed closely by other areas like Palam (44.5°C), Ridge (43.6°C), Pitampura (43.5°C), and Lodhi Road (43.4°C). Delhi's base weather station at Safdarjung also recorded 43.3°C. The situation reflects a growing concern over rising urban temperatures and the increasing frequency of extreme weather events in India's capital.

ENVIRONMENTAL AND CLIMATIC DIMENSIONS OF HEATWAVES

Aspect	Details
1. Definition of Heatwave (IMD)	✧ Declared when the temperature is: ✧ ≥ 40°C in plains ✧ ≥ 30°C in hilly areas ✧ 4.5°C to 6.4°C above normal ✧ Severe Heatwave: ≥ 6.5°C above normal or > 45°C in plains

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2. Climate Change Link	✧ Heatwaves are becoming more frequent, intense, and prolonged. ✧ Global warming is amplifying temperature extremes. ✧ IPCC warns of South Asia as a heatwave hotspot.
3. Urban Heat Island (UHI) Effect	✧ Cities like Delhi absorb and trap more heat due to: ✧ Concrete buildings and roads ✧ Reduced green spaces ✧ Vehicular and industrial emissions ✧ UHI increases night-time temperatures.
4. Seasonal Pattern Disruption	✧ Early summer onset and delayed monsoons extend heatwave periods. ✧ Deforestation and land-use changes reduce natural temperature regulation.
5. Atmospheric Impact	✧ High heat promotes ground-level ozone, worsening pollution. ✧ Leads to loss of evapotranspiration, drying the environment.
6. Expansion of Heat Zones	✧ Heatwaves are spreading to new regions: East and South India. ✧ Cities like Delhi, Nagpur, and Lucknow now regularly face extreme heat.

IMD HEATWAVE ALERT CRITERIA

1. **Plains Temperature Threshold:** A heatwave is declared when the maximum temperature is ≥ 40°C in plains.
2. **Hilly Areas Threshold:** In hilly regions, a heatwave is declared when the temperature is ≥ 30°C.
3. **Coastal Areas Threshold:** For coastal stations, heatwave conditions are met when the temperature is ≥ 37°C.
4. **Departure from Normal: Heatwave:** When the temperature is 4.5°C to 6.4°C above normal. **Severe Heatwave:** When the temperature is ≥ 6.5°C above normal.
5. **Absolute Temperature Criteria:** If the maximum temperature touches ≥ 45°C, it is considered a heatwave. ≥ 47°C is classified as a severe heatwave, irrespective of normal deviation.
6. **Duration Requirement:** The conditions must persist for at least 2 consecutive days to officially declare a heatwave.
7. **Heat Index Consideration:** IMD also considers the heat index (a combination of temperature and humidity) to reflect the "real feel" of heat, especially in urban areas.
8. **Colour-Coded Warnings: Green:** No action needed **Yellow:** Be updated **Orange:** Be prepared Red: Take action – extreme heat conditions expected

HEALTH AND HUMAN IMPACT OF HEATWAVES

1. **Heatstroke and Dehydration:** Prolonged exposure can cause heat exhaustion, heat cramps, and fatal heatstrokes, especially among the elderly, children, and outdoor workers.
2. **Worsening of Pre-existing Conditions:** High temperatures aggravate cardiovascular, respiratory, and kidney diseases.
3. **Spike in Mortality and Morbidity:** Past events like the 2015 heatwave in India caused over 2,000 deaths, showing the severe toll on human life.
4. **Mental Health Stress:** Extreme heat increases fatigue, irritability, and can lead to sleep disorders and mental stress.
5. **Reduced Labour Productivity:** Outdoor workers (construction, agriculture) suffer reduced output due to unsafe working conditions.
6. **Urban Vulnerability:** Slum dwellers, people without access to cooling, and homeless populations are at greater risk.

7. **Overburdened Healthcare Systems:** Hospitals see a surge in emergency cases, straining public health infrastructure.
8. **Water and Electricity Shortages:** Increased demand for cooling and hydration leads to utility stress, affecting health indirectly.

GOVERNMENT RESPONSE TO HEATWAVES

1. **Heat Action Plans (HAPs):** Initiated by states like Gujarat, Maharashtra, Odisha, and Delhi. Include early warning systems, public advisories, cooling centres, and coordination among departments.
2. **IMD Early Warnings:** Real-time alerts and heatwave forecasts shared with NDMA, SDMAs, and local bodies for timely action.
3. **National Disaster Management Authority (NDMA):** Issues guidelines and supports the preparation of Heat Action Plans across heat-prone regions.
4. **Urban Cooling Measures:** Encouraging green buildings, cool roofs, tree plantations, and water sprinkling in cities.
5. **School and Work Timings:** State governments revise school hours and restrict outdoor labour during peak heat hours.
6. **Public Health Interventions:** Distribution of ORS, mobile health camps, increased emergency services, and awareness campaigns.
7. **MGNREGA Guidelines:** Mandates work timings to be adjusted and rest provisions ensured during peak summer months.
8. **Inter-Agency Coordination:** Joint efforts by Health Ministry, Urban Affairs, Labour, Environment, and local administrations for holistic management.

LONG-TERM MITIGATION AND ADAPTATION STRATEGIES

1. **Urban Planning Reforms:** Promote green infrastructure, cool roofs, reflective building materials, and ventilation-friendly designs in urban areas.
2. **Afforestation and Green Cover Expansion**: Increase tree plantations in cities and rural areas to reduce surface temperatures and improve air quality.
3. **Water Management Systems:** Build sustainable water storage, reuse systems, and ensure drinking water availability during peak summers.
4. **Climate-Resilient Infrastructure:** Develop heat-resilient housing, schools, and public buildings, particularly for vulnerable populations.
5. **Early Warning Systems Upgrade:** Strengthen meteorological forecasting, localized heat alerts, and mobile-based dissemination to the public.
6. **Policy Integration:** Embed heatwave resilience into national climate policies like the National Action Plan on Climate Change (NAPCC) and Smart Cities Mission.
7. **Livelihood Adaptation:** Support climate-resilient livelihoods, shift work hours, and provide insurance and safety nets for informal workers.
8. **Public Awareness and Education:** Long-term campaigns on hydration, cooling techniques, and community-based preparedness.
9. **Research and Data Collection:** Invest in heatwave impact studies, urban heat mapping, and health surveillance for evidence-based policymaking.
10. **International Collaboration:** Leverage best practices from global partners (e.g., Heat Action Plans from the US or Australia) and climate funding mechanisms.

WAY FORWARD

1. **National-Level Heatwave Policy:** Formulate a centralised national heatwave mitigation framework integrating IMD forecasts, NDMA guidelines, and state Heat Action Plans, with legal backing for enforcement.
2. **Mandatory Implementation of Heat Action Plans**: Ensure all states and major urban centres have localized Heat Action Plans (HAPs) with periodic revisions based on climatic data and vulnerability mapping.
3. **Strengthen Climate-Health Linkages:** Establish climate-health surveillance systems to track

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heat-related illnesses and deaths, enabling early intervention and improved public health preparedness.

4. **Sustainable Urban Design Norms:** Introduce mandatory "heat-resilient" urban planning norms in building codes – including green roofs, thermal insulation, shaded streets, and urban forests.
5. **Cool Roof and Reflective Surface Initiatives:** Scale up programs like Telangana's Cool Roof Policy across urban India, especially in low-income housing and slum redevelopment.
6. **Localised Heat Index Monitoring:** Deploy real-time heat index monitors in densely populated areas to guide public advisories, urban planning, and emergency responses.
7. **Empowering Vulnerable Groups:** Provide targeted support to outdoor workers, the elderly, slum dwellers, and homeless populations, such as hydration booths, rest shelters, and insurance coverage.
8. **Water-Energy Nexus Planning:** Invest in resilient water and energy systems that can handle increased summer demand without service breakdowns.
9. **Community-Based Preparedness:** Encourage citizen participation through RWAs, school campaigns, and mobile apps to spread awareness and promote precautionary behaviour.

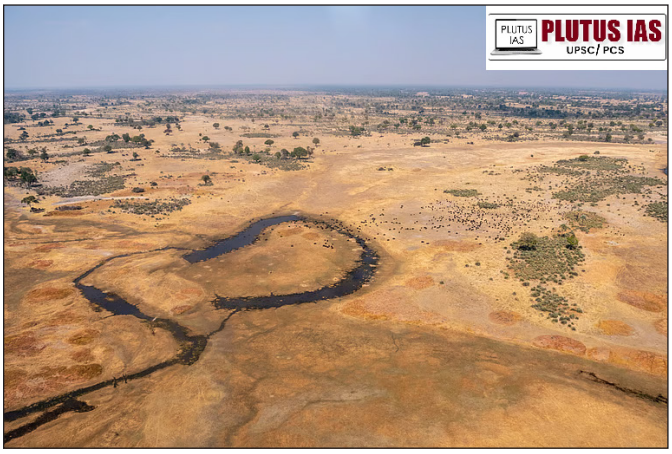
CONCLUSION

The recurring heatwaves in Delhi and across India serve as a stark reminder of the growing climate emergency and the pressing need for resilient urban planning, public health preparedness, and long-term adaptation. With temperatures crossing life-threatening thresholds and heat indices reaching extreme levels, the phenomenon is no longer just a seasonal inconvenience but a significant public health and socio-economic challenge. While the government's efforts like Heat Action Plans, early warning systems, and emergency response mechanisms, are commendable, there is an urgent need to institutionalize and upscale these measures across the country.

HEALING OUR EARTH: THE 2025 CALL TO ACTION ON DESERTIFICATION

WHY IN THE NEWS?

The World Day to Combat Desertification and Drought 2025 was observed on June 17 with the theme *"Restore the Land. Unlock the Opportunities."* The UN revealed that around 16 million sq km of land—equal to the size of South America—is at risk of severe degradation by 2050. Currently, land degradation and drought cost the global economy $878 billion annually, while restoring 1.5 billion hectares could unlock a trillion-dollar restoration economy, highlighting the urgent need for investment and private sector participation.



THE SCALE OF THE GLOBAL CRISIS

1. **Massive Land at Risk:** About 16 million sq km of land—equal to South America—may be severely degraded by 2050, threatening ecosystems, agriculture, and biodiversity.
2. **Economic Toll:** Land degradation and drought cost the global economy $878 billion annually, over three times the global aid provided in 2023.
3. **Livelihood and Food Security Threats:** Degraded land reduces agricultural productivity, worsens food insecurity, and displaces vulnerable populations, especially in Africa, Asia, and Latin America.
4. **Climate and Ecological Impact:** It accelerates biodiversity loss, disrupts water cycles, and increases GHG emissions, intensifying climate change.

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5. **Security Concerns:** Resource scarcity due to land degradation can fuel conflict, migration, and instability, especially in fragile regions.

CAUSES OF DESERTIFICATION:

1. **Deforestation:** Removal of forests reduces soil stability and accelerates erosion and degradation.
2. **Unsustainable Agriculture:** Over-cultivation, monocropping, and chemical overuse exhaust soil nutrients.
3. **Overgrazing:** Excessive grazing by livestock strips vegetation cover, exposing soil to erosion.
4. **Urban Expansion:** Unplanned urban growth leads to land sealing and loss of productive land.
5. **Climate Change:** Rising temperatures and erratic rainfall intensify droughts and land degradation.
6. **Water Scarcity:** Limited water availability affects soil health and vegetation growth.
7. **Soil Salinization:** Poor irrigation practices cause salt build-up, reducing soil fertility.
8. **Poverty and Overconsumption:** Resource overuse due to poverty and unsustainable lifestyles worsens degradation.

ECONOMIC OPPORTUNITY IN RESTORATION

1. **Massive Investment Need:** Achieving global land restoration targets by 2030 requires an estimated $1 billion investment per day.
2. **High Return Potential:** For every $1 invested in land restoration, the return can range between $7 to $30, thanks to improved ecosystem services and livelihoods.
3. **Trillion-Dollar Opportunity:** Restoring 1 billion hectares of degraded land globally could generate up to $1.8 trillion in annual economic returns.
4. **Growth of a Restoration Economy:** Land restoration holds the potential to evolve into a trillion-dollar global economic sector, contributing significantly to sustainable development.
5. **Environmental Benefits:** Restoration enhances soil fertility, water availability, biodiversity, and carbon sequestration—vital for combating climate change.
6. **Job Creation Potential:** Restoration initiatives, especially in developing regions, could create millions of green jobs in sectors like agriculture, forestry, and ecosystem management.
7. **Current Funding Deficit:** At present, the private sector contributes only 6% of total restoration financing, highlighting a major investment gap.
8. **Urgent Need for Private Sector Involvement:** To unlock full economic and ecological potential, greater private investment and public-private partnerships are essential.

REGIONAL HIGHLIGHTS

Region	Extent of Degradation	Restoration Goal	Key Highlights
Sub-Saharan Africa	45% of world's degraded land	440 million hectares	Potential to create 10 million sustainable jobs, focus on Sahel region
Latin America & Caribbean	14% of global degraded land	Over 220 million hectares	Emphasis on sustainable land use and agroecological planning
Western Asia & North Africa	Nearly 90% of the land already degraded	Over 150 million hectares	Facing water scarcity, rising temperatures, focus on resilient agriculture
Colombia (Host, 2025)	30% land degraded; 40% soils salinised	560,000 hectares under restoration	Focus on agroforestry, sustainable coffee/cattle farming, and watershed restoration.

ROLE OF THE UNCCD (UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION)

1. **Established:** Formed in 1994, UNCCD is the only legally binding international treaty focused exclusively on land degradation, desertification, and drought mitigation.
2. **Membership:** Signed by 197 parties, including India, ensuring near-universal global representation and cooperation.
3. **Strategic Approach:** Implements initiatives through National Action Plans (NAPs), regional coordination, and global partnerships for effective land governance.
4. **Core Mandate:** Aims to promote sustainable land management, enhance drought resilience, and achieve Land Degradation Neutrality (LDN) by 2030 as part of the SDGs.
5. **Science-Policy Interface:** Strengthens evidence-based policymaking through the Science-Policy Interface (SPI) to guide land restoration efforts globally.
6. **Monitoring & Reporting:** Tracks progress through a robust monitoring system, using performance indicators and national reporting to assess implementation outcomes.
7. **Mobilising Finance & Innovation:** Works to mobilize technical and financial support, engaging with public and private stakeholders to scale up investments in land restoration and nature-based solutions.

WAY FORWARD

1. **Scale up public-private financing:** Bridge the substantial funding gap by increasing private sector involvement beyond the current 6% share and encouraging blended finance models.
2. **Promote nature-based solutions:** Adopt sustainable practices like agroforestry, regenerative agriculture, rainwater harvesting, and soil conservation to restore ecosystems.
3. **Integrate land restoration into climate and SDG frameworks:** Align land management efforts with climate adaptation, biodiversity conservation, food security, and poverty reduction goals.
4. **Empower local communities:** Strengthen grassroots participation by supporting community-led and indigenous initiatives, especially in vulnerable rural areas.
5. **Strengthen governance and land rights:** Improve land tenure systems and ensure secure land rights for women, farmers, and indigenous peoples to enhance stewardship.
6. **Invest in research and innovation:** Foster scientific research, geospatial mapping, and the use of frontier technologies (AI, remote sensing) for better decision-making and impact assessment.
7. **Build capacity and awareness:** Train farmers, officials, and local institutions in sustainable land management practices and drought preparedness.
8. **Enhance international cooperation:** Promote cross-border collaboration, policy harmonization, and knowledge exchange through platforms like UNCCD and regional alliances.

CONCLUSION

Land restoration is far more than an environmental imperative — it is a cornerstone of global economic resilience, social stability, and human well-being. Restoring degraded land offers a powerful opportunity to regenerate ecosystems, improve food and water security, create sustainable livelihoods, and combat the climate crisis. It represents a win-win solution that nurtures both people and the planet while unlocking long-term prosperity.As aptly stated by Ibrahim Thiaw, Executive Secretary of the UNCCD: "A restored land is a land of endless opportunities... Without land, there can be no livelihoods, peace, or prosperity."

BONN SB62 DEADLOCK: CLIMATE FINANCE AND TRADE EQUITY AT THE CROSSROADS

WHY IN THE NEWS?

The Bonn Climate Conference 2025 (SB 62) faced a major deadlock as developing countries, led by the LMDC bloc (including India), demanded inclusion of

two new agenda items: climate finance under Article 9.1 of the Paris Agreement and opposition to unilateral trade measures like the EU's CBAM. These were blocked by developed countries, delaying formal proceedings for nearly 48 hours. A compromise was reached on June 17, allowing discussions through informal consultations and under existing agenda items, with no standalone tracks. The move drew sharp criticism from nations like India, Bolivia, and Nigeria, who vowed to revive these demands at COP30. The episode reflects deepening North–South divides on climate obligations and equity.

BACKGROUND OF THE AGENDA DISPUTE

Aspect	Details
Conference	Bonn Climate Conference 2025 (SB 62)
Proposing Group	Like-Minded Developing Countries (LMDC), supported by G77+China
Proposed Agenda Items	1. Implementation of Article 9.1 (public climate finance) 2. Opposition to unilateral trade measures (e.g. CBAM)
Article 9.1 Focus	Calls for predictable, concessional, transparent public finance from developed countries
Trade Measure Concerns	Criticism of EU's CBAM and similar tools as protectionist and against climate equity principles
Support Base	Over 130 developing countries under G77+China bloc
Opposition	Developed nations, mainly the EU, UK, Canada, and allies
Reasons for Opposition	- Redundancy with existing finance tracks (e.g. NCQG) - Trade issues seen as outside UNFCCC scope - Risk of politicising negotiations
Outcome on Day 1	Agenda adoption delayed due to deadlock; moved to closed-door consultations
Broader Implication	Reveals persistent North-South divide on finance responsibility, equity, and trade dynamics

FINANCE DIVIDE: ARTICLE 9.1 VS. ARTICLE 9.3 OF THE PARIS AGREEMENT

Aspect	Article 9.1	Article 9.3
Nature of Finance	Direct provision of public finance by developed countries	Mobilisation of finance from public, private, and alternative sources

Mandate	Legally binding obligation for developed countries	Encouragement, not a strict obligation
Focus	Public funds with predictability, concessionality, and transparency	Use of public money to leverage private investments
Accountability	Higher accountability due to government-to-government transfers	Lower accountability; difficult to track and monitor private flows
Preferred by	Developing countries, especially LMDC and G77+China	Developed countries (EU, US, Canada, etc.)
COP29 Outcome	Largely ignored in favour of 9.3	Reflected in NCQG goal ($300 bn/year; $1.3 trillion by 2035)
Key Concern	Article 9.1 ensures equity and fairness in climate finance	Article 9.3 shifts burden to markets, reducing public responsibility

TRADE AND CLIMATE – THE CBAM CONTROVERSY

1. **Unilateral Measures:** The EU's Carbon Border Adjustment Mechanism (CBAM), along with similar policies by the UK and Canada, impose carbon costs on imports from developing nations.
2. **Developing Country Concerns:** LMDC and BASIC countries view such measures as protectionist, inequitable, and a violation of climate justice.
3. **Equity and CBDR Violation:** These actions contradict the principle of Common But Differentiated Responsibilities (CBDR) under the UNFCCC.
4. **Trade Fairness Issues:** Measures risk breaching WTO norms, creating barriers to trade, and undermining global cooperation.
5. **Call for Dialogue:** While a formal agenda item was blocked, related discussions will continue under the Just Transition Work Programme.

SIGNIFICANCE OF THE BONN CONFERENCE DEADLOCK

1. **Reveals Persistent North-South Divide:** Highlights deep-rooted disagreements between developed and developing countries on climate finance responsibilities.
2. **Weakens Trust in Multilateralism:** Undermines trust in the UNFCCC process and hampers collective climate action.
3. **Delays Urgent Negotiations:** The agenda deadlock stalled key discussions on finance, mitigation, and adaptation at a critical pre-COP30 stage.
4. **Neglect of Article 9.1 Obligations:** Exposes attempts by developed nations to sideline their public finance commitments under the Paris Agreement.
5. **Erodes Equity and Climate Justice:** Reinforces concerns that global climate governance is becoming less inclusive and fair to the Global South.
6. **Trade and Climate Link Tensions:** Reflects rising friction between unilateral trade measures like CBAM and climate equity principles.
7. **Demands Institutional Reforms:** Points to the need for more transparent, inclusive, and enforceable mechanisms in global climate forums.
8. **Sets Stage for High-Stakes COP30:** Increases pressure on COP30 in Brazil to resolve finance and trade equity issues left unsettled in Bonn.

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WAY FORWARD

1. **Institutionalize Article 9.1 Discussions:** Ensure dedicated agenda space in future UNFCCC sessions to uphold developed countries' public finance obligations.
2. **Create a Framework on Unilateral Trade Measures:** Develop a multilateral platform under UNFCCC to assess the fairness and climate-compatibility of trade-related actions like CBAM.
3. **Enhance Finance Transparency and Accountability:** Mandate clear tracking and reporting systems for climate finance flows, ensuring predictability and additionality.
4. **Empower Developing Country Voices:** Reform negotiation structures to ensure equitable participation and leadership from G77, LMDC, and vulnerable nations.
5. **Align NCQG with Concessional Public Finance:** Shift the New Collective Quantified Goal (NCQG) toward more grant-based and concessional finance, not just private capital mobilisation.
6. **Promote Just Transition Principles Globally:** Integrate fair trade, labor rights, and developmental equity in climate and trade policy discussions.
7. **Strengthen Global Climate Governance Mechanisms:** Improve coordination between UNFCCC, WTO, and financial institutions to balance environmental and economic justice.
8. **Prepare Robust Outcomes for COP30:** Use the Baku-to-Belém roadmap to ensure COP30 delivers on equity-based finance, technology transfer, and inclusive policy.

CONCLUSION

The Bonn SB62 Conference marks a critical juncture in global climate diplomacy, exposing long-standing rifts between developed and developing nations on finance and trade equity. The inability to adopt a full agenda on Day 1 reflects persistent resistance from developed countries to address core issues like public climate finance (Article 9.1) and unilateral trade measures. As the world heads toward COP30 in Brazil, it is essential to uphold a transparent, inclusive, and equitable negotiation process. Bridging the finance divide and ensuring fair treatment in trade-related climate actions are crucial to restoring trust. Only through genuine collaboration can the global community achieve climate justice and move toward a truly sustainable and equitable future.

PRELIMS QUESTIONS

1. Which of the following protocols ensures fair sharing of benefits from genetic resources?

(a) Cartagena Protocol (b) Nagoya Protocol

(c) Kyoto Protocol (d) Montreal Protocol

2. Consider the following pollutants commonly associated with maritime shipping:

1. Ballast water
2. Sulphur oxides
3. Microplastics
4. Industrial wastewater

Which of the above are directly associated with pollution from ships?

(a) 1 and 2 only (b) 1, 2, and 3 only

(c) 1, 2, and 4 only (d) All of the above

3. With reference to Dugongs, consider the following statements:

1. Dugongs are exclusively carnivorous marine mammals.
2. They are listed under Schedule I of the Wildlife (Protection) Act, 1972.
3. India's first Dugong Conservation Reserve is located in the Gulf of Kutch.
4. Dugongs play an important role in maintaining the health of seagrass ecosystems.

Which of the above statements are correct?

(a) 2 and 4 only (b) 1 and 3 only

(c) 1, 2 and 3 only (d) 2, 3 and 4 only

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4. Which of the following statements about India's environmental initiatives is/are correct?

1. The "LiFE" movement launched at COP26 promotes sustainable lifestyles and conscious consumption.
2. The PM Surya Ghar: Muft Bijli Yojana is aimed at industrial solar energy expansion.
3. Project Cheetah aims to reintroduce extinct species into Indian ecosystems.
4. India currently hosts over 85 Ramsar sites as of 2024.

Select the correct answer using the code below:

(a) 1 and 2 only (b) 1, 3 and 4 only

(c) 2 and 3 only (d) 1, 2, 3 and 4

5. With reference to Ramsar Sites and Wetlands (Conservation and Management) Rules, consider the following statements:

1. The Ramsar Convention aims to halt the worldwide loss of wetlands and promote their sustainable use.
2. The Wetlands (Conservation and Management) Rules, 2010, mandated the creation of State Wetlands Authorities in every state.
3. Khichan and Menar wetlands in Rajasthan were added to India's Ramsar Sites list in 2025.

How many of the above statements are correct?

(a) Only one (b) Only two

(c) All three (d) None

6. With reference to heatwaves in India, consider the following statements:

1. A heatwave is declared in the plains when the maximum temperature is 4.5°C above normal and crosses 40°C.
2. The Urban Heat Island effect leads to lower night-time temperatures in cities.
3. The India Meteorological Department (IMD) uses only air temperature to issue heatwave alerts.

Which of the statements given above is/are correct?

(a) 1 only (b) 1 and 3 only

(c) 2 and 3 only (d) 1, 2 and 3

7. With reference to the United Nations Convention to Combat Desertification (UNCCD), consider the following statements:

1. It is the only legally binding international agreement linking environment and development to sustainable land management.
2. The headquarters of UNCCD is located in Bonn, Germany.
3. India has pledged to restore over 10 million hectares of degraded land under the Bonn Challenge.

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

8. Consider the following statements regarding Article 9.1 and Article 9.3 of the Paris Agreement:

1. Article 9.1 obligates developed countries to provide public climate finance to developing countries.
2. Article 9.3 allows developing countries to mobilise private climate finance with legal obligations.
3. Article 9.3 is preferred by developed countries due to its flexibility and reliance on markets.

Which of the statements is/are correct?

(a) 1 and 2 only (b) 1 and 3 only

(c) 2 and 3 only (d) 1, 2 and 3

ANSWER-KEY

1.(b)	2.(b)	3.(a)	4.(b)
5.(b)	6.(a)	7.(d)	8.(b

MAINS QUESTIONS

1. "Biological diversity is essential for ecological balance and human well-being. Discuss the significance of biodiversity, major threats it faces, and suggest measures for its effective conservation."

(250 words, 15 marks)

2. Ship-induced ocean pollution poses a serious threat to marine ecosystems, coastal economies, and human health. Discuss the major sources, impacts, international legal framework, and challenges in enforcement. Suggest measures to strengthen ocean governance in this context.

(250 words, 15 marks)

3. Dugongs are vital to marine biodiversity and coastal ecosystem services, yet remain critically threatened in India. Discuss the major threats to dugongs, the conservation efforts being made, and the way forward for ensuring their survival.

(250 words, 15 marks)

4. India has transitioned from a hesitant participant to a global leader in environmental and climate action. Discuss the major initiatives taken by India in recent years for promoting sustainability, clean energy, and biodiversity conservation. Also highlight the key challenges that still persist and suggest a way forward.

(250 words, 15 marks)

5. Discuss the significance of wetlands and the role of the Ramsar Convention in their conservation. How do recent additions like Khichan and Menar wetlands to the Ramsar Sites list reflect India's commitment to ecological preservation?

(250 words, 15 marks)

6. Heatwaves have become more frequent, intense, and deadly in Indian cities like Delhi due to a combination of climate change, poor urban planning, and rising population vulnerabilities. Discuss the environmental, health, and governance dimensions of heatwaves in India and suggest long-term mitigation and adaptation strategies.

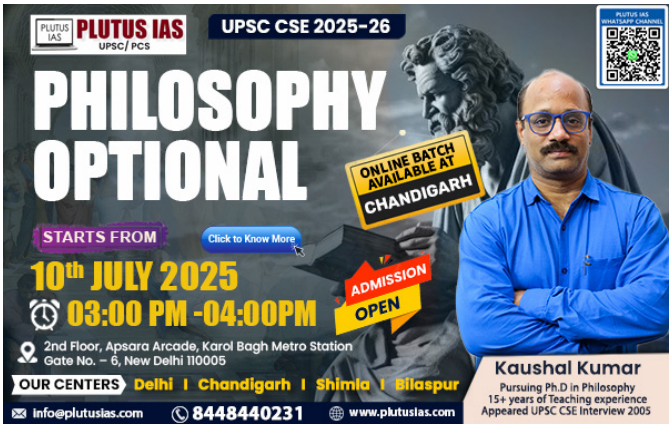
(250 words, 15 marks)

7. Land degradation and desertification pose serious threats to global food security, livelihoods, and environmental stability. In light of the UNCCD's efforts and the 2025 observance of the International Day to Combat Desertification and Drought, discuss the causes, impacts, and opportunities in restoring degraded land.

(250 words, 15 marks)

8. The deadlock at the Bonn Climate Conference 2025 (SB62) reveals deep-rooted North–South divisions over climate finance and trade justice. Critically examine the implications of this impasse for global climate governance. Also suggest a way forward to achieve an inclusive and equitable climate regime.

(250 words, 15 marks)



VIKSIT KRISHI SANKALP ABHIYAN: BRIDGING THE LAB-TO-LAND GAP FOR A DEVELOPED BHARAT

WHY IN THE NEWS?

The Viksit Krishi Sankalp Abhiyan (VKSA) was launched on 29 May 2025 to strengthen the connection between agricultural research and farmers at the grassroots level. Led by the Union Agriculture Minister Shri Shivraj Singh Chouhan, the 15-day campaign aims to reach over 1.5 crore farmers in 700+ districts. With the support of more than 16,000 agricultural scientists and 2,170 interdisciplinary teams, VKSA promotes awareness about modern, scientific farming practices, government schemes, and sustainable agricultural growth. The campaign focuses on empowering farmers through knowledge, making them active partners in building a Viksit Bharat.

WHAT IS VIKSIT KRISHI SANKALP ABHIYAN (VKSA)?

Viksit Krishi Sankalp Abhiyan (VKSA) is a 15-day nationwide agricultural outreach campaign launched on 29 May 2025 from Puri, Odisha by the Union Ministry of Agriculture and Farmers' Welfare. Led by Shri Shivraj Singh Chouhan, it aims to bridge the gap between scientific research and grassroots farming. The campaign targets 1.5 crore farmers across 700+ districts through the efforts of 16,000 agricultural scientists and 2,170 interdisciplinary teams. VKSA promotes modern farming techniques, soil health awareness, natural farming, and crop diversification. It embodies the vision of "Lab to Land", empowering farmers with knowledge to improve productivity and income.

PURPOSE OF VIKSIT KRISHI SANKALP ABHIYAN (VKSA)

1. **Bridging Lab-to-Land Gap:** VKSA connects over 16,000 scientists and 2,170 teams to farmers in 700+ districts, ensuring scientific knowledge reaches the grassroots.
2. **Massive Farmer Outreach:** Aims to engage 1.5 crore farmers across India through targeted field visits and demonstrations.
3. **Pre-Kharif Awareness:** Timed before the Kharif season to promote soil health, natural farming, and crop diversification.
4. **Customised Field Support:** Offers local solutions on seeds, irrigation, fertilisers, and pest control through direct farmer interaction.
5. **Promoting Sustainable Farming:** Encourages direct-seeded rice (DSR), organic inputs, biofertilizers, and water-saving techniques.
6. **Boosting Productivity & Income:** A 1-quintal/ha yield increase could raise national output by 20 million tonnes, improving farm incomes.
7. **Feedback-Driven Policy Making:** Collects on-ground feedback from farmers to fine-tune agricultural policies.

8. **Towards Atmanirbhar Krishi:** Advances PM Modi's vision by integrating technology, innovation, and climate resilience in farming.

WHY VIKSIT KRISHI IS IMPORTANT FOR VIKSIT BHARAT

1. **Employment Generator:** Agriculture is the primary livelihood for over 50% of India's population. A developed agricultural sector boosts rural employment, agro-processing, and allied industries.
2. **Ensures Food Security:** Enhanced productivity through modern practices ensures self-sufficiency in food grains, stabilizes prices, and reduces import dependency.
3. **Reduces Rural-Urban Migration:** Vibrant rural economies driven by profitable agriculture reduce migration pressures on urban areas.
4. **Boosts Rural Incomes & Demand:** Higher farmer incomes lead to greater rural purchasing power, stimulating consumption and local economic activity.
5. **Encourages Agri-Tech Innovation:** Drives innovation in AI, IoT, and drones for precision farming, creating new-age rural jobs and entrepreneurial opportunities.
6. **Supports Climate Resilience:** Promotes sustainable farming, water conservation, and climate-resilient crops—critical for environmentally secure development.
7. **Strengthens Export Potential:** With surplus and high-quality produce, India can increase agri-exports, improving the trade balance and global competitiveness.
8. **Backbone for Allied Sectors:** Agriculture drives growth in dairy, poultry, fisheries, logistics, and food processing, making it the foundation for a robust rural economy.
9. **Inclusive Development:** Reaches marginalized groups—women farmers, smallholders, tribal communities—ensuring equitable and inclusive growth.

CHALLENGES IN VIKSIT KRISHI SANKALP ABHIYAN (VKSA)

1. **Limited Farmer Awareness:** Many small and marginal farmers still lack awareness of modern technologies, sustainable practices, and government schemes.
2. **Technology Adoption Barriers:** High costs, low digital literacy, and inadequate access to agri-tech tools hinder the implementation of science-led agriculture.
3. **Infrastructure Gaps:** Inadequate rural infrastructure, such as irrigation, storage, cold chains, and transport, affects productivity and reduces farmer profits.
4. **Fragmented Land Holdings:** Small and fragmented land plots make mechanisation and efficient resource use challenging for millions of farmers.
5. **Credit and Insurance Bottlenecks:** Delays in access to institutional credit and crop insurance coverage discourage investment in new practices.
6. **Climate Vulnerabilities:** Increasing climate risks like erratic rainfall, droughts, and floods reduce the effectiveness of agricultural interventions.
7. **Short Implementation Timeline:** VKSA is a 15-day campaign, which may limit deep, long-term behavioural change without sustained follow-up action.
8. **Coordination Issues:** Effective collaboration between scientists, local administrations, and farmer groups requires robust planning and consistent monitoring.

WAY FORWARD

1. **Sustained Engagement:** Extend VKSA beyond a 15-day campaign into a continuous nationwide movement with seasonal follow-ups and village-level outreach.
2. **Strengthen Agri-Extension Services:** Institutionalise agri-extension networks with trained personnel, leveraging Krishi Vigyan Kendras (KVKs), FPOs, and Panchayati Raj institutions.

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3. **Promote Digital Agriculture:** Accelerate the use of digital tools like mobile advisory apps, e-NAM, AI, and GIS-based crop advisories to enhance accessibility and transparency.
4. **Enhance Infrastructure Support:** Invest in rural infrastructure such as irrigation, cold chains, warehouses, and roads to improve farm-to-market connectivity.
5. **Inclusive Policy Support:** Design schemes tailored for women farmers, smallholders, and tribal communities to ensure equitable growth and participation.
6. **Climate-Smart Agriculture:** Scale up promotion of climate-resilient seeds, micro-irrigation, natural farming, and sustainable practices to mitigate climate risks.
7. **Feedback-Driven Reforms:** Use farmer feedback collected during VKSA to reform input delivery systems, crop insurance, and MSP frameworks.
8. **Link with Education & Research:** Integrate agricultural education, research institutions, and startups with VKSA to create a knowledge-driven ecosystem for innovation.

CONCLUSION

The Viksit Krishi Sankalp Abhiyan marks a significant step toward realizing the vision of Atmanirbhar Krishi for Viksit Bharat by empowering farmers through knowledge, technology, and sustainable practices. By directly connecting scientists with the farming community, the campaign has the potential to transform Indian agriculture into a more productive, resilient, and inclusive sector. However, to translate this short-term initiative into lasting impact, it is essential to institutionalise sustained outreach, improve infrastructure, and address systemic challenges like fragmentation, climate risks, and technology access. With coordinated efforts and continued farmer-centric policies, VKSA can become a cornerstone in India's journey toward agricultural self-reliance and rural prosperity by 2047.

PRELIMS QUESTIONS

1. With reference to the Viksit Krishi Sankalp Abhiyan (VKSA), consider the following statements:

1. VKSA is a year-long agricultural development program focused on boosting exports of cash crops.
2. It is led by the Union Ministry of Agriculture and aims to connect agricultural scientists with farmers.
3. The campaign promotes natural farming, crop diversification, and climate-resilient techniques.
4. VKSA was launched from Varanasi, Uttar Pradesh in 2025.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only

(c) 3 and 4 only (d) 1, 3, and 4 only

ANSWER-KEY

1. (a)

MAINS QUESTIONS

1. Viksit Krishi Sankalp Abhiyan (VKSA) aims to bridge the gap between agricultural research and grassroots farming in India. Discuss the significance of this campaign in transforming Indian agriculture. Also, highlight the key challenges and suggest a way forward.

(250 words, 15 marks)

URBAN FORESTS AT RISK: LEGAL, ENVIRONMENTAL, AND DEVELOPMENTAL PERSPECTIVES

WHY IN THE NEWS?

One of Hyderabad's last remaining urban forests, Kancha Gachibowli, faced the threat of extinction when the Telangana government decided to give away 400 acres of its land for industrial development. Justifying its move by claiming ownership over the forest, the government alleged that protesting students were misled by real estate interests. However, the Supreme Court took cognisance of the felling of 100 acres of trees and reprimanded the State government. This issue highlighted the vulnerability of urban forests and environmentally insensitive models of urbandevelopment.

WHY URBAN FORESTS MATTER

Category	Key Benefits
Environmental	✧ Improve air quality by filtering pollutants (PM2.5, NOx, CO_2)
	✧ Mitigate urban heat island effect
	✧ Sequester carbon, reducing greenhouse gases
	✧ Absorb rainwater, reduce urban flooding
Health & Well-being	✧ Lower respiratory and cardiovascular diseases
	✧ Provide spaces for recreation and mental wellness
	✧ Act as noise buffers in busy urban settings
Ecological	✧ Support urban biodiversity (birds, insects, small mammals)
	✧ Function as mini-ecosystems, improve soil and water cycles
Urban Sustainability	✧ Enhance climate resilience and disaster preparedness
	✧ Align with smart city and green infrastructure goals

MAJOR URBAN FORESTS IN INDIA

Urban Forest Name	City	Notable Features
Kancha Gachibowli	Hyderabad	✧ One of the city's last remaining patches; currently threatened by urban expansion.
Aarey Forest	Mumbai	✧ An ecologically sensitive area, key for biodiversity and air quality, despite controversies over development.
Delhi Ridge & Neela Hauz	Delhi	✧ Offers a green lung to the national capital, critical for recreational and environmental functions; judicial interventions help protect these areas.
Turahalli Forest	Bengaluru	✧ A valued natural enclave amidst rapid urbanization, noted for its biodiversity and recreational use.
Pol Ka Baadli	Jaipur	✧ Serves as an important green space in the city, contributing to urban ecological balance.

GOVERNMENT INITIATIVES FOR URBAN FORESTS

JUDICIAL AND LEGAL INTERVENTIONS IN URBAN FOREST CONSERVATION

1. **Judicial Activism & PILs:** Courts actively protect urban forests through Public Interest Litigations filed by concerned citizens and civil society groups.
2. **Supreme Court Intervention:** In the Kancha Gachibowli case, the Supreme Court reprimanded the Telangana government, highlighting its role in enforcing environmental accountability.
3. **Check on Executive Actions:** The judiciary acts as a watchdog over executive decisions that harm ecological balance, ensuring public interest is upheld.
4. **Environment Protection Act, 1986:** Provides a legal framework to regulate and prevent activities that damage forests and the environment.
5. **Forest Conservation Act, 1980:** Restricts diversion of forest land for non-forest use without central approval, safeguarding forest areas.
6. **Judicial Guidelines:** Courts have issued key directives to prevent tree felling and illegal encroachments in urban forest areas.
7. **Constitutional Support:** Article 48A of the Directive Principles directs the State to protect and improve the environment.
8. **Sustainable Development Focus:** Legal interventions help balance urban growth with ecological preservation, ensuring long-term sustainability.

THREATS TO URBAN FORESTS

1. **Rapid Urbanisation:** Expansion of cities leads to the conversion of forest lands into residential, commercial, and industrial areas.
2. **Infrastructure Development:** Construction of roads, flyovers, metro lines, and industrial parks often involves clearing large green areas.
3. **Encroachments:** Illegal settlements, slums, and unauthorised constructions reduce forest cover

and disturb biodiversity.

4. **Pollution:** Air, noise, and water pollution from surrounding urban activities degrade the health of urban forest ecosystems.
5. **Tree Felling and Logging:** Unregulated cutting of trees for fuelwood, construction, or land clearance threatens forest sustainability.
6. **Invasive Species:** Introduction of non-native plant species disrupts the natural composition and health of the forest ecosystem.
7. **Lack of Legal Protection and Poor Enforcement:** Many urban forests are not classified as protected forests, making them vulnerable to exploitation and weak regulatory oversight.
8. **Climate Change:** Rising temperatures, irregular rainfall, and extreme weather events stress forest health and alter native biodiversity.
9. **Real Estate Pressure:** High land value in urban areas increases the temptation to convert forested land into profitable ventures.

WAY FORWARD FOR URBAN FOREST CONSERVATION

1. **Legal Protection Status:** Designate urban forests as protected areas under relevant forest and environmental laws to ensure long-term security.
2. **Integrated Urban Planning:** Include urban forests in city master plans and zoning regulations to prevent encroachments and unplanned development.
3. **Strict Enforcement of Laws:** Strengthen implementation of the Environment Protection Act, Forest Conservation Act, and judicial guidelines.
4. **Community Participation:** Involve local residents, RWAs, and student groups in protection, monitoring, and afforestation efforts.
5. **Urban Afforestation Drives:** Promote native species plantation in degraded urban spaces, including buffer zones and wastelands.
6. **Use of Technology:** Employ GIS, satellite imagery, and drone monitoring for forest mapping, encroachment detection, and conservation tracking.
7. **Green Incentives:** Provide incentives to developers for creating green infrastructure and preserving forest cover in urban projects.
8. **Awareness and Education:** Launch campaigns in schools and communities to build awareness on the ecological, health, and climate benefits of urban forests

CONCLUSION

The Kancha Gachibowli episode underscores the urgent need to re-evaluate urban development paradigms that prioritise short-term economic gains over long-term ecological stability. Urban forests are not just green patches—they are vital ecosystems that enhance climate resilience, safeguard public health, support biodiversity, and provide psychological comfort amidst concrete jungles. Judicial interventions, as seen in this case, play a crucial role in upholding environmental justice and enforcing accountability. However, sustainable conservation demands more than reactive legal measures—it requires proactive governance, community engagement, and a vision that integrates nature into urban planning. Protecting urban forests is not just an environmental imperative but a developmental necessity for India's future cities.

NEW ANTIBIOTICS VS. EVOLVING RESISTANCE: A RACE AGAINST TIME

WHY IN THE NEWS?

The death of 55-year-old Viswanatham from rural India has spotlighted the growing threat of Antimicrobial Resistance (AMR). After a respiratory illness in 2020, he sought help from a rural private practitioner, which led to complications and a leg infection. As a diabetic with a weak immune system, he was given a last-resort antibiotic that damaged his kidneys. Hospital-acquired infections further worsened his condition, and he died in 2021. His case underscores the dangers of irrational antibiotic use and the spread of resistant infections in both

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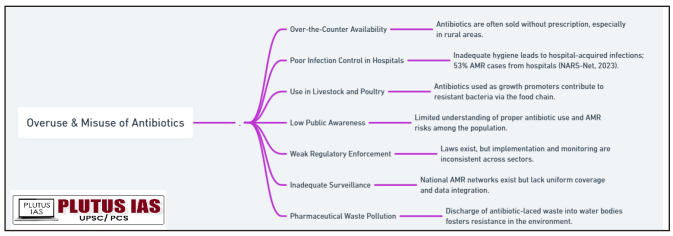
community and hospital settings. According to the Institute for Health Metrics and Evaluation (IHME), AMR caused 4.1 million deaths directly and 2.8 million associated deaths in 2019. The crisis has gained renewed attention, calling for urgent measures in antibiotic regulation, infection control, and public awareness.

WHAT IS AMR?

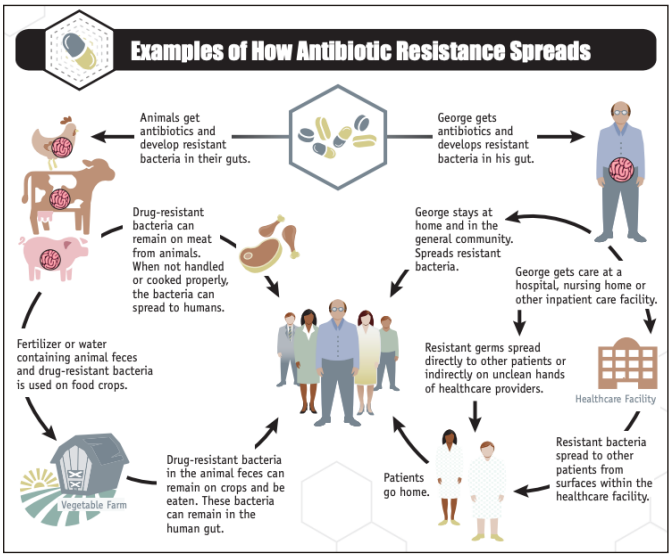
Antimicrobial Resistance (AMR) is the ability of microorganisms such as bacteria, viruses, fungi, and parasites to resist the effects of drugs that once killed them or stopped their growth. It occurs due to the overuse and misuse of antibiotics in humans, animals, and agriculture. AMR makes infections harder to treat, leading to prolonged illness, higher medical costs, and increased mortality. It is a growing global health threat, especially in countries like India with high antibiotic usage and poor regulatory control. The World Health Organisation (WHO) identifies AMR as one of the top 10 global public health threats. Tackling AMR requires a multi-sectoral, One Health approach involving healthcare, veterinary, and environmental sectors.

KEY FACTORS CONTRIBUTING TO AMR IN INDIA



RECENT DEVELOPMENTS IN AMR

1. **Development of Nafithromycin (Nafasyn):** India's Wockhardt developed a new antibiotic (first in over 30 years), effective against respiratory tract infections, requiring just 3 doses.
2. **Rise of Indian Antibiotic Innovators:** Indian companies like Wockhardt, Bugworks, and GangaGen are advancing antibiotic R&D, contributing to global AMR solutions.
3. **Strengthening of National Surveillance (NARS-Net):** Expanded surveillance of AMR in hospitals and labs under the National Programme on AMR Containment.
4. **Ban on Colistin for Growth Promotion:** India banned colistin, a critical antibiotic, in livestock to curb resistance transmission.
5. **Promotion of One Health Approach:** The Government is integrating human, animal, and environmental health sectors in AMR response policies.
6. **Public Health Campaigns:** Awareness programs launched by ICMR and MoHFW on rational antibiotic use and infection prevention.
7. **Global Recognition of India's Role:** WHO and international platforms acknowledge India's leadership in tackling AMR through innovation and regulation.



GOVERNMENT INITIATIVES TO COMBAT ANTI-MICROBIAL RESISTANCE (AMR)

1. **National Action Plan on AMR:** Launched to promote awareness, surveillance, infection control, and rational antibiotic use in humans and animals.
2. **National Programme on AMR Containment:** Strengthens lab capacity, surveillance (NARS-Net), and infection prevention in hospitals.

3. **Ban on Colistin in Livestock:** Prohibits use of critical antibiotics as growth promoters to prevent resistance spread.
4. **One Health Approach:** Integrates human, animal, and environmental health sectors for coordinated AMR response.
5. **Antibiotic Stewardship:** Encourages rational prescribing and reduces over-the-counter antibiotic sales.
6. **Public Awareness Campaigns:** Conducted by ICMR and MoHFW to educate on antibiotic misuse and infection prevention.
7. **Support for R&D:** Promotes development of new antibiotics and alternative treatments by Indian innovators.
8. **International Cooperation:** Collaborates with WHO and global partners to tackle AMR worldwide.

CHALLENGES IN AMR MANAGEMENT

1. **Overuse and Misuse of Antibiotics:** Widespread irrational prescribing and self-medication increase resistance.
2. **Poor Regulation and Enforcement:** Weak control over antibiotic sales and use in humans and animals.
3. **Limited Awareness:** Lack of public and healthcare worker knowledge about AMR and proper antibiotic use.
4. **Inadequate Surveillance:** Insufficient data collection and monitoring of resistance patterns, especially in rural **areas.**
5. **Infection Prevention Gaps:** Poor sanitation and hygiene in healthcare settings facilitate spread of resistant infections.
6. **Environmental Contamination:** Antibiotics entering water bodies from pharmaceutical waste and agriculture.
7. **Slow Development of New Drugs:** Limited investment and innovation in new antibiotics and alternatives.
8. **Multi-sectoral Coordination:** Difficulty in integrating human, animal, and environmental health efforts effectively.

WAY FORWARD TO COMBAT AMR

1. **Strengthen Antibiotic Stewardship:** Promote rational use of antibiotics among doctors, pharmacists, and the public.
2. **Enhance Surveillance:** Expand and improve monitoring of AMR in hospitals, communities, animals, and the environment.
3. **Improve Infection Control:** Upgrade sanitation, hygiene, and infection prevention measures in healthcare settings.
4. **Enforce Regulations:** Tighten laws on antibiotic sales and use in humans and livestock.
5. **Promote Research and Innovation:** Support development of new antibiotics, diagnostics, and alternative treatments.
6. **Adopt One Health Approach:** Foster collaboration across human, animal, and environmental health sectors.
7. **Increase Public Awareness:** Conduct sustained education campaigns on AMR and responsible antibiotic use.
8. **Strengthen International Cooperation:** Share data, best practices, and resources globally to address AMR collectively.

CONCLUSION

Antimicrobial Resistance (AMR) poses a severe and growing threat to global health, with millions of lives lost each year due to drug-resistant infections. India, with its high antibiotic use and regulatory challenges, faces a critical battle against AMR. The tragic case of Viswanatham highlights the urgent need for coordinated action to prevent misuse of antibiotics, strengthen surveillance, and improve infection control. Through government initiatives, innovation, public awareness, and a One Health approach, India can lead the fight against AMR. Sustained efforts and global cooperation are essential to safeguard the effectiveness of antibiotics and protect future generations from the devastating impacts of resistant infections.

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INDIA CLEARS AMCA PROJECT: A MAJOR LEAP IN INDIGENOUS STEALTH FIGHTER DEVELOPMENT

WHY IN THE NEWS?

India has taken a significant step towards indigenising its defence capabilities with the Defence Ministry approving the execution model for the development of the fifth-generation stealth fighter jet – the Advanced Medium Combat Aircraft (AMCA). Defence Minister Rajnath Singh, while addressing the CII Business Summit in New Delhi, announced that five prototypes of the AMCA will be developed before it enters series production. This project is noteworthy as it marks the first time that the private sector will collaborate with public sector companies, such as Hindustan Aeronautics Limited (HAL), in a mega defence manufacturing initiative. Highlighting the importance of the Make-in-India initiative in strengthening national security, the minister noted its role in India's effective counter-terrorism response during Operation Sindoor.

WHAT IS A STEALTH FIGHTER?

A stealth fighter is a military aircraft designed to avoid detection by radar, infrared, sonar, and other detection methods used by enemy forces. It uses advanced technologies and design techniques to minimize its visibility, making it harder for adversaries to track or target it.

KEY FEATURES OF A STEALTH FIGHTER:

1. **Low Radar Cross-Section (RCS):** The aircraft's shape and materials are engineered to absorb or deflect radar waves, reducing the chance of being detected.
2. **Special Coating and Materials:** Stealth fighters are coated with radar-absorbent materials (RAM) that help reduce their radar signature.
3. **Internal Weapon Bays:** Weapons are carried inside the aircraft rather than on external pylons to avoid increasing radar visibility.
4. **Reduced Infrared Signature:** Engines are designed to emit less heat, making it harder for heat-seeking missiles to lock onto the jet.
5. **Electronic Countermeasures:** Some stealth fighters are equipped with advanced systems to jam or deceive enemy radar and tracking systems.

STRATEGIC SIGNIFICANCE FOR INDIA

1. **Technological Sovereignty:** The AMCA project marks a critical step toward self-reliance in defence technology by reducing dependency on foreign platforms such as the Rafale and Su-30, thereby enhancing India's strategic autonomy.
2. **Enhanced Air Dominance:** It equips the Indian Air Force with fifth-generation stealth capability, crucial to maintaining air superiority and deterring adversaries like China and Pakistan, who are investing in similar technologies.
3. **Boost to Defence Exports:** The successful development of AMCA could position India as a key player in the global defence market, aligning with its ambition to become a net defence exporter.
4. **Strengthening Industry Ecosystem:** The project integrates PSUs, private sector firms, MSMEs, and startups, thereby stimulating high-end innovation and deepening the indigenous defence manufacturing ecosystem.
5. **Strategic Deterrence:** AMCA's advanced stealth, electronic warfare, and multirole capabilities will significantly enhance India's deterrence posture in high-threat zones such as the Indo-Pacific and the Himalayan frontiers.
6. **Indo-Pacific Security Contribution:** By enhancing its indigenous air power, India can

play a more assertive role in regional security frameworks like the Quad and other Indo-Pacific partnerships.

7. **R&D and Skill Development:** The project promotes research and development in cutting-edge domains and creates a skilled workforce in aerospace engineering, avionics, and materials science.
8. **Long-Term Cost Efficiency:** Indigenous production reduces lifecycle costs of procurement, maintenance, and upgrades while keeping critical technologies under national control.

PUBLIC-PRIVATE PARTNERSHIP: A GAME CHANGER

1. **Innovative SPV Model:** A Special Purpose Vehicle (SPV) will be created, bringing together Hindustan Aeronautics Limited (HAL) and leading private companies to jointly develop the AMCA, marking a structural innovation in Indian defence projects.
2. **Private Sector Entry in Core Defence:** For the first time, the private sector will co-develop a frontline combat aircraft, gaining experience in highly classified and complex aerospace technologies.
3. **Risk Sharing and Accountability:** The SPV ensures shared financial and technical risks, promoting accountability, faster decision-making, and better project management.
4. **Leveraging Complementary Strengths:** HAL contributes institutional knowledge and infrastructure, while private players bring agility, innovation, and efficiency — creating a synergy vital for next-gen platforms.
5. **Boost to MSMEs and Startups:** The AMCA ecosystem will include a wide range of tier-1 and tier-2 suppliers, fostering the growth of MSMEs, defence startups, and component manufacturers.
6. **Attracting Investment and Talent:** The partnership opens avenues for FDI, venture capital, and high-skilled employment in aerospace, avionics, and materials science.
7. **Precedent for Future Defence Projects:** Sets a template for future defence programmes including drones, naval systems, and sixth-generation aircraft, helping India replicate the model in other strategic sectors.
8. **Fostering a Defence Tech Ecosystem:** Encourages the development of indigenous R&D, university collaboration, and innovation hubs focused on long-term technological capability building.

CHALLENGES AND CONSTRAINTS IN AMCA EXECUTION

1. **Technical Complexity of Stealth and Avionics Development:** Designing and integrating advanced stealth features, next-gen avionics, and sensor fusion systems require cutting-edge expertise and innovation, making development highly challenging.
2. **Indigenous Jet Engine Development Delays:** The Kaveri engine project, intended to power indigenous fighters, has experienced significant setbacks, necessitating reliance on foreign engines in the short term.
3. **Inter-Agency Coordination Issues:** Smooth collaboration between multiple stakeholders — DRDO, HAL, private industry, and other government bodies — is essential but often hampered by bureaucratic hurdles and conflicting priorities.
4. **Budgetary and Procurement Challenges:** Large-scale defence projects face risks of cost overruns, delayed funding, and slow procurement procedures, potentially derailing project timelines.
5. **Geopolitical Constraints on Technology Access:** Restrictions and export controls from foreign countries on critical technologies such as stealth materials and avionics could limit India's ability to acquire certain components.
6. **Inadequate Test and Validation Infrastructure:** The absence of fully equipped indigenous testing facilities for stealth aircraft systems and engine trials delays prototype development and certification.

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7. **Skilled Workforce Shortage:** There is a scarcity of trained aerospace engineers, scientists, and specialists required to innovate and execute highly technical defence projects like AMCA.
8. **Export Market and Economic Viability Concerns:** Uncertainty in global defence markets, competition, and geopolitical shifts can impact India's ability to scale production and achieve cost-effectiveness through exports.

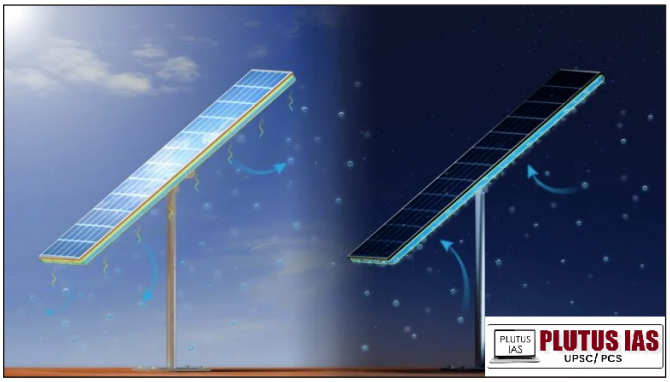
CONCLUSION

The Advanced Medium Combat Aircraft (AMCA) project represents a transformative leap in India's journey towards self-reliance in defence manufacturing. It not only strengthens national security by equipping the Indian Air Force with cutting-edge stealth technology but also signifies a paradigm shift in defence production through its innovative public-private partnership model. By integrating indigenous R&D, boosting the domestic aerospace ecosystem, and aiming for future export potential, AMCA positions India as a serious contender in the global fifth-generation fighter jet arena. However, success will depend on overcoming technological, institutional, and geopolitical challenges through sustained policy support, streamlined execution, and coordinated efforts among all stakeholders.

SMART SOLAR LEAP: NEW MATERIAL ENHANCES POWER AND DURABILITY

WHY IN THE NEWS?

An international team of researchers led by King Abdullah University of Science and Technology (KAUST) in Saudi Arabia has developed a new acrylate-based composite material that improves the performance of solar cells.



DEVELOPMENT OF THE NEW COMPOSITE MATERIAL

Aspect	Details
Research Institution	KAUST (King Abdullah University of Science and Technology), Saudi Arabia
Lead Researcher	Prof. Qiaoqiang Gan
Material Composition	Lithium Chloride (LiCl) + Sodium Polyacrylate (PAAS)
Key Property	Hygroscopic – absorbs moisture at night, releases it during the day
Cooling Mechanism	Passive evaporative cooling (no external energy required)
Fabrication	Cost-effective, no toxic chemicals or specialized reagents used
Field Testing Location	Saudi desert
Temperature Reduction	9.4°C cooler compared to conventional panels
Power Output Improvement	Increased by 12.9%
Lifespan Extension	More than 200% improvement
Electricity Cost Reduction	Nearly 20% lower

NEED FOR PASSIVE COOLING IN SOLAR TECHNOLOGY

1. **Heat Reduces Efficiency:** Solar panels convert only about 20% of sunlight into electricity. The remaining energy is absorbed as heat, which lowers output and reduces panel lifespan.
2. **Accelerated Degradation:** Higher operating temperatures cause faster wear and tear, leading to early replacement and higher maintenance costs.
3. **Limitations of Active Cooling:** Conventional cooling systems (like fans and pumps) consume electricity, increase system complexity, and add to operational costs, undermining overall energy efficiency.
4. **Passive Cooling Advantage:** Works without using external power. Materials used in passive systems cool panels naturally by managing heat and moisture.
5. **Sustainable and Cost-effective:** Passive cooling is low-cost, low-maintenance, and environmentally friendly, making it ideal for scaling solar technology in hot and arid regions.
6. **Enhances Power Output:** By reducing operating temperature, passive cooling can improve energy generation efficiency, up to 12.9% gain observed in field tests.
7. **Extends Panel Lifespan:** Cooler panels experience less thermal stress, which can extend their operational life by over 200%, reducing the frequency and cost of replacements.
8. **Supports Renewable Energy Goals**: In regions with intense sunlight like deserts, passive cooling enables more sustainable and reliable solar energy production, aligning with global climate and energy targets.

DEVELOPMENT OF THE NEW COMPOSITE MATERIAL

1. **Research Collaboration:** Developed by an international team led by King Abdullah University of Science and Technology (KAUST), Saudi Arabia, through its Center of Excellence for Renewable Energy and Storage Technologies.
2. **Material Composition:** The composite is made of lithium chloride and sodium polyacrylate—a low-cost, safe, and non-toxic acrylate-based polymer.
3. **Hygroscopic Functionality:** The material absorbs moisture at night and releases it during the day through evaporation, enabling passive cooling without external energy.
4. **Cost-Effective Fabrication:** Unlike traditional hygroscopic materials, it requires no harmful chemicals or complex reagents, making it scalable and eco-friendly.
5. **Cooling Efficiency:** In field tests in desert conditions, it lowered solar panel temperatures by 9.4°C, leading to higher energy output.
6. **Performance Boost:** Resulted in 12.9% higher power output and over 200% increase in panel lifespan, while reducing energy cost by nearly 20%.

WORKING PRINCIPLE OF THE COMPOSITE MATERIAL

1. **Hygroscopic Absorption at Night:** The composite, made of lithium chloride and sodium polyacrylate, absorbs moisture from the atmosphere during the night when humidity levels are higher.
2. **Moisture Release During the Day:** As the sun rises and temperature increases, the material releases the absorbed water through evaporation, which draws heat away from the solar panel surface.
3. **Evaporative Cooling Effect:** This phase change (liquid to vapor) absorbs heat energy, reducing the panel temperature by an average of 9.4°C under desert conditions.
4. **Non-Electric Cooling Mechanism:** The entire process is passive, requiring no electricity, fans, or pumps, making it ideal for off-grid or remote solar installations.
5. **Maintains Structural Compatibility:** The thin coating does not interfere with sunlight absorption or panel structure, preserving photovoltaic efficiency.

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6. **Continuous Reusability:** The cyclical absorption and release of moisture allows the material to function repeatedly, providing long-term cooling benefits.

ADVANTAGES OVER EXISTING COOLING TECHNOLOGIES

1. **Energy-Free Operation:** Unlike conventional active cooling systems (fans, pumps), the composite requires no external power, reducing operational energy costs.
2. **Cost-Effective:** Made from inexpensive, widely available materials like sodium polyacrylate, it significantly lowers the levelized cost of electricity (LCOE)—by nearly 20%.
3. **Extended Panel Lifespan:** Reduces panel temperature by 9.4°C, which leads to over 200% increase in lifespan by preventing thermal degradation.
4. **Boosts Power Output:** Improves solar panel efficiency by 12.9% through better thermal management and reduced overheating.
5. **Eco-Friendly Fabrication:** The material is produced without toxic chemicals or complex procedures, making it environmentally sustainable.
6. **Low Maintenance:** Unlike mechanical cooling systems, it has no moving parts, requiring minimal upkeep and reducing chances of mechanical failure.
7. **Works in Harsh Environments:** Proven effectiveness in desert climates, making it ideal for solar installations in arid regions with high solar radiation.

IMPLICATIONS FOR RENEWABLE ENERGY ADOPTION

1. **Increased Efficiency of Solar Power:** By enhancing energy output by 12.9%, this innovation makes solar energy more reliable and productive, encouraging broader adoption.
2. **Reduced Operating Costs:** With passive cooling lowering energy and maintenance costs, the overall cost-effectiveness of solar installations improves, especially in large-scale projects.
3. **Extended Equipment Lifespan:** A lifespan increase of over 200% reduces replacement cycles, leading to lower lifecycle costs and improved return on investment (ROI).
4. **Better Performance in Extreme Climates:** Its success in hot and arid environments makes solar energy more viable in desert and tropical regions, which are rich in solar potential.
5. **Accelerated Decarbonization:** As the efficiency and affordability of solar improve, more regions can transition from fossil fuels, supporting national and global climate goals.
6. **Encourages Technological Innovation:** Demonstrates the value of materials science in energy tech, inspiring further R&D into smart, passive solutions across the renewable sector.
7. **Boosts Energy Access in Remote Areas**: Energy-free cooling is particularly beneficial for off-grid and rural solar systems, helping achieve energy equity and development goals.

CONCLUSION

The development of the new acrylate-based composite material by KAUST marks a major advancement in solar energy technology. By enabling passive, energy-free cooling, it significantly boosts solar panel efficiency, extends their lifespan, and reduces costs. This innovation not only enhances the viability of solar energy in harsh climates but also aligns with global sustainability goals by supporting wider adoption of clean, reliable, and cost-effective energy solutions. It highlights the transformative role of materials science in accelerating the renewable energy transition

AXIOM MISSION-4: STRENGTHENING INDIA'S ROLE IN INTERNATIONAL HUMAN SPACEFLIGHT

WHY IN THE NEWS?

The Indian Space Research Organisation (ISRO) is actively collaborating with Axiom Space, NASA, and SpaceX following the delay of the Axiom Mission 4

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(Ax-4) to the International Space Station (ISS). The postponement was necessitated due to technical issues, including a liquid oxygen (LOx) leak in the Falcon 9 rocket identified during post static fire inspections, and concerns related to the ISS Zvezda module. SpaceX announced the delay on June 11, emphasizing the need for additional time to carry out necessary repairs. ISRO, through a statement by its Chairman V. Narayanan, reaffirmed that the safety and integrity of the mission remain their top priorities as efforts continue to address these concerns responsibly.

ABOUT AXIOM-4 MISSION

Sl. No.	Key Point	Details
1	Multi-layered Delays	Ax-4 was delayed due to weather conditions, a Falcon 9 LOx leak, and a pressure anomaly in the ISS Zvezda module.
2	LOx Leak in Falcon 9	SpaceX identified a liquid oxygen (LOx) leak during post-static fire inspections, requiring repairs before launch.
3	Zvezda Module Issue	A pressure drop in the Zvezda module's PrK vestibule triggered inspections and sealing by Russian cosmonauts.
4	Safety Emphasis	ISRO, NASA, Axiom, and SpaceX emphasized safety and mission integrity as their highest priorities amid the delay.
5	Crew Composition	Crew includes Peggy Whitson (Commander), Shubhanshu Shukla (India), Sławosz Uzniański (Poland), Tibor Kapu (Hungary).
6	Historic Participation	First-time astronauts from India, Poland, and Hungary will participate in an ISS mission backed by their governments.
7	14-Day Scientific Mission	Crew will conduct two weeks of scientific experiments, including research from ISRO and international partners.
8	Launch Date TBD	New launch date is yet to be announced, pending completion of repairs and range availability.
9	Ageing ISS Concerns	The Zvezda module has had past leakage issues, reflecting challenges in maintaining ISS systems as it nears retirement by 2030.

MISSION OBJECTIVES

1. **Conduct Microgravity Research:** Perform advanced scientific experiments in life sciences, materials science, and biomedicine aboard the ISS.
2. **Strengthen International Collaboration:** Mark the first government-backed spaceflights for India, Poland, and Hungary, promoting global partnerships in space exploration.
3. **Support Human Spaceflight Training:** Provide

real spaceflight experience to astronauts from emerging space nations, aiding future national missions like India's Gaganyaan.

4. **Test New Technologies:** Validate critical technologies in space conditions, contributing to the development of future deep-space and commercial missions.
5. **Advance Commercial Space Goals:** Move toward Axiom Space's vision of building the world's first private space station by demonstrating commercial crewed mission capabilities.
6. **Foster Peaceful Space Diplomacy:** Strengthen cooperation among nations through joint missions, reinforcing the peaceful use of outer space.
7. **Promote STEM Outreach:** Inspire global youth and educators through live educational programs and demonstrations from space.
8. **Prepare for Post-ISS Operations:** Help establish operational models for commercial Low Earth Orbit missions after the ISS's expected retirement by 2030.

ROLE OF ISRO AND INDIA IN THE AX-4 MISSION

1. **Astronaut Representation:** The Ax-4 mission includes Group Captain Shubhanshu Shukla from the Indian Air Force, representing India's growing role in international human spaceflight missions.
2. **Support for Gaganyaan Preparation:** Shukla's participation provides valuable flight experience ahead of India's indigenous human spaceflight program, Gaganyaan, enhancing operational readiness.
3. **ISRO's Coordination with Global Partners:** ISRO is actively coordinating with Axiom Space, NASA, and SpaceX to ensure safety, mission success, and technical cooperation for Ax-4.
4. **Strengthening India's Global Space Presence:** Through Ax-4, India demonstrates its commitment to space diplomacy and international collaboration in the domain of human space exploration.
5. **Scientific Contribution:** ISRO is facilitating the development of Indian scientific payloads and research modules to be conducted aboard the ISS by Shukla during the mission.
6. **Public Engagement and Inspiration:** The mission is expected to inspire Indian youth, promote STEM education, and raise awareness about India's emerging status in the global space sector.
7. **Pioneering Step in International Missions:** This marks a historic first for India, with a government-sponsored astronaut participating in an international commercial space mission, setting the stage for deeper integration into future multilateral space ventures.

INTERNATIONAL COOPERATION IN SPACE MISSIONS

1. **Shared Scientific Goals:** Countries collaborate to advance research in areas like climate change, deep space, and planetary science, boosting global scientific knowledge.
2. **Cost and Risk Sharing:** Joint missions help share the high financial and technical risks of space exploration, making large-scale projects like the ISS viable.
3. **Strengthening Diplomacy:** Space partnerships foster peaceful international ties, as seen in missions like Ax-4, NISAR (ISRO-NASA), and Chandrayaan-3 support by NASA.
4. **Technology Transfer & Capacity Building:** Emerging nations gain access to advanced technologies, training, and expertise, helping them build indigenous space capabilities.
5. **Standardization & Data Sharing: C**ollaboration ensures system compatibility and global data exchange—vital for disaster response, Earth observation, and communications.
6. **Boost to Commercial Space Sector:** Cooperation enables private players like SpaceX to partner with global agencies, spurring innovation and growth in the space economy.
7. **Future Space Governance:** With ISS nearing retirement, joint missions are shaping post-ISS strategies and promoting a peaceful, rule-based space order.

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INDIA'S GROWING ROLE IN GLOBAL SPACE MISSIONS

1. **Axiom Mission-4 Participation:** Group Captain Shubhanshu Shukla's role marks India's first government-backed astronaut in a global commercial mission.
2. **Boost to Gaganyaan:** International missions offer real-time experience, aiding India's upcoming human spaceflight program.
3. **Strategic Collaborations:** ISRO partners with NASA (NISAR), CNES (Megha-Tropiques), and others, reinforcing global trust.
4. **Commercial Launch Hub:** Over 430 foreign satellites launched by ISRO highlight its role as a low-cost, reliable launch provider.
5. **Scientific Contributions:** Missions like Chandrayaan and Mangalyaan have enriched global space science with valuable data.
6. **Advanced Payload Development:** India provides sophisticated instruments to international missions, enhancing technological reputation.
7. **Space Diplomacy:** India advocates peaceful, inclusive space use, gaining leadership among developing nations

CONCLUSION

India's participation in Ax-4 highlights its rising global profile in space exploration, combining scientific ambition, international cooperation, and technological capability. As the world moves toward commercial space stations and post-ISS missions, India is positioning itself as a vital player in the future of human spaceflight and space diplomacy.

INS ARNALA JOINS THE FLEET: POWERING SELF-RELIANCE IN NAVAL WARFARE

WHY IN THE NEWS?

India commissioned INS Arnala—the first indigenously built, 1,500-tonne Anti-Submarine Warfare Shallow Water Craft (ASW-SWC)—on June 18, 2025, at Visakhapatnam Naval Dockyard. This marks the beginning of a 16-ship program aimed at strengthening India's coastal defence under the Aatmanirbhar Bharat initiative.

WHAT ARE ASW–SWCS?

Anti-Submarine Warfare Shallow Water Crafts are specialised vessels designed for littoral and coastal waters. They are equipped with sonar systems, anti-submarine weapons, mine-laying capabilities, and search-and-rescue gear. The fleet, comprising 16 vessels built by GRSE and CSL under "Make in India," will replace the ageing Abhay-class corvettes.

KEY FEATURES OF INS ARNALA

1. **Design & Propulsion:** 77–78 m length, ~1,490 t displacement, diesel engines paired with water-jet propulsion—the largest Indian naval platform using this setup
2. **Stealth & Sensor Suite:** Low radar/acoustic/IR signature; hull-mounted sonar and towed low-frequency variable-depth sonar for submarine detection
3. **Armament:** RBU-6000 rocket launcher, lightweight torpedo tubes, anti-submarine mines, a 30 mm naval surface gun, and twin 12.7 mm RWS
4. **Multi-mission Capability:** Suited for littoral ASW, subsurface surveillance, LIMO operations, mine-laying, and search-and-rescue
5. **Indigenization:** Over 80% Indian content, sourcing from BEL, L&T, Mahindra Defence, MEIL, Bokaro Steel Plant (BSL supplied 3,100 t of special-grade steel), and over 55 MSMEs
6. **Cultural Symbolism:** Named after the historic Arnala Fort, its crest (auger shell) and motto "Arnave Shauryam" reflect resilience and coastal vigilance

SIGNIFICANCE OF THE INS ARNALA:

1. **Coastal anti-submarine warfare boost:** INS Arnala is India's first purpose-built ASW shallow-water craft, designed to detect and neutralize enemy submarines in littoral zones, strengthening coastal defence
2. **Indigenous-built milestone:** With over 80% local content and built by GRSE under Aatmanirbhar Bharat, it symbolizes India's shift to self-reliant defence manufacturing
3. **Replacement for ageing corvettes:** It replaces the older Abhay-class vessels, offering modern sensors, propulsion, and armament, part of a planned 16-ship fleet
4. **Strategic deterrent in IOR:** By enhancing underwater surveillance and strike capabilities in shallow waters, it strengthens India's maritime posture in the Indian Ocean
5. **Boost to domestic industry ecosystem:** Built using 3,100 t of special-grade steel from SAIL-BSL and integrating systems from BEL, L&T, Mahindra, and MSMEs, it underlines shipbuilding's multiplier effect

REGIONAL SIGNIFICANCE:

1. **Enhanced Coastal Defence:** Boosts surveillance and deterrence against underwater threats near ports.
2. **Port Security Network:** First of 16 vessels will create an anti-submarine cordon around major ports.
3. **Modernized Fleet Posture:** Replaces older corvettes with stealthier, agile assets using water-jet propulsion
4. **Strategic Deterrence:** Acts as a coastal buffer, discouraging regional adversaries' submarine activity.
5. **Operational Synergy:** Works in tandem with ASW helicopters and maritime surveillance aircraft for layered defence.

INTERNATIONAL IMPORTANCE

1. **Maritime Domain Awareness:** Reinforces India's role as a security provider in the Indian Ocean Region (IOR).
2. **Aatmanirbhar Blueprint:** Strengthens domestic shipbuilding and defence ecosystems, reducing import reliance.
3. **Tech Export Potential:** Indigenous ASW platforms could be marketed to friendly nations.
4. **Maritime Diplomacy:** Signals capability and reliability to regional partners amid strategic competition.
5. **Strategic Balance in IOR:** Enhances India's undersea warfare capabilities to counter the expanding submarine fleets of neighbouring countries.

KEY SECURITY ISSUES IN LITTORAL WATERS

1. **Porous, Extensive Coastline:** Over 7,500 km of coastline with complex terrain (creeks, islands, estuaries) leads to inadequate surveillance and infiltration gaps
2. **Overlapping Agency Jurisdictions:** Indian Navy, Coast Guard, marine police, customs, fisheries and port authorities lack clear role demarcations, leading to turf battles
3. **Knowledge and Technology Gaps:** Significant blind spots exist due to insufficient radar coverage, AIS installation, sensor networks, and satellite/drone surveillance .
4. **Under-Resourced Marine Police & Coast Guard:** Inadequate training, inadequate platforms (interceptor boats), and lack of infrastructure undermine inshore patrol effectiveness
5. **Non-Traditional Maritime Threats:** Activities like maritime terrorism, smuggling, illegal, unregulated and unreported (IUU) fishing, drug/arms trafficking, piracy, and pollution persist
6. **Weak Legal & Coordination Mechanisms:** Absence of a comprehensive legal framework and weak multi-agency coordination arrangements impede strategic response.
7. **Fisher Communities Not Integrated:** Fisherfolk often distrust maritime forces; biometric IDs and communication channels are underutilised

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COMMITTEE-RECOMMENDED WAY FORWARD & MECHANISMS

Committee/Body	Year	Key Recommendations
Kargil Review Committee & Task Force on Border Management	2000–2001	✧ Establish a Specialized Marine Police Force with coastal police stations and units ✧ Expand Interceptor Boat Fleet for state marine forces ✧ Promote Joint Operations Centres and Fishers' Watch Groups for local and inter-agency coordination
Steering Committee for Coastal Security (SCRCS) & National Committee on Strengthening Maritime and Coastal Security (NSCMSC)	2013	✧ Implement Phase II of Coastal Surveillance Network: 38 new static radars + 8 mobile units integrated with Port VTMS and AIS systems ✧ Strengthen National Maritime Domain Awareness (NMDA) through IMAC, IFC-IOR, and central radar integration
187th Parliamentary Standing Committee on Home Affairs	2015	✧ Empower Marine Police: Training, interceptor boats, jetties, biometric ID cards for fishers, CCTVs, and SOPs ✧ Legal Strengthening: Fill surveillance gaps; grant fisheries departments legal enforcement powers
Defence Standing Committee Review	2024	✧ Enhance Coast Guard Role: Focus on port and industrial zone vulnerabilities (e.g., nuclear plants) ✧ Recommend multi-agency coordination via NSCMSC, IMAC, and NC3I Grid

CONCLUSION

India's coastal defence architecture, though significantly modernized post-26/11, remains challenged by jurisdictional overlaps, technology and manpower shortfalls, legislative gaps, and community distrust. Persistent threats—ranging from terrorism to environmental hazards—necessitate structural and procedural reforms. Implementing committee recommendations on technology integration, agency empowerment, legal reform, and community engagement will bolster littoral security, aligning with India's broader maritime and defense objectives.

PRELIMS QUESTIONS

1. Consider the following statements regarding urban forests in India:

1. Urban forests help mitigate the urban heat island effect.
2. The Forest Conservation Act, 1980 allows diversion of forest land for any purpose without Central government approval.
3. Urban forests play a significant role in flood mitigation in cities.

Which of the statements given above is/are correct?

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(a) 1 and 2 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2 and 3

2. With reference to the National Action Plan on AMR (India), consider the following statements:

1. It aims to improve surveillance and infection control in hospitals.
2. It encourages unrestricted use of antibiotics in animals to boost productivity.
3. It promotes public awareness campaigns on rational antibiotic use.

How many of the above-given statements are correct?

(a) Only one (b) Only two

(c) All three (d) None

3. Consider the following statements regarding the Advanced Medium Combat Aircraft (AMCA) project:

1. AMCA is India's first fifth-generation stealth fighter aircraft being developed with private sector participation.
2. The AMCA project is being led by Hindustan Aeronautics Limited (HAL) in collaboration with the Indian Space Research Organisation (ISRO).
3. The AMCA is designed to feature internal weapons bays and low radar cross-section to enhance its stealth capabilities.

Which of the above statements is/are correct?

(a) 1 and 2 only (b) 1 and 3 only

(c) 2 and 3 only (d) 1, 2 and 3

4. With reference to the new passive cooling material developed by KAUST, consider the following statements:

1. It uses lithium chloride and sodium polyacrylate to cool solar panels through a hygroscopic mechanism.
2. The material requires active cooling devices like fans or pumps to function effectively.
3. It led to a power output increase of over 12% and extended panel lifespan in desert conditions.
4. The fabrication process of the material involves toxic chemicals and complex reagents.

Which of the statements given above are correct?

(a) 1 and 3 only (b) 2 and 4 only

(c) 1, 3 and 4 only (d) 1, 2, 3 and 4

5. Consider the following statements regarding the Axiom Mission-4 (Ax-4):

1. It involves collaboration between ISRO, NASA, SpaceX, and Axiom Space.
2. It marks the first time a government-sponsored Indian astronaut is participating in an ISS mission.
3. It aims to conduct scientific experiments aboard the ISS in a microgravity environment.

Which of the statements given above are correct?

(a) 1 and 2 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2 and 3

6. With reference to INS Arnala, recently inducted into the Indian Navy, consider the following statements:

1. It is the first of the indigenously built Anti-Submarine Warfare Shallow Water Crafts under the 'Make in India' initiative.
2. It has been constructed by Cochin Shipyard Limited.
3. INS Arnala is equipped with advanced sonar systems and lightweight torpedoes for coastal defence.

How many of the above-given statements are correct?

(a) Only one (b) Only two

(c) All three (d) None

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ANSWER-KEY

1. (c)	2. (a)	3. (b)	4. (a)	5. (d)	6. (b)

MAINS QUESTIONS

1. Urban forests are vital to the environmental and ecological balance of expanding Indian cities, yet they remain vulnerable to development pressures and weak legal protection. Discuss the importance of urban forests, major threats to their existence, and suggest measures for their conservation. **(250 words, 15 marks)**

2. Discuss the challenges posed by Antimicrobial Resistance (AMR) in India. What steps has the government taken to tackle this issue? Suggest ways forward to effectively combat AMR in the country. **(250 words, 15 marks)**

3. Discuss the significance of the AMCA project in enhancing India's defence self-reliance, air power capability, and defence industry ecosystem. Also highlight the key challenges that could impact its successful implementation. **(250 words, 15 marks)**

4. Discuss the significance of the new passive cooling composite material developed by KAUST in enhancing the efficiency and sustainability of solar energy systems. In what ways can such innovations contribute to achieving global renewable energy goals?

(250 words, 15 marks

5. India's participation in the Axiom Mission-4 marks a milestone in its space diplomacy and human spaceflight capability. Discuss the significance of this mission in the context of India's broader space ambitions and international collaborations.

(250 words, 15 marks)

6. "What are the key design features of INS Arnala, India's first Anti-Submarine Warfare Shallow Water Craft, and how does it enhance India's coastal maritime security in the littoral domain?"

(250 words, 15 marks)

SWIFT JUSTICE: GOVT ROLLS OUT E-ZERO FIR PILOT TO COMBAT CYBER FINANCIAL FRAUDS

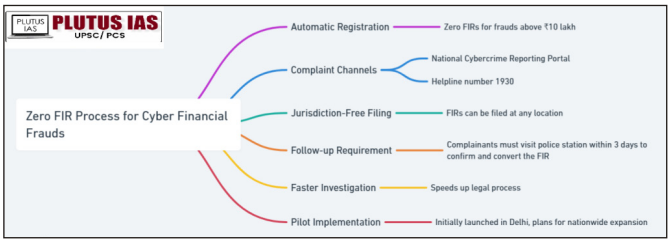
Why in the News?

The Government of India has recently launched the *e-Zero FIR* system as a pilot project in Delhi to bolster cybersecurity and ensure faster investigation in high-value cyber financial crimes. Initiated by the Indian Cybercrime Coordination Centre (I4C) under the Ministry of Home Affairs (MHA), the system automatically converts eligible cybercrime complaints into FIRs, specifically targeting financial frauds exceeding ₹10 lakh. Union Home Minister Amit Shah announced this on May 19, 2025, highlighting its role in enabling swift action against cybercriminals.

WHAT IS E-ZERO FIR?

E-Zero FIR is a digital initiative launched by the Ministry of Home Affairs under I4C to combat high-value cyber financial fraud. It automatically converts complaints involving losses above ₹10 lakh into Zero FIRs. Complaints can be filed via the National Cybercrime Reporting Portal or helpline 1930. The FIR is jurisdiction-free and routed to the appropriate police station. Complainants must visit the station within 3 days to confirm the FIR. It aims to fast-track investigations and boost cybercrime response efficiency.

KEY FEATURES OF E-ZERO FIR



E-ZERO FIR VS CONVENTIONAL FIR

Aspect	e-Zero FIR	Conventional FIR
Mode of Filing	Online via NCRP portal or helpline 1930	In-person at the concerned police station
Applicability	Cyber financial frauds involving ₹10 lakh or more	Any cognizable offence
Jurisdiction Requirement	Not required (Zero FIR – jurisdiction-free)	Must be filed at the police station with territorial jurisdiction
Registration Process	Automatic conversion of eligible complaints into Zero FIRs	Manual filing after verification by police personnel

Follow-up by Complainant	Must visit concerned police station within 3 days for FIR confirmation	Usually completed during the initial visit
Speed & Efficiency	Faster registration and routing to concerned police station	May involve procedural delays
Technology Integration	Linked with cybercrime databases and digital systems under I4C	Limited or no digital integration

SIGNIFICANCE OF E-ZERO FIR

1. **Expedited Justice:** Enables faster registration and investigation of high-value cyber financial frauds.
2. **Jurisdiction-Neutral Filing:** Allows complaints to be registered from anywhere, removing territorial limitations.
3. **Automatic FIR Generation:** Reduces manual delays by converting eligible complaints into FIRs automatically.
4. **Enhanced Law Enforcement Response:** Improves coordination between cyber cells and police stations.
5. **Public Empowerment:** Empowers citizens to act swiftly against cybercrime through digital platforms.
6. **Transparency and Accountability:** Promotes a more accountable system for handling cybercrime complaints.
7. **Supports Digital Governance:** Strengthens the government's Digital India and cyber safety initiatives.
8. **Pilot for Scalable Reform:** Provides a model that can be expanded nationwide for comprehensive cybercrime control.

WHAT ARE THE CHALLENGES OF THE E-ZERO FIR

1. **Limited Coverage:** Currently implemented only as a pilot project in Delhi, restricting nationwide access and benefits.
2. **High Threshold:** Applicable only to cyber financial frauds above ₹10 lakh, excluding many common lower-value frauds affecting the general public.
3. **Digital Literacy Gaps:** Many citizens, especially in rural areas, may lack awareness or ability to file complaints online or use digital platforms effectively.
4. **Verification Concerns:** Automatic registration may lead to misuse or false FIRs without initial manual verification.
5. **Infrastructural Limitations:** Some police stations may lack adequate digital infrastructure, trained personnel, or connectivity to process e-FIRs efficiently.
6. **Mandatory Physical Visit:** Despite being a digital initiative, complainants must still visit the police station within 3 days, which may be inconvenient.
7. **Data Security Risks:** Handling sensitive financial and personal information online poses risks if strong cybersecurity safeguards are not enforced.
8. **Coordination Complexity:** Requires seamless inter-agency coordination between cyber cells, local police, and national databases, which can face logistical and administrative hurdles.

INITIATIVE OF E- ZERO FIR

1. **Launched by MHA under I4C:** Initiated by the Ministry of Home Affairs through the Indian Cyber Crime Coordination Centre (I4C) to combat high-value cyber financial crimes.
2. **Automatic FIR Registration:** Enables automatic conversion of eligible complaints (above ₹10 lakh) into Zero FIRs when lodged via the National Cybercrime Reporting Portal or helpline 1930.
3. **Pilot Implementation in Delhi :** Currently being tested as a pilot project in Delhi, with plans for pan-India rollout based on performance and feedback.
4. **Jurisdiction-Free FIR Filing:** Introduces Zero FIR mechanism, removing jurisdiction barriers and enabling faster registration and investigation.

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5. **Mandatory Follow-Up Requirement:** Victims must visit the concerned cybercrime police station within 3 days to convert the Zero FIR into a regular FIR.
6. **Integration with Cybercrime Databases:** Connected to national cybercrime databases, ensuring real-time data sharing and improved inter-agency coordination.
7. **Emphasis on Speed and Efficiency:** Designed to reduce procedural delays and facilitate quick law enforcement response to cyber fraud.
8. **Boosts Digital Governance:** Supports the Digital India mission by strengthening cyber governance, enhancing public trust in cybercrime reporting systems.

IMPLEMENTATION OF E- ZERO FIR

1. **Pilot Project in Delhi:** The E-Zero FIR system was launched as a pilot on May 20, 2025, in Delhi by the Ministry of Home Affairs.
2. **Operated under I4C:** Implemented through the Indian Cyber Crime Coordination Centre (I4C), the nodal agency for cybercrime response.
3. **Complaint Sources:** Complaints are accepted via the National Cybercrime Reporting Portal (cybercrime.gov.in) and helpline number 1930.
4. **Automatic FIR Registration:** Eligible complaints involving cyber financial frauds above ₹10 lakh are automatically converted into Zero FIRs.
5. **Routing to Jurisdiction:** These FIRs are routed digitally to the appropriate cybercrime police station, bypassing the need for physical jurisdiction.
6. **Mandatory Police Station Visit:** The complainant is required to visit the concerned police station within 3 days to validate and convert the Zero FIR into a regular FIR.
7. **Digital Integration:** Integrated with existing cybercrime databases and police systems to enhance tracking and coordination.
8. **Scalability Plan:** Based on the outcome in Delhi, the system will be scaled up nationwide to cover more regions and types of cybercrime.

WAY FORWARD FOR SMOOTH IMPLEMENTATION

1. **Nationwide Expansion:** Roll out the system beyond Delhi to all states and union territories to ensure uniform access and benefit across India.
2. **Lowering the Threshold:** Reduce the ₹10 lakh limit so that victims of smaller, but more frequent, cyber frauds can also benefit from the fast-track mechanism.
3. **Enhancing Digital Infrastructure:** Upgrade digital tools and systems in all police stations to handle automatic FIR registration, routing, and follow-up efficiently.
4. **Capacity Building:** Train police personnel, cyber cells, and technical staff to manage and respond to e-Zero FIRs swiftly and accurately.
5. **Public Awareness Campaigns:** Launch awareness drives, especially in rural and semi-urban areas, to educate citizens about filing complaints through NCRP or 1930.
6. **Multi-agency Coordination:** Strengthen coordination between central and state cybercrime agencies to streamline investigation, evidence sharing, and case tracking.
7. **Robust Data Security Framework:** Implement strong cybersecurity measures to protect sensitive personal and financial information in the e-FIR system.
8. **Feedback and Grievance Mechanism:** Establish a responsive system for user feedback, grievance redressal, and regular monitoring to improve the platform continuously.

CONCLUSION

The launch of the E-Zero FIR system marks a significant step forward in India's fight against cyber financial frauds, particularly those involving high-value transactions. By enabling automatic, jurisdiction-free FIR registration, it aims to fast-track investigations and improve law enforcement responsiveness. While the pilot project in Delhi has shown promise, addressing challenges such as digital literacy, infrastructure gaps, and data security is essential for its success. With strategic expansion,

capacity building, and robust coordination, E-Zero FIR can become a vital tool in enhancing cybercrime governance and strengthening public trust in India's digital law enforcement framework.

NATIONAL SECURITY DOCTRINE IN LIMBO: A TWO-DECADE-OLD PUZZLE

WHY IN THE NEWS?

The formulation of India's National Security Strategy (NSS) is back in the spotlight following recent remarks by the Chief of Defence Staff (CDS) at a book-release event. In a significant and controversial statement, the CDS suggested that while India already addresses policy, processes, and practices required for national security, the absence of a written NSS document should not be a cause for concern. He further questioned the insistence on formal codification of such a strategy.

WHAT IS NATIONAL SECURITY DOCTRINE?

A National Security Doctrine (NSD) is a comprehensive framework outlining a country's national interests and security objectives, including how to protect against both traditional and non-traditional threats. It guides military, diplomatic, economic, and social policies aimed at safeguarding national security.

KEY ASPECTS OF A NATIONAL SECURITY DOCTRINE (NSD)

1. **Defining National Interests:** Clarifies core objectives like territorial integrity, economic security, and citizens' safety.
2. **Identifying Threats and Opportunities:** Assesses traditional (e.g., military, terrorism) and non-traditional (e.g., cyber, climate) threats, along with strategic opportunities.
3. **Outlining Response Mechanisms:** Specifies tools of response—military, diplomatic, economic, intelligence, and internal security.
4. **Guiding Policy and Strategy:** Provides a strategic framework for coherent national security policymaking and long-term planning.
5. **Enhancing Institutional Coordination:** Ensures synergy among military, intelligence, diplomatic, and law enforcement agencies.
6. **Promoting Strategic Clarity:** Offers clear national security priorities, enabling effective resource use and policy execution.

DOCTRINES RELATED TO SECURITY IN INDIA

Doctrine	Main Objective
Cold Start Doctrine	Enables swift, limited conventional strikes below nuclear threshold, ensuring rapid mobilisation along the western front.
Nuclear Doctrine	Guided by principles of No First Use, Credible Minimum Deterrence, and Assured Massive Retaliation in case of a nuclear attack.
Doctrine for Sub-Conventional Warfare	Focused on counter-terrorism and insurgency using minimum force while simultaneously winning local support.
Joint Armed Forces Doctrine (2017)	Aims for synergy among Army, Navy, and Air Force, with emphasis on cyber, space, and information domain operations.
Maritime Security Doctrine	Enhances India's maritime reach through coastal defence, anti-piracy missions, and Indian Ocean Region (IOR) vigilance to support Blue Water aspirations.

WHY INDIA NEEDS A NATIONAL SECURITY DOCTRINE

1. **Diverse Threat Spectrum:** India faces varied challenges—cross-border terrorism, cyber threats, and internal insurgencies—which demand a unified, proactive framework.
2. **Ad Hoc Strategic Posture:** India's responses to security threats often appear tactical and reactive (e.g., 2016 surgical strikes, 2019 Balakot airstrikes) in the absence of a defined doctrine.
3. **Lack of Institutional Coordination:** Agencies like IB, RAW, NIA, and the military often work in isolation, as seen during 26/11, underlining the need for seamless coordination.
4. **Public Assurance and Global Deterrence:** A clear doctrine boosts citizen confidence and sends a strong message to adversaries regarding India's strategic resolve.
5. **Strategic Defence Procurement:** Procurement decisions (like Rafale, S-400) lack a coherent long-term vision, which a doctrine can help align with national priorities.

INSTITUTIONAL AND POLITICAL HURDLES

Issue	Explanation
Partisan Politics	Security often takes a back seat to electoral interests, impeding bipartisan support for key strategies.
Idealistic Approach to Strategy	Hesitancy in implementing hard reforms reflects reluctance to accept evolving security dynamics.
Fragmented Institutional Setup	Weak inter-agency information sharing hampers strategic unity and efficiency.
Civil-Military Disconnect	Limited involvement of the armed forces in policy-making leads to operational gaps in strategy formulation.
Weak Strategic Culture	India still lacks a deeply institutionalised, long-term strategic mindset as seen in countries like the US or China.

KEY REFORMS IN INDIA'S SECURITY FRAMEWORK

1. **National Security Council (NSC):** Apex body for national security decision-making, chaired by the Prime Minister and advised by the NSA, NSAB, and JIC.
2. **Defence Planning Committee (DPC):** Coordinates inter-ministerial input to develop security and defence strategies under the NSA's leadership.
3. **Chief of Defence Staff (CDS):** Responsible for joint military operations, integration of tri-services, and heading the Department of Military Affairs.
4. **Integrated Capability Development Plan (ICDP):** A strategic roadmap spanning 10 years to synchronise defence acquisitions with evolving threats and operational needs.
5. **Cybersecurity & Self-Reliance:** Strengthening national cyber defence through NCIIPC and CERT-IN; promoting indigenous defence production under Atmanirbhar Bharat.

ENHANCING NATIONAL SECURITY THROUGH STRATEGIC PARTNERSHIPS

Engagement	Strategic Value
QUAD	Indo-Pacific cooperation, cybersecurity initiatives, and naval drills (Malabar Exercise).

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2+2 Dialogues	Institutionalised annual dialogues with US, Japan, Russia, and Australia for defence and foreign policy alignment.
India-US Defence Pacts	LEMOA (logistics), COMCASA (secure communications), BECA (geospatial data sharing) deepen interoperability.
France-India Strategic Ties	Joint naval missions, Rafale procurement, space collaboration, and Indian Ocean surveillance.
India-Israel Security Cooperation	Robust defence ties including drones, missile systems, and counterterrorism post-26/11.
Multilateral Platforms (SCO/BRICS)	Engagement in global counterterrorism efforts through SCO-RATS, FATF, etc.

WAY FORWARD

1. **Integrated Command and Response Structure:** A Centralised Command and Control (C3) setup is essential for coordinated and swift crisis management.
2. **Balanced, Transparent Framework:** The NSD must balance national security interests with democratic values and civil liberties to maintain public trust.
3. **Technology-Driven Modernisation:** Seamless incorporation of AI, cyber tools, drones, and space technologies in strategic planning.
4. **Linking NSD with NSS:** The National Security Doctrine should offer a strategic vision while the National Security Strategy (NSS) must translate it into operational plans.
5. **Broad-Based Strategic Consensus:** Establish a National Security Advisory Council with representatives from military, academia, civil services, and technical experts to ensure inclusivity and depth

CONCLUSION

India's geopolitical environment and evolving threat matrix demand the articulation of a comprehensive National Security Doctrine. This doctrine must integrate diplomatic, military, and economic strategies to strengthen India's deterrence capability, operational preparedness, and global stature. Institutional reform, technological adoption, and inclusive policymaking will be the pillars of a secure and resilient India.

COMBATING MONEY LAUNDERING: LEGAL PROVISIONS AND INSTITUTIONAL MECHANISMS

WHY IN THE NEWS?

Enforcement Directorate is conducting searches at 37 premises of contractors and private entities involved in the Delhi classroom construction scam. The case is related to an FIR registered by Anti Anti-Corruption Branch of Delhi Police against the then City Ministers and Aam Aadmi Party leaders Manish Sisodia and Satyendra Jain, and other private persons for alleged irregularities in the construction of additional classrooms in various schools in the national capital.

INSTITUTIONAL FRAMEWORK TO PREVENT MONEY LAUNDERING IN INDIA

Institution	Role/Function
Financial Intelligence Unit – India (FIU-IND)	Collects, analyses, and disseminates financial intelligence related to suspicious transactions.
Enforcement Directorate (ED)	Investigates and prosecutes money laundering under PMLA.
Reserve Bank of India (RBI)	Issues KYC/AML guidelines to banks and monitors compliance.
Securities and Exchange Board of India (SEBI)	Regulates capital markets and ensures AML compliance by market intermediaries.
Directorate of Revenue Intelligence (DRI)	Investigates smuggling and trade-based money laundering.
Central Board of Direct Taxes (CBDT)	Tracks tax evasion and illegal financial flows.
Central Economic Intelligence Bureau (CEIB)	Coordinate intelligence sharing among agencies.

LEGAL FRAMEWORK FOR ANTI-MONEY LAUNDERING

Legislation	Key Provisions
Prevention of Money Laundering Act (PMLA), 2002	Defines and criminalizes money laundering; provides for attachment, adjudication, and confiscation of property.
Benami Transactions (Prohibition) Act, 1988 (Amended 2016)	Prohibits holding property in benami names to curb black money.
Fugitive Economic Offenders Act, 2018	Allows confiscation of properties of economic offenders who flee the country.
Foreign Exchange Management Act (FEMA), 1999	Regulates cross-border financial transactions.
Companies Act, 2013	Imposes compliance obligations to prevent shell companies and round-tripping.

ANALYSIS OF THE FRAMEWORK

1. **Alignment with Global Standards:** India has significantly strengthened its AML framework to comply with the Financial Action Task Force (FATF) recommendations, including the criminalization of money laundering and robust reporting obligations.
2. **FIU-IND's Increasing Role:** The growing number of Suspicious Transaction Reports (STRs) filed by financial institutions reflects heightened awareness, surveillance, and data analytics by the Financial Intelligence Unit.
3. **PMLA as a Deterrent:** The Prevention of Money Laundering Act (PMLA), 2002, empowers authorities to attach, confiscate, and prosecute money laundering offences, acting as a powerful tool against economic offenders.
4. **Judicial Endorsement with Nuances:** The Supreme Court has upheld the constitutional validity of PMLA but also highlighted the need for due process and safeguards against arbitrary application.
5. **Multi-agency Involvement:** Agencies like ED, SEBI, RBI, and CBDT play complementary roles, ensuring comprehensive coverage across sectors, from banking and securities to taxation.
6. **Gaps in Conviction and Trial:** Despite many investigations and property seizures, actual

conviction rates under PMLA remain low, reflecting prosecution challenges and procedural delays.

7. **Overlaps and Jurisdictional Confusion:** Multiple institutions sometimes lead to coordination issues, duplication of efforts, and delays in decisive enforcement actions.
8. **Slow Legal Processes:** Special PMLA courts face a backlog of cases, undermining the swift delivery of justice and weakening the law's deterrent value.

KEY CHALLENGES

Challenge	Explanation
Over-criminalisation under PMLA	Issues of procedural fairness and overreach, especially concerning bail and attachment processes.
Low Conviction Rate	Despite many investigations, convictions under PMLA remain low, indicating gaps in prosecution and evidence.
Lack of Coordination	Duplication and weak inter-agency data sharing hamper efficiency.
Complex International Networks	Hawala, trade-based laundering, and digital assets complicate traceability.
Regulatory Arbitrage	Inconsistent enforcement across sectors creates loopholes.
Judicial Scrutiny	The Supreme Court and High Courts have questioned aspects of PMLA regarding individual rights and procedural safeguards.

WAY FORWARD

1. **Streamline PMLA Provisions:** Make the law more balanced by ensuring procedural fairness and speeding up trials.
2. **Enhance Inter-agency Coordination:** Create a unified digital intelligence-sharing platform among ED, FIU-IND, CBDT, and DRI.
3. **Capacity Building:** Train officials in forensic accounting, digital surveillance, and international compliance standards.
4. **Strengthen Judicial Oversight:** Fast-track special PMLA courts with adequate resources and judicial training.
5. **Public-Private Cooperation:** Encourage banks, fintechs, and corporates to report and flag suspicious activities proactively.
6. **Global Cooperation:** Deepen ties with FATF and Egmont Group to improve cross-border tracking and recovery of illicit assets.
7. **Digital Regulation:** Tighten KYC/AML norms for cryptocurrencies and digital financial services.

CONCLUSION

India's legal and institutional framework to combat money laundering has evolved significantly, yet gaps remain in enforcement, judicial balance, and coordination. As financial crimes grow more complex with globalization and digitalization, a dynamic, accountable, and rights-respecting anti-money laundering regime is essential. A combination of legal reform, institutional strengthening, and global cooperation can ensure that financial integrity and justice go hand in hand.

PRELIMS QUESTIONS

1. With reference to the e-Zero FIR initiative launched by the Government of India, consider the following statements:

1. The e-Zero FIR system allows cybercrime victims to file jurisdiction-free complaints online.
2. It automatically converts complaints of financial frauds involving losses above ₹5 lakh into Zero FIRs.
3. Complainants are not required to visit any police station once the FIR is registered online.

How many of the above-given statements are correct?

(a) Only one (b) Only two

(c) All three (d) None

2. With reference to India's National Security Framework, consider the following statements:

1. The National Security Council is headed by the President of India.
2. India's Nuclear Doctrine adheres to the principle of "No First Use."

Which of the statements given above is/are correct?

(a) 1 only (b) 2 only

(c) Both 1 and 2 (d) Neither 1 nor 2

3. Which of the following is the nodal agency in India responsible for receiving and analyzing financial information related to suspected money laundering?

(a) Enforcement Directorate

(b) Financial Intelligence Unit – India (FIU-IND)

(c) Central Bureau of Investigation

(d) Reserve Bank of India

ANSWER-KEY

1. (a)	2. (b)	3. (b)

MAINS QUESTIONS

1. Discuss the significance, challenges, and way forward for the implementation of the e-Zero FIR system in India's cybercrime landscape.

(250 WORDS, 15 MARKS)

2. "The absence of a formal National Security Doctrine (NSD) poses a challenge to India's strategic preparedness." Examine the need for a codified NSD in the Indian context.

(250 words, 15 marks)

3. Discuss the institutional and legal framework established in India to combat money laundering. Critically analyze its effectiveness, highlight the key challenges, and suggest a way forward for ensuring a robust anti-money laundering regime.

(250 words, 15 marks)

REVERED RELICS OF LORD BUDDHA RETURN TO INDIA: STRENGTHENING SPIRITUAL AND CULTURAL TIES WITH VIETNAM

WHY IN THE NEWS?

The Holy Relics of Lord Buddha are set to return to India, following a highly successful month-long exposition tour across Vietnam. Originally scheduled to conclude on 21st May, the tour was extended till 2nd June upon the special request of the Government of Vietnam due to the overwhelming

spiritual response and public reverence. During the extended pilgrimage, the sacred relics visited nine cities and attracted over 15 million devotees, reflecting the deep cultural and spiritual bonds between India and Vietnam. The relics will arrive in Delhi around 10:00 PM aboard an Indian Air Force aircraft, accompanied by a Government of India delegation led by Dr. Hari Babu Kambhampati, the Governor of Odisha. They will be ceremoniously received at the Palam Air Force Station by officials of the International Buddhist Confederation (IBC) and senior Indian monks.

WHAT ARE BUDDHA'S RELICS?

Buddha's relics are sacred physical remains of Gautama Buddha, such as bones, teeth, or ashes, preserved after his cremation. These relics hold immense religious and spiritual significance for Buddhists worldwide, symbolising the Buddha's presence and teachings. Traditionally enshrined in stupas or special shrines, they serve as objects of veneration and meditation. Relics are believed to carry blessings and inspire devotion, helping followers connect with the Buddha's path to enlightenment. Their preservation and reverence reflect the deep respect for Buddhist heritage and the continuity of the Dharma.

THE VIETNAM PILGRIMAGE: KEY FACTS AND HIGHLIGHTS

1. **Extended Pilgrimage Duration:** Originally scheduled to conclude on 21st May 2025, the pilgrimage was extended until 2nd June 2025 at the special request of the Government of Vietnam, reflecting the deep spiritual engagement it inspired.
2. **Wide Geographic Coverage:** The sacred relics toured nine major cities across Vietnam, enabling widespread access and devotion among diverse Buddhist communities throughout the country.
3. **Massive Devotee Participation:** Over 15 million devotees gathered across the pilgrimage route to pay homage, highlighting the profound religious and cultural significance of the relics.

4. **Indian Government Delegation:** The relics were escorted by a high-level delegation led by Dr. Hari Babu Kambhampati, Governor of Odisha, symbolising India's official custodianship and diplomatic goodwill.
5. **Organisational Leadership:** The tour was jointly coordinated by the International Buddhist Confederation (IBC) and the Indian government, ensuring smooth execution and international collaboration.
6. **Vietnamese Government Support:** The Government of Vietnam actively facilitated and extended the exposition, demonstrating its reverence for the Buddha's relics and fostering closer bilateral ties.
7. **Spiritual Atmosphere:** The pilgrimage created a spiritually charged environment across cities, with devotees expressing deep reverence and seeking blessings, enhancing religious harmony.
8. **Diplomatic Significance:** Beyond religious dimensions, the pilgrimage reinforced India-Vietnam cultural diplomacy, strengthening bilateral relations and showcasing India's soft power in Southeast Asia.

INDIA'S CUSTODIANSHIP AND GLOBAL ROLE IN BUDDHIST DIPLOMACY

1. **Birthplace of Buddhism:** India is the cradle of Buddhism, with sacred sites like Bodh Gaya (where Buddha attained enlightenment), Sarnath (first sermon), and Kushinagar (parinirvana) forming the spiritual heart of the religion.
2. **Custodian of Sacred Relics:** India holds and preserves the holy relics of the Buddha, symbolizing its responsibility to protect and promote Buddhist heritage globally.
3. **Sharing Relics as Goodwill Gesture:** India periodically shares the Buddha's relics with Buddhist-majority countries, fostering religious harmony and diplomatic goodwill.
4. **Strengthening Cultural Diplomacy:** This practice enhances India's image as a spiritual leader and promotes people-to-people connections with Buddhist communities worldwide.
5. **Role of Ministry of Culture:** The Ministry actively supports international Buddhist events, pilgrimage facilitation, and preservation of Buddhist heritage sites.
6. **International Buddhist Confederation (IBC):** The IBC plays a vital role in coordinating global Buddhist cooperation and representing India's interests in Buddhist forums.
7. **Soft Power Instrument:** Sharing relics and promoting Buddhism serve as effective tools of soft power, improving India's influence in Asia and beyond.
8. **Alignment with Act East Policy:** Buddhist diplomacy complements India's Act East Policy, strengthening ties with ASEAN countries through shared cultural and spiritual values.

EVENTS IN INDIA: RECEPTION, EXPOSITION, AND ENSHRINEMENT

Event	Details	Date	Significance
Ceremonial Reception in Delhi	Official reception of relics at Palam Air Force Station by International Buddhist Confederation officials and senior monks.	2nd June 2025	Marks the formal return and welcome of the sacred relics.
Public Exposition at National Museum	Relics displayed for public viewing, allowing devotees to pay homage.	3rd June 2025	Provides public access for spiritual connection.
Formal Prayer Meeting	Conducted by senior Buddhist monks, IBC Secretary General, and diplomatic representatives.	3rd June 2025	Emphasizes spiritual and diplomatic importance.

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Presidential Cavalcade	Relics transported from Delhi to Sarnath via Varanasi with full state protocol.	4th June 2025	Highlights the relics' national and historical significance.
Route Significance	Journey connecting relics with one of Buddhism's most important historical sites.	4th June 2025	Symbolizes spiritual heritage and continuity.
Enshrinement at Mulagandha Kuti Vihar	Relics enshrined at the renowned Buddhist monastery in Sarnath.	4th June 2025	Marks the sacred closure of the pilgrimage.
Spiritual Closure	Final enshrinement act reinforcing India's custodianship of Buddhist heritage.	4th June 2025	Reinforces spiritual legacy and international cultural ties.

SIGNIFICANCE FOR INDIA-VIETNAM RELATIONS

1. **Cultural Diplomacy:** Pilgrimage strengthens cultural ties and goodwill between India and Vietnam.
2. **Shared Buddhist Heritage:** Buddhism acts as a non-political, unifying bond.
3. **People-to-People Links:** Deepens community connections beyond official diplomacy.
4. **Supports Act East Policy:** Enhances India's strategic and cultural engagement with Southeast Asia.
5. **Boosts Bilateral Cooperation:** Cultural ties facilitate broader economic and strategic collaboration.
6. **Vietnam's Respect for India:** Extension of relic exposition shows appreciation for India's spiritual leadership.
7. **Reaffirms Religious Bonds:** Strengthens historic Buddhist and cultural solidarity.
8. **Catalyst for Deeper Engagement:** Promotes cooperation in culture, education, and diplomacy

BROADER IMPLICATIONS: CULTURE AS SOFT POWER

1. **Peaceful Influence through Culture:** Demonstrates India's capacity to project soft power using cultural and spiritual heritage.
2. **Alignment with Diplomatic Policies:** Supports India's Neighbourhood First and Act East policies through cultural outreach.
3. **Global Buddhist Leadership:** Enhances India's role in international Buddhist discourse and heritage diplomacy.
4. **Promotion of Religious Dialogue:** Encourages interfaith understanding and religious harmony worldwide.
5. **Tourism Enhancement:** Boosts tourism focused on Buddhist pilgrimage and heritage sites.
6. **Academic and Scholarly Collaboration:** Facilitates partnerships and research related to Buddhist culture and history.
7. **Custodianship of Heritage Sites:** Highlights India's stewardship of UNESCO World Heritage Buddhist sites.
8. **Global Image Building:** Reinforces India's reputation as a promoter of peace, unity, and cultural harmony.

CONCLUSION

The historic journey of the Holy Relics of Lord Buddha to Vietnam and their ceremonious return to India highlight the enduring cultural and spiritual bonds that transcend borders. This pilgrimage not only reaffirms India's pivotal role as the birthplace and custodian of Buddhism but also exemplifies how cultural diplomacy can effectively strengthen bilateral ties, especially under frameworks like the Act East Policy. By sharing its rich Buddhist heritage, India projects soft power that fosters religious harmony, promotes tourism and scholarly exchange, and enhances its global stature as a promoter of peace and unity. The enshrinement

of the relics at Sarnath symbolizes the continuity of India's spiritual legacy and its commitment to nurturing international cooperation through shared cultural values. In an increasingly interconnected world, such initiatives underscore the power of culture and spirituality in shaping India's foreign relations and reinforcing its leadership in global Buddhist heritage diplomacy.

SACRED JOURNEY BEGINS: PABITRA MARGHERITA LAUNCHES KAILASH MANSAROVAR YATRA 2025

WHY IN THE NEWS?

Minister of State for External Affairs Pabitra Margherita presided over an event to flag off the first batch of Kailash Manasarovar Yatra, 2025, in New Delhi today. The Minister felicitated the Yatris on their selection and wished them a safe and fulfilling Yatra. In his remarks, the Minister recognised the role of various Ministries and Departments, such as the Defence Ministry, Home Ministry, the Indo-Tibetan Border Police, the state governments of Delhi, Uttarakhand and Sikkim, and the National Informatics Centre. He appreciated the Chinese side for its cooperation in the resumption of the Yatra.

WHAT IS YATRA?

Yatra is a Sanskrit word meaning journey or pilgrimage, especially to a sacred place. In the Indian cultural and religious context, a yatra refers to a spiritual journey undertaken by devotees to visit holy shrines, temples, or natural sites considered divine. Such pilgrimages are often performed with the intent of seeking blessings, penance, or spiritual enlightenment. Yatras can be individual or group-based and may involve physical challenges such as trekking or long-distance travel. Notable examples include the Kailash Manasarovar Yatra, Amarnath Yatra, and Char Dham Yatra.

SIGNIFICANCE OF KAILASH MANASAROVAR YATRA

1. **Spiritual Importance:** Mount Kailash is revered as the abode of Lord Shiva in Hinduism, making the Yatra a sacred journey for spiritual awakening and inner peace.
2. **Religious Harmony:** The site is sacred not only to Hindus, but also to Buddhists, Jains, and followers of Bon, symbolizing religious unity and interfaith reverence.
3. **Cultural Heritage:** The Yatra preserves centuries-old traditions and rituals, reflecting India's rich cultural and spiritual legacy.
4. **Symbol of Devotion and Endurance:** The challenging journey through high-altitude terrain tests the devotees' physical strength and mental resilience, reinforcing their faith.
5. **Pilgrimage Diplomacy:** The Yatra involves bilateral cooperation between India and China, promoting diplomatic ties and peaceful engagement.
6. **Scenic and Natural Beauty: L**ocated in the Trans-Himalayan region, the journey offers breathtaking views of snow-clad mountains, lakes, and serene landscapes, enriching the experience.
7. **Economic Opportunities:** The Yatra boosts local economies in regions like Uttarakhand and Sikkim through tourism, transportation, and hospitality services.
8. **Cultural Exchange and Unity:** Bringing together pilgrims from across India and abroad, the Yatra fosters national integration and cultural exchange among diverse communities.

RELIGION-RELATED TERM

1. **Pilgrimage (Yatra):** A religious journey to a sacred place for worship, penance, or blessings (e.g., Kailash Yatra, Char Dham Yatra).
2. **Dharma:** A core concept in Hinduism, Buddhism, and Jainism; refers to moral duty, righteousness, and ethical living.
3. **Moksha:** Liberation from the cycle of birth and death (samsara); the ultimate goal in Hinduism, Jainism, and Buddhism.
4. **Mantra:** Sacred sounds, syllables, or phrases repeated during prayers or meditation for spiritual focus and energy.
5. **Puja:** A ritual offering and act of worship to deities, typically involving prayers, incense, flowers, and food.
6. **Shraddha:** A Hindu ritual performed in memory of ancestors, showing reverence and seeking their blessings.
7. **Bhakti:** Devotion or loving worship toward a personal god, forming a key aspect of many Indian religious traditions.
8. **Karma:** The principle of cause and effect, where a person's actions influence future outcomes or rebirths.
9. **Aarti:** A devotional song and ritual involving the waving of lamps before a deity or sacred object.
10. **Satsang:** A gathering of spiritual seekers for collective prayer, discussion, or listening to a guru's teachings.

GOVERNMENT INITIATES THE PROMOTION OF SUCH A PILGRIMAGE

1. **Organised Pilgrimages through MEA:** The Ministry of External Affairs (MEA) organizes the Kailash Manasarovar Yatra annually, ensuring official support, registration, medical care, and logistics for yatris.
2. **Improved Infrastructure:** Development of roads, base camps, and facilities along pilgrimage routes such as Lipulekh (Uttarakhand) and Nathu La (Sikkim) to ensure safety, accessibility, and comfort.
3. **Technology-Driven Selection:** A transparent, computer-based random selection process is used to ensure fairness, gender balance, and efficiency in yatri selection.
4. **Inter-Ministerial Coordination:** Ministries like Defence, Home Affairs, Health, and Tourism, along with ITBP and state governments, work in tandem for smooth Yatra execution.
5. **Diplomatic Engagements: I**ndia engages in bilateral talks with China to facilitate the Kailash Manasarovar Yatra, strengthening cultural diplomacy and international cooperation.
6. **Promoting Religious Tourism under PRASHAD Scheme:** The PRASHAD (Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive) scheme supports development of pilgrimage sites across India with modern amenities and spiritual ambiance.
7. **Medical and Safety Facilities:** The government ensures pre-departure medical check-ups, deployment of medical teams, and availability of emergency services at high-altitude pilgrimage sites.
8. **Financial and Logistical Support:** Government provides subsidies or grants in select yatras (state-sponsored), and facilitates transport, accommodation, and food for pilgrims.
9. **Digital Promotion and Registration:** Official websites, online portals, and awareness campaigns promote pilgrimages, ensure smooth e-registration, and disseminate critical information to yatris.

CHALLENGES IN KAILASH MANASAROVAR YATRA

1. **High Altitude and Harsh Terrain:** The Yatra passes through rugged Himalayan terrain at elevations above 15,000 ft, posing risks of altitude sickness, fatigue, and breathing issues.
2. **Weather Extremes:** Sudden changes in weather, including snowfall, landslides, and sub-zero temperatures, can disrupt travel and endanger yatris.

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3. **Health and Medical Risks:** The trek requires significant physical fitness. Lack of acclimatization, poor medical preparedness, and limited healthcare facilities pose serious health risks.
4. **Limited Connectivity:** Remote locations have poor mobile and internet networks, affecting communication and coordination, especially in emergencies.
5. **Logistical Difficulties:** Managing transport, food, accommodation, and sanitation in remote high-altitude areas remains a logistical challenge despite motorable routes.
6. **Border Sensitivities:** The Yatra involves travel close to the India-China border, making it sensitive to geopolitical tensions, which led to its suspension between 2020–2023.
7. **Diplomatic Dependencies:** The resumption and continuity of the Yatra rely heavily on bilateral cooperation with China, which may be affected by changing diplomatic relations.
8. **Environmental Concerns:** Increasing footfall may disturb the fragile Himalayan ecosystem, raising concerns over waste management and ecological sustainability.
9. **Limited Capacity and High Demand:** Due to the Yatra's physical and diplomatic constraints, only a limited number of pilgrims are selected annually, despite high demand.

Way forward

1. **Strengthening Infrastructure:** Accelerate development of all-weather roads, shelters, medical posts, and sanitation facilities along the Lipulekh and Nathu La routes to improve comfort and safety.
2. **Medical Preparedness & Screening:** Enhance pre-departure health screenings, altitude acclimatization camps, and deploy mobile health units with oxygen support and emergency care on the route.
3. **Better Communication Networks:** Invest in satellite-based communication systems to ensure reliable connectivity in remote, high-altitude areas for coordination and emergency response.
4. **Eco-Friendly Measures:** Introduce strict waste management protocols, eco-tourism guidelines, and awareness among yatris to protect the fragile Himalayan ecosystem.
5. **Enhanced Diplomatic Engagement:** Maintain consistent dialogue with China for the smooth continuation of the Yatra and explore possibilities for additional routes or relaxed restrictions.
6. **Use of Technology for Management:** Expand the use of GIS, drone surveillance, weather alerts, and mobile apps for real-time tracking, information dissemination, and yatri safety.
7. **Training and Capacity Building:** Train local guides, liaison officers, and support staff in disaster preparedness, first aid, and high-altitude survival skills to assist pilgrims efficiently.
8. **Inclusive Participation:** Consider increasing the number of yatris gradually and ensuring better representation of senior citizens, women, and differently-abled pilgrims with proper support.
9. **Promoting Alternate Spiritual Tourism:** While respecting geopolitical sensitivities, the government can promote domestic spiritual circuits (e.g., Char Dham, Amarnath) as alternatives for those unable to join Kailash Yatra.

CONCLUSION

The Kailash Manasarovar Yatra stands as a symbol of deep spiritual faith, cultural heritage, and diplomatic collaboration. Revered by Hindus, Buddhists, Jains, and Bon followers, the Yatra offers not only a path to divine connection but also strengthens India's soft power and religious diplomacy. While the journey remains physically demanding and geopolitically sensitive, the Indian government's proactive measures—ranging from infrastructure upgrades to diplomatic negotiations—have ensured safer and more accessible pilgrimages.

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INTERNATIONAL DAY OF YOGA 2025: YOGA FOR ONE EARTH, ONE HEALTH

WHY IN THE NEWS?

11th Anniversary and Global Scale: 2025 marks the 11th International Day of Yoga, celebrated annually on June 21. This milestone is notable for the scale and ambition of events worldwide, reflecting yoga's evolution from an ancient Indian practice to a global wellness movement. The day is observed in over 190 countries, with millions participating in synchronized yoga sessions and related activities.

2025 THEME: "YOGA FOR ONE EARTH, ONE HEALTH"

The theme for 2025, "Yoga for One Earth, One Health," emphasizes the interconnectedness of personal well-being and planetary health. This aligns with India's G20 vision of "One Earth, One Family, One Future," and the ancient Indian ethos of Vasudhaiva Kutumbakam (the world is one family). The theme highlights three core messages: **Unified Health:** Yoga nurtures holistic well-being—body, mind, and consciousness. P**lanetary Awareness:** Mindfulness cultivated through yoga encourages sustainable, eco-friendly choices. **Global Solidarity:** The practice fosters a sense of collective responsibility for community and environmental health.

MAJOR EVENTS AND PARTICIPATION

1. **Yoga Sangam:** The flagship event, with synchronized mass yoga demonstrations at over 100,000 locations across India, and a headline event in Visakhapatnam led by the Prime Minister, involving over 500,000 participants.
2. **International Reach:** India is organizing thematic yoga events in 191 countries, spanning 1,300 cities globally, showcasing yoga as both a cultural tradition and a tool of soft diplomacy.
3. **Signature Events:** Ten major events target different segments of society, including "Yoga Bandhan," "Yoga Park," and "Yoga Connect," among others.

HISTORICAL CONTEXT

1. **Origin:** The idea was proposed by Indian Prime Minister Narendra Modi at the United Nations General Assembly in September 2014.
2. **UN Adoption:** The UN General Assembly adopted the resolution on December 11, 2014, with a record 175 co-sponsoring nations.
3. **Date Significance:** June 21, the summer solstice, was chosen for its symbolism of balance, energy, and renewal values central to yogic philosophy.
4. **First Celebration:** The inaugural International Day of Yoga in 2015 saw 36,000 participants from 84 nations perform yoga in New Delhi, setting a world record.

YOGA AS INDIA'S INTANGIBLE CULTURAL HERITAGE

In 2016, yoga was inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity, recognising its profound influence on Indian society and its global significance. The philosophy behind yoga is rooted in unifying the mind, body, and soul, fostering greater mental, spiritual, and physical well-being. Its values are deeply woven into the ethos of Indian communities, influencing fields such as health, medicine, education, and the arts.

Yoga encompasses a diverse range of practices, including:

1. Physical postures (asanas)
2. Meditation
3. Controlled breathing (pranayama)

4. Chanting and mantra recitation
5. Other techniques for self-realisation and liberation

Transmission of Yoga: Traditionally, yoga was taught through the Guru-Shishya (master-pupil) model, with yoga gurus serving as the main custodians of knowledge and skills. Today, learning opportunities have expanded to include yoga ashrams, schools, universities, community centres, and digital platforms. Ancient manuscripts and scriptures remain vital resources, complemented by a vast body of modern literature on yoga.

WHY INTERNATIONAL DAY OF YOGA IS CELEBRATED

1. **Global Health Awareness:** Yoga's benefits—flexibility, strength, stress relief, mental clarity, and disease prevention—are widely recognised.
2. **Holistic Practice:** Yoga integrates physical postures, breath control, and meditation, promoting balanced living.
3. **Environmental and Personal Well-being:** The 2025 theme spotlights the link between self-care and sustainable living.
4. **Cultural Unity:** Yoga transcends borders, fostering appreciation for India's heritage and global unity.
5. **Symbolic Timing:** Celebrating on the summer solstice ties yoga to natural cycles of energy and spiritual renewal.
6. **Widespread Engagement:** Events range from government-led sessions to grassroots programs, ensuring broad participation.

RELEVANCE OF YOGA IN CONTEMPORARY TIMES

Level	Key Areas	Details
Individual Level	Reduces Stress and Anxiety	Through breathing techniques and mindfulness, yoga lowers stress hormones.
	Improves Physical Health	Enhances flexibility, strength, balance, and posture through regular practice.
	Boosts Mental Health	Helps reduce symptoms of anxiety and depression; increases emotional stability.
	Promotes Better Sleep	Encourages relaxation, improving sleep quality and treating insomnia.
	Fosters Healthy Habits	Builds body awareness, encouraging mindful eating and long-term wellness.
Societal Level	Builds Community and Social Connection	Group sessions create shared experiences and social bonding.
	Promotes Inclusivity	Accessible to all, regardless of age, gender, background, or economic status.
	Supports Workplace Wellness	Reduces employee burnout and enhances productivity.
	Improves Educational Outcomes	Yoga in schools improves student focus, discipline, and emotional balance.
	Raises Mental Health Awareness	Helps destigmatize mental health and offers holistic coping mechanisms.

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International Level	Fosters Global Unity	International Day of Yoga unites diverse cultures in shared practices.
	Promotes Peace and Nonviolence	Yoga's ethical precepts (Ahimsa, Satya) contribute to harmony and dialogue.
	Encourages Environmental Awareness	Yogic philosophy emphasizes living in harmony with nature and sustainability.
	Strengthens Health Diplomacy	Yoga becomes a channel for international cooperation and wellness missions.
	Inspires Global Research and Knowledge Sharing	Stimulates cross-cultural studies on physical and mental health benefits.

CONCLUSION

The International Day of Yoga 2025 stands out for its record-breaking participation and global outreach. With the theme *"Yoga for One Earth, One Health,"* the celebration highlights the intrinsic link between individual well-being and planetary sustainability. Yoga fosters harmony within the self and with the environment, promoting balance, resilience, and mindful living. It serves not only as a tool for personal health but also as a unifying force that transcends cultural and national boundaries. By encouraging holistic wellness and global solidarity, the day reaffirms yoga's relevance in addressing contemporary challenges. It also reinforces India's role as a global leader in sharing ancient wisdom for modern living.

PRELIMS QUESTIONS

1. With reference to the recent pilgrimage of the Holy Relics of Lord Buddha to Vietnam, which of the following statements is/are correct?

1. The pilgrimage was extended beyond its original schedule upon request from the Government of Vietnam.
2. The relics were escorted by an Indian delegation led by the Governor of Odisha.

Select the correct answer using the code given below:

(a) 1 only (b) 2 only

(c) Both 1 and 2 (d) Neither 1 nor 2

2. Consider the following statements regarding the Kailash Manasarovar Yatra:

1. The Yatra is organized by the Ministry of External Affairs in coordination with other ministries and state governments.
2. Mount Kailash is sacred only to followers of Hinduism.
3. The Yatra route passes through both Lipulekh Pass (Uttarakhand) and Nathu La Pass (Sikkim).

Which of the statements given above are correct?

(a) 1 and 2 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2, and 3

3. With reference to the International Day of Yoga, consider the following statements:

1. It is celebrated on June 21 to mark the birthday of Maharishi Patanjali.
2. The resolution was adopted by the United Nations in 2014 with a record number of co-sponsors.
3. Yoga was inscribed in UNESCO's list of Intangible Cultural Heritage in 2016.

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Which of the above statements is/are correct?

(a) 1 and 2 only (b) 2 and 3 only

(c) 1 and 3 only (d) 1, 2 and 3

ANSWER-KEY

1. (c)	2. (c)	3. (b)

MAINS QUESTIONS

1. Discuss the significance of the recent pilgrimage of the Holy Relics of Lord Buddha to Vietnam in the context of India's cultural diplomacy and foreign policy. How does this event reinforce India's role as the custodian of Buddhist heritage and strengthen India-Vietnam bilateral relations?

(250 words, 15 marks)

2. Discuss the religious, diplomatic, and ecological significance of the Kailash Manasarovar Yatra. What challenges are faced in conducting the Yatra, and how can the Government of India ensure its sustainable and secure operation?

(250 words, 15 marks)

3. "Yoga has evolved into a global movement for health, harmony, and sustainability." Discuss the significance of the International Day of Yoga in promoting India's soft power and global health diplomacy.

(250 words, 15 marks)

INDIA'S BATTLE AGAINST EXTREME POVERTY: A DECADE OF REMARKABLE PROGRESS

WHY IN THE NEWS?

According to the World Bank, India's extreme poverty has seen a remarkable decline, falling to 5.3% in 2022–23 from 27.1% in 2011–12. This significant reduction means that over 269 million people have moved out of extreme poverty in the past decade. The data highlights substantial improvements in income levels, access to government welfare schemes, and overall living conditions. This progress is considered a crucial milestone in India's journey toward becoming a developed economy in the coming decades, reflecting the impact of inclusive growth and targeted social interventions.

WHAT IS POVERTY AND EXTREME POVERTY?

Extreme poverty, as per the World Bank, refers to living on less than $2.15/day (2017 prices) or $3.00/day (2021 prices), based on Purchasing Power Parity (PPP). It reflects the minimum income needed to meet basic survival needs. In contrast, Multidimensional Poverty, measured by the UNDP's Multidimensional Poverty Index (MPI), considers broader deprivations in health, education, and living standards, including access to nutrition, schooling, clean water, sanitation, and housing.

STATISTICAL HIGHLIGHTS

Indicator	2011–12	2022–23
Extreme Poverty (%)	27.1%	5.3%
People in Extreme Poverty	344.5 million	75.2 million
Rural Poverty (%)	18.4%	2.8%
Urban Poverty (%)	10.7%	1.1%
MPI (2005–06)	53.8%	—
MPI (2019–21)	—	16.4%
MPI (2022–23)	**—**	**15.5%**

1. **Key states leading poverty reduction:** Uttar Pradesh, Maharashtra, Bihar, West Bengal, and Madhya Pradesh.
2. **Major impact:** These five states together accounted for around two-thirds of the total number of people lifted out of poverty.
3. **Focus on rural areas:** Progress was concentrated in rural and high-poverty districts, where interventions were most needed.
4. **Effective targeting:** Reflects the success of region-specific policies and welfare programs.
5. **Policy implication:** Reinforces the importance of focused efforts in economically weaker states for inclusive national development.

SOCIO-ECONOMIC FACTORS DRIVING POVERTY DECLINE

Category	Key Initiatives/Factors	Impact on Poverty Reduction
(a) Government Schemes & Welfare	PM Awas Yojana (housing), PM Ujjwala (clean fuel), Ayushman Bharat (healthcare), Jan Dhan Yojana (financial inclusion), DBT (direct transfers), NFSA (food security), Mid-Day Meal, Social Pensions, Atmanirbhar Bharat Abhiyan (economic stimulus), Swachh Bharat Mission (sanitation)	Improved living standards, health, financial access, timely benefits, economic support, and better sanitation.
(b) Digital Governance & Infrastructure	JAM Trinity (Jan Dhan-Aadhaar-Mobile), Rural electrification (Saubhagya), Road connectivity (PMGSY), Internet expansion (BharatNet), Digital literacy	Reduced leakages, better connectivity, and increased access to services and information.
(c) Rural Employment & Livelihoods	MGNREGA (wage employment), SHGs (women empowerment), Skill India, Support for rural entrepreneurship, Agricultural schemes (insurance, MSP)	Income security, empowerment, improved skills, and diversified livelihoods.

CHALLENGES AHEAD IN POVERTY REDUCTION

1. **Vulnerability of Near-Poverty Populations:** People living just above the poverty line remain at risk of slipping back into poverty due to economic shocks or insufficient safety nets.
2. **Urban Poor and Basic Service Deficits:** Urban poor populations struggle with limited access to affordable housing, healthcare, sanitation, and other essential services.
3. **Informal Sector Workers' Insecurity:** Workers in the informal economy often lack social security benefits, stable employment, and protections, making them vulnerable.
4. **Migrant Laborers' Job and Welfare Insecurity:** Migrant workers face uncertain job prospects and frequently have limited access to government welfare programs.
5. **Climate Change Impact on Livelihoods:** Agriculture and rural livelihoods are increasingly threatened by climate variability, leading to income instability.
6. **Pandemic-Induced Economic and Health Vulnerabilities:** COVID-19 and other health crises have aggravated poverty through job losses, health costs, and reduced access to services.
7. **Effects of Global Inflation and Supply Chain Disruptions:** Rising prices of essential goods and disrupted supply chains increase the cost of living, hitting poor households hardest.
8. **Persistent Regional Disparities:** Certain states and rural regions lag in poverty reduction due to uneven development and infrastructure deficits.

WAY FORWARD

1. **Enhance Quality Education and Skill Development:** Invest in accessible, quality education and vocational training to empower individuals with better employment opportunities.
2. **Improve Nutrition and Healthcare Services:** Strengthen nutrition programs and healthcare infrastructure to address malnutrition and health-related poverty traps.
3. **Strengthen Urban Employment and Social Protection:** Expand and improve urban livelihood schemes and social safety nets to support vulnerable urban populations.
4. **Advance Digital and Financial Inclusion:** Promote digital literacy and financial inclusion to ensure equitable access to services and economic opportunities.

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5. **Focus on Robust Data Collection and Monitoring:** Improve data systems to accurately identify poverty, monitor progress, and design targeted interventions.
6. **Address Income Inequality Through Progressive Policies:** Implement measures such as progressive taxation and equitable resource distribution to reduce economic disparities.
7. **Reduce Regional Disparities by Promoting Balanced Development:** Invest in infrastructure, healthcare, and education in lagging regions to ensure inclusive growth across states.

CONCLUSION

India's remarkable reduction in extreme poverty over the past decade stands as a testament to the country's sustained commitment to inclusive growth, targeted social welfare programs, and improved governance. The significant strides made in lifting over 269 million people out of extreme poverty reflect the impact of well-designed schemes like PM Awas Yojana, Ayushman Bharat, and financial inclusion initiatives, combined with digital infrastructure and rural employment programs. However, the journey ahead remains complex and challenging. Persistent vulnerabilities among near-poor populations, urban poverty, informal sector insecurity, climate change risks, and regional disparities require continued and focused policy attention.

INDIA'S TRIBAL COMMUNITIES: BRIDGING HISTORICAL INJUSTICE THROUGH POLICY AND BUDGET

WHY IN THE NEWS?

India's tribal communities are in focus due to renewed government efforts toward their holistic empowerment. The Union Budget 2025–26 significantly increased allocations for the Ministry of Tribal Affairs, signaling a move from symbolic inclusion to substantive development. This marks a major policy shift under Prime Minister Modi's leadership. The approach now emphasises integration, dignity, and opportunity for over 10 crore Adivasis. Their cultural legacy and developmental needs are being addressed with greater urgency and commitment.

DEVELOPMENTAL EXCLUSION: A HISTORICAL OVERVIEW

1. **Colonial Neglect of Tribal Communities:** During British rule, tribal areas were viewed primarily as resource zones, with little regard for tribal welfare. Forest laws restricted access to traditional lands, undermining tribal autonomy and subsistence.
2. **Post-Colonial Marginalisation in Planning:** Early Five-Year Plans largely treated tribals as subjects of welfare, not as participants in development. Policies lacked tribal consultation, leading to top-down interventions misaligned with local needs.
3. **Land Alienation and Forced Displacement:** Tribal communities lost ancestral lands to mining, industrial projects, and large dams (e.g., Sardar Sarovar), with inadequate compensation and rehabilitation, pushing them into cycles of poverty and migration.
4. **Exclusion from Resource Rights:** Denial of legal rights over forests and traditional territories created long-term livelihood insecurity. Even post-2006 FRA, effective implementation remained patchy and slow in many states.
5. **Poverty and Socio-Economic Traps:** A high proportion of tribal populations continue to live below the poverty line. Limited access to formal employment, markets, and productive assets perpetuates their economic vulnerability.
6. **Poor Access to Education and Health Services:** Geographical isolation, language barriers, and lack of culturally sensitive services have led to high dropout rates, poor learning outcomes, and inadequate healthcare access in tribal regions.

7. **Infrastructure Deficits and Connectivity Gaps:** Many tribal-dominated areas still lack basic infrastructure like all-weather roads, electricity, safe drinking water, telecom connectivity, and public transport, impeding human development.
8. **Under-Representation and Political Marginalization:** Despite constitutional safeguards (like ST reservations), tribals often remain underrepresented in policymaking, with weak institutional mechanisms for grievance redressal and political voice.

STRENGTHENING BUDGETARY SUPPORT FOR TRIBAL WELFARE

1. **Steady Rise in Tribal Affairs Budget:** The budget allocation for the Ministry of Tribal Affairs increased significantly from ₹4,295 crore in 2013–14 to ₹14,926 crore in 2025–26, indicating enhanced prioritization of tribal welfare.
2. **Massive Growth in DAPST Outlay:** The Development Action Plan for Scheduled Tribes (DAPST) saw an impressive rise from ₹24,598 crore in 2014–15 to over ₹1.23 lakh crore in 2024–25, boosting inclusive planning.
3. **Greater Inter-Ministerial Convergence:** A total of 42 ministries/departments now allocate a proportion of their budget under DAPST, ensuring that tribal concerns are mainstreamed across sectors like education, health, agriculture, and infrastructure.
4. **Focused Fund Tagging and Monitoring:** The Ministry of Tribal Affairs has adopted robust fund-tagging and monitoring mechanisms under DAPST to track physical and financial progress and avoid fund diversion.
5. **Outcome-Oriented Planning Framework:** Emphasis has shifted towards outcome-based budgeting, aligning schemes and outlays with measurable development indicators for Scheduled Tribes.
6. **Enhanced State-Level Participation:** Central support under schemes like the Tribal Sub-Plan (TSP) and DAPST has catalyzed parallel planning and co-funding by state governments for ST welfare.
7. **Schemes Aligned with SDGs and ST Needs:** DAPST funds are being channelled into schemes that promote livelihoods, skill development, health, housing, drinking water, and women-led tribal development.
8. **Support for PM-JANMAN and Flagship Missions:** Increased allocations support transformative initiatives like PM-JANMAN (Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan), EMRS expansion, Tribal Health Mission, and Sickle Cell Elimination.

GOVERNMENT INITIATIVES FOR TRIBAL EMPOWERMENT

1. **PM-JANMAN (2023–24):** ₹24,104 crore allocated for 75 PVTGs in 18 States/UTs. Focus: housing, drinking water, sanitation, nutrition, healthcare, connectivity, education, and livelihoods.
2. **Dharti Aaba Samriddhi Yojana (2024):** ₹79,156 crore convergence plan for 25 tribal-focused interventions—land rights, irrigation, digital literacy, housing, and income generation.
3. **Development Action Plan for Scheduled Tribes (DAPST):** Dedicated tribal budgeting across 42 ministries; outlay grew from ₹24,598 crore (2013–14) to ₹1.23 lakh crore (2024–25).
4. **Forest Rights Act (FRA) Implementation**: 23.88 lakh individual and 1.21 lakh community rights titles distributed. Linked to schemes like MGNREGA, PMKSY, and FRA Cells for support.
5. **Eklavya Model Residential Schools (EMRS):** Scaled from 90 (pre-2014) to 728 schools by 2025. Targets quality education for 3.5 lakh tribal children with enhanced infrastructure.

6. **Tribal Scholarships & Higher Education:** 30 lakh ST students benefit annually via Pre/ Post-Matric Scholarships, Fellowships, Top Class and Overseas Scholarships; DBT ensures transparency.
7. **Sickle Cell Anaemia Elimination Mission (2023):** Universal screening and treatment in tribal areas. Establishment of Centres of Competence and tribal health infrastructure.
8. **Mobile Medical Units (MMUs):** 910 MMUs under PM-JANMAN deliver primary healthcare to remote tribal populations.
9. **Digital & Infrastructure Inclusion:** 4G towers in 22,000+ tribal habitations. Improved road connectivity, solar lighting, and electrification through convergent schemes.
10. **Preservation of Tribal Culture:** Janjatiya Gaurav Divas (Nov 15), 10 Tribal Freedom Fighter Museums, Aadi Mahotsav, and Tribal Research Institutes promote cultural pride.

WAY FORWARD: TOWARD AN INCLUSIVE TRIBAL-CENTRIC DEVELOPMENT MODEL

1. **Strengthen Inter-Ministerial Convergence:** Ensure coordinated implementation of tribal welfare schemes across central and state ministries for maximum impact.
2. **Decentralized Planning with Tribal Participation:** Empower Gram Sabhas and tribal councils in decision-making to align policies with local needs and aspirations.
3. **Promote Tribal Representation:** Increase tribal participation in legislatures, civil services, and local governance bodies to amplify their voices.
4. **Respect Indigenous Knowledge Systems:** Integrate traditional ecological wisdom and sustainable practices into development and conservation strategies.
5. **Secure Land and Forest Rights:** Fast-track recognition and post-claim support under the Forest Rights Act to ensure tenure security and livelihoods.
6. **Invest in Tribal Human Capital:** Enhance access to quality education, healthcare, and skill development tailored to tribal contexts.
7. **Foster Livelihood Diversification:** Promote forest-based enterprises, ecotourism, agroforestry, and digital inclusion to improve incomes sustainably.
8. **Cultural Preservation and Identity Assertion:** Support tribal languages, traditions, and institutions to strengthen cultural pride and social cohesion.

CONCLUSION

The renewed tribal development strategy reflects a paradigm shift—from welfare to empowerment. With robust financial outlays, targeted interventions, and cultural sensitivity, India is moving towards inclusive growth for its 10 crore Adivasis. However, lasting change demands grassroots participation, rights-based development, and a sustainable, dignified approach that respects tribal identity while ensuring access to modern opportunities.

PRELIMS QUESTIONS

1. **With reference to India's extreme poverty reduction, consider the following statements:**

   1. India's extreme poverty rate fell from 27.1% in 2011-12 to 5.3% in 2022-23.
   2. The decline in extreme poverty has been significant only in urban areas, while rural poverty has remained largely unchanged.
   3. The Jan Dhan Yojana and PM Ujjwala Yojana are among the key government schemes that contributed to poverty reduction.

   How many of the above-given statements are correct?

   (a) Only one (b) Only two

   (c) All three (d) None

2. **With reference to the Development Action Plan for Scheduled Tribes (DAPST), consider the following statements:**

1. It is implemented by the Ministry of Tribal Affairs only.
2. It mandates all Central Ministries to allocate a fixed percentage of their annual budget for tribal welfare.
3. DAPST focuses solely on educational and health interventions.

Which of the above statements is/are correct?

(a) 1 only (b) 2 only

(c) 1 and 3 only (d) 2 and 3 only

ANSWER-KEY

1. (b)	2. (b)

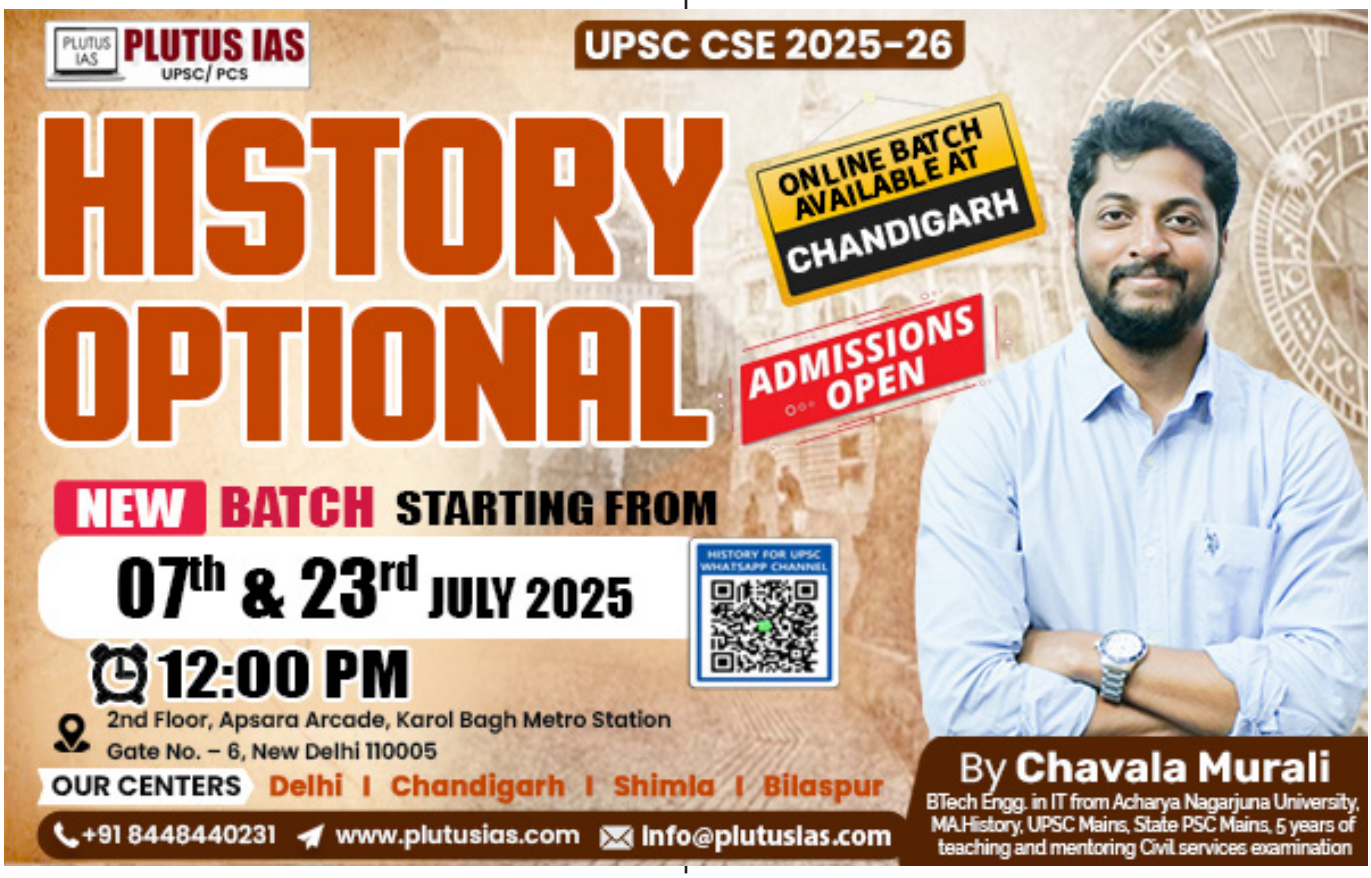
MAINS QUESTIONS

1. "Discuss the factors that contributed to the significant decline in extreme poverty in India between 2011–12 and 2022–23. What are the major challenges that remain in poverty alleviation, and suggest a way forward?"

(250 words, 15 marks)

2. Discuss the key challenges faced by tribal communities in India and evaluate the recent government initiatives aimed at their empowerment. Suggest a way forward for inclusive and participatory tribal development.

(250 words, 15 marks)



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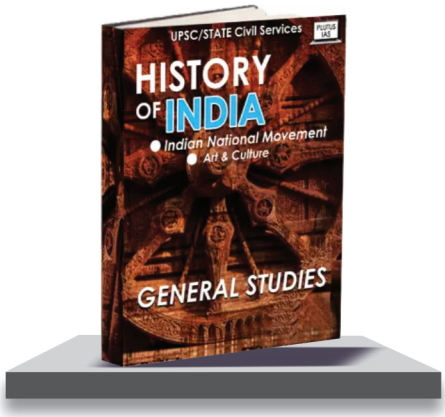

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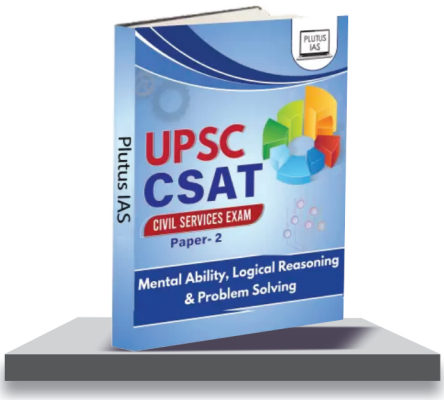

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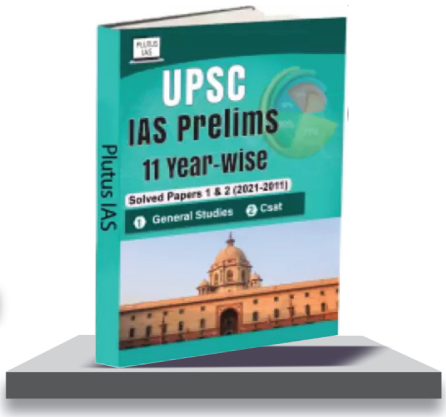

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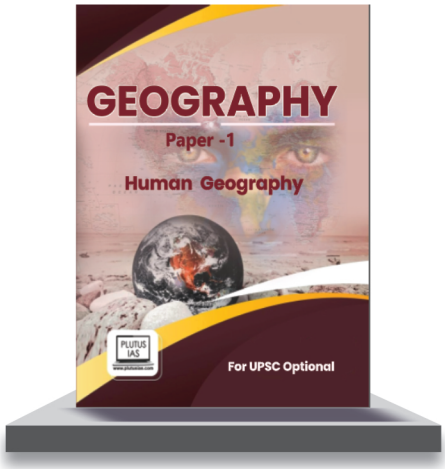

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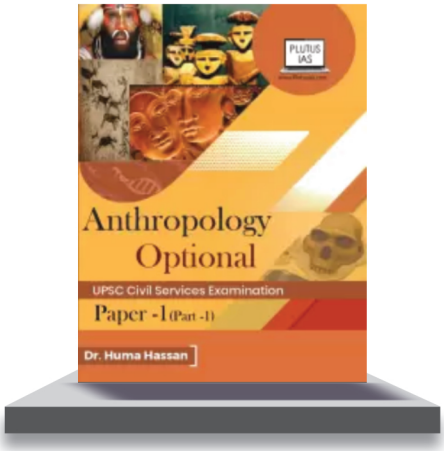

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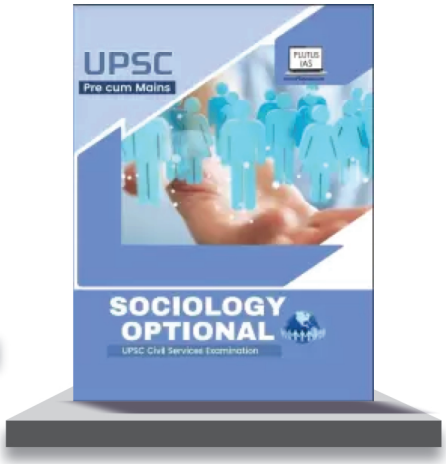

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