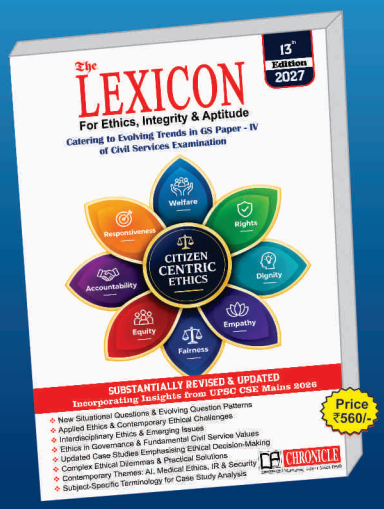
VOL. XXXVIII No. 5 ■ December 2026 ■ Rs. 150/-

Civil Services

CHRONICLE

THE NO. 1 MAGAZINE FOR IAS ASPIRANTS SINCE 1990



UPSC (CSE) Prelims 2027

GEOGRAPHY SPECIAL

- 3rd G.S. Mock Test Paper
- NCERT Based PT Questions

ARTICLES

- **India's Import Dependence**
  From Strategic Vulnerability to Economic Resilience
- **Beyond Cleanliness**
  Women and Transgender Changemakers of Swachhata
- **Agrivoltaics**
  Bridging Agriculture and Renewable Energy
- **Immersive Technologies**
  Transforming India's Digital and Creative Economy
- **The Public Health Burden of Irrational Drug Use**

NEW COLUMNS
Mains Exclusive

- Ethical Scan
- Mains Points to Ponder
- Essay
- Mains Model Q&A
- Questions of the Month

Scientific & Technological Innovations (2025-2026)

Civil Services CHRONICLE
VOL XXXVIII NO.5
December 2026

ISSN No.-0971-4073
INSIDE
www.chronicleindia.in/

Upsc Prelims Special

- **Geography** 73
- **Scientific & Technological Innovations In India (2025-2026)** 122

This special edition focuses on two important areas of the UPSC Civil Services Preliminary Examination: Indian and World Geography and Scientific & Technological Innovations in India. It integrates fundamental concepts with current developments to strengthen conceptual clarity, enhance analytical understanding and support effective preparation for the UPSC CSE 2027 Prelims.

Articles

- CBD COP17 and the Global Biodiversity Crisis: Bridging the Gap Between Commitments and Conservation 5

Current Affairs In Focus

- The Public Health Burden of Irrational Drug Use.....6
- Beyond Cleanliness: Women and Transgender Changemakers of Swachhata 7
- Agrivoltaics: Bridging Agriculture and Renewable Energy 8
- Immersive Technologies: Transforming India's Digital and Creative Economy 9

Infographic.....10
Ethical Scan 11
Mains Points to Ponder.....13
Essay.....14
Mains Model Questions & Answers.....17
Questions of the Month.....21

REGULAR COLUMNS

India Watch

- National Strategic Trade Command Centre.....22
- Agrivoltaics World Conference 2026.....22
- CAG-BHASHINI Anuvaad.....24

UPSC (CSE) Prelims 2027 GS Paper -I Model Test Paper-2 140

Public Policy

- NSO Proposes Changes in PLFS from January 2027 27
- Census (Amendment) Rules, 2026 27

Society Watch

- Women's Property Rights and Access to Justice29
- Maldharis: Pastoralist Community of Gujarat ...30
- 'Super-Aged' Society.....31
- First Female Farmer Worker Conference.....31

Welfare Schemes

- VB-G RAM G Act, 2025: Expansion of Permissible Works.....33
- JOSH Initiative: Youth-Led TB Elimination Efforts 33

Heritage Art & Culture

- 3 Indian Heritage Sites Added to UNESCO World Heritage Tentative List 35
- Cultural Artifacts of Keralam 35

Economy Watch

- Financial Services Institutions Bureau 39
- SME Growth Fund (SGF) 40
- Pumped Storage Project 40

Reports & Indices

- The Status of Policing in India Report 2026.....45
- Emissions Gap Report 2026.....45
- Global Multidimensional Poverty Index 2026 ...46
- WHO's Global Health Estimates (GHE) 46

Science & Technology

- Aditya-L1 Generates Doppler Velocity Images of Solar Corona.....47
- New Insights into Binary Supermassive Black Hole System OJ 287 47
- Japan Launches MMX Mission 48

Ecology & Environment

- Global Gaps in Ecosystem Restoration Efforts...52
- CBD COP17: India Releases Guidelines for Conservation Beyond Protected Areas 52
- Sukhna Wetland and Sauj Jheel: India's New Ramsar Sites 53
- Decline in Monitored Wildlife Populations: WWF Living Planet Report 2026 53

World Watch

- India & Mexico Launch Negotiations for Preferential Trade Agreement 57
- India–Poland Ties: Trade Target Set for 2030.....57
- India–New Zealand FTA Comes into Force.....57
- India–Czech Republic Defence Cooperation Expands.....58

World Groupings & Organizations

- Quad Members Strengthen Economic & Maritime Cooperation.....62
- 25th SCO Heads of Government Meeting 62
- G20 Foreign Ministers' Meeting 63

☑ **News Through Maps 66**

☑ **News Snippets.....68**

☑ **State Watch 158**

☑ **Exam Pointers..... 162**

☑ **News Notes 167**

☑ **Terms in Vouge..... 170**

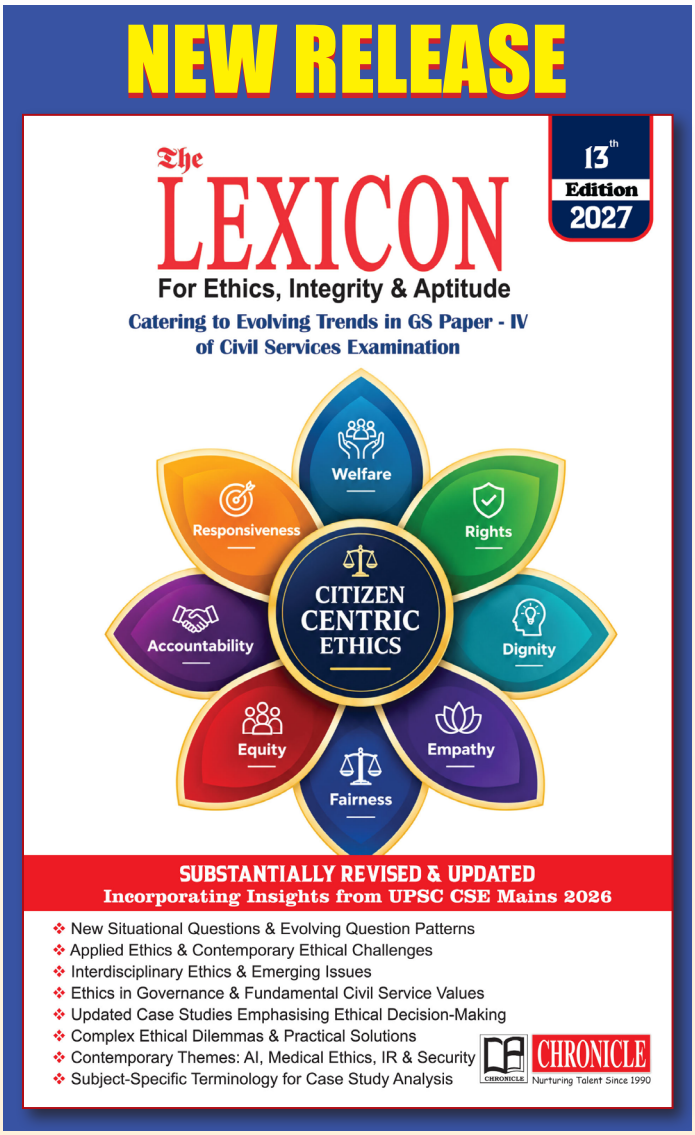
☑ **Sports in News..... 171**

☑ **Fact Sheet 172**

☑ **Info Bytes 173**

☑ **Current Affairs Model MCQs 174**

☑ **NCERT Questions..... 180**



Editor
N.N. Ojha
Vice President
Kirti Nandita

Corporate Office

Chronicle Publications (P) Ltd.
A-1D, Sector 16, Noida-201301 (U.P.),
Tel. : 0120-2514610
9953099442
info@chronicleindia.in

Subscription Enquiry
9953007629
subscription@chronicleindia.in

Published and printed for Chronicle Publications Pvt. Ltd. by Mrinal Ojha from H-31, First Floor, Green Park Extension, New Delhi-110016, and printed at Impression Printing and Packaging Limited, Plot Number C-18-19-20-21, Sector-59, Noida-201301 – Editor N.N. Ojha.

Copyright © Chronicle Publications Pvt. Ltd.: The legal jurisdiction for any dispute will be Delhi.

BIG ISSUE

CBD COP17 and the Global Biodiversity Crisis

Bridging the Gap Between Commitments and Conservation

■ Chinmaya Dash

The 17th Conference of the Parties (COP17) to the Convention on Biological Diversity (CBD), which concluded in Yerevan, Armenia, on 31st October 2026, exposed a fundamental contradiction in global environmental governance. While international biodiversity commitments have become increasingly comprehensive, economic activities continue to degrade ecosystems faster than conservation efforts can restore them.

The first global review of the Kunming-Montreal Global Biodiversity Framework (KMGBF) found that nearly 90% of Parties had national biodiversity targets, but fewer than half were on track. COP17 adopted the Yerevan Pathway to accelerate implementation of its 23 targets by 2030, emphasising measurable ecological recovery.

Why Do Biodiversity Commitments Remain Ineffective?

- **Economic Drivers of Degradation:** Land-use change, overexploitation, pollution, climate change and invasive species continue to erode biodiversity.
- Conservation gains remain vulnerable when agriculture, infrastructure, mining and industrial policies perpetuate ecosystem damage.
- **Contradictory Incentives:** Governments often finance conservation while simultaneously subsidising environmentally harmful activities.
- KMGBF Target 18 seeks to reduce harmful incentives by at least $500 billion annually by 2030, but progress remains inadequate.
- **Persistent Finance Gap:** Target 19 seeks $200 billion annually for biodiversity by 2030, including $30 billion through international finance.
- COP17 announced nearly $2 billion in funding commitments and initiatives, but announcements cannot substitute for predictable, accessible and sustained financing.
- **Weak Outcome Measurement:** Expanding protected-area coverage or allocating expenditure does not automatically ensure species recovery, habitat connectivity or effective ecosystem management.

What Did COP17 Change?

- **Implementation over New Targets:** The Yerevan Pathway prioritises reforming harmful incentives, aligning economic decisions with biodiversity goals, strengthening monitoring and supporting developing countries.
- **Inclusive Governance:** COP17 adopted the Sevan Guidelines, named after Armenia's Lake Sevan, establishing operating rules for the permanent subsidiary body on Article 8(j) to strengthen Indigenous peoples' and local communities' participation in biodiversity governance.

India's Biodiversity Challenge: Achievements and Contradictions

- **Stronger Institutional Framework:** India's National Biodiversity Strategy and Action Plan (2024–2030) sets 23 targets and 142 indicators. However, reported progress requires ecological verification.
- **Conservation Beyond Protected Areas:** 2026 guidelines for Other Effective Area-Based Conservation Measures (OECMs) recognise conservation in qualifying community-managed landscapes.
- **Development versus Conservation:** Infrastructure and mining create conflicts, as illustrated by Niyamgiri, where 12 Gram Sabhas opposed bauxite mining in 2013.
- **Community Rights:** Secure resource rights, community participation and equitable benefit-sharing are vital for sustainable conservation.

India must integrate biodiversity protection with economic planning, livelihoods and infrastructure development.

What Must Change Globally and in India?

- **Reorient Economic Incentives:** Reform harmful subsidies and promote sustainable production while protecting vulnerable livelihoods.
- **Integrate Nature into Development:** Include biodiversity assessments and natural-capital accounting in planning.
- **Finance Verifiable Outcomes:** Link funding to measurable conservation results.
- **Restore Ecosystems:** UNEP reports 252 million hectares under restoration across 149 countries; ecological outcomes must determine success.
- **Strengthen Governance:** Empower communities and ensure transparent monitoring, independent evaluation and periodic policy correction.

From Conservation Targets to Development Transformation

Biodiversity cannot recover sustainably if protected areas expand while wider economic systems continue degrading nature. COP17's lasting significance will depend on whether governments make ecological protection integral to development, finance and governance. The true measure of biodiversity success is not how many commitments are adopted, but whether economic progress ceases to depend on ecological decline. ■■

The Public Health Burden of Irrational Drug Use

Recently, the Central Drugs Standard Control Organisation (CDSCO) raised concerns over the uncontrolled sale and misuse of painkillers and antibiotics. Increasing self-medication and inappropriate drug consumption pose serious risks of drug-induced kidney damage and antimicrobial resistance (AMR), emerging as significant public health challenges in India.

Public Health Consequences of Irrational Drug Use

Nephrotoxicity and Kidney Damage

- **Non-Steroidal Anti-Inflammatory Drugs (NSAIDs):** Painkillers such as ibuprofen and diclofenac inhibit cyclooxygenase enzymes, reducing prostaglandin production. These substances help maintain adequate blood flow to the kidneys.
- **Acute Kidney Injury (AKI):** Reduced renal blood flow can impair kidney function, causing sudden injury, fluid retention and electrolyte imbalances.
- **Chronic Kidney Disease (CKD):** Repeated or prolonged misuse may contribute to progressive kidney damage, particularly among vulnerable individuals.
- **Antibiotic Toxicity:** Certain antibiotics, including aminoglycosides, can damage kidney tubules, while some medicines may cause interstitial nephritis.

Antimicrobial Resistance (AMR)

- **Antibiotic Misuse and Drug Resistance:** Inappropriate antibiotic use accelerates the emergence of drug-resistant microorganisms.
- **Increased Treatment Costs and Mortality:** Resistant infections require more complex and expensive treatments, increasing the risk of complications and mortality.

Structural Drivers of Drug Misuse

- **Easy Availability:** Prescription-only medicines are sometimes sold without valid prescriptions despite regulatory restrictions.
- **Low Health Literacy:** Temporary symptom relief is often mistaken for a complete cure, encouraging prolonged medication.
- **Healthcare Access Gaps:** Shortages of qualified practitioners, particularly in rural areas, promote self-medication and dependence on informal providers.

India's Regulatory Response

- **Drugs and Cosmetics Act, 1940:** Regulates the import, manufacture and distribution of drugs.
- **Schedules H and H1:** Restrict the sale of specified prescription medicines. Schedule H1 requires pharmacies to maintain prescribed records of sales.
- **National Action Plan on Antimicrobial Resistance (2017–2021):** Adopted a One Health approach covering human health, animal health and the environment.
- **Red Line Campaign:** Raises awareness about prescription-only antibiotics through a red line marked on specified medicine packaging.

Implementation Gaps in Drug Regulation

- **Weak Enforcement:** Inadequate inspections, limited regulatory personnel and uneven implementation enable unauthorised medicine sales.
- **Inadequate Diagnostics:** Limited laboratory facilities encourage empirical antibiotic prescriptions without identifying the causative pathogen.
- **Surveillance Gaps:** Inadequate monitoring of drug-resistant infections hampers timely intervention and evidence-based treatment.
- **Commercial Pressures:** Profit-driven promotion and demand for quick relief may undermine rational prescribing.
- **Balancing Access and Regulation:** Restrictive dispensing practices without affordable healthcare alternatives may delay essential treatment for vulnerable populations.

Strengthening Drug Governance and Public Health Protection

- **Strengthen Enforcement:** Conduct regular inspections and penalise violations involving prescription-only medicines.
- **Promote Antimicrobial Stewardship:** Introduce prescription audits, diagnostic testing and evidence-based antibiotic protocols in hospitals.
- **Enhance Public Awareness:** Educate citizens about self-medication, antibiotic misuse and the risks of excessive painkiller consumption.
- **Improve Healthcare Access:** Expand rural medical services, diagnostic infrastructure and referral systems.
- **Build Professional Capacity:** Provide continuous medical education on rational prescribing and appropriate medicine use. ■

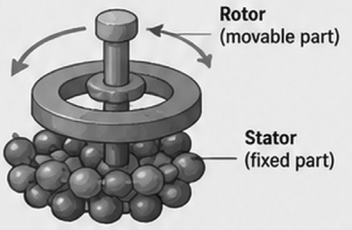
Infographic

MOLECULAR MACHINES (NANOMACHINES)

Tiny Machines | Big Possibilities

What are Molecular Machines?

- Molecular machines, or **nanomachines**, are combinations of molecular components that **produce mechanical movements (output)** in response to specific **stimuli (input)**.
- They convert **energy** into motion to perform specific tasks.



A molecular machine at work (illustrative)

How Do They Work? (Mechanism)

1 Stimulus (Input)

- Respond to inputs such as light, temperature, electric current or chemical reactions.



2 Movement (Output)

- Produce mechanical movements, including rotation and changes between stable states.

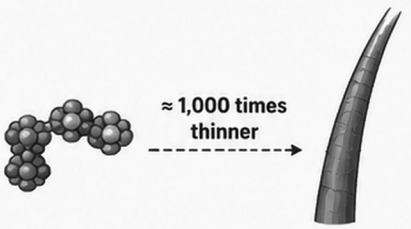


3 Recent Example

- A corkscrew-shaped molecule cycles through different states when electric current flows in one direction and reverses its sequence when the current flows in the opposite direction.



Scale



Molecular machine (nanometre scale)

Human hair (≈ 100,000 nm)

Operates at the **nanoscale** and is about **1,000 times** thinner than a **human hair**.

Core Architecture

Molecular Components

- Contain movable parts connected through mechanical bonds.

Energy Input

- Require energy, such as light or electricity, to produce movement.

Coordination Challenge

- Random heat and unwanted molecular movements make controlled movement and coordination difficult.

Nobel Prize in Chemistry 2016



Awardees
Jean-Pierre Sauvage, Sir J. Fraser Stoddart and Bernard L. Feringa

Contribution
Awarded for the design and synthesis of molecular machines.

Applications

Cellular Transport

- **Kinesin protein** transports minerals inside body cells along microscopic tracks.

Muscle Contraction

- **Myosin protein** helps muscles contract.

Disease Detection

- Could help detect diseases before symptoms appear.

Material Development

- Could help assemble tiny peptides and **produce** more-resilient plastics.

Sensors and Energy

- Could support microscopic sensors and **tiny energy-storage** mechanisms.



This section brings contemporary issues into the framework of UPSC CSE General Studies Paper IV.

Foundations of Moral Decision-Making

Contextual Wisdom *(Situational Prudence)*

Contextual wisdom is the capacity to make fair, prudent, and ethically sound decisions by evaluating the unique demands of a specific situation, surrounding circumstances, and available facts.

- **Core Ethical Dilemma:** It addresses complex ethical dilemmas by balancing legal duties, situational realities, moral values, and long-term consequences.
- **Operational Meaning:** Rather than applying rules rigidly or mechanically, a decision-maker assesses the ground reality, aligns it with underlying ethical values, and chooses a course of action that serves justice and public interest.

Example: A public administrator encounters an impoverished citizen who violated an administrative norm purely out of helplessness. While upholding the spirit of the law, the officer exercises lawful discretion and compassion to provide a viable remedy.

Conscience *(Inner Voice or Moral Consciousness)*

Conscience is the internal moral faculty through which an individual evaluates their motives, actions, and conduct as right or wrong, just or unjust.

- **Subjectivity & Conditioning:** A person's conscience is not always objectively infallible; it can be shaped by societal conditioning, personal upbringing, experiences, and internalized biases.

Example: An official who refuses to accept an untraceable bribe—guided purely by their internal moral convictions despite the absence of external surveillance—is acting on the voice of conscience.

Conscience vs. Discernment		
Dimension	**Conscience**	**Discernment**
Focus	**Internal moral consciousness**	**Cognitive / analytical capability**
Function	Evaluates the moral rightness or wrongness of one's own actions and motives.	Distinguishes between truth and falsehood, right and wrong, or beneficial and harmful in an external situation.

Situational Judgment vs. Situational Discernment		
Dimension	**Situational Judgment**	**Situational Discernment**
Core Nature	Decision-making capacity	Perceptual capacity
Function	The ability to weigh facts, values, and constraints to select the best course of action.	The ability to perceive subtle moral nuances and distinguish between appropriate and inappropriate conduct in context.

Ethics in Science, Medical Research & Clinical Trials

The Core Principle of Ethical Governance

"Scientific advancement must serve human welfare, not come at the cost of human life."

As a public servant, an administrator's duty extends beyond procedural compliance. The officer must guarantee that no individual's life, dignity, or fundamental rights are compromised under the pretext of scientific or technological progress.

Ethical Imperatives in Medical Research

Clinical trials are ethically justifiable only when they maintain an absolute balance between scientific advancement and human protection, strictly prioritizing:

- ✓ Human Dignity



*This section brings together key current developments and relevant themes across **General Studies Papers I, II, III and IV,** while highlighting their broader relevance for the **UPSC Civil Services (Main) Examination.***

Digital Growth vs. Child Well-being: Shaping Young Minds in a Changing India

Q. "Digital technology presents opportunities and challenges for children's cognitive development, learning and overall well-being." Discuss in the context of India.

Why is the Issue Important Now?

The rapid growth of digital media and generative AI has raised significant concerns regarding children's cognitive development, attention span, emotional well-being, and learning processes. While digital tools offer personalized learning and facilitate access to information, growing integration into young lives risks excessive screen exposure, dependence on automated assistance, and disrupted routines.

Understanding the Developing Brain

- **Prefrontal Cortex Development:** The prefrontal cortex-responsible for attention, working memory, planning, and impulse control-continues developing into early adulthood.
- **Neuroplasticity:** Brain neuroplasticity makes children and adolescents particularly responsive to their environments.
- **Environmental Impact:** Digital experiences can shape cognitive development, though current research has not conclusively proven that screen exposure directly leads to harmful neurological changes.

Arguments Favouring Digital Technology

- **Enhanced Learning:** Digital platforms provide diverse educational materials and enable personalized learning environments.
- **Cognitive Adaptability:** Navigating digital environments improves information-filtering skills and technological competence.
- **Creativity & Collaboration:** Digital tools empower children to create content, share ideas, and collaborate across global boundaries.

Arguments Against Digital Technology

- **Attention Fragmentation:** Short videos, infinite scrolling, autoplay, and algorithmic recommendations prompt continuous engagement and rapid task-switching.
- **Emotional Vulnerability:** Social comparison, online validation seeking, and cyberbullying harm self-esteem and overall psychological well-being.
- **Cognitive Offloading:** Over-reliance on AI-generated answers threatens independent reasoning, critical thinking, and problem-solving capacities.

India's Case

- **Demographic Context:** With around 65 crore people under 25 years of age, India has one of the world's largest digital ecosystems.
- **Pandemic Acceleration:** The COVID-19 pandemic significantly increased children's reliance on online education and digital entertainment.
- **Dual Challenges:** India faces a dual challenge of bridging the digital divide while preventing unhealthy digital dependence.
- **Compounding Factors:** Unequal device access, inadequate digital literacy, and insufficient parental supervision further complicate the issue.

What Does This Mean for India?

- **Context Matters:** The impact of digital technology depends on content, duration of use, age and individual circumstances, not merely screen time.
- **Digital Inclusion:** Expand equitable access to digital learning while addressing the digital divide.
- **Online Safety:** Ensure safe digital environments through child protection measures and responsible platform practices.
- **Parental Guidance:** Strengthen parental awareness and supervision to encourage balanced technology use.
- **Holistic Development:** Protect children's cognitive, emotional, physical and social well-being while harnessing the benefits of digital technology.

***UPSC Relevance:** GS Paper II > Governance and Social Justice > Issues Relating to Development and Management of Social Sector/Services relating to Education, Human Resources, and Child Welfare-effects of digital technologies, AI, and screen time on children's cognitive development, learning, and well-being.*



Section-A

Tolerance is an Ornament of Society, but Tolerance Towards Injustice is Cowardice

The evolution of human civilisation has been a long journey from primitive barbarism to civic consciousness. During this journey, humanity has developed several virtues, among which tolerance occupies a prominent place. Tolerance is the glue that holds together a society characterised by diversity; it is the ornament that enhances the democratic and cultural character of a nation. However, when a virtue crosses its limits and assumes the form of cowardice, it becomes a dangerous poison for society.

The renowned Greek philosopher Plato once said, "The greatest injustice is that which is done in the name of justice." Along similar lines, the greatest form of cowardice is that which is practised in the name of 'tolerance'. In a civilised society, tolerance towards differences of opinion, dress, food habits and faith is essential. However, when this very tolerance bows before corruption, exploitation, oppression and injustice, it ceases to represent peace and instead becomes the silence of a graveyard. Mahatma Gandhi, the Father of the Nation, who remained a lifelong advocate of non-violence and tolerance, also clearly declared: "I do believe that where there is only a choice between cowardice and violence, I would advise violence."

Indian culture explains this subtle distinction between tolerance and cowardice through a well-known and timeless principle: "Kshama Veerasya Bhushanam" (Forgiveness or tolerance is the ornament of the brave). Its social significance lies in the fact that tolerance becomes meaningful only when demonstrated by someone who possesses the strength to resist injustice. If a weak or fearful person silently endures injustice, it is not forgiveness but helplessness and cowardice.

This principle and philosophy are deeply illustrated in Indian folk tradition through the famous story of the sage and the poisonous snake, narrated by Ramakrishna Paramahamsa. A highly venomous snake lived near a village and used to bite people. One day, a realised sage passed by and advised the snake to stop biting people unnecessarily and to become tolerant and peaceful. The snake followed his advice and stopped biting. However, when the villagers and children realised that the snake no longer retaliated, they began throwing stones at it and left it badly injured. When the sage returned after some time, he saw the snake in this miserable condition. The snake cried and said, "Revered sir, your teaching of tolerance has brought me to this condition." The sage then smiled and uttered a sentence that captures the essence of this essay: "Fool! I had asked you not to bite people, but I had never asked you to stop hissing in protest against injustice."

This folk tale makes it clear that tolerance is essential for living in society, in the sense of not causing harm to others without reason. However, silently enduring injustice inflicted upon oneself is neither greatness nor virtue; it is sheer foolishness and cowardice.

At the social level, a pluralistic nation like India can survive only on the foundation of tolerance. Our traditions of *Vasudhaiva Kutumbakam* and *Anekantavada* (Jain philosophy) teach us that truth can have multiple dimensions and that we must respect the views of others. In a democratic and political context, tolerance means listening to the voice of the opposition. The renowned French thinker Voltaire famously said: "I disapprove of what you say, but I will defend to the death your right to say it." This is the true ornament of democracy, allowing people belonging to different castes, religions and ideologies to coexist and flourish.

UPSC-CSE Mains

Model Questions & Answers

General Studies-I> History

Q1. To what extent did the Chola dynasty's naval power, merchant guilds, and diplomatic initiatives transform India's maritime trade networks across Asia? Discuss."

Answer: Between the ninth and thirteenth centuries, the Chola dynasty established itself as a powerful maritime force in South India, strengthening India's commercial and cultural ties across Southeast Asia, China, and the broader Indian Ocean region.

Role of the Cholas in Developing Maritime Trade Networks

- **Naval Might and Strategic Expansion:** Rajaraja I and Rajendra I enhanced naval capabilities. Rajendra I's 11th-century expedition against Srivijaya secured vital sea lanes, protected trade, and projected regional dominance.
- **Ports and Emporia Trade:** Key ports like Nagapattinam and Kaviripoompattinam acted as trading hubs. They facilitated emporia trade, where goods were redistributed across Asian and West Asian markets.
- **Merchant Guilds and Diplomacy:** Guilds like Ainurruvar and Manigramam drove commercial growth with royal protection. Diplomatic trade missions, including Rajaraja I's 1015 CE mission to China, expanded East Asian trade.
- **Socio-Cultural Integration:** Trade networks facilitated the spread of Indian religion, art, and architecture in Southeast Asia. Temples served as major economic consumers and drivers of local craft and trade.

Conclusion

The Cholas combined naval power, port infrastructure, and merchant diplomacy to drive Asian trade. However, their maritime influence relied heavily on military force to secure key routes.

General Studies-I> Indian Society

Q2. How do demographic shifts affect social relations and cultural diversity across India?

Answer: Demographic changes-encompassing shifts in fertility, mortality, age structure, and migration-profoundly reconfigure India's socio-cultural fabric and regional dynamics.

Influence Demographic Changes on Social Relations and Diversity

- **Interstate Migration and Cultural Integration:** Rural-to-urban and inter-state migration brings diverse linguistic and cultural groups together, fostering economic cooperation while occasionally creating friction over employment, housing, and local identity.
- **Aging and Evolving Family Structures:** Declining fertility and higher life expectancy alter traditional family setups, increasing eldercare responsibilities and shifting intergenerational relationships and social support systems.
- **North-South Demographic Divergence:** Variations in population growth between northern and southern states impact workforce distribution, regional development priorities, and political representation dynamics.
- **Community Dynamics and Social Cohesion:** Shifts in population composition influence regional identity perceptions. Using evidence-based demographic data rather than unverified stereotypes is essential to prevent inter-group mistrust and maintain social harmony.



This section presents UPSC Civil Services Main Examination-oriented questions based on key current topics.

General Studies (GS) Mains Examination

Question 1. "Despite the rights guaranteed under the Rights of Persons with Disabilities Act, 2016, access to transportation and public infrastructure remains limited for persons with disabilities in India." Evaluate the performance of the Accessible India Campaign and discuss the measures required to make air travel and public transportation more inclusive. ***(150 words, 10 marks) (GS Paper II-Social Justice)***

Question 2. "In ancient Indian history, symbols such as the Rajdanda (Sengol) represented not merely the transfer of power but also the ideals of righteous governance and the moral accountability of rulers." Critically evaluate this statement with reference to the traditions of the Cholas and other South Indian dynasties. ***(150 words, 10 marks) (GS Paper I-Indian Heritage and Culture)***

Question 3. "The Vesara style served as an architectural bridge between the Nagara style of North India and the Dravida style of South India." Explain the differences between the Dravida and Vesara styles of temple architecture, highlighting their major features and prominent examples. ***(250 words, 15 marks) (GS Paper I-Indian Heritage and Culture)***

Question 4. "The rapidly increasing prevalence of obesity among children and adolescents is not merely a health concern but also a major source of future non-communicable diseases (NCDs) and socio-psychological challenges." In the light of recent World Health Organization (WHO) guidelines, discuss why a multi-sectoral strategy is necessary to address childhood obesity in India. ***(150 words, 10 marks) (GS Paper II-Social Justice)***

Question 5. "In the digital age, functional literacy extends beyond basic reading and writing skills to include digital and financial literacy." With reference to the ULLAS scheme, discuss how adult education and lifelong learning opportunities can promote the socio-economic empowerment of marginalised communities. ***(150 words, 10 marks) (GS Paper II-Social Justice)***

Question 6. "Economic inequality and occupational segregation in India are deeply rooted in the traditional caste system." Explain how caste-based occupational linkages persist in certain occupations despite social transformation, with examples of manual scavenging and unsafe sanitation work. ***(250 words, 15 marks) (GS Paper I-Indian Society)***

Question 7. "Modern Indian cities are centres of economic opportunities, but they are also giving rise to new forms of residential segregation and social distancing." Critically evaluate the role of Urban Local Bodies (ULBs) in ensuring inclusive urban spaces and social integration. ***(150 words, 10 marks) (GS Paper I-Indian Society)***

Question 8. "Converting crop residues (stubble) and organic waste into biogas offers the dual benefits of controlling environmental pollution and doubling farmers' incomes." Examine the significance of capital assistance and cluster-based pipeline infrastructure provided under the GOBARdhan scheme. ***(150 words, 10 marks) (GS Paper III-Environment and Ecology)***

Question 9. Examine the environmental and structural threats arising from mining activities in the vicinity of archaeological and ecological heritage sites. ***(GS Paper III-Environment and Ecology)***

Question 10. "Maintaining a balance between the need for stringent laws to combat terrorism and extremism and the protection of citizens' fundamental rights and freedoms is a major dilemma in internal security." Critically examine this statement with reference to the stringent provisions of the Unlawful Activities (Prevention) Act (UAPA), 1967, and suggest necessary institutional and procedural reforms. ***(250 words, 15 marks) (GS Paper III-Internal Security)***

Question 11. "In the digital age, threats to national security are no longer limited to physical attacks; state-sponsored and non-state-sponsored cyberattacks can cripple the country's power supply, financial systems and defence networks." Evaluate the role of India's National Critical Information Infrastructure Protection Centre (NCIIPC) and outline a robust defence strategy to counter cyber hybrid warfare. ***(150 words, 10 marks) (GS Paper III-Internal Security)***

Question 12. "The SPIR 2026 report highlights a sharp rise in cybercrime despite a decline in total registered crimes in India." Examine the risks arising from increasing digital connectivity in the absence of adequate digital literacy. Discuss the report's recommendations, such as automated Zero FIR registration and account freezing, to make the cybercrime grievance redressal system fair and responsive. ***(150 words, 10 marks) (GS Paper III-Internal Security)*** ■■



Polity & Governance

National Strategic Trade Command Centre (NSTCC)

On 15th October 2026, the Union Government launched the National Strategic Trade Command Centre (NSTCC) at Vanijya Bhawan, New Delhi.

What is NSTCC?

- The NSTCC is an **integrated trade monitoring and analytics initiative** that provides policymakers and government officials with a consolidated view of India's trade performance and administrative processes.
- **Developed by:** Department of Commerce in coordination with the Directorate General of Foreign Trade (DGFT).

Core Functions

- **Integrated Process Monitoring:** Enables real-time tracking of core foreign trade verticals, including Importer Exporter Codes (IEC), Advance Authorisation, EPCG schemes, and Certificates of Origin (CoO).
- **Streamlining Strategic Exports:** Expedites application turnaround and inter-ministerial clearances for high-technology, dual-use items under **SCOMET**.
- **Compliance & Audit Tracking:** Monitors export obligation (EO) fulfillment, flags non-compliance, and audits processing timelines across **DGFT Regional Authorities (RAs).**
- **Granular Trade Analytics:** Provides multi-**tiered data analysis by product line**, tariff, market destination, commercial entity, and Free Trade Agreement (FTA) utilization rates.
- **Cross-Agency Integration:** Integrates existing **digital trade platforms (DGFT portal, Trade Connect ePlatform)** with a phased plan to link customs (CBIC), logistics, and line ministry datasets.

Why Does It Matter?

- **Evidence-Based Governance:** Shifts international trade administration from periodic, fragmented reporting to real-time, continuous monitoring.
- **Predictive Risk Mitigation:** Uses predictive analytics to detect non-tariff barriers, market bottlenecks, and trade distortions early.
- **Overcoming Administrative Silos:** International trade involves disparate schemes and permissions; isolated tracking conceals systemic bottlenecks and delay points.
- **Comprehensive Performance Metrics:** Relying solely on application volumes obscures actual efficiency; tracking pending cases, turnaround times, and specific delay causes ensures accountable, whole-of-government trade governance.

Agrivoltaics World Conference 2026

The 7th AgriVoltaics World Conference (AWC) 2026 was held from 21st-23rd October 2026, at Bharat Mandapam, New Delhi.

About the Conference

- The AgriVoltaics World Conference is a global **platform for scientific exchange and technology collaboration.**
- It promotes discussions on **combining agriculture with solar energy**.
- **Theme:** "Powering the Global South."
- **Hosted by:** Ministry of New and Renewable Energy (MNRE) with support from Germany's BMUV.
- **Aim:** To promote international cooperation and scale agrivoltaics solutions to support farmer incomes, food security and clean energy development.

Key Deliberations of the Conference

- **Scientific Discussions:** It included a dedicated India Focus Track and two scientific tracks covering crop productivity, climate resilience, technology deployment and policy frameworks.
- **Knowledge Resources:** The conference launched three resources:
  1. the India Agrivoltaics Alliance's Decision-MakingTool,
  2. IWMI's Book of Abstracts and
  3. MNRE's AgriPV Policy Handbook.
- **Startup and Innovation Platform:** The AgriVoltaics Pitch Hub showcases technological solutions and connects start-ups, investors and industry leaders.
- **Annadatas to Urjadatas:** The initiative promotes farmers' transition from traditional food producers (Annadatas) to clean-energy producers (Urjadatas), creating additional rural income opportunities.
- **PM-KUSUM Linkage:** The Government announced plans to introduce a major agrivoltaics programme under the next phase of PM-KUSUM, enabling farmers to generate solar electricity while continuing agricultural cultivation.

Public Policy



NSO Proposes Changes in PLFS from January 2027

On 23rd October 2026, the Ministry of Statistics and Programme Implementation (MoSPI), through the National Statistics Office (NSO), proposed structural changes to the Periodic Labour Force Survey (PLFS) from January 2027.

- The changes **aim to improve measurement of digital platform employment**, unpaid care work and broader labour underutilisation.

Need for the Changes

- **Gig Work:** Existing statistics often classify gig workers as self-employed or casual workers, obscuring platform-based employment.
- **Unpaid Work:** Domestic and care activities remain underrepresented, limiting assessment of women's economic contributions and gender inequalities.
- **Policy Targeting:** Improved data can strengthen implementation of the Code on Social Security, 2020, and welfare delivery through the e-Shram portal.

Key Modifications Proposed

- **Dedicated Stratum for Platform Workers:** A distinct Second Stage Stratum (SSS) will be introduced in rural and urban areas to sample households with at least one app-based platform worker, including cab drivers and delivery workers.
- **Measurement of Unpaid Work:** Questions for persons aged 15 years and above will cover household chores, care work, own-use production of goods, voluntary work and unpaid trainee work.
- **Labour Underutilisation:** Experimental questions will assess underemployment and disguised unemployment alongside conventional employment and unemployment indicators.
- **Sampling Design:** Four Second Stage Strata in rural areas and five in urban areas are proposed, with 14 households surveyed per First Stage Unit.

Broader Implications

- **Recognition of the Care Economy:** Better measurement can reveal women's unpaid contributions and gender-based inequalities.
- **International Comparability:** The changes seek alignment with the International Labour Organization's 19th International Conference of Labour Statisticians standards.
- **Targeted Social Protection:** Improved gig-worker data can support evidence-based welfare policies.
- **Better Economic Planning:** Distinguishing productive employment from underemployment and disguised unemployment can improve labour-market assessment and productivity analysis.

How Does the Gig Economy Contribute to India's Development?

Employment Generation

- Provides livelihoods to 7-8 million workers, projected to reach 23.5 million by 2030.
- Creates opportunities for youth, migrants and semi-skilled workers.

Services Sector Growth

- Supports sectors such as ride-hailing, food delivery, logistics, e-commerce and home services.
- Contributes to service-led economic growth.

Support to Micro, Small and Medium Enterprises (MSMEs)

- Enables micro-entrepreneurship with low entry barriers.
- Helps small businesses access delivery, marketing and logistics services.

Regional Economic Decentralisation

- Expansion of quick commerce and logistics into Tier-2 and Tier-3 cities creates local employment opportunities.
- Strengthens hyperlocal markets and last-mile delivery networks.

Census (Amendment) Rules, 2026

On 16th October 2026, the Ministry of Home Affairs (MHA) notified the Census (Amendment) Rules, 2026, to expand the eligibility criteria for appointing census enumerators and strengthen the workforce available for census operations.

Key Provisions

- **Statutory Basis:** Notified under Section 18(1) of the Census Act, 1948, the amendment modifies Rule 3 (Serial Number 5) of the Census Rules, 1990, which governs the appointment and functioning of census officers.
- **Expanded Eligibility:** The amendment permits the appointment of:
  - ✓ Teachers from government, local authority, aided and unaided private educational institutions, societies and trusts.
  - ✓ Clerks and officials of Central and State Governments, local authorities, public sector undertakings, statutory bodies, banks, companies, institutions, societies and trusts.

- ✓ Any other suitable person identified by the State Government or Union Territory administration.

- **Census Officers:** These include the Principal Census Officer, District Census Officers, Charge Officers, Supervisors and Enumerators. Under Section 5 of the Act, they are classified as public servants.

Impact and Outcomes

- **Staffing Flexibility:** Expands the pool of personnel available for census duties and helps address staffing shortages.
- **Continuity of Education:** Diversifies recruitment beyond teachers, potentially reducing disruption to regular government school activities.
- **Digital Readiness:** Enables the deployment of digitally skilled personnel for technology-enabled enumeration.
- **Operational Efficiency:** Supports timely and effective implementation of census operations.

India's Census Framework

- **Constitutional Basis:** Entry 69 of the Union List in the Seventh Schedule places census-related matters within Parliament's legislative jurisdiction.
- **Periodicity:** The Census Act, 1948, does not prescribe a fixed interval. Section 3 empowers the Central Government to notify a census whenever necessary.
- **Administration:** Under Section 4, the Centre appoints the Registrar General and Census Commissioner of India and Directors of Census Operations, while States appoint census officers.
- **Confidentiality:** Section 15 restricts public inspection of census records and their use as evidence in court, subject to specified exceptions.
- **Extended Operations:** Section 17A enables the Centre to extend the Act to preparatory activities, including pre-tests, pilot studies, house-listing and post-enumeration checks.

Prelims Model Questions

1. With reference to the proposed changes to the Periodic Labour Force Survey (PLFS) from January 2027, consider the following statements:

1. A dedicated sampling stratum is proposed to identify households with app-based platform workers.
2. The revised survey will measure unpaid domestic work only for women.
3. The proposed changes include experimental questions on underemployment and disguised unemployment.

Which of the statements given above is/are correct?

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

Answer: (b)

2. Consider the following statements regarding India's census framework:

1. The Census (Amendment) Rules, 2026, expand the eligibility of personnel who may be appointed as census enumerators.
2. The Census Act, 1948, prescribes that a census must be conducted at fixed ten-year intervals.
3. Under Section 15 of the Census Act, 1948, census records are generally protected from public inspection and use as evidence in court.

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: (c)

Mains Model Questions

1. *Discuss the significance of the proposed changes to the Periodic Labour Force Survey (PLFS) in improving the measurement of gig employment, unpaid care work and labour underutilisation in India. (150 words).*

2. *Examine the contribution of the gig economy to employment generation, regional economic development and the growth of India's services sector.(150 words)*

3. *Explain the key provisions of the Census (Amendment) Rules, 2026. How can the expansion of eligibility criteria for census personnel improve the efficiency of census operations?(250 words)*



Social Justice

Women's Property Rights and Access to Justice

On 5th October 2026, the National Commission for Women (NCW) organised a consultation on women's property rights and access to social and economic justice.

- The event focused on bridging the gap between legal equality and the effective realisation of women's property and inheritance rights.

Focus Areas

- **Property and Inheritance:** Addressing disparities in land ownership, agricultural assets and succession rights.
- **Vulnerable Groups:** Highlighting challenges faced by widows, including wives of farmers who died by suicide, and senior citizens.
- **Access to Justice:** Identifying institutional and grassroots barriers that prevent women from enforcing their legal rights.
- **Distributive Justice:** Shifting from welfare-based assistance towards women-led economic empowerment and equitable asset ownership.

Why Do Property Rights Matter for Women?

- **Economic Independence:** Strengthens women's financial autonomy.
- **Bargaining Power:** Enhances decision-making within households.
- **Access to Credit:** Facilitates institutional loans.
- **Effective Ownership:** Legal ownership does not always ensure control over property, income or transfer.

Constitutional and Legal Provisions for Women's Property Rights

- **Article 14:** Guarantees equality before the law and equal protection of the laws.
- **Article 15: Prohibits** discrimination on grounds including sex; Article 15(3) permits special provisions for women and children.
- **Hindu Succession Act, 1956:** Its 2005 amendment granted daughters equal coparcenary rights in Hindu joint family property.

Pradhan Mantri Dakshata Aur Kushalta Sampann Hitgrahi

In October 2026, as per the Department of Social Justice and Empowerment, a total of 1,87,305 candidates were trained and 96,162 placed under the Pradhan Mantri Dakshata Aur Kushalta Sampann Hitgrahi (PM-DAKSH) scheme between 2020–21 and 2023–24,

About PM-DAKSH

- **Launched Year:** 2020-21
- **Objective:** Increase family income by increasing skill levels of the target youth, increase the skill levels of the Safai Mitras including waster pickers, etc.
- **Scheme was subsumed u**nder Ministry of Skill Development and Entrepreneurship's Pradhan Mantri Kaushal Vikas Yojana (PMKVY) from 2024-25 to avoid duplication.
- **Implementing Bodies:** National Scheduled Castes Finance and Development Corporation, National Backward Classes Finance and Development Corporation and National Safai Karamcharis Finance and Development Corporation.
- **Target Group:** SCs, OBCs, EWSs, DNTs Safai Karamcharis including waste pickers etc.
- **Income Criteria:**
  - ✓ SCs, Safai Karamcharis Including waste picker and DNT: No Income limit.
  - ✓ OBCs and EWSs: Annual income family below Rs.3 lakh.
- **Cost of Training:** As per common norms issued by Ministry of Skill Development & Entrepreneurship and it varies as per duration of the course.
- **Types of Training:** Up-skilling/Reskilling, Short Term Training, Entrepreneurship Development Programme.

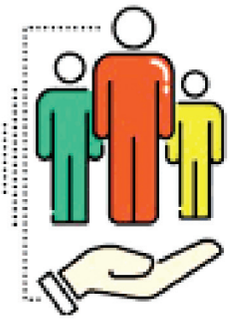
National Household Travel Survey (NHTS)

On 5th October 2026, the National Statistics Office (NSO), under the Ministry of Statistics and Programme Implementation (MoSPI), released the findings of India's first-ever National Household Travel Survey (NHTS), conducted from July 2025 to June 2026.

About the Survey

- **Coverage:** The survey covered 4.92 lakh households and over 20.34 lakh persons across rural and urban India.
- **Objective:** To collect comprehensive data on travel patterns, including purpose, mode, distance, duration and expenditure, for evidence-based transport planning, infrastructure development and accessibility assessment.

Welfare Schemes



VB-G RAM G Act, 2025: Expansion of Permissible Works

On 6th October 2026 , the Ministry notified a new Schedule of 375 permissible works under the Viksit Bharat – Guarantee for Rozgar and Ajeevika Mission (Gramin) (VB–G RAM G) Act, 2025, marking a 41% increase over the earlier 266 works.

Four Thematic Pillars of 375 Works

1. Water Security (128 Works)

- **Focuses on watershed development** through check dams, gully plugs, underground dykes, injection wells and recharge shafts.
- **Promotes river and drain rejuvenation**, desilting, rooftop rainwater harvesting and reclamation of waterlogged agricultural land.
- **Includes drip irrigation,** sprinkler systems and climate-adaptive measures such as ice stupas and artificial glaciers.

2. Core Rural Infrastructure (111 Works)

- **Covers solar street lighting,** waste recycling units, greywater treatment plants and waste-segregation sheds.
- **Supports rural libraries**, veterinary and primary healthcare centres, Common Service Centres, youth centres, school laboratories and village footpaths.
- **Includes repair and maintenance of piped-water infrastructure** under the Jal Jeevan Mission.

3. Livelihood-Related Infrastructure (98 Works)

- **Expands support for agro-processing**, grading and packaging centres, mini cold storages and flour mills.
- **Promotes poly-houses**, mushroom cultivation, sericulture and aquaculture.
- **Provides infrastructure for women's collectives**, including Self-Help Group (SHG) worksheds, federations and SHE Marts.

4. Disaster Preparedness and Extreme Weather Events (38 Works)

- **Focuses on resilience against floods**, cyclones, cloudbursts and heatwaves.
- **Includes multipurpose relief shelters**, retaining walls, embankment strengthening and post-disaster road restoration.
- **Promotes forest firebreaks** and fuel-buffer corridors.

Impact on Rural Economy

- **Livelihood Diversification:** Promotes agro-processing, allied activities and non-farm employment opportunities.
- **Disaster Preparedness:** Enhances rural resilience to floods, cyclones, heatwaves and other disasters.
- **Durable Rural Assets:** Aligns rural employment with long-term infrastructure and developmental needs.
- **Sustainable Rural Development:** Integrates employment generation, natural resource management and improved access to essential services.

JOSH Initiative: Youth-Led TB Elimination Efforts

On 8th October 2026, the Union government launched the JOSH (Joint Squad for Health) initiative under the TB Mukt Bharat Abhiyaan in New Delhi.

What is JOSH Initiative?

- The initiative reflects a **whole-of-government and whole-of-society approach** to TB elimination.
- It brings together **the institutional strength of government**, the outreach of youth networks and the participation of communities to strengthen action against TB at the grassroots.
- **Nodal Ministries:** Ministry of Health and Family Welfare, Ministry of Youth Affairs & Sports and the Ministry of Defence.

Core Objectives & Functions

- **Youth-Led Action**: JOSH Teams mobilises MY Bharat Volunteers and NCC Cadets to promote TB prevention, early diagnosis, timely treatment, treatment adherence and stigma reduction at the grassroots.
- **Grassroots Outreach:** Conduct regular field-level campaigns to raise awareness on TB prevention, early diagnosis, and timely treatment adherence.
- **Stigma Reduction:** Address social myths and misconceptions surrounding tuberculosis at the community level.
- **Community Mobilization:** Foster youth-led social participation and encourage local ownership of health interventions.
- **2030 Goal:** It seek to accelerate India's efforts towards TB elimination before 2030 by strengthening Jan Bhagidari, youth participation and last-mile community engagement.



Art & Culture

3 Indian Heritage Sites Added to UNESCO World Heritage Tentative List

On 20th October 2026, UNESCO added three Indian geological and cultural sites to its Tentative List

- With these new additions, India's total count on the **Tentative List has increased to 81**.

About the 3 New Heritage Sites

1. Baratang Karst-Mud-Volcano Complex

- ✓ **Category:** Natural Heritage
- ✓ **Location:** Andaman and Nicobar Islands
- ✓ **Baratang Island**, located in the Bay of Bengal, is known for its limestone caves, karst formations and mud volcanoes.
- ✓ **Limestone Caves**: Formed when water dissolves soluble rocks over long periods.
- ✓ **Karst Landscape:** Includes underground caves, cracks and distinctive rock formations.
- ✓ **Mud Volcanoes:** Release mud, water and gases instead of molten lava.
- ✓ **Significance:** Features unique geological formations, including rare mud volcanoes (which release mud, water, and gases) and extensive limestone caves with unique karst features.

2. Andaman Subduction Volcanoes

- ✓ **Category:** Natural Heritage
- ✓ **Location:** Andaman and Nicobar Islands
- ✓ **This proposed site includes Barren Island and Narcondam Island**, two volcanic islands in the Andaman Sea. They help explain volcanic activity associated with the movement of tectonic plates in the region.
- ✓ **Barren Island**: Known for its active volcano, lava formations and volcanic caldera.
- ✓ **Narcondam Island:** Known for its distinctive volcanic geology and rich biodiversity.
- ✓ It is also recognised as an Important Bird Area and a Key Biodiversity Area.
- ✓ **Significance:** The site is significant for understanding tectonic activity, volcanic processes and the relationship between geological features and biodiversity.

3. Sirpur Cultural and Archaeological Landscape

- ✓ **Category:** Cultural Heritage
- ✓ **Location:** Mahasamund district, Chhattisgarh
- ✓ **Sirpur is a historic settlement** located on the eastern bank of the Mahanadi River, approximately 78 kilometres from Raipur. It is known for its archaeological remains and evidence of ancient urban life, trade and religious traditions.
- ✓ **Religious Heritage:** Historical monuments associated with Hinduism and Buddhism.
- ✓ **Trade and Urbanisation:** Archaeological evidence of historic trade networks and settlement development.
- ✓ **Cultural Diversity:** Evidence of interactions among different religious traditions.
- ✓ **Historical Landscape:** The relationship between the settlement, the Mahanadi River and its natural surroundings.
- ✓ **Significance:** Sirpur provides valuable insights into the region's historical development, religious interactions and cultural heritage.

How Does a Site Become a UNESCO World Heritage Site?

The process generally involves four stages:

1. **Tentative List:** The country identifies sites that may qualify for World Heritage status.
2. **Nomination:** The country submits a detailed nomination dossier.
3. **Evaluation:** The nomination is assessed by the relevant advisory bodies.
4. **Inscription:** The UNESCO World Heritage Committee decides whether to include the site in the World Heritage List.

A site must demonstrate Outstanding Universal Value and meet the applicable criteria to be inscribed on the World Heritage List.

Cultural Artifacts of Keralam

Recently, the PM Mementos e-Auction 2026 highlighted the rich cultural heritage, art, craftsmanship, and performing traditions of Keralam through a distinctive collection of items. Among these are the iconic Chundan Vallam, Nettoor Petti, and the Bhairavan Theyyam Ritual Art Sculpture.

Chundan Vallam

- **War Boat:** Chundan Vallam is a **historic war boat of Kerala**, also known as the **traditional snake boat.**



Agriculture & Allied Sector

Ramesh Chand Committee on Sugarcane Farmers' Issues

In October 2026, the Union Government constituted a committee under Prof. Ramesh Chand, former Member of NITI Aayog, to examine issues raised by sugarcane farmers and recommend measures to address their concerns.

Key Issues Examined by the Committee

- **Remunerative Returns:** Examine demands for higher returns to sugarcane farmers, considering cultivation costs, input prices and other relevant factors.
- **Minimum Selling Price (MSP) of Sugar:** Review the minimum ex-mill selling price of sugar in light of production costs, market realisations, increases in sugarcane Fair and Remunerative Price (FRP), and the financial viability of sugar mills.
  - ✓ The sugar MSP was introduced at Rs.29/kg in June 2018 and increased to Rs.31/kg in February 2019. It has remained unchanged since then.
- **Sugar Recovery:** Review testing and reporting mechanisms to ensure independent verification, accuracy and transparency in determining sugar recovery rates.
- **Cane Weighment:** Examine weighment practices at sugar mills, including calibration, inspection and verification mechanisms, to ensure accurate measurement of sugarcane supplied by farmers.
- **Mechanised Harvesting:** Assess deductions in the weight of mechanically harvested sugarcane, the extent of actual losses and their impact on farmers' payments.

Key Concepts

Fair and Remunerative Price (FRP)

- The minimum price that **sugar mills are legally required to pay farmers for sugarcane**.
- Fixed by the Central Government based on recommendations of the **Commission for Agricultural Costs and Prices (CACP)**, following consultations with State governments and stakeholders.
- **Notified under the Sugarcane (Control) Order, 1966**, issued under the Essential Commodities Act, 1955.

Minimum Selling Price (MSP) of Sugar

- The **minimum ex-mill price below** which sugar mills cannot sell sugar.
- **Intended to support the financial viability** of sugar mills and help them meet their obligations to sugarcane farmers.

State Advised Price (SAP)

- The **sugarcane procurement price** announced by certain State governments.
- It **may be higher than the centrally determined FRP** and reflects State-specific agricultural and economic conditions.

Sugarcane Production in India

- **Global Position:** India is the world's second-largest sugarcane producer.
- **Major Producing States:** Uttar Pradesh and Maharashtra are leading producers, followed by Karnataka and Tamil Nadu.

Banking, Finance & Insurance

Financial Services Institutions Bureau

Recently, the Government of India reconstituted the Financial Services Institutions Bureau (FSIB), which plays an important role in selecting leadership for public sector financial institutions and strengthening their governance.

About FSIB

- **Nature:** An autonomous body of the Government of India under the Department of Financial Services (DFS), Ministry of Finance.
- **Established:** July 2022, replacing the erstwhile Banks Board Bureau (BBB).
- **Chairperson:** A nominee of the Central Government.
- **Composition:** The board includes the Secretaries of the DFS, the Chairperson of the Insurance Regulatory and Development Authority of India (IRDAI), and a Deputy Governor of the Reserve Bank of India (RBI).
- It also includes three part-time members with banking expertise and three from the insurance sector.

Key Functions of FSIB

- **Leadership Selection**: Recommends candidates for appointment as whole-time directors (WTDs) and non-executive chairpersons (NECs) of public sector banks (PSBs), financial institutions (FIs) and public sector insurers (PSIs).
- **Appointment-Related Advice:** Advises the government on appointments, transfers, extensions of tenure

Reports & Indices



National

The Status of Policing in India Report (SPIR) 2026

Recently, the Status of Policing in India Report (SPIR) 2026 on "Cybercrime-Victim Perspectives and Systemic Responses" was released jointly by the Common Cause and Lokniti-CSDS.

Key Findings

- **Divergent National Crime Trend:** Cybercrime surged 17.9% (from 86,420 cases in 2023 to 1,01,928 in 2024 according to NCRB data), sharply contrasting with a 6% decline in overall registered crime nationwide.
- **Pervasive Exposure to Scams:** Fraudulent phone calls were common: 33% received calls regarding unordered deliveries, 31% faced high-return investment scams, and 27% encountered fake bank officials seeking personal account details.
- **Prevalence of Financial Loss:** Approximately 13% of surveyed citizens were direct victims of cybercrime within the last 2-3 years; among them, 54% experienced financial fraud, with 23% losing upwards of Rs. 20,000.
- **Socio-Economic Skew in Fraud:** Financial fraud was higher among privileged groups: 57% of affluent respondents were victims compared to 47% of the poor, and 59% of college graduates were targeted compared to 40% of non-literate citizens.
- **Bribery as an Enforcement Catalyst:** More than a quarter (27%) of complainants paid a bribe to the police; 41% of bribe-payers recovered their full lost money compared to just 12% who did not pay.
- **The Connectivity Tax:** Increased digital inclusion and digital footprint without matching digital literacy make citizens accessible targets for social engineering, delivery scams, and institutional impersonation.

Curbing Cybercrime: Key Recommendations

- **Standardising Automated FIR Registration:** Make online complaint registration through the 1930/NCRP network an automatic, statutory Zero-FIR without requiring discretionary clearance at local police stations.
- **Statutory Mandate for Bank-Police Freezing:** Institutionalize a binding, automated protocol requiring banks and payment gateways to freeze suspicious mule accounts within minutes of a complaint, without manual paperwork.
- **Anti-Corruption Oversight in Cyber Redressal:** Deploy internal vigilance mechanisms, digital tracking of complaints, and independent audits to eliminate demands for bribes during the recovery and return of defrauded funds.

International

Emissions Gap Report 2026

On 13th October 2026, the United Nations Environment Programme (UNEP) released its 17th Emissions Gap Report 2026, titled-The Point of Return.

- The annual **assessment tracks the discrepancy between countries' projected greenhouse gas (GHG) emissions** under their climate pledges and the trajectories required to meet Paris Agreement goals.

Key Findings

- **Inevitable 1.5°C Overshoot:** Inadequate mitigation has made exceeding the 1.5°C threshold without overshoot virtually impossible, requiring focus on minimizing peak warming (1.7-1.8°C by mid-century).
- **Stagnant Global Emissions:** Global GHG emissions remained around 58.4 $GtCO_2e$ in 2025, as rising fossil fuel emissions offset reductions in land-use and wildfire emissions.
- **Widening 2035 Gap:** Current Nationally Determined Contributions (NDCs) leave a **16 $GtCO_2e$ emissions gap**, delivering only 11-15% reductions against the required 45% by 2035.
- **Temperature Projections:** Existing policies lead to **2.8°C** warming by 2100. Full implementation of current pledges limits warming to **2.6°C**, and adding net-zero targets caps it at **2.1°C**.
- **Required Emission Targets:** Limiting warming requires global emissions (relative to 2025) to drop **18% by 2030**, **45% by 2035**, and **69% by 2040**.



Space

Aditya-L1 Generates Doppler Velocity Images of Solar Corona

In October 2026, scientists at the Indian Institute of Astrophysics (IIA), Bengaluru, reported generating Doppler velocity images of the solar corona using observations from the Visible Emission Line Coronagraph (VELC) aboard ISRO's Aditya-L1 mission.

Key Scientific Developments

- **Doppler Velocity Mapping:** Researchers developed a data-processing technique to measure the line-of-sight velocity of solar plasma by analysing Doppler shifts in the green coronal emission line at 530.3 nanometres.
- **Tracking Plasma Movement:** Negative Doppler velocities indicate plasma moving towards the observer, while positive velocities indicate movement away from it.
- These measurements provide directional information unavailable from conventional images alone.
- **VELC's Capabilities:** Developed by IIA in collaboration with ISRO, VELC combines imaging and spectroscopy to study the solar corona, including plasma dynamics, temperature and the evolution of Coronal Mass Ejections (CMEs).

Significance

- **Space Weather Forecasting:** The observations can improve understanding of Earth-directed CMEs, which may trigger geomagnetic storms affecting satellites, navigation systems, communication networks and power infrastructure.
- **Solar Research:** The technique provides additional observational constraints for modelling CME propagation and understanding the physical processes governing solar eruptions.
- The development offers a new capability to study the movement of solar plasma and the direction of CMEs.

New Insights into Binary Supermassive Black Hole System OJ 287

On 6th October 2026, the Department of Science and Technology (DST) highlighted a decade-long international study of the blazar OJ 287, coordinated by the Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital.

What Makes OJ 287 Unique?

- **Binary Black Hole System:** Located approximately four billion light-years from Earth, OJ 287 contains two supermassive black holes orbiting each other roughly every 12 years.
- **Blazar Characteristics:** OJ 287 is an active galactic nucleus whose relativistic plasma jet points towards Earth, producing intense and rapidly varying electromagnetic radiation.
- **Periodic Outbursts:** Its distinctive double-peaked brightness variations provide clues about the orbital dynamics of the two black holes.

What Did the Decade-Long Observations Reveal?

- **Extensive Monitoring:** Between 2015 and 2025, 106 scientists from 48 institutions used approximately two dozen telescopes to assemble an exceptionally detailed optical dataset.
- **Black Hole Mass:** Spectroscopic observations estimated the central black hole's mass at a minimum of 3.89 billion solar masses.
- **Emission Behaviour:** Researchers identified a persistent tendency for the blazar to become bluer as its brightness increased, improving understanding of radiation from relativistic jets.

Why Does the Discovery Matter?

- The findings strengthen OJ 287's value as a laboratory for studying binary black hole dynamics and multimessenger astronomy, particularly the potential relationship between electromagnetic observations and gravitational-wave signals.

Indian Scientists Identify Martian Analogue Sites

On 16th October 2026, the Department of Science and Technology (DST) announced that researchers from the University of Kerala had identified Martian analogue sites in Tamil Nadu and Chile's Atacama Desert. The findings could improve understanding of Mars' geological history and past habitability.



Biodiversity

Global Gaps in Ecosystem Restoration Efforts

On 29th October 2026, the United Nations Environment Programme (UNEP) launched *Nature's Comeback: Scaling Ecosystem Restoration for People and Planet* at CBD COP17 in Yerevan, Armenia.

- **Launch Partners:** Food and Agriculture Organization of the United Nations (FAO), and the Secretariat of the Convention on Biological Diversity (CBD).

Where Is Ecosystem Restoration Falling Behind?

- **Implementation Gap:** Documented restoration covers roughly one-third of the estimated 738-million-hectare benchmark associated with Target 2 of the Kunming-Montreal Global Biodiversity Framework.
- **Uneven Progress:** Terrestrial restoration has reached 49% of its estimated target, compared with only 4.5% for freshwater and 23% for marine and coastal ecosystems.
- **Monitoring Deficiencies:** Limited reporting on aquatic restoration obscures actual progress and complicates evidence-based conservation planning.

What Must Change to Meet the 2030 Targets?

- **Restoration Finance:** Annual investment must increase more than fourfold, from $64 billion to $296 billion by 2030.
- **Restoration Economies:** The report advocates moving beyond isolated projects towards economically sustainable restoration integrated with agriculture, livelihoods and natural-resource management.
- **Community Participation:** Secure land tenure, Indigenous knowledge and meaningful community involvement are essential for lasting ecological recovery.

UN Decade on Ecosystem Restoration

- Declared by the UN General Assembly for **2021-2030**; **led by UNEP and FAO**.
- Aims to **prevent, halt and reverse ecosystem degradation** worldwide.
- **Target 2** of the Kunming-Montreal Global Biodiversity Framework seeks effective restoration of at least **30%** of degraded ecosystems **by 2030**.
- The Decade recognises exemplary initiatives as **UN World Restoration Flagships**.

CBD COP17: India Releases Guidelines for Conservation Beyond Protected Areas

On 28th October 2026, Union Environment Minister released the *Guidelines for the Designation of India's Other Effective Area-Based Conservation Measures (I-OECMs) 2026* at the 17th Conference of the Parties (COP17) to the Convention on Biological Diversity (CBD) in Yerevan, Armenia.

- The guidelines **seek to recognise biodiversity conservation** beyond conventional protected areas.

What Are Other Effective Area-Based Conservation Measures?

- **Conservation Beyond Protected Areas:** OECMs are geographically defined areas outside formally designated protected areas that deliver sustained, long-term biodiversity conservation outcomes.
- **Diverse Governance:** They may be managed by governments, local communities, Indigenous peoples or private entities, including for purposes other than biodiversity conservation.
- **Potential Landscapes:** Community-managed forests, sacred groves and sustainably managed agricultural or marine landscapes may qualify, provided they meet prescribed conservation criteria.

How Will the Guidelines Strengthen Biodiversity Conservation?

- **Recognition of Local Stewardship:** The framework offers opportunities to recognise conservation contributions by communities and institutions outside conventional wildlife protection systems.
- **Supporting the 30×30 Target:** OECMs can complement protected areas in achieving Target 3 of the Kunming-Montreal Global Biodiversity Framework.
- **Implementation Challenges:** Credible identification, ecological monitoring, equitable governance and protection of community rights will be essential to prevent ineffective conservation claims.



Bilateral Relations

India & Mexico Launch Negotiations for Preferential Trade Agreement

On 28th October 2026, India and Mexico formally launched negotiations for a Preferential Trade Agreement (PTA) by signing the Terms of Reference (ToR) in Mexico City.

- The **initiative follows an understanding** reached between Indian Prime Minister and Mexican President during the **G7 Summit in June 2025**.

Key Features of the Proposed Agreement

- **Negotiation Framework:** The ToR establishes the scope, procedures and roadmap for negotiations, covering market access, rules of origin, customs facilitation and dispute settlement.
- **Trade Regulations:** Discussions will also address sanitary and phytosanitary measures, technical barriers to trade and trade remedies.
- **Priority Sectors:** Automobiles, pharmaceuticals, electronics, chemicals, critical minerals, energy and advanced manufacturing offer significant cooperation opportunities.
- **Business Engagement:** Both countries discussed a proposed Mexican business delegation to India in early 2027.

Why Is the Agreement Important for India?

- **Tariff Challenges:** Mexico introduced tariffs of up to 50% on several imports from countries without trade agreements, including India, effective January 2026.
- **Market Diversification:** Preferential access could strengthen Indian exports and integration with North American supply chains.

India–Poland Ties: Trade Target Set for 2030

On 22nd October 2026, Indian Prime Minister and his Polish counterpart held bilateral talks in New Delhi, agreeing to expand cooperation in defence, emerging technologies, critical minerals and connectivity.

- The leaders reaffirmed the **Strategic Partnership established in August 2024** and set a target of doubling bilateral trade by 2030.

Important Outcomes

- **Trade and Investment:** Both countries agreed to strengthen industrial cooperation, diversify supply chains and expand business opportunities, particularly in manufacturing, pharmaceuticals and infrastructure.
- **Defence Cooperation:** The leaders announced the establishment of a Defence Industry Dialogue to facilitate technology transfer, co-development and co-production, building on existing defence-industry engagement.
- **Emerging Technologies:** Cooperation will expand in artificial intelligence, semiconductors, quantum technologies and cybersecurity, alongside discussions on an India–Poland StartUp Bridge.
- **Critical Minerals and Connectivity:** Both sides identified opportunities in rare-earth refining, battery recycling, maritime connectivity and the India–Middle East–Europe Economic Corridor (IMEC).

What Does the Partnership Mean for India?

- **European Market Access:** Poland's location and industrial capabilities could strengthen India's economic engagement with Central and Eastern Europe.
- **Strategic Convergence:** Poland reiterated support for India's membership of a reformed United Nations Security Council and its candidature for a non-permanent seat in 2028–29.
- **Climate Cooperation:** Poland joined the Coalition for Disaster Resilient Infrastructure (CDRI).

India–New Zealand FTA Comes into Force

On 20th October 2026, the India–New Zealand Free Trade Agreement (FTA) entered into force, strengthening bilateral economic cooperation through tariff liberalisation, investment commitments and greater mobility opportunities.

- **Signed on 27th April 2026**, the agreement seeks to expand bilateral trade and deepen India's economic engagement with the Indo-Pacific.

What Are the Key Provisions of the FTA?

- **Duty-Free Market Access:** New Zealand has eliminated tariffs on 100% of Indian exports, benefiting textiles, leather, footwear, engineering goods, pharmaceuticals and processed foods.
- **Reciprocal Concessions:** India will reduce or eliminate tariffs on selected New Zealand goods, subject to agreed schedules and exclusions, while protecting sensitive sectors such as dairy.



Global Groupings

Quad Members Strengthen Economic & Maritime Cooperation

On 31st October 2026, the Foreign Ministers of the Quadrilateral Security Dialogue (Quad)—India, Australia, Japan and the United States-met in Atlanta, USA, on the sidelines of the G20 Foreign Ministers' Meeting.

- They issued a joint statement on economic prosperity and security, reaffirming their commitment to a free and open Indo-Pacific.

Key Outcomes

- **Economic Coercion:** The ministers expressed grave concern over arbitrary export restrictions and non-market practices disrupting global supply chains, particularly in critical industries.
- **Critical Minerals:** They welcomed a US commitment of $10 million to support critical-mineral recovery facilities in India and ASEAN countries.
- **Artificial Intelligence:** The Quad announced its intention to provide over $85 million in technical and financial assistance to expand access to trusted artificial intelligence across the Indo-Pacific.
- **Technology Cooperation:** Members agreed to identify semiconductor supply-chain vulnerabilities and strengthen cooperation in trusted 5G and 6G networks.
- **Maritime Security:** They reaffirmed freedom of navigation in the Strait of Hormuz, Red Sea and Bab el-Mandeb, and discussed maritime-security cooperation, including exercises and information sharing.
- **Economic Partnership:** The first Quad Business Leaders' Forum was announced to promote commercial cooperation.

What Are India's Strategic Interests?

- **Supply-Chain Resilience:** Diversification of critical-mineral and technology supply chains could reduce strategic dependence on concentrated suppliers.
- **Maritime Cooperation:** Greater maritime-domain awareness and interoperability support India's Indo-Pacific security interests.

13th ADMM-Plus Prioritises Youth and Security

On 29th October 2026, the 13th ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus) was held in Cebu, Philippines, under the chairmanship of Philippine Defence Secretary. The meeting brought together ASEAN members and eight dialogue partners to strengthen regional defence cooperation.

Major Highlights

- **Youth, Peace and Security:** A joint statement called for greater youth participation in peacebuilding, conflict prevention and security-related decision-making.
- **Capacity Building:** Members committed to developing young defence professionals' skills and incorporating youth-related priorities into Experts' Working Groups (EWGs) for the 2027-2030 cycle.
- **Regional Security:** Ministers exchanged views on regional and international security challenges, reaffirming the importance of dialogue and practical cooperation.
- **Institutional Cooperation:** New EWG co-chairs were welcomed for the 2027-2030 cycle, while Singapore assumed the next ADMM-Plus chairmanship for 2027.

What Was India's Position?

- **Counterterrorism:** India's Defence Minister emphasised intelligence-sharing, joint exercises and capacity-building against terrorism.
- **Indo-Pacific Security:** India reiterated its support for ASEAN centrality and a free, open, inclusive and rules-based Indo-Pacific.

ADMM-Plus

- **Established in 2010**; inaugural meeting held in Hanoi, Vietnam.
- **Comprises 11 ASEAN mem**bers and eight dialogue partners: India, Australia, China, Japan, New Zealand, Russia, South Korea and the United States.
- **India and Malaysia co-chair** the EWG on Counter-Terrorism for 2024-2027.

25th SCO Heads of Government Meeting

On 20th October 2026, the 25th Meeting of the Council of Heads of Government (CHG) of the Shanghai Cooperation Organisation (SCO) concluded in Dushanbe, Tajikistan.

- Representing India, Defence Minister Rajnath Singh called for collective action against terrorism while emphasising economic cooperation, regional connectivity and respect for national sovereignty.

News Through MAPS



VENEZUELA

Recently, U.S. Secretary of State Marco Rubio held trilateral talks in Mumbai with Indian External Affairs Minister and UAE Foreign Minister, pitching U.S. and Venezuelan crude supplies to India.



Venezuela: Key Facts

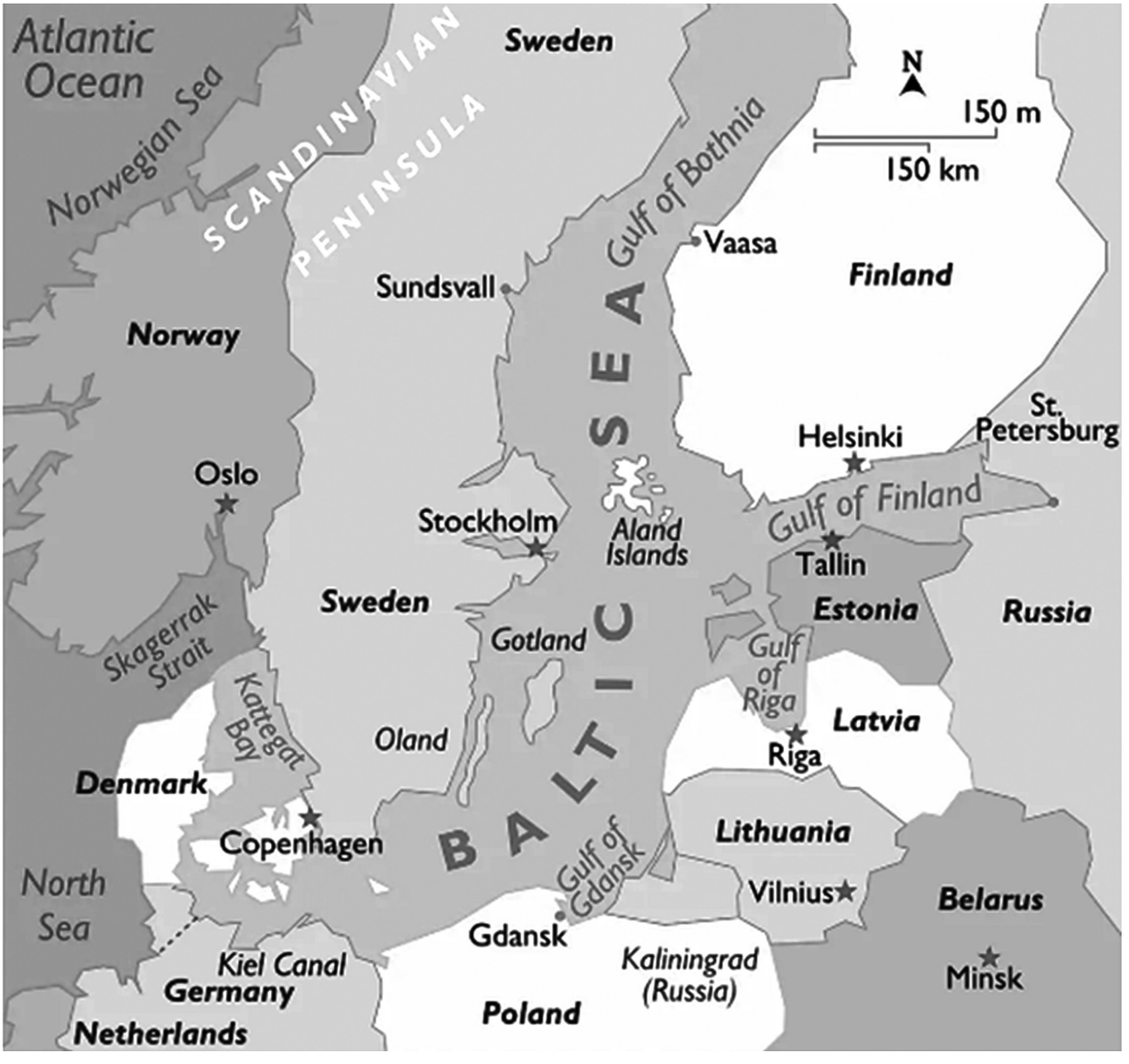
- **Location:** Situated at the northern end of South America, bounded by the Caribbean Sea and the Atlantic Ocean to the north.
- Border Nations: Guyana, Brazil, and Colombia.
- **Major Oil-Bearing Regions:**
  - ✓ ***Orinoco Heavy Oil Belt (Faja Petrolífera del Orinoco):*** An extensive region along the Orinoco River containing some of the planet's largest deposits of extra-heavy crude.
  - ✓ ***Lake Maracaibo Basin:*** Located in the northwest, forming South America's largest lake and serving as one of the country's historic petroleum extraction basins, marked by extensive derrick and offshore pump installations.

Geographic Features

- **Angel Falls:** Located on Auyán-tepui in the Guiana Highlands, Angel Falls (979 m) is the world's highest uninterrupted waterfall, renowned for its dramatic vertical plunge.
- **Flat-Topped Tepuis:** Southeastern Venezuela features ancient sandstone tablelands called tepuis, including Mount Roraima, supporting isolated ecosystems with high biodiversity and endemism.
- **LlanosSavanna Ecosystem:** The Orinoco River Basin encompasses vast tropical grasslands called Llanos, experiencing seasonal flooding during wet months and drought during dry months.
- **Casiquiare Canal Drainage:** The Casiquiare River forms a rare natural bifurcation, connecting the Orinoco Basin with the Amazon Basin through the Rio Negro.

THE BALTIC SEA

Recently, the Nordic Council Committee for a Sustainable Nordic Region announced new joint initiatives to combat persistent eutrophication, oxygen-depleted seabeds, and critical fish stock declines in the Baltic Sea.



About Baltic Sea

- **Location:** Located in Northern Europe, extending from southern Denmark toward the Arctic Circle, separating Scandinavia from continental Europe and connecting to the North Sea through the Danish straits.
- **Bordering Countries:** Bordered by nine countries: Denmark, Sweden, Finland, Russia, Estonia, Latvia, Lithuania, Poland and Germany, making it a strategically important European waterbody.
- **World's Largest Brackish Water Body:** Receives substantial freshwater from rivers such as the Vistula and Oder, resulting in low salinity ranging from approximately 10‰ to below 3‰.
- **Post-Glacial Origin:** Evolved following the retreat of Pleistocene glaciers, passing through the Yoldia Sea and Ancylus Lake stages, with continuing post-glacial land uplift.
- **Winter Ice and Weak Tides:** Experiences minimal tidal variation and extensive winter ice formation, particularly in the Gulfs of Bothnia and Finland, sometimes producing large pressure ridges.
- **Contrasting Coastal Landscapes:** Northern coasts feature rocky skerries and archipelagos, while southern shores contain sandy spits, dunes and lagoons, including the Curonian and Vistula lagoons. ■■



India Watch

MHA Launches Portal on Demographic Changes in India

On 14th September 2026, the Ministry of Home Affairs(MHA) launched a portal inviting citizens, government agencies, NGOs, etc. to submit their input on demographic changes in India, preferably post-2011.

- The inputs will help the Committee analyse demographic shifts and recommend a permanent mechanism for the legal, fair, and time-bound identification, detention, and deportation of illegal immigrants residing in the country.
- MHA constituted the High-Level Committee on Demographic Changes on May 26, 2026, to examine challenges arising from demographic changes, including those linked to illegal immigration, and recommend appropriate policy and institutional measures.

Indian Cyber Crime Coordination Centre (I4C)

Recently, the Indian Cyber Crime Coordination Centre (I4C) warned of a rise in financial fraud involving deceptive advertisements that use manipulated videos of the Prime Minister, the finance minister, and chief ministers to promote fake government welfare schemes.

- I4C has been established under the Ministry of Home Affairs (MHA) to act as a nodal point at the National level in the fight against cybercrime.
- The I4C was dedicated to the nation on 10th January 2020.
- It is designed to provide a framework and ecosystem for law enforcement agencies (LEAs) to deal with cybercrime in a coordinated and comprehensive manner.
- I4C brings together academia, industry, public, and government in the prevention, detection, investigation, and prosecution of cybercrimes.

SUVIKALP Tool

Recently, SUVIKALP received national recognition through the SKOCH Gold Award 2026 under the category "Digital Operational Efficiency – Data Driven Decision Making".

- SUVIKALP Tool is an in-house Mine Repurposing Tool.
- It is developed by the Coal Controller Organisation (CCO), under the Ministry of Coal.
- It assists stakeholders in selecting suitable mine repurposing projects through a structured and data-driven decision-making process.
- The tool evaluates and ranks repurposing projects based on multiple technical, environmental, social and economic criteria.
- Once a suitable project is identified, users can explore implementation pathways through PRISM (Post-Mining Repurposing Implementation Strategy Model).

Pashudhan Bima Portal

Recently, Union Minister for Fisheries, Animal Husbandry and Dairying launched the Pashudhan Bima Portal in New Delhi.

- It is a centralized, single-window e-governance portal designed to digitize and manage the entire lifecycle of livestock insurance, ranging from farmer application submission and policy underwriting to grievance redressal, claim verification, and payout processing.
- The portal has been developed and administered by the Department of Animal Husbandry and Dairying (DAHD).
- It brings livestock farmers, State Animal Husbandry Departments, insurers and veterinary officers onto a common digital platform, enabling coordinated insurance administration.
- It digitises the entire insurance cycle, from applications and premium calculation to policy issuance, death claims and post-mortem certification, reducing paperwork and delays.

CRAS Ayurshodh

Recently, National Commission for Indian System of Medicine (NCISM) launched CCRAS Ayurshodh 2026 of the Central Council for Research in Ayurvedic Sciences (CCRAS).

- **CCRAS Ayurshodh:** It provides a platform for PG and PhD scholars to recognise and encourage research contributions in Ayurveda across three categories -
- **CCRAS-Prabodh 3MT:** Communication of research through three-minute thesis presentations.

UPSC PRELIMS SPECIAL

GEOGRAPHY

(Covering Syllabus-Oriented & PYQ-Based Topics)

GEOMORPHOLOGY: EARTH & ITS STRUCTURE

Origin of Life on Earth

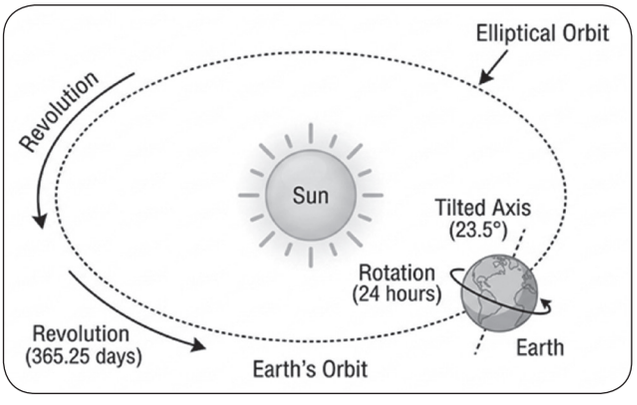
The Earth originated approximately 4.6 billion years ago under the **Nebular Hypothesis**. The early Earth was hot and composed of gases such as methane and ammonia.

Stages of the Origin of Life

- **Archean Eon (3.8 billion years ago):** Development of the first unicellular organisms (cyanobacteria/ stromatolites) in the oceans. This began with chemosynthesis.
- **Proterozoic Eon (2.5 billion years ago):** The **Great Oxidation Event** via photosynthesis. Increase in oxygen levels and the rise of multicellular organisms.
- **Phanerozoic Eon (541 million years ago):** Expansion of complex life and vast biodiversity following the **Cambrian Explosion**.

Earth's Rotation, Revolution, Tilt, Axis, and Orbit around the Sun

- **Axis:** An imaginary line connecting the Earth's North and South Poles.
- **Axial Tilt:** Earth's axis is not perpendicular to its orbital plane; it is tilted at **23.5°** (forming an angle of 66.5° with the orbital plane).
- **Rotation:** The movement of the Earth on its axis from West to East. It takes approximately 24 hours, which causes day and night.
- **Orbit:** The fixed elliptical path of the Earth around the Sun.
- **Revolution:** Completing one full orbit around the Sun along its elliptical path, taking 365¼ days.
- **Combined Effect:** The joint effect of Earth's annual revolution and its 23.5° axial tilt causes the change of seasons on Earth.



Changes in Earth's Rotation

Earth's rotational speed is not completely constant; it undergoes continuous micro-changes.

- **Tidal Friction:** Oceanic tides caused by the gravitational pull of the Moon create friction, gradually slowing down Earth's rotation.
- **Melting of Polar Ice:** Climate change melts glaciers, causing additional water to move toward the Equator. This redistribution of mass (conservation of angular momentum) slows the rotation speed.
- **Seismic Activity:** Large-scale earthquakes can displace mass and momentarily increase rotational speed.

STATE WATCH



In this section, we have briefly presented the schemes and programs started by various states, meetings and conferences organized at the state level, latest reports released by the state governments and other major developments from which questions are often asked in state-specific competitive examinations.

Andhra Pradesh

India's First 3D-Printed Rural Housing Project

On October 4, 2026, Union Minister for Rural Development Shivraj Singh Chouhan launched the country's first 3D-printing-based rural housing pilot project in Guntur district, Andhra Pradesh.

- **Distribution of Houses:** At a cost of Rs. 13.93 crore, 100 standard houses will be constructed in Burripalem and 77 disability-friendly houses in Obulanaidupalem.
- **PMAY-G 2.0:** The project has been launched under the Pradhan Mantri Awaas Yojana-Gramin (PMAY-G) 2.0, which aims to provide *pucca* (permanent) houses to eligible families in rural areas.
- **3D Printing Technology:** The process uses a computer-controlled machine to deposit layers of special concrete to construct the walls of the houses, a technique known as 3D Concrete Printing (3DCP).
- **Technical Collaboration:** CSIR-Central Building Research Institute (CBRI), Roorkee, will provide assistance in house design, construction materials, and technical testing.

Bihar

India-New Zealand Rugby Series to Mark 100 Years of Sports Relations

The **India-New Zealand Under-20 Rugby Series** was held in Rajgir, Bihar, from October 23 to 28, 2026. This event was organized to commemorate 100 years of sports relations between the two nations.

- **Venue & Participants:** The series took place at the State Sports Academy complex in Rajgir, Bihar. Both Under-20 men's and women's teams from India and New Zealand participated.
- **Historic Participation:** This marked the first time that New Zealand's Under-20 rugby teams traveled to India for a series of this kind. The visiting squads included a total of 24 young Māori players.

Nalanda University and CSIR-TKDL Sign MoU for Traditional Knowledge Research

Nālandā University (NU) and the CSIR-Traditional Knowledge Digital Library (CSIR-TKDL) Unit signed an MoU to collaborate on Traditional Knowledge (TK), IPR, and Cultural Heritage, including Traditional Cultural Expressions (TCEs).

- **Key Focus:** Promotes documentation and preservation of ecological knowledge, folklore, and Indian Knowledge Systems (IKS), with special emphasis on Bihar's heritage.
- **Academic Exchange:** Facilitates joint research, youth training, student internships, and capacity-building programs on Intellectual Property Rights (IPR).
- **Policy Alignment:** Directly aligns with the goals of National Education Policy (NEP) 2020 and National IPR Policy 2016.

Arunachal Pradesh

Himalayan Peatland Workshop

On 9th October 2026, a workshop to raise awareness about the ecological significance of Himalayan peatlands and promote scientific research, collaborative conservation efforts and sustainable environmental practices was held at the IIM Shillong Satellite Centre in Tawang.

- The workshop "Indian Himalayan Peatlands: Conserving Nature's Carbon Stores for a Safer Planet" was organised by the Zoological Survey of India, in collaboration with the National Mission on Himalayan Studies, under the Ministry of Environment, Forest and Climate Change.

Chandigarh

4th Conference of Science & Technology Clusters

On October 9-10, 2026, the **4th Conference of Science and Technology Clusters** was held at Panjab University, Chandigarh. It was chaired by Prof. Ajay Kumar Sood, Principal Scientific Adviser (PSA) to the Government of India.

- **Organizer & Objective:** The conference was hosted by the PU-IIT Ropar Regional Accelerator for Holistic Innovations (PI-RAHI). Its objective was to enhance collaboration and technology transfer among all eight Science & Technology clusters.

Exam Pointers

Based on October 2026 issues of Yojana, Kurukshetra and Down To Earth

In this section, we are presenting a compilation of exam-oriented study material sourced from various magazines published by the Government of India. It has been prepared keeping in mind the exam-specific needs of the candidates.



Yojana

25 Years of Leadership

- Prime Minister Shri Narendra Modi has completed 25 years in executive leadership in public life, first as the Chief Minister of Gujarat (since 2001) and subsequently as the Prime Minister of India (since 2014, continuing into his third consecutive term).
- The experiment of **Agricultural and Domestic Feeder Separation**, initiated in Gujarat with an initial loan of Rs.10 crore from the Mehsana District Cooperative Bank, was subsequently implemented across the state at a cost of Rs.1,000 crore.
- Gujarat **transformed its 80% dependence on groundwater** for drinking water into 80% dependence on surface water through the Narmada Canal Grid and pipeline network.

Citizen-Centric Governance: 25 Years of Public Service

- The **Karmayogi Abhiyan** was launched in Gujarat to build the overall capacities of teachers and promote human values. Approximately 80,000 teachers participated in the initiative.
- To promote the multidimensional personality development of students in higher education, initiatives such as **Sapt Dhara** (music, dance, theatre, yoga, arts, service, etc.) and the **Knowledge Consortium of Gujarat (KCG)** were implemented.
- Under the Swachh Bharat Mission launched in 2014, community participation models from tribal districts such as Porbandar and Dang received national recognition through *Mann Ki Baat*.
- The **Aspirational Districts Programme** adopted data-driven monitoring, convergence and competitive federalism as key pillars for the rapid transformation of historically backward regions.

Progress, Prosperity and Citizen-Centric Governance

- On 24 February 2024, Prime Minister Narendra Modi dedicated the **Sudarshan Setu**, connecting Okha mainland with Beyt Dwarka Island in Gujarat, to the nation.
- The **Gujarat Administrative Reforms Commission (GARC)** was established in 2025 to review administrative processes and make them outcome-oriented. It has submitted six reports so far.
- Modelled on NITI Aayog, the **Gujarat State Institution for Transformation (GRIT)** was established in 2024. It has prepared Regional Economic Master Plans for six major economic sectors.
- Under the **Pradhan Mantri Jan Arogya Yojana–Mukhyamantri Amrutam (PMJAY-MA)**, the treatment assistance amount has been increased from Rs.5 lakh to Rs.10 lakh, and more than 2.92 crore Ayushman Cards have been issued in the state.

Nuclear Churning for a Developed India

- India's nuclear programme and policy have been based on **two objectives**: meeting clean energy requirements and ensuring a credible deterrent capability for national security.
- India conducted its first **Peaceful Nuclear Explosion (PNE)** at Pokhran, Rajasthan, in 1974. Subsequently, the Pokhran-II underground nuclear tests conducted from 11–13 May 1998 demonstrated India's strategic nuclear capability on the global stage.
- The recently passed **Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act** aims to increase India's nuclear energy capacity to 100 GW by 2047, in alignment with the target of achieving net-zero carbon emissions by 2070.
- The **SHANTI Act establishes a new legal and licensing framework** for nuclear power generation and regulation, including Artificial Intelligence-enabled safety mechanisms, while ensuring active participation of both the public and private sectors.

News Notes

In general competitive examinations, a large number of questions are asked from appointments, awards, military exercises, summits & conferences, important days, etc. for which coverage of current events in a concise form is sufficient. Keeping this in mind, we have presented these contemporary developments in a brief form in this section.



Appointments

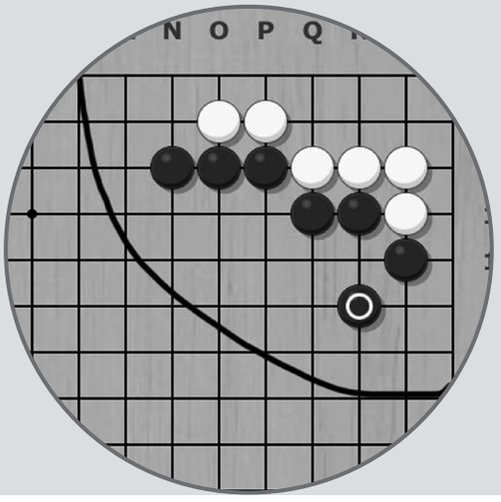
Person	Brief Description
Sunil Kumar	• He will succeed Arun Kumar Singh as Chairman of Oil and Natural Gas Corporation (ONGC), whose tenure ends on December 6, 2026.
Anup Bagchi	• He has been appointed as the Managing Director and Chief Executive Officer (MD & CEO) of HDFC Bank.
Air Marshal Ashutosh Dixit	• He became the 29th Chief of the Air Staff on October 6, 2026, succeeding Air Chief Marshal Amar Preet Singh. He has participated in major military operations, including Operation Safed Sagar, Operation Rakshak and Operation Sindoor.
Jeevan L. Rai	• Appointed as the coach of the Indian para-shooting contingent for the upcoming Asian Para Games, replacing Jai Prakash Nautiyal.
Sudhakar Dalela	• Appointed as India's next Ambassador to Nepal.
Justice Sunita Agarwal	• Appointed as a Supreme Court judge; previously served as Chief Justice of the Gujarat High Court.
Justice Devendra Kumar Upadhyaya	• Appointed as a Supreme Court judge; previously served as Chief Justice of the Delhi High Court.
Justice Aparesh Kumar Singh	• Appointed as a Supreme Court judge; previously served as Chief Justice of the Telangana High Court.

Obituary

Personality	Brief Profile / Key Contributions
Claude Cohen-Tannoudji	• French physicist who developed techniques for cooling atoms to temperatures just above absolute zero using laser light. He received the 1997 Nobel Prize in Physics for his work on laser cooling and trapping of atoms.
Nana Patekar	• He won three National Film Awards, including Best Actor for Krantiveer, and received the Padma Shri (2013). In 2015, he co-founded the Naam Foundation with actor Makarand Anaspure to support drought-affected farmers in Maharashtra.
Vummidi Ethiraj	• He crafted the historic Sengol, a gold-plated silver sceptre presented to India's first Prime Minister, Jawaharlal Nehru, in 1947.
Guruvayur Dorai	• Renowned Indian Mridangam maestro from Keralam and recipient of the Padma Shri (2025) for his contribution to Indian classical music.
Roshan Kumari	• Eminent Kathak dancer belonging to the Jaipur Gharana. She received the Sangeet Natak Akademi Award (1976) and Padma Shri (1984).
Jogen Chowdhury	• Eminent Indian painter who lived and worked in Santiniketan, West Bengal. He received the Banga Bibhushan (2012) for his contribution to art and culture.
Neeraj Yadav	• Indian para-athlete and three-time Asian Para Games gold medallist. He won gold in javelin throw at the 2018 Asian Para Games and two gold medals in javelin and discus throw at the 2022 Asian Para Games.

Terms in Vogue

In the last few years, the trend of asking questions from popular terminologies has increased in competitive examinations. Accordingly, there is a need for special study of the terms discussed in the contemporary context. Keeping this in mind, we are presenting relevant content in this section.



Girdling

- Girdling is a commonly used habitat and forest management technique that deadens a tree without felling it for a specific purpose.
- Girdling involves the removal of bark and cambium from the target tree using continuous and connected cuts that completely encircle the entire tree.
- It destroys the cambium so no growth can occur and disrupts the flow of water and nutrients in the tree.
- As a result, roots are starved of nutrients, and the plant cannot grow more stems and foliage.
- Girdling is often used to control or eradicate large woody species where physical removal of woody biomass would be undesirable, unpopular, or cost prohibitive.

PHP2Shell

- PHP stands for Hypertext Preprocessor.
- It is an open-source programming language that is free to use.
- PHP works behind the scenes to process information, such as logins, application submissions and online purchases.
- PHP2Shell refers to **two critical vulnerabilities** in PHP that could allow attackers to execute malicious code on affected web servers remotely without logging in.
- Attackers could install malware, remove website content, access sensitive information, passwords or login credentials, and interfere with server operations.

Diamondiyne

- It is a newly synthesized, three-dimensional carbon allotrope.
- It consists of a three-dimensional network of carbon atoms that resembles a diamond but with a more open structure.
- It is created using relatively inexpensive equipment, with the material forming as a thin film where two liquids meet.
- The researchers describe diamondiyne as a carbo-mer of diamond: diyne units are inserted between carbon centres in the diamond-topology network, expanding the structure.
- Structure
- Diamondiyne crystallizes with the carbon atoms arranged as tetrahedra connected corner to corner in all three dimensions.
- It preserves the overall diamond-like topology but incorporates carbon atoms with different bonding arrangements.

Swyer Syndrome

- It is a rare difference of sex development, medically known as 46, XY complete gonadal dysgenesis.
- It is a rare genetic condition where individuals have one X and one Y chromosome in each cell (typically associated with males) but develop female reproductive structures.
- It is characterized by the failure of the sex glands (i.e., testicles or ovaries) to develop.
- It results from disruption of the genetic pathway involved in testicular development during early embryonic development.

Surtseyan Eruption

- A Surtseyan eruption is a type of volcanic eruption that takes place in shallow seas or lakes. It is named after the island of Surtsey off the southern coast of Iceland.
  Study Geology
- Surtseyan eruptions typically occur in shallow bodies of water, such as lakes or oceans. When magma rises close to the surface of the water, it can come into contact with the water and cause it to flash to steam.
- The sudden increase in volume of the steam can cause an explosion, which can fragment the magma into small pieces.
- These pieces of magma, called tephra, can be ejected into the air, forming an ash column.
- Examples of Surtseyan eruptions include the eruption of Stromboli in Italy, the eruption of Kameni in Greece, and the eruption of White Island in New Zealand.■■

Sports in News

Based on recent developments in the world of sports



Sports Events

Asian Para Games 2026

- The 5th Asian Para Games were hosted from October 18–24, 2026, in Aichi-Nagoya, Japan, under the motto *"Imagine One Heart.*
- **Mascot: "UZUMIN"** (combining the Japanese words *Uzu* [whirlpool] and *Izumi* [spring], inspired by water).
- India achieved 4th place with a record 114 medals.
- Two-time gold medalists Nishad Kumar (Para Athletics) and Mona Agarwal (Para Shooting) served as flag bearers at the closing ceremony.
- The 6th Asian Para Games will be hosted in Doha, Qatar, in 2030–31.

Top 4 Medal Tally

1. **China:** 207 Gold, 117 Silver, 111 Bronze (Total: 435)
2. **Japan:** 64 Gold, 60 Silver, 62 Bronze (Total: 186)
3. **Uzbekistan:** 45 Gold, 49 Silver, 51 Bronze (Total: 145)
4. **India:** 30 Gold, 35 Silver, 49 Bronze (Total: 114)

Asian Games 2026

- The 20th Asian Games took place from September 19 to October 4, 2026, in Aichi-Nagoya, Japan, under the theme *"Imagine One Asia."*
- India delivered its second-best performance, placing 4th with 85 medals.
- Manu Bhaker and Pawan Sehrawat led the Indian contingent as opening ceremony flag bearers, while dual gold medalist Neeru Dhanda held the tricolor at the closing ceremony.
- **Historic Milestones:** Kumkum Mohod won gold in Women's Recurve Archery; Pranavi Urs won India's first gold in Women's Individual Golf; Neeru Dhanda bagged two shooting golds; Lovlina Borgohain secured boxing gold; Gulveer Singh earned three athletic medals; and Mirabai Chanu bagged weightlifting silver—India's first in the sport since 1998.
- **Team Sports Domination:** Both Men's and Women's Hockey teams clinched gold (the women ending a 44-year drought; men defending their title), sealing spots for the LA 2028 Olympics. Both Men's and Women's teams won gold in Kabaddi (2 golds) and Cricket (2 golds).
- **Next Edition:** The 21st Asian Games will be held in Doha, Qatar, in 2030–31.

Top 4 Medal Tally

1. **China:** 169 Gold, 89 Silver, 83 Bronze (Total: 341)
2. **Japan:** 83 Gold, 95 Silver, 91 Bronze (Total: 269)
3. **South Korea:** 39 Gold, 43 Silver, 68 Bronze (Total: 150)
4. **India:** 21 Gold, 27 Silver, 37 Bronze (Total: 85)

Commonwealth Kabaddi Championship 2026

- Commonwealth Kabaddi Championship 2026 was held in Ahmedabad, Gujarat.
- India secured a double gold with both teams finishing undefeated. The Indian women's team defeated Uganda, while the men's team overcame Sri Lanka in their respective finals.

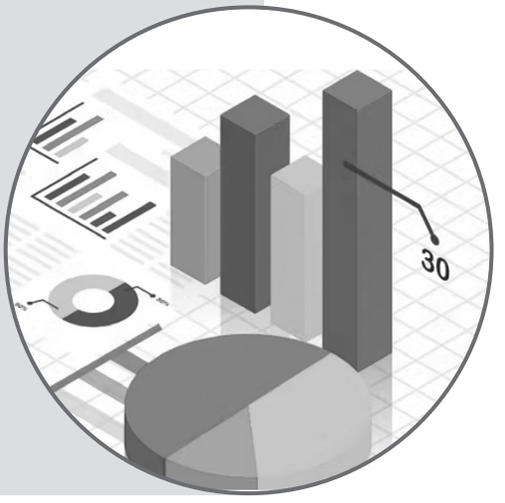
Sportspersons in the News

- **Manisha Bhanwala:** First Indian woman wrestler to win World Championship gold (Astana, Kazakhstan); second Indian overall after Sushil Kumar (2010).
- **Harry Brook:** Scored the fastest double century in men's ODIs (200 in 114 balls; finished 202 off 116) against Sri Lanka in Rawalpindi, breaking Shubman Gill's record (117 balls) and becoming England's first male ODI double-centurion.
- **Shubman Gill & Shafali Verma:** Named ICC Men's Player of the Month (record 5th time) and ICC Women's Player of the Month (for September 2026), respectively.
- **Harmanpreet Kaur:** Stepped down as India's all-format women's captain after winning the 2025 ODI World Cup and Asian Games gold; will continue as an active player.
- **Pragyan Ojha:** BCCI has appointed Pragyan Ojha as the chief selector, succeeding Ajit Agarkar.
- **Yuki Bhambri:** Won the ATP Almaty Open doubles title alongside Ryan Seggerman.
- **PV Sindhu:** Finished runner-up at the 2026 French Open, falling to An Se-young.
- **Vaibhav Suryavanshi:** Named in the *TIME100 Next 2026* list.
- **Arshi Gupta:** Youngest driver globally to win the Rotax MAX Challenge (RMC) Mini title at the FMSCI National Karting Championship in Bengaluru. ■■

CURRENT AFFAIRS

Fact Sheet

In this section, we have presented a compilation of useful information on those topics which are important for geaneral competitive examinations and from which facts and figures related questions are repeatedly asked.



India's Coir Sector

Coir

- **Coir is a natural fibre** extracted from the outer husk of coconuts. It is processed into various commercial products, including ropes, mats, mattresses, brushes and handicrafts.
- **Coir is a renewable and biodegradable** material that supports sustainable manufacturing and reduces dependence on synthetic alternatives.
- **Coir fibre, yarn, mats**, mattresses, ropes, brushes, coir pith and other value-added products.

Snapshot of India's Coir Industry

- **Global Position:** According to the Ministry of MSME, India is the world's largest producer and exporter of coir and coir products, accounting for approximately two-thirds of global production.
- **GDP Contribution:** Indian Coir Industry contributes close to 1% to India's GDP.
- **Employment:** The Coir Sector has more than 21,000 coir units and provides direct and indirect employment to over 7 lakh workers. Women constitute approximately 80% of the workforce
- **Export:** Increased by 305.70% between FY 2014–15 and FY 2025–26.
- **Major Export Destinations:** The United States, China, the Netherlands, Spain and the United Kingdom.

Key Achievements during Last 12 Years (Since 2014-15)

- **More than 21,000 coir units** are registered on the Udyam registration portal employing 2.3 lakh persons making them a part of the formal MSME policy ecosystem.
- **Over 68,000 persons have been trained** under various training programmes with more than 80% being women.
- **More than 150 innovative machines**, technologies and value-added coir products in the coir sector.
- **Facilitated participation of more than 1,000 exporters** in International Exhibitions abroad and financial assistance of more than Rs. 20 crores given to more than 850 entrepreneurs under Export Market Promotion.

India's Steel Sector

Overview

- **Global Position:** India became the world's second-largest steel producer in 2018 and has retained this position since then.
- **Share in Global Crude Steel Production:** Increased from 5.2% in 2014 to 7.9% in 2024.
- **Global Consumption Rank:** Second-largest consumer of finished steel, according to the World Steel Association.

Types of Steel and Iron

- **Crude Steel:** The first solid steel product formed upon solidification of liquid steel; serves as the raw material for further processing.
- **Finished Steel:** Steel products obtained through processes such as hot rolling or forging of semi-finished steel.
- **Hot Metal:** Liquid iron produced in a blast furnace.
- **Pig Iron:** An intermediate iron product obtained from a blast furnace.
- **Sponge Iron (Direct-Reduced Iron):** Iron produced by reducing iron ore in the solid state without melting it.
- **Steel Composition:** Primarily iron and carbon (less than 2%), with manganese (approximately 1%) and small quantities of silicon, phosphorus, sulphur and oxygen.

Steel Trade Performance

- **FY 2025-26:** Finished steel exports increased by 35.80%, while imports declined by 46.47%.
- **Major Export Destinations (March 2026)**: Vietnam, Belgium and Taiwan collectively accounted for more than 50% of India's finished steel exports.
- **Economic Contribution:** Steel exports support foreign exchange earnings, improve trade performance and strengthen India's position in global markets.
- **Atmanirbhar Bharat:** Reduces dependence on imported steel and strengthens domestic manufacturing.
- **Infrastructure Development:** Supports construction, transport, housing, energy and industrial expansion. ■■

Info Bytes

From Govt. News Services like PIB, AIR, etc.



- In which state was the 14th International Tourism Mart (ITM) organised by the Ministry of Tourism? – **Tawang, Arunachal Pradesh**
- Which edition of the India–Singapore naval exercise SIMBEX concluded in October 2026? – **33rd Edition**
- Where was the 12th BRICS Parliamentary Forum held? **– New Delhi, India**
- When and where is the 9th Men's Asian Champions Trophy Hockey 2026 scheduled to be held? – **October 27 to November 5, 2026; Jalandhar and Mohali, Punjab**
- To which botanical family does Osbeckia assamensis, discovered in Manas National Park, belong? – **Melastomataceae**
- Who were the winners in the men's and women's categories at the 70th Ballon d'Or ceremony? – **Harry Kane and Alexia Putellas**
- Cyclone 'Arnab' prompted a warning for the coasts of which state and Union Territory? – **Andhra Pradesh and Yanam region of Puducherry**
- Nepal announced plans to expand its flood early warning system across how many river basins? – **Six river basins**
- When is Vigilance Awareness Week 2026 being observed, and what is its theme? – **October 26 to November 1, 2026; 'Culture of Integrity for Nation's Prosperity'**
- How many active space launch sites does the Indian Space Research Organisation (ISRO) aim to establish in India by 2029? **– Four**
- Who was elected President of Brazil for a fourth term? – **Luiz Inácio Lula da Silva**
- Which city was awarded the hosting rights for the 2029 World Senior Weightlifting Championships by the International Weightlifting Federation (IWF)? – **Ahmedabad, Gujarat**
- With which country did India's Free Trade Agreement (FTA) enter into force in October 2026? – **New Zealand**
- Which waste management company reported consistent annual growth of 15–20%? – **3R ZeroWaste**
- In which Russian city is Russian Creative Week–Eurasia scheduled to take place? – **Ufa, Russia**
- Which sector's financial preparedness for Diwali was highlighted in the Festive Season Business Report? – **Micro, Small and Medium Enterprises (MSMEs)**
- In which district of Kerala is the Sankarodath Ayilyam Valiya Arattu Festival scheduled to be held? **– Palakkad**
- Which Ayurveda and Rasa Shastra expert, who received a President's award, passed away in October 2026? – **Prof. Vaidya Dr. Siddhinandan Mishra**
- Which two indices were launched by the National Commodity and Derivatives Exchange (NCDEX) for the Indian equity market? – **NDEX and FINNDEX**
- Oil India Limited discovered natural gas in the Godavari-1 well of which basin? – **Krishna-Godavari Basin**
- Which radar is being procured by the Ministry of Defence from Bharat Electronics Limited (BEL) to enhance the Indian Army's air defence capability? – **Low-Level Lightweight Radar (LLLR-I)**
- Who inaugurated the National Conference on Cooperative Federalism and Law Reform? – **Vice President C. P. Radhakrishnan**
- Where was the Norman E. Borlaug International Dialogue organised by the World Food Prize Foundation? – **Des Moines, Iowa, United States**
- Which state's Fisheries Investment and Export Guidelines, 2026, are scheduled to be released at the Fisheries Investor and Exporter Conclave? – **Madhya Pradesh**
- According to the Ministry of External Affairs (MEA), protection against enforced disappearance is provided under which Article of the Constitution of India? – **Article 21**
- When is National Police Commemoration Day observed? – **October 21**
- Where was the 25th meeting of the Shanghai Cooperation Organisation (SCO) Council of Heads of Government held? – **Dushanbe, Tajikistan** ■■

Current Affairs
Model MCQs



1. With reference to Carbon Capture, Utilisation and Storage (CCUS), consider the following statements:

1. Carbon capture involves separating carbon dioxide (CO_2) from industrial emissions before it is released into the atmosphere, or directly capturing it from the atmosphere.
2. Under CCUS, captured CO_2 can be used to produce chemicals, fuels and construction materials.
3. Geological formations such as depleted oil and gas reservoirs and deep saline aquifers can be used for permanent CO_2 storage.
4. CCUS necessarily results in net-zero emissions, irrespective of the energy source used for the capture process.

Which of the statements given above are correct?

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

2. With reference to the Nelakondapalli Buddhist Heritage Site, consider the following statements:

1. Nelakondapalli is an ancient archaeological site located in Telangana.
2. The site includes a Mahastupa locally known as 'Eradibba' or 'Virataraja Dibba'.
3. Archaeological excavations at the site have revealed remains of Buddhist monasteries, including viharas and chaitya halls.
4. The site is exclusively associated with the Satavahana period, with no evidence of later dynasties.

Choose the correct option from the codes given below:

(a) 1, 2 and 3 only (b) 1 and 4 only
(c) 2 and 3 only (d) None of the above

3. Consider the following statements with reference to the twin-drone system developed for maritime Search and Rescue (SAR) operations:

1. The system primarily uses a quadcopter to monitor and identify persons in distress.
2. The quadcopter uses an Artificial Intelligence-based YOLO model, along with optical and thermal cameras, to detect human heat signatures.
3. The hexacopter receives the target coordinates from the quadcopter through long-range radio-frequency communication and delivers a self-inflating lifebuoy.
4. The lifebuoy drop is completely autonomous and does not require human intervention.

Which of the statements given above are correct?

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

4. With reference to Exercise Garuda Shakti 2026, consider the following statements:

1. It is a joint Special Forces exercise between India and Indonesia.
2. The Indian contingent participating in the exercise is drawn from the Parachute Regiment (Special Forces) of the Indian Army.
3. The 2026 edition was held in Banyuwangi, East Java, Indonesia.
4. The exercise focuses exclusively on naval warfare and amphibious operations.

Choose the correct option from the codes given below:

(a) 1, 2 and 3 only (b) Only 3
(c) Only 4 (d) 1, 2, 3 and 4

5. With reference to plant-based meat products, consider the following statements:

1. Plant-based meat products are designed to imitate the taste, texture and appearance of animal-derived meat.
2. Soy protein, pea protein and wheat gluten are commonly used raw materials in their production.
3. Extrusion is a manufacturing technique in which ingredients are passed through a die under controlled heat and pressure to develop a meat-like texture.
4. Extrusion necessarily involves the use of animal-derived proteins to achieve a meat-like texture.

Choose the correct option from the codes given below:

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

NCERT Questions

Exam-Oriented Conceptual MCQs based on Class 6-12 (Old & New) NCERT

Geography

1. In the context of the geological structure and geomorphological framework of India, consider the following statements:

1. In contrast to the rigid and stable nature of the Peninsular Block, the geological structure of the Himalayas is young, weak, and flexible.
2. The Himalayan mountains are currently affected by tectonic movements such as folding, faulting, and thrusting caused solely by the interactions of exogenic forces.
3. Deep gorges, V-shaped valleys, and waterfalls formed by fast-flowing rivers prove that the Himalayas are still in their youth stage.
4. South India is a stable yet dissected plateau with an abundance of eroded rock blocks and escarpments.

Which of the statements given above are correct?

(a) Only 1, 2, and 3 (b) Only 1, 3, and 4
(c) Only 2, 3, and 4 (d) 1, 2, 3, and 4

Explanation: Statements 1, 3, and 4 are correct. Statement 2 is incorrect. The Himalayan mountains are affected by the interactions of both exogenic and endogenic forces, as endogenic forces are primarily responsible for folding and faulting.

Reference: NCERT Class 11 (India: Physical Environment), **Chapter 2:** Structure and Physiography, **Topic:** The Himalayas and Other Peninsular Mountains, Page 9.

2. With reference to the regional orientation and physical forms of the Himalayan mountain ranges in India, consider the following statements:

1. In the northwestern part of India, the Himalayan ranges extend from the northwest to the southeast, whereas in Arunachal Pradesh, they turn from the southwest to the northwest direction.
2. In the regions of Mizoram, Nagaland, and Manipur, the northeastern hills are mainly aligned in an east-west direction.
3. The east-west length of the Great Himalayan range (Central Axial Range) is approximately 2,500 km, and its north-to-south width ranges between 160 km and 400 km.

Which of the statements given above is/are correct?

(a) Only 1 and 3 (b) Only 3
(c) Only 1 and 2 (d) 1, 2, and 3

Explanation: Statements 1 and 3 are correct. Statement 2 is incorrect because the hills in Mizoram, Nagaland, and Manipur are aligned in a north-south direction rather than east-west (they are aligned east-west in Darjeeling and Sikkim).

Reference: NCERT Class 11, Chapter 2: Structure and Physiography, **Topic:** The North and Northeastern Mountains, Page 11.

3. With reference to the drainage systems and mountain ranges of the Himachal and Uttarakhand Himalayas, consider the following statements:

1. The Himachal and Uttarakhand Himalayan region extends between the Satluj River in the west and the Kali River in the east.
2. The Lesser Himalayas are known as 'Nagtibha' in Himachal Pradesh and 'Dhauladhar' in Uttarakhand.

Which of the statements given above is/are correct?

(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

Explanation: Statement 1 is correct. Statement 2 is incorrect because the Lesser Himalayas are known as 'Dhauladhar' in Himachal Pradesh and 'Nagtibha' in Uttarakhand.

Reference: NCERT Class 11, **Chapter 2:** Structure and Physiography, **Topic:** Himachal and Uttarakhand Himalayas, Pages 12, 13.

4. Match List-I with List-II and select the correct answer using the codes given below:

List-I (Term / Topic) PDF	List-II (Characteristic) PDF
A. Bugyal	1. Former headquarters of the Imperial Survey
B. Dehradun	2. High-altitude grasslands
C. Bhotia	3. The largest Dun valley in the region
D. Shivawala	4. A nomadic community migrating during summer and winter