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IMPORTANT INSIGHTS

UAPA Reform: Recent Judicial Developments, Constitutional Safeguards and the Security–Liberty Debate in India

Recent Developments:

- **Jammu & Kashmir and Ladakh High Court:** The Court held that a person facing trial in a UAPA case could not seek removal of his name from a police-maintained list of Over Ground Workers (OGWs) while the criminal proceedings remained pending and his dismissal from government service on national security grounds had not been set aside. The questions of alleged assistance to militants and the petitioner's security risk remained under consideration before the criminal court and the Central Administrative Tribunal, respectively.
- **Constitutional significance:** The case highlights the relationship between pending criminal proceedings, administrative action on national security grounds and judicial review. Allegations must be distinguished from established guilt, and the outcome of one proceeding does not automatically determine the outcome of another.
- **Recent Supreme Court jurisprudence:** In *Gulfisha Fatima v. State (Government of NCT of Delhi)*, decided in January 2026, the Supreme Court examined the interaction between prolonged incarceration, Section 43D(5) of the UAPA and Article 21. Its approach emphasised an individualised assessment of the accused's role, the prosecution material and the stage of the trial, rather than an automatic rule that either delay or statutory restrictions must always prevail.

Understanding the UAPA:

Meaning and Objectives:

- The **Unlawful Activities (Prevention) Act, 1967 (UAPA)** is a central legislation designed to prevent unlawful activities and address terrorism-related offences that threaten India's sovereignty, integrity, security and public order.
- It empowers the Central Government to declare certain associations unlawful, designate specified organisations and individuals as terrorists, investigate terrorist offences, and impose penalties for prohibited activities.
- The Act serves as an important instrument of **internal security**, particularly against terrorism, terrorist financing, secessionist violence and activities threatening the territorial integrity of India.
- Its enforcement must remain consistent with constitutional guarantees, especially **Article 14 (equality before law), Article 19 (freedoms) and Article 21 (life and personal liberty)**.

Historical Evolution:

- **1963 — Constitutional background:** The Constitution (Sixteenth Amendment) Act, 1963, enabled Parliament to impose reasonable restrictions on certain fundamental freedoms in the interests of India's sovereignty and integrity.
- **1967 — Original legislation:** Parliament enacted the UAPA to address unlawful activities threatening national unity and territorial integrity.
- **2004 — Anti-terror provisions:** Following the repeal of the Prevention of Terrorism Act, 2002 (POTA), amendments incorporated terrorism-related offences into the UAPA and added provisions concerning terrorist organisations.

- **2008 — Strengthening enforcement:** Amendments strengthened measures against terrorist financing and expanded provisions concerning the investigation and prosecution of terrorism-related offences. The National Investigation Agency (NIA) was established separately under the NIA Act, 2008.
- **2012 — Financial measures:** Amendments strengthened provisions relating to terrorist financing and brought the law further in line with international obligations, including standards associated with the Financial Action Task Force (FATF).
- **2019 — Individual designation:** Parliament empowered the Central Government to designate individuals as terrorists, expanded the NIA's investigative powers and modified provisions governing the seizure of terrorism-linked property.

Major Provisions of the UAPA:

Unlawful Associations and Terrorist Designation:

- **Declaration of unlawful associations:** The Central Government may declare an association unlawful under Section 3 when the statutory conditions are satisfied. Such a declaration is subject to the confirmation procedure involving an Unlawful Activities (Prevention) Tribunal, presided over by a High Court judge, under Sections 4–5.
- **Duration of prohibition:** A declaration ordinarily remains in force for five years unless rescinded or otherwise altered in accordance with law.
- **Terrorist organisations:** The Central Government may add an organisation to the First Schedule under Section 35 when the statutory grounds for designation are met.
- **Individual designation:** The 2019 amendment extended the designation framework to individuals under Section 35, subject to the statutory procedure for seeking removal of the designation and review by the competent authority.
- **Constitutional concern:** Individual designation can have serious reputational, professional and financial consequences, making transparent procedures and effective remedies important safeguards.

Definition of Terrorist Acts and Punishments:

- **Section 15:** Defines a terrorist act by reference to specified conduct and the requisite intention or likelihood of threatening India's unity, integrity, security or sovereignty, or striking terror among people. The provision also covers specified acts involving explosives, weapons and other dangerous means.
- **Sections 16–23:** Provide punishments for terrorist acts and address associated offences, including conspiracy, recruitment, support, membership-related conduct and the organisation of terrorist camps.
- **Severity of punishment:** Terrorist acts resulting in death may attract the death penalty or life imprisonment, subject to the applicable statutory provisions. Other offences carry punishments that vary according to their nature and gravity.
- **International obligations:** The Act incorporates specified international conventions relating to terrorism through its schedules, supporting India's efforts to fulfil relevant international counter-terrorism obligations.

Investigation, Search and Seizure:

- **National Investigation Agency:** The NIA investigates scheduled offences under the NIA Act, 2008, and has jurisdiction to investigate UAPA offences in accordance with the applicable statutory framework.
- **Investigative authority:** The 2019 amendment permitted NIA officers of the rank of Inspector or above to investigate UAPA cases, subject to statutory requirements.
- **Property seizure:** Where an investigation is conducted by the NIA, the Director General of the NIA may grant the approval required under the amended framework for seizure of property connected with terrorism, in place of the otherwise applicable state-level police approval.

- **Financial restrictions:** Section 51A provides for measures such as freezing, seizure or attachment of funds and other financial assets in accordance with the statutory framework.
- **Procedural safeguards:** Sections 43A–43F address powers and procedures concerning arrest, search, seizure and related investigative matters.

Stringent Bail Provisions and Procedural Framework:

Section 43D(5): Restrictions on Bail:

- **Statutory threshold:** Under Section 43D(5), a person accused of offences under Chapters IV or VI cannot be released on bail if the court, after examining the case diary or the police report, finds reasonable grounds for believing that the accusation is **prima facie true**. The Public Prosecutor must receive an opportunity to be heard.
- **Judicial scrutiny:** The provision requires a preliminary assessment of the prosecution material; it does not mean that the accused must prove innocence at trial before bail can be considered.
- **Practical implications:** The restrictive threshold can make obtaining bail difficult, particularly in cases involving voluminous evidence, complex investigations and lengthy trials.
- **Constitutional qualification:** Section 43D(5) does not eliminate constitutional courts' authority to grant relief where continued detention violates fundamental rights, particularly the right to a speedy trial under Article 21.

Extended Investigation Period:

- **Section 43D(2):** The investigating agency may seek an extension of the period for completing an investigation from 90 days to a maximum of 180 days, subject to the court being satisfied with the Public Prosecutor's report indicating investigative progress and specific reasons for continued detention.
- **Default bail:** If the investigation is not completed within the legally permitted period, including any valid extension, the accused may acquire a right to default bail under the applicable statutory conditions.
- **Police custody:** The Act modifies the ordinary criminal-procedure framework, including provisions governing remand. The precise period depends on the applicable statutory text and procedural circumstances.
- **Important distinction:** Extended investigation periods and stringent bail conditions are separate legal mechanisms, although both can contribute to prolonged incarceration.

Constitutional and Human Rights Concerns:

Prolonged Pre-Trial Detention:

- **Presumption of innocence:** An accused person is not deemed guilty merely because an FIR has been registered or a charge sheet has been filed. Criminal liability must be established through the judicial process.
- **Right to personal liberty:** Article 21 protects life and personal liberty. Detention that continues for an excessive period without meaningful progress in the trial may raise serious constitutional concerns.
- **Right to speedy trial:** Timely investigation, commencement of proceedings and completion of trial are essential to prevent pre-trial detention from becoming punitive.
- **Illustrative case:** Professor G. N. Saibaba, who had severe physical disabilities, was arrested in 2014 in a case involving alleged Maoist links, convicted by a trial court in 2017 and sentenced to life imprisonment. The Bombay High Court acquitted him in 2024, and he died later that year. His case illustrates the profound human consequences that lengthy criminal proceedings can produce, while acquittal itself does not establish that every prosecution under the Act is unwarranted.

Broad Definitions and Freedom of Expression:

- **Scope of unlawful activity:** Broadly framed statutory provisions may create uncertainty about the distinction between prohibited conduct and constitutionally protected expression or association.
- **Membership and association:** The interpretation of membership of an unlawful organisation has significant consequences for civil liberties. Mere ideological agreement should not automatically be equated with participation in a terrorist offence; the applicable statutory requirements and judicial precedents must be considered.
- **Freedom of speech:** Article 19(1)(a) protects freedom of speech and expression, subject to reasonable restrictions under Article 19(2), including restrictions relating to the sovereignty and integrity of India and public order.
- **Freedom of association:** Article 19(1)(c) protects the right to form associations, subject to constitutionally permitted restrictions.
- **Need for precision:** Clear statutory definitions and evidence-based enforcement help prevent legitimate dissent, journalism or peaceful political activity from being conflated with terrorism.

Low Conviction Rates and Accountability:

- **Prosecution outcomes:** A low conviction rate may indicate investigative deficiencies, evidentiary difficulties or weaknesses in prosecution, but it does not independently prove that every case was malicious or baseless.
- **Data interpretation:** The frequently cited figure of 2.2% conviction for UAPA cases registered during 2016–2019 relates to a particular reporting period and should not be presented as a current conviction rate without verification from the relevant National Crime Records Bureau tables.
- **Institutional accountability:** Accurate classification of cases, transparent reporting of arrests and convictions, and scrutiny of prolonged detention are necessary to assess the Act's effectiveness.
- **Proportionality:** Counter-terrorism measures should be proportionate to the threat and supported by relevant evidence, while protecting legitimate national security interests.

Important Judicial Principles:

Balancing National Security and Personal Liberty:

- **Union of India v. K. A. Najeeb (2021):** The Supreme Court recognised that constitutional courts may grant bail despite statutory restrictions when prolonged incarceration and an unlikely or unreasonably delayed trial threaten the constitutional guarantee of personal liberty.
- **Zahoor Ahmad Shah Watali v. National Investigation Agency (2019):** The Supreme Court explained the approach to the prima facie assessment under Section 43D(5), emphasising the statutory restrictions applicable at the bail stage.
- **Gulfisha Fatima v. State (Government of NCT of Delhi) (2026):** The Supreme Court's approach highlighted the need for a fact-specific assessment of the accused's role, the material relied upon and the progress of the proceedings when considering prolonged incarceration.
- **Core principle:** Neither the seriousness of the allegation nor the passage of time should automatically determine every bail application. Courts must apply the statutory framework while ensuring that constitutional protections remain effective.

Administrative Action and Criminal Proceedings:

- **Article 311(2)(c):** A government servant may be dismissed, removed or reduced in rank without a departmental inquiry where the President or Governor, as applicable, is satisfied that holding such an inquiry is not expedient in the interest of the security of the State.

- **Separate proceedings:** A challenge to dismissal before an administrative tribunal and a criminal trial before a criminal court address different legal questions. The outcome of one does not automatically settle the other.
- **OGW lists:** An Over Ground Worker is generally understood in security usage as a person alleged to provide logistical, financial, informational or other support to militants without necessarily being an armed militant. The precise legal basis and consequences of inclusion in a police-maintained list must be assessed in the relevant context.
- **Judicial review:** Security-related administrative decisions remain subject to applicable legal and constitutional scrutiny, even when the government invokes national security.

Limitations and Reform Priorities:

Institutional and Legal Challenges:

- **Broad statutory language:** Ambiguity in the interpretation of certain offences can increase uncertainty and the risk of inconsistent enforcement.
- **Trial delays:** Complex evidence, witness-protection requirements, large numbers of accused and limited judicial capacity can delay proceedings.
- **Bail difficulties:** Stringent statutory conditions can prolong custody when the trial cannot be completed within a reasonable period.
- **Limited transparency:** Restrictions on disclosure of sensitive information may complicate the ability of affected persons to challenge certain administrative or security-related actions.
- **Federal coordination:** Counter-terrorism investigations require coordination between state police forces, central agencies and intelligence organisations, while respecting their respective legal mandates.

Measures for Reform:

- **Greater legal clarity:** Parliament and the judiciary should ensure that statutory language and its interpretation distinguish terrorism-related conduct from protected expression and association.
- **Time-bound trials:** Specialised case management, adequate judicial staffing, prioritised hearings and improved forensic capacity can reduce avoidable delays.
- **Consistent bail jurisprudence:** Courts should apply Section 43D(5) through reasoned, evidence-based assessments while considering the constitutional implications of prolonged incarceration.
- **Accountability mechanisms:** Independent scrutiny, documented reasons for coercive action and effective legal remedies can reduce arbitrary enforcement without compromising legitimate security operations.
- **Periodic review:** Data on arrests, charge sheets, trial duration, bail and convictions should be examined systematically to identify procedural weaknesses.
- **Victim and witness protection:** Effective protection for witnesses and victims is essential to secure reliable testimony and prevent intimidation or interference with trials.
- **Capacity building:** Specialised training for investigators, prosecutors and judges can improve evidence collection, case preparation and consistent application of the law.

Value Addition for UPSC:

Constitutional Provisions to Remember:

- **Article 14:** Equality before the law and equal protection of the laws.
- **Article 19(1)(a) and Article 19(2):** Freedom of speech and expression and constitutionally permitted restrictions.
- **Article 19(1)(c):** Freedom to form associations, subject to constitutional restrictions.
- **Article 21:** Protection of life and personal liberty, including the constitutional importance of a speedy trial.

- **Article 22:** Safeguards concerning arrest and detention, subject to the constitutional provisions governing preventive detention and other applicable exceptions.
- **Article 311(2)(c):** Exception to the ordinary departmental inquiry requirement for certain government-service actions involving State security.

UPSC Syllabus Linkages:

- **GS Paper II:** Fundamental Rights, judicial review, constitutional governance, separation of powers and the functioning of tribunals.
- **GS Paper III:** Internal security, terrorism, terrorist financing, investigative agencies and the challenges of counter-terrorism.
- **Essay:** National security versus civil liberties, the rule of law, proportionality and constitutional democracy.
- **Ethics:** Accountability, impartiality, proportionality, institutional integrity and respect for human dignity.

Balanced Conclusion:

- The UAPA is an important instrument for protecting India's sovereignty, integrity and national security.
- Its legitimacy and effectiveness depend not only on the strength of its enforcement powers but also on accurate investigations, timely trials, reasoned judicial decisions and effective constitutional safeguards.
- **The objective should be effective counter-terrorism enforcement without allowing prolonged detention, procedural unfairness or arbitrary restrictions to undermine the rule of law.**

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Mission for Aatmanirbharta in Pulses Completes First Year, Advancing India's Agricultural Self-Reliance by 2030–31

Recent Developments:

- **First anniversary:** The Mission for Aatmanirbharta in Pulses completed its first year on 11 October 2026, reaffirming the objective of reducing import dependence and strengthening domestic pulse production.
- **Government funding:** The Union Cabinet approved the mission on 1 October 2025 with an outlay of **₹11,440 crore** for 2025–26 to 2030–31. The mission was announced in the Union Budget 2025–26 and launched on 11 October 2025.
- **Implementation progress:** The government has identified **489 focus districts**, targeted 87.5 lakh free seed kits and approved 1,000 processing units over the mission period. During the first phase, 528 processing units were allocated to States and Union Territories.
- **Processing infrastructure:** By March 2026, 23 pulse-processing projects had been approved under the Pradhan Mantri Kisan SAMPADA Yojana, of which 18 had been completed.

Understanding the Mission for Aatmanirbharta in Pulses:

Objectives and Significance:

- The **Mission for Aatmanirbharta in Pulses**, also known as the Dalhan Aatmanirbharta Mission, is a centrally sponsored agricultural initiative designed to achieve self-sufficiency in pulses through production growth, improved productivity, assured procurement and stronger post-harvest infrastructure.

- India is the world's largest producer and consumer of pulses but continues to import pulses to meet domestic demand. In 2023–24, India imported **47.38 lakh tonnes**, highlighting the gap between domestic supply and consumption.
- Pulses contribute approximately **20–25% of dietary protein**, improve soil fertility through biological nitrogen fixation and provide livelihoods to millions of farmers.
- The mission focuses particularly on **Tur (Arhar), Urad and Masoor**, while promoting high-yielding, pest-resistant and climate-resilient varieties.

Key Facts:

- **Launch date:** 11 October 2025; **implementation period:** 2025–26 to 2030–31; **financial outlay:** ₹11,440 crore.
- **Major implementing agencies:** National Agricultural Cooperative Marketing Federation of India (NAFED), National Cooperative Consumers' Federation of India (NCCF), Indian Council of Agricultural Research (ICAR), Krishi Vigyan Kendras (KVKs) and State agricultural departments.
- **Long-term objective:** Reduce import dependence, improve farmers' incomes and strengthen nutritional security through a sustainable domestic pulse supply chain.

Production Targets and Major Components:

Targets for 2030–31:

- **Production:** Increase total pulse production to **350 lakh tonnes**.
- **Cultivation area:** Expand the area under pulses to **310 lakh hectares**, including an additional 35 lakh hectares.
- **Productivity:** Raise average yield to **1,130 kg per hectare**.
- **Farmers covered:** Nearly **2 crore farmers** are expected to benefit from improved seeds, assured procurement and value-chain support.

Quality Seeds and Climate-Resilient Agriculture:

- The mission targets the distribution of **87.5 lakh free seed kits** and **126 lakh quintals of certified seeds** over six years.
- High-yielding, pest-resistant and climate-resilient varieties are intended to reduce crop losses and improve productivity under variable climatic conditions.
- The **Seed Authentication, Traceability and Holistic Inventory (SATHI) portal** supports digital monitoring of seed production, certification, distribution and sale.

Cluster-Based Cultivation Expansion:

- The mission adopts a cluster-based approach across **489 districts**, allowing interventions to reflect regional agro-climatic conditions and cultivation patterns.
- Pulse cultivation is being promoted in rice-fallow areas, through intercropping and crop diversification, to expand production without relying exclusively on existing agricultural land.
- Soil testing, balanced fertilisation, improved irrigation, mechanisation and integrated pest management are intended to improve resource efficiency and crop yields.

Assured Procurement at Minimum Support Price:

- **NAFED and NCCF** undertake procurement of Tur, Urad and Masoor at the Minimum Support Price (MSP) from registered and willing farmers in participating States.

- The procurement arrangement operates for four years, from **2025–26 to 2028–29**, under the Price Support Scheme of the Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA).
- Assured procurement can reduce distress sales, strengthen farmers' bargaining power and encourage cultivation of pulses.
- Effective implementation depends on accessible procurement centres, timely payments, transparent registration and adequate procurement capacity.

Processing and Post-Harvest Infrastructure:

- The mission targets **1,000 pulse-processing and packaging units**, with financial assistance of up to ₹25 lakh per unit or 33% of the eligible project cost, whichever is lower.
- Modern dal mills, storage facilities and packaging infrastructure can reduce post-harvest losses, improve product quality and increase value addition.
- Under the Creation and Expansion of Food Processing and Preservation Capacities component of the Pradhan Mantri Kisan SAMPADA Yojana, 23 pulse-processing projects had been approved by March 2026, with 18 completed.

Digital Governance and Monitoring:

Technology-Based Implementation:

- **Krishi Mapper:** Supports geographical mapping, land geo-tagging and monitoring of crop demonstrations and cultivation areas.
- **SATHI portal:** Improves seed authentication, certification and supply-chain traceability.
- **AgriStack and Digital Crop Survey:** Support farmer identification, verified plot-level information and crop-area assessment, improving planning and harvest estimates.
- **ई-समृद्धि and विस्तार:** Support digital farmer registration, procurement-related services, market information and agricultural advisories.
- **Three-tier monitoring:** National-, State- and district-level committees review planning, implementation and progress, helping identify operational gaps.

India's Pulses Sector: Performance and Regional Distribution:

Production, Area and Productivity:

- According to the supplied third advance estimates, pulse production increased from **256.83 lakh tonnes in 2024–25 to 274.09 lakh tonnes in 2025–26**, an increase of approximately 6.7%.
- The cultivated area increased from **277.20 lakh hectares to 286.46 lakh hectares**, while average productivity rose from 926 kg per hectare to 957 kg per hectare.
- These figures indicate improvement in production, area and yield; however, the extent to which the increase is attributable specifically to the mission requires separate assessment.

Trade and Producing Regions:

- The supplied figures indicate a **31.52% decline in import value** and a **13.40% increase in export value** during the reported comparison period. These changes should not automatically be attributed to the mission without accounting for international prices, trade policy and the comparison period.
- Major pulse-producing States include Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, Gujarat, Andhra Pradesh, Karnataka, Jharkhand, Odisha and West Bengal.
- Major export destinations include China, the United Arab Emirates, Bangladesh, the United States and Sri Lanka.

Challenges and the Way Forward:

Major Challenges:

- **Climate variability:** Irregular rainfall, drought, heat stress, pests and diseases can reduce pulse yields and increase production uncertainty.
- **Productivity gaps:** Unequal access to quality seeds, irrigation, technology and agricultural extension services results in regional differences in productivity.
- **Procurement limitations:** MSP announcements alone cannot ensure remunerative returns unless procurement is accessible, timely and sufficiently widespread.
- **Infrastructure constraints:** Inadequate storage, processing and transportation facilities can increase losses and weaken farmers' bargaining power.
- **Market volatility:** International price movements, import competition and changes in domestic demand can influence farmers' incentives to cultivate pulses.

Policy Priorities:

- **Strengthen agricultural research:** Develop short-duration, high-yielding and climate-resilient varieties suited to different agro-climatic regions.
- **Improve seed delivery:** Ensure timely distribution of certified seeds before sowing and strengthen last-mile extension services through KVKs.
- **Expand sustainable cultivation:** Promote pulses in suitable rice-fallow areas, crop rotations and intercropping systems.
- **Improve procurement efficiency:** Strengthen registration, procurement infrastructure, payment transparency and market access for small and marginal farmers.
- **Develop value chains:** Expand scientific storage, modern processing units, farmer-producer organisations and direct market linkages.
- **Enhance monitoring:** Use reliable crop surveys, digital platforms and independent evaluations to distinguish programme expenditure from measurable outcomes.

Value Addition for UPSC:

Syllabus Linkages:

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- **GS Paper II:** Government policies, welfare schemes, cooperative institutions and implementation accountability.
- **GS Paper III:** Agricultural productivity, cropping patterns, food security, agricultural marketing, technology and sustainable farming.
- **Essay:** Agricultural self-reliance, nutritional security and the relationship between farmers' incomes and sustainable development.

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RBI Tightens Forex Derivatives Rules to Curb Speculation and Stabilise the Rupee Amid Rising External Pressures

Recent Developments:

- The **Reserve Bank of India (RBI)** tightened foreign-exchange (forex) derivative regulations in October 2026 as the rupee approached **₹97 per US dollar**, crude oil prices exceeded **$100 per barrel**, and global capital-flow pressures intensified. The measures aim to reduce excessive dollar demand and improve orderly market functioning.
- The RBI reduced the threshold for qualifying forex derivative positions without establishing underlying exposure from **$100 million to $5 million**, prohibited the rebooking of cancelled rupee-involving derivative contracts, and introduced a **Foreign Exchange Risk Reserve (FERR)** for specified transactions. Reuters reported that the new reserve requirement has prompted banks to seek clarification because it can increase liquidity and hedging costs.
- The measures followed a reported **$12.95 billion decline in foreign-exchange reserves to $734.60 billion**. The RBI also raised the **repo rate by 25 basis points to 5.50%** in October 2026 and revised its retail-inflation forecast for 2026–27 to **5.2%**, reflecting heightened price pressures.
- The RBI additionally opened a special dollar-supply window for major public-sector oil marketing companies, aiming to meet part of their import requirements without adding equivalent demand to the regular spot market.

Understanding Forex Derivatives and the Regulatory Context:

What are forex derivatives?

- **Forex derivatives** are financial contracts whose value depends on exchange rates. They include forwards, futures, options and swaps, which businesses and financial institutions use to manage currency risk.
- **Underlying exposure** refers to an actual or identifiable foreign-currency obligation or receivable, such as an importer's dollar-denominated payment or an exporter's foreign-currency earnings.
- **Hedging** reduces the uncertainty associated with exchange-rate movements, whereas **speculation** involves taking positions primarily to profit from anticipated price changes. Derivatives can support legitimate risk management but may amplify market pressure when positions become excessive or disconnected from genuine exposures.

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Why is the rupee under pressure?

- **Higher crude oil prices:** India's dependence on imported petroleum increases its dollar requirement when oil prices rise, potentially widening the import bill and worsening the current-account balance.
- **Capital outflows and global financial conditions:** Foreign investors may withdraw capital or prefer dollar-denominated assets when US yields rise or global uncertainty increases, weakening demand for the rupee.
- **Importers' hedging demand:** Businesses expecting future dollar payments may buy dollars through forward contracts to lock in exchange rates. A concentrated rise in such demand can influence forward pricing and add pressure to the currency market.
- **Inflation transmission:** Rupee depreciation raises the domestic cost of imported crude oil, fertilisers, electronics and other inputs, potentially transmitting external price shocks into domestic inflation.
- **Limits of deposit inflows:** Large foreign-currency deposit inflows do not automatically eliminate depreciation pressure when dollar demand, capital movements and import-payment requirements remain elevated.

Major Regulatory Changes by the RBI:

Lower threshold for positions without underlying exposure:

- The permitted threshold for qualifying forex derivative transactions without establishing underlying exposure has been reduced from **$100 million to $5 million**, a reduction of **95%**.
- The corresponding threshold for exchange-traded rupee derivatives has also been reduced to **$5 million** across recognised stock exchanges. The change narrows the scope for large positions without documented underlying exposure and increases the importance of genuine hedging.

Restrictions on cancellation and rebooking:

- Cancelled **rupee-involving derivative contracts cannot be rebooked** with authorised dealers under the new directions. This is intended to discourage repeated cancellation and re-entry designed to benefit from exchange-rate movements.
- **Rollover at maturity remains permissible**, subject to existing regulatory conditions. A rollover extends or replaces a contract at maturity and is distinct from cancelling and rebooking it before maturity.

Prevention of duplicate hedging:

- Banks must obtain and retain undertakings confirming that the same underlying exposure has not already been hedged through another authorised dealer.
- This requirement strengthens transaction-level accountability and reduces the possibility of taking multiple derivative positions against a single foreign-currency obligation.

Foreign Exchange Risk Reserve:

- Under the new **FERR** framework, authorised dealers must maintain a cash reserve with the RBI equal to **20% of the rupee equivalent of the notional amount** of specified rupee-involving derivative contracts exceeding **$2 million**.
- The requirement applies to covered contracts used to hedge current-account transactions where the user purchases foreign currency against the rupee. The reserve is maintained until the contract terminates, subject to the directions.
- **FERR is a reserve requirement on authorised dealers, not a direct 20% fee charged to customers.** However, the cost of immobilised liquidity may be passed on indirectly through higher hedging charges or less favourable pricing.

Economic Rationale and Implications:

Intended benefits:

- **Curb excessive speculation:** Lower position thresholds and stronger documentation requirements reduce the scope for large positions without demonstrated exposure.
- **Improve market transparency:** Undertakings and restrictions on duplicate hedging make it easier for banks and regulators to identify the purpose and extent of derivative transactions.
- **Reduce avoidable volatility:** Discouraging repeated cancellation and rebooking may limit short-term trading behaviour that intensifies currency movements.
- **Strengthen external stability:** The dollar-supply window for public-sector oil companies can shift part of their demand away from the spot market, potentially easing immediate pressure on the rupee.

- **Support inflation management:** A more orderly exchange rate can moderate imported inflation, although forex regulations cannot independently reverse global oil-price increases.

Risks and limitations:

- **Higher hedging costs:** FERR can tie up bank liquidity and increase the cost of providing qualifying derivatives, particularly for importers with substantial dollar obligations.
- **Reduced flexibility for genuine users:** Exporters, importers and other businesses may face additional documentation, compliance costs or less convenient access to hedging facilities.
- **Liquidity and pricing pressures:** Banks may become more selective in offering forward contracts, potentially affecting market liquidity, forward premiums and smaller businesses disproportionately.
- **Limited control over fundamentals:** Regulatory restrictions cannot directly eliminate high crude oil prices, adverse global capital flows, rising US yields or structural dependence on imported energy.
- **Foreign-exchange reserve trade-off:** Direct dollar supplies can reduce immediate market demand but may draw on official reserves, making careful management of intervention necessary.

Way Forward:

Calibrated regulation and market monitoring:

- The RBI should distinguish **genuine commercial hedging from speculative positions** through risk-based supervision, proportionate documentation and regular assessment of the new rules.
- It should monitor market liquidity, forward premiums, transaction costs and access to hedging for exporters and importers. Coordination with the **Securities and Exchange Board of India (SEBI)** can strengthen oversight of exchange-traded currency derivatives.
- Implementation should remain responsive to evidence. If compliance costs or liquidity disruptions become excessive, the RBI can clarify operational requirements and review their calibration without weakening safeguards against duplicate hedging.

Strengthening external-sector resilience:

- India should diversify energy sources, improve energy efficiency, expand competitive exports and attract stable long-term investment to reduce persistent demand for foreign currency.
- Maintaining adequate foreign-exchange reserves, deepening domestic financial markets and improving the competitiveness of Indian manufacturing can strengthen resilience against external shocks.
- Monetary, fiscal and trade policies should work together to contain imported inflation while preserving growth, investment and legitimate international trade.

Value Addition for UPSC:

GS Paper III: Indian Economy:

- **Core concepts:** Exchange-rate determination, forex derivatives, currency hedging, foreign-exchange reserves, the balance of payments, imported inflation and central-bank intervention.
- **Analytical distinction:** Regulatory measures can reduce speculative or excessive derivative demand, but sustainable currency stability also depends on oil prices, capital flows, productivity and external competitiveness.
- **Mains-ready conclusion:** RBI's forex curbs can improve market discipline and reduce avoidable volatility; their long-term effectiveness depends on proportionate regulation and stronger economic fundamentals.

Practice Question:

"Foreign-exchange market regulation can moderate currency volatility but cannot substitute for external-sector resilience." Discuss with reference to the RBI's recent forex derivative measures. (150 words)

Scientists Develop the World's First Operating Nuclear Clocks, Opening New Possibilities for Precision Timekeeping and Fundamental Physics

Recent Developments:

- On **7 October 2026**, research teams in **Vienna, Austria, and Beijing, China**, reported the development of the world's first operating nuclear clocks in separate studies published in *Nature*. Both devices use **thorium-229 nuclei** embedded in calcium fluoride crystals to measure time through nuclear energy transitions rather than electron transitions.
- On **8 October 2026**, the Vienna University of Technology reported that its prototype could stabilise itself and operate for more than 24 hours without intervention. Its measured precision was approximately (10^{-15}), corresponding to an error of roughly one second in 30 million years; however, it has not yet surpassed the best existing optical atomic clocks.
- The breakthrough represents a major step in **precision metrology**, with potential applications in satellite navigation, telecommunications, financial-network synchronisation, dark-matter research and tests of fundamental physical principles. These applications remain developmental rather than established commercial uses.

Understanding Nuclear Clocks:

What is a nuclear clock?

- A **nuclear clock** is a precision timekeeping device that measures time using the frequency of an energy transition within an **atomic nucleus**. The term "nuclear" refers to the part of the atom used as the timekeeping reference; the device does not generate power through nuclear fission or fusion.
- The clock uses laser light to stimulate a transition between two nuclear energy states. The frequency associated with this transition provides a highly stable reference against which time can be measured.
- The current prototypes use **thorium-229**, a radioactive isotope of thorium, embedded in **calcium fluoride crystals**. Thorium-229 is particularly suitable because its nucleus has a relatively low-energy transition that can be excited using laser light, unlike most nuclei that require much higher-energy radiation.

Why is thorium-229 important?

- Atomic nuclei are much smaller than entire atoms and can be less sensitive to certain external disturbances. This property creates the possibility of developing a clock reference that is more robust against environmental interference.
- The unusually low-energy transition in thorium-229 makes laser-based nuclear spectroscopy feasible. Researchers can therefore probe the nucleus without requiring the extremely high energies generally associated with nuclear transitions.
- The transition can also be sensitive to subtle changes in fundamental physical processes, making thorium-229 useful for research beyond timekeeping.

Nuclear Clocks versus Atomic Clocks:

Working principle:

- **Atomic clocks** measure time by tracking transitions between energy levels of electrons in atoms or ions. Depending on the technology, they use microwave or optical frequencies associated with elements such as caesium, strontium and ytterbium.
- **Nuclear clocks** use transitions between energy states within the nucleus, involving the nuclear structure rather than the atom's electron shell. This change in the reference system could improve long-term stability and reduce sensitivity to some external disturbances.
- Ordinary mechanical clocks measure time through moving components, while quartz clocks rely on the vibrations of a quartz crystal. Atomic and nuclear clocks instead use highly regular quantum transitions as frequency references.

International standard for a second:

- The internationally recognised definition of a second is based on the frequency of a specific transition in the **caesium-133 atom**. Caesium atomic clocks therefore underpin modern time standards and international timekeeping.
- Optical atomic clocks use higher-frequency electronic transitions and already provide exceptional precision. Nuclear clocks are being developed as a possible next generation of frequency standards, but their current performance has not yet exceeded that of the best existing optical atomic clocks.

Potential Applications:

Navigation and positioning:

- **Global Navigation Satellite Systems (GNSS)**, including the Global Positioning System (GPS), determine position by measuring the travel time of signals between satellites and receivers. Even tiny timing errors can translate into significant positioning errors.
- More precise and robust clocks could improve navigation accuracy, support resilient positioning systems and reduce dependence on vulnerable timing infrastructure.

Telecommunications and digital infrastructure:

- Mobile networks, fibre-optic infrastructure and communication systems require accurate time and frequency synchronisation for reliable data transmission.
- Nuclear clocks could eventually improve network synchronisation and support high-performance communication systems, provided that their size, stability, cost and operating requirements become practical.

Financial systems and critical infrastructure:

- Financial networks rely on accurate timestamps to establish the chronological order of transactions, coordinate systems and maintain reliable records.
- More precise timing references could strengthen synchronisation across distributed digital infrastructure, although practical deployment would depend on clock performance and integration costs.

Fundamental physics and dark-matter research:

- Researchers can use nuclear clocks to test whether **fundamental constants of nature** remain unchanged over time and to investigate possible departures from established physical theories.
- Nuclear transitions may provide enhanced sensitivity to interactions between **ultralight dark matter and ordinary matter**. The Vienna team used its prototype to constrain models of dark matter by searching for variations in nuclear-transition energy; such experiments can place limits on possible interactions even when no dark matter signal is detected.

Challenges in Developing Nuclear Clocks:

Technical and material limitations:

- **Current performance:** Existing prototypes have demonstrated that nuclear timekeeping is feasible, but they have not yet surpassed the best optical atomic clocks in overall precision and stability.
- **Laser technology:** Exciting the thorium-229 transition requires carefully generated and stabilised **vacuum-ultraviolet laser light**, making laser power, frequency control and optical conversion important technical challenges.
- **Crystal quality and isotope availability:** Researchers need crystals with suitable optical properties and sufficient thorium-229 concentration. Producing high-quality material and obtaining the required isotope remain important constraints.
- **Experimental complexity:** Nuclear clocks require precise control of the laser, crystal environment and feedback systems. Researchers must improve reproducibility, long-term stability and reliable operation outside specialised laboratories.
- **Deployment constraints:** Practical applications require compact, robust, affordable devices that can operate under changing environmental conditions. Navigation and communications applications therefore remain prospective.

Way Forward:

Improving performance and practical usability:

- Researchers should improve laser power, crystal quality and feedback mechanisms to enhance the stability and precision of nuclear clocks. Independent replication and comparisons with established optical atomic clocks will be essential for validating performance.
- Development should prioritise robust solid-state designs that reduce dependence on complex laboratory infrastructure and enable reliable operation over longer periods.
- Public research institutions, universities and metrology laboratories should strengthen collaboration in precision measurement, laser engineering, advanced materials and quantum physics.

Strategic significance for India:

- India can strengthen its capabilities in **quantum technologies, precision metrology, atomic physics and advanced laser systems** through research institutions and national science programmes.
- Indigenous research in high-stability clocks could support satellite navigation, telecommunications, scientific instrumentation and resilient timing infrastructure, while reducing dependence on imported high-end technologies.
- Investment should focus on fundamental research, specialised materials, skilled researchers and technology transfer rather than assuming immediate commercial readiness.

Value Addition for UPSC:

GS Paper III: Science and Technology:

- **Core concepts:** Atomic structure, nuclear energy transitions, laser spectroscopy, precision metrology, quantum physics, dark matter and satellite navigation.
- **Conceptual distinction:** Atomic clocks use electronic transitions, whereas nuclear clocks use transitions within the nucleus. Nuclear clocks may offer greater robustness and precision, but their superiority over the best optical atomic clocks has not yet been established.
- **Scientific significance:** Nuclear clocks can serve both as future timekeeping standards and as sensitive instruments for investigating fundamental physical laws.
- **India-specific relevance:** Indigenous expertise in precision clocks can contribute to strategic technological autonomy, satellite navigation, communication networks and advanced scientific research.

Practice Question:

"Nuclear clocks represent a potential advance in precision metrology and fundamental physics, but their practical applications depend on overcoming major technological challenges." Discuss. (150 words)

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Nepal's Budhi Gandaki Flash Flood Highlights Himalayan Disaster Risks, Landslide-Dam Failures and Gaps in Early Warning Systems

Recent Developments:

- On **11 October 2026**, a destructive flash flood swept through settlements along Nepal's **Budhi Gandaki River** in Gorkha district, carrying mud, boulders and debris. Preliminary reports indicated that approximately **35–40 houses and several bridges** were washed away, while a hydropower construction site was damaged and people were reported missing. The full extent of the damage remained under assessment.
- Preliminary assessments by Nepalese authorities and the **International Centre for Integrated Mountain Development (ICIMOD)** indicated that a landslide near Chumchet may have temporarily blocked the river, creating a natural dam that subsequently failed. The flood occurred despite the absence of reports of exceptionally heavy rainfall at the time, highlighting the possibility of sudden floods caused by upstream blockages rather than direct rainfall alone.
- Authorities issued warnings to downstream settlements, while rescue teams evacuated residents and assisted stranded people. The incident demonstrates how rapidly a local geological event can become a regional disaster in steep Himalayan river valleys.

Understanding Flash Floods:

Definition and characteristics:

- A **flash flood** is a sudden, rapid rise in water levels and discharge that develops over a short period, commonly within six hours of a triggering event. It may result from intense rainfall, cloudbursts, landslide-dam failures, glacial lake outbursts or sudden releases of water accumulated upstream.

- Unlike ordinary riverine floods, flash floods provide limited time for evacuation and frequently carry **high concentrations of sediment, boulders and debris**. These materials increase the density and destructive force of the flow, enabling it to damage buildings, bridges and river-valley infrastructure.
- In mountainous terrain, a flash flood can develop through a cascading sequence of events: a slope collapses, debris blocks a river, water accumulates upstream, the blockage breaches, and a destructive surge travels downstream.

The Nepal event as a landslide-dam outburst flood:

- A **landslide-dam outburst flood (LDOF)** occurs when a landslide blocks a river and creates a temporary reservoir. Water accumulates behind the obstruction until overtopping, seepage or structural failure releases the stored water.
- In the Budhi Gandaki incident, the suspected temporary blockage illustrates why monitoring only rainfall and river levels may be insufficient. Even without extreme rainfall at the time of the flood, an unstable upstream blockage can release a sudden and destructive surge.
- The trigger should be distinguished from a **glacial lake outburst flood (GLOF)**, which results from the sudden release of water from a glacial lake. The Nepal event was preliminarily associated with a landslide-induced river blockage; a glacial lake outburst should not be assumed without supporting evidence.

Why Is the Indian Himalayan Region Vulnerable?

Geological and geomorphological factors:

- **Young and tectonically active mountains:** The Himalayas are geologically young, seismically active and characterised by fractured rock, steep slopes and ongoing uplift. These conditions increase the likelihood of landslides, rockfalls and slope failures.
- **Steep river gradients:** Water travels rapidly through narrow valleys, concentrating destructive energy and reducing the time available for downstream communities to respond.
- **Loose sediment and unstable slopes:** Glacial deposits, moraines, weathered rocks and landslide debris can be mobilised by sudden flows, transforming ordinary runoff into dense debris-laden floods.

Climate change and cryospheric instability:

- **Glacial retreat and permafrost degradation:** Rising temperatures can weaken ice within rock fractures, destabilise slopes and alter the hydrological conditions of high-altitude catchments.
- **Glacial lake expansion:** The formation and expansion of moraine-dammed lakes increase the potential for sudden water releases when natural barriers weaken or fail.
- **Intense and localised rainfall:** Orographic uplift and convective activity can produce intense rainfall over small catchments. Such events may overwhelm streams and drainage systems even when surrounding areas receive less rainfall.
- Climate change does not explain every individual flash flood. The actual outcome depends on local geology, slope conditions, water accumulation, land use and the specific triggering event.

Human-induced vulnerability:

- **Unplanned construction:** Roads, tunnels, hydropower projects, hotels and settlements built close to active river channels can obstruct natural drainage or expose people and assets to high-velocity flows.
- **Inadequate environmental assessment:** Infrastructure planning that underestimates sediment movement, landslide-dam formation or extreme flood scenarios can increase disaster losses.
- **Weak local preparedness:** Remote settlements may have limited communication networks, evacuation routes, medical facilities and access to timely warnings.

Major Causes and Illustrative Himalayan Disasters:

Landslide-dam failures and debris flows:

- Landslides can temporarily obstruct rivers and release large volumes of water when the natural barrier collapses. The resulting flood may carry boulders, gravel and mud that destroy bridges, roads and buildings.
- The **11 October 2026 Budhi Gandaki flood** illustrates this hazard pathway, with preliminary assessments indicating that a landslide-induced blockage was the likely trigger.

Glacial lake outburst floods:

- **GLOFs** occur when water stored in a glacial lake is suddenly released following the failure or overtopping of a natural barrier. The resulting surge can travel long distances through downstream valleys.
- The **2023 South Lhonak Lake outburst in Sikkim** caused severe flooding in the Teesta basin and damaged the Chungthang hydropower dam, demonstrating the risks associated with glacial lakes and downstream infrastructure.

Rock-and-ice avalanches:

- The **2021 Chamoli disaster in Uttarakhand** began with a massive rock-and-ice avalanche in the Ronti Gad–Rishiganga valley. The resulting debris flow devastated the Rishiganga and Dhauliganga valleys and severely damaged two hydropower projects. The event demonstrated how a slope failure can transform into a destructive downstream flood.

Cloudbursts and extreme rainfall:

- A **cloudburst** is an episode of exceptionally intense rainfall over a small area within a short period. In steep Himalayan catchments, it can generate rapid runoff, trigger landslides and overwhelm river channels.
- The **2013 Kedarnath disaster** demonstrated the destructive interaction between extreme rainfall, high runoff, sediment mobilisation and vulnerable settlements in the upper Himalayan region.

Implications of Himalayan Flash Floods:

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Human, economic and ecological impacts:

- **Loss of life and displacement:** Sudden flooding can destroy homes, isolate villages and leave residents with little time to evacuate, particularly in narrow valleys and remote settlements.
- **Damage to strategic infrastructure:** Bridges, highways, tunnels, hydropower stations and communication networks are vulnerable to high-velocity water and debris. Their destruction can disrupt emergency access, electricity generation and regional connectivity.
- **Livelihood disruption:** Terrace farms, livestock, rural roads and suspension bridges may be destroyed, affecting agriculture, tourism, local trade and access to essential services.
- **Riverbed aggradation:** Deposited boulders and sediment can raise riverbeds, alter channels and increase future flood vulnerability. Sediment transported through transboundary river systems can aggravate downstream flood-management challenges.
- **Environmental degradation:** Floods can cause bank erosion, habitat destruction, changes in river morphology and the transport of construction materials or other pollutants into downstream ecosystems.

Transboundary and national-security implications:

- Himalayan rivers cross international boundaries, making upstream landslides, glacial lake failures and sudden reservoir releases relevant to downstream communities in India.
- Floods originating in Nepal can affect settlements and infrastructure along connected river systems, while hazards in the Tibetan Plateau can threaten downstream areas in Arunachal Pradesh and other parts of the eastern Himalayas.
- Damage to border roads, bridges and communication links can affect emergency response and access to remote settlements. Disaster resilience is therefore relevant to both **human security and strategic connectivity**.

Disaster Management and Early Warning Framework:

Existing Indian systems:

- The **National Disaster Management Authority (NDMA)** provides national policy direction for disaster prevention, mitigation, preparedness and response under the Disaster Management Act, 2005.
- The **Central Water Commission (CWC)** issues short-range flood forecasts, with lead times of up to 24 hours at identified locations. Its forecasting services and the *FloodWatch India* platform support dissemination of flood information.
- The **India Meteorological Department (IMD)** operates weather-observation and forecasting systems, including Doppler weather radars and automatic weather stations, to monitor intense rainfall and other hazardous weather conditions.
- The **Geological Survey of India (GSI)** issues regional landslide forecasts based on rainfall thresholds for identified vulnerable areas. Such forecasts complement, but do not replace, direct monitoring of unstable slopes and temporary river blockages.
- The **South Asia Flash Flood Guidance System** supports flash-flood warnings approximately **6–24 hours in advance** at the watershed level, with a resolution of about **4 km × 4 km**. It supports cooperation among participating South Asian countries, including India, Nepal and Bhutan.

Priority measures for Himalayan flash-flood risk reduction:

- **Hazard mapping and risk zonation:** Identify landslide-prone slopes, potential river-blockage sites, glacial lakes, debris-flow channels and downstream settlements. Update hazard maps using satellite imagery, field surveys and geological assessments.
- **Multi-sensor monitoring:** Combine Doppler weather radar, satellite observations, river-stage gauges, automatic weather stations, seismic signals and ground-based sensors to detect changing conditions. Monitoring should include upstream blockage formation and sudden changes in water levels.
- **Impact-based early warnings:** Link forecasts to clearly defined actions, including evacuation thresholds, safe routes, shelters and warnings in local languages. The NDMA's **सचेत (SACHET)** platform supports geo-targeted dissemination of official disaster alerts through multiple channels.
- **Structural risk reduction:** Where technically and environmentally feasible, experts may assess controlled drainage, siphoning or other measures to reduce water levels behind unstable natural barriers. Such interventions require site-specific engineering and safety assessments because poorly designed action can trigger sudden failure.
- **Floodplain regulation:** Prevent new construction in active riverbeds, high-velocity floodways and identified debris-flow zones. Infrastructure projects should account for extreme floods, sediment loads, slope instability and changing climatic conditions.
- **Community preparedness:** Train local volunteers in evacuation, first aid, emergency communication and shelter management. Maintain emergency supplies, reliable communication equipment and clearly marked evacuation routes for remote mountain communities.

Way Forward:

Regional cooperation and climate-resilient infrastructure:

- **Institutionalise transboundary data-sharing:** India, Nepal and Bhutan should strengthen real-time exchange of rainfall, river-level, glacial lake and landslide information, with agreed protocols for issuing alerts across shared river basins.
- **Integrate forecasting with last-mile communication:** Connect scientific warnings to district administrations, local disaster-management authorities and village-level responders. Satellite communication and backup power should support areas where mobile networks fail during disasters.
- **Mandate climate-resilient engineering:** Require robust geological investigations, cumulative impact assessments and realistic extreme-event scenarios before approving hydropower projects, tunnels, bridges and mountain highways.
- **Strengthen community-led response:** Expand local training, evacuation drills and coordination between disaster authorities and community volunteers, ensuring that warnings lead to timely protective action.
- **Adopt a prevention-first approach:** Combine scientific monitoring, ecosystem-sensitive planning, responsible infrastructure development and post-disaster learning rather than relying primarily on rescue and reconstruction after a disaster.

Value Addition for UPSC:

GS Paper III: Disaster Management, Environment and Climate Change:

- **Core concepts:** Flash floods, landslide-dam outburst floods, glacial lake outburst floods, cloudbursts, debris flows, early warning systems and transboundary disaster management.
- **Relevant examples:** The 2013 Kedarnath ~~disaster~~, the ~~2021~~ Chamoli disaster, the 2023 South Lhonak Lake outburst and the 2026 Budhi Gandaki flood illustrate different hazard pathways in the Himalayas.
- **Analytical insight:** A flash flood is not necessarily a rainfall-driven event. Landslide-induced river blockage and sudden breach can generate catastrophic flooding even without extreme rainfall at the time of release.
- **Governance lesson:** Effective disaster management requires integration of hazard assessment, monitoring, early warning, land-use regulation, resilient infrastructure and community preparedness.
- **Mains-ready conclusion:** Himalayan flash-flood risk cannot be eliminated, but its consequences can be reduced through science-based planning, cross-border data-sharing and strict regulation of development in hazard-prone areas.

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Practice Question:

"Himalayan flash floods are increasingly understood as cascading disasters involving geological instability, cryospheric change and infrastructure vulnerability." Discuss the causes and evaluate the measures required to strengthen disaster resilience in the Indian Himalayan Region. (250 words)

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QUESTIONS

1. With reference to the statutory amendments introduced to the Unlawful Activities (Prevention) Act (UAPA), 1967, consider the following statements:

(1) The 2004 amendment incorporated terrorism-related offences following the repeal of POTA, 2002.

(2) The 2008 amendment established statutory convergence with Financial Action Task Force (FATF) standards.

(3) The 2012 amendment strengthened measures specifically against terrorist financing.

(4) The 2019 amendment empowered the Central Government to designate individual persons as terrorists.

How many of the above statements are correct?

(A) Only one

(B) Only two

(C) Only three

(D) All four

2. Consider the following major pulse-producing States in India:

(1) Madhya Pradesh

(2) Maharashtra

(3) Rajasthan

(4) Uttar Pradesh

Arrange the above States in descending order based on their typical share and dominance in pulse production across India:

(A) 1-2-3-4

(B) 1-3-2-4

(C) 2-1-4-3

(D) 3-1-2-4

3. Consider the following financial instruments and mechanisms:

(1) Currency forwards

(2) Currency futures

(3) Currency options

(4) Currency swaps

How many of the above instruments are classified as foreign-exchange derivatives utilized by businesses and institutions to manage currency risk?

(A) Only one

(B) Only two

(C) Only three

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(D) All four

4. Consider the following statements comparing optical atomic clocks and nuclear clocks:

(1) Caesium-133 microwave atomic clocks currently define the international standard (SI unit) for one second.

(2) Atomic nuclei are significantly smaller than whole atoms, rendering nuclear transitions theoretically less susceptible to external environmental stray fields.

(3) Existing nuclear clock prototypes have already officially surpassed the highest precision levels achieved by state-of-the-art optical atomic clocks.

(4) Optical atomic clocks track transitions involving electronic energy levels of atoms or ions such as strontium and ytterbium.

Which of the statements given above are correct?

(A) 1 and 3 only

(B) 2, 3 and 4 only

(C) 1, 2 and 4 only

(D) 1, 2, 3 and 4

5. Consider the following Himalayan river basins/valleys known for catastrophic historical disaster events:

(1) Ronti Gad – Rishiganga Valley

(2) Teesta River Basin / South Lhonak

(3) Budhi Gandaki River Valley

(4) Chorabari / Mandakini Valley

Arrange the above locations in geographical order from West to East:

(A) 1-4-3-2

(B) 4-1-3-2

(C) 4-1-2-3

(D) 1-4-2-3

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ANSWER KEY

1 – Answer (C), 2 – Answer (A), 3 – Answer (D), 4 – Answer (C), 5 – Answer (B)

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In today's fast-changing world, staying updated with current affairs is essential for both academic success and professional growth. Awareness of national and international events not only broadens general knowledge but also sharpens critical and analytical thinking skills. It enables individuals to form well-informed opinions, which are crucial for competitive examinations, group discussions, interviews, and impactful essay writing.

Being well-informed reflects adaptability, awareness, and intellectual curiosity—qualities that are highly valued in a competitive environment. A strong grasp of contemporary issues enhances confidence, widens perspective, and prepares individuals to tackle real-world challenges effectively, ultimately opening the door to better opportunities and long-term personal and career advancement.

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