DAILY CURRENT AFFAIRS

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01

GS PAPER 3 - DISASTER MANAGEMENT & ENVIRONMENT

Transboundary Climate Vulnerability and Flash Flood Disasters in the Himalayas

STORY 1 The Hindu

Nepal flash floods death toll reaches 1127 as climate impacts worsen

> Devastating flash floods and mudslides across Nepal left 1,127 people dead and over 4,800 reported missing as search operations continued across affected mountain valleys.

> Nepal Police and security forces successfully rescued 6,541 individuals from inundated zones along the Trishuli and Bhotekoshi rivers following relentless torrential rainfall.

> Prime Minister Balendra Shah declared that catastrophic flooding entering Rasuwa district from Tibet via Bhotekoshi River was directly driven by global climate change dynamics.

> The Nepalese government emphasized that disaster response is a shared global responsibility because mountain nations suffer severely from atmospheric shifts caused by global emissions.

> The disaster highlights the urgent necessity for robust South Asian transboundary disaster management frameworks and real-time hydrological data-sharing protocols across Himalayan nations.

STORY 2 The Hindu

Wayanad monsoon deficit hits 37 percent due to lingering El Nino

> Wayanad district in Kerala faced a acute monsoon deficit as total seasonal rainfall reached only 1,391 mm compared to its normal benchmark of 2,200 mm.

> Data analyzed by the Hume Centre for Ecology and Wildlife Biology confirmed a 37% rainfall deficit across the Western Ghats district between June and August.

India Meteorological Department reports attribute this severe precipitation shortfall to global climate change trends and lingering atmospheric disruptions caused by the El Niño phenomenon.

Although rainfall marginally improved in August compared to dry spells in June and July, it failed to offset the cumulative seasonal moisture deficit in the region.

The ecological crisis underscores the increasing vulnerability of Western Ghats plantations, agro-forestry, and groundwater reservoirs to volatile tropical climate variability patterns.

UPSC RELEVANCE

Examines climate change-induced hydrological hazards in fragile mountain ecosystems, international disaster response obligations, and Southwest Monsoon anomalies.

PRELIMS FACTS

- The Bhotekoshi River originates in Tibet and flows into Nepal, serving as a critical transboundary tributary of the Sunkoshi River system.
- Wayanad district in Kerala experienced a 37% Southwest Monsoon rainfall deficit between June 1 and August 31, 2026, receiving only 1,391 mm against the average 2,200 mm.
- El Niño conditions significantly weaken monsoon rainfall across the Western Ghats by altering atmospheric circulation patterns across the Indo-Pacific region.

MAINS FRAMEWORK

Intro: The Himalayan and Western Ghats ecosystems are increasingly vulnerable to compound extreme weather events driven by anthropogenic climate change and global ocean-atmosphere oscillations like El Niño.

DIMENSIONS

- **Transboundary Hydrological Risks:** High-altitude flash floods originating across international borders severely damage downstream infrastructure and cause heavy loss of life.
- **Monsoon Anomaly Impacts:** Severe seasonal rainfall deficits in biodiversity hotspots impair agricultural cycles, disrupt local hydrology, and heighten drought vulnerabilities.
- **Global Climate Equity:** Developing and mountainous nations suffer disproportionate losses despite contributing minimally to historical global greenhouse gas emissions.

Way forward: Establish real-time transboundary flood early warning systems, integrate climate resilience into regional urban planning, and strengthen global climate loss and damage funding mechanisms.

PYQ LINK

Analyze the causes of frequent flash floods and landslides in the Himalayan region and suggest mitigation measures.

KEY TERMS

Glacial Lake Outburst Floods | Transboundary Rivers | Climate Adaptation | Southwest Monsoon Deficit | El Niño Phenomenon

ACTS & ARTICLES

Disaster Management Act, 2005 | UNFCCC Paris Agreement (Article 8 on Loss and Damage) | National Action Plan on Climate Change (NAPCC)

02

GS PAPER 3 - INDIAN ECONOMY & AGRICULTURE

Essential Commodities Price Dynamics and Agricultural Land Governance

STORY 1 The Hindu

Onion retail prices surge by 74 percent across major Indian cities

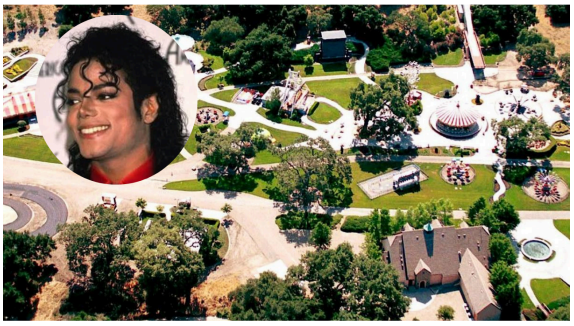
> The nationwide average retail price of onions reached ₹49.59 per kilogram, registering a steep 74% surge compared to ₹28.48 per kg recorded in September 2025.

> Retail prices in major metro hubs including Kolkata and Chennai climbed to ₹60 per kg, while northern retail markets recorded prices exceeding ₹70 per kg.

> Union government agencies initiated emergency stock releases and deployed dedicated Kanda Express goods trains from Nashik to supply affordable onions to northern urban centers.

> The abrupt price escalation followed recent surges in sugar prices, raising official concerns regarding sympathetic market pricing and temporary seasonal supply deficiencies.

> The situation highlights the persistent challenge of price volatility in perishable horticultural produce, necessitating expanded storage infrastructure and market monitoring.



STORY 2 Times of India

California land audit uncovers unauthorized development on tax-exempt ranch

> A 2,700-acre California property benefited from property tax reductions under an agricultural land preservation program intended primarily for maintaining open space and cattle grazing.

> County government audits revealed that extensive unapproved commercial facilities, including a private zoo and amusement rides, were constructed without required zoning permits.

> Municipal regulators determined that non-agricultural structures built over a decade violated covenant terms, resulting in the removal of 70 acres from tax-preferred status.

> The enforcement action highlights the administrative challenge of verifying ongoing compliance when private property owners enroll large parcels into tax-incentivized conservation schemes.

> The case offers comparative policy lessons for land governance, balancing tax incentives for ecological or agricultural conservation against regulatory compliance and public revenue integrity.

UPSC RELEVANCE

Analyzes market supply shocks in essential agricultural commodities and compliance mechanisms in land preservation policies.

PRELIMS FACTS

- The Price Stabilization Fund (PSF) in India is utilized to maintain strategic buffers of pulses and key horticultural crops like onions and potatoes.
- Under the Essential Commodities Act, 1955, the central government can regulate the production, supply, and distribution of designated commodities to curb inflation.
- Land preservation programs grant property tax concessions to agricultural landowners in exchange for binding legal commitments to prevent non-agricultural commercial developments.

MAINS FRAMEWORK

Intro: Agricultural commodity price spikes directly impact consumer retail inflation, requiring dynamic supply chain intervention alongside stringent oversight of land preservation policies.

DIMENSIONS

- **Supply Chain Interruptions:** Monsoon irregularities and distribution bottlenecks cause sympathetic price spikes in key kitchen staples such as onions and sugar.
- **Market Distortions & Hoarding:** Retail prices frequently diverge from wholesale realization due to intermediary margins and localized market manipulation.
- **Policy Enforcement Gaps:** Agricultural land tax concessions risk misuse when commercial or non-conforming infrastructure is constructed without regulatory sanction.

Way forward: Strengthen high-frequency price monitoring, deploy dedicated rail logistics for bulk agricultural transport, and mandate strict periodic land-use audits.

PYQ LINK

> Discuss the factors responsible for price volatility in essential agricultural commodities in India and evaluate the effectiveness of government interventions.

KEY TERMS

Essential Commodities Act **Price Stabilization Fund** **Retail Food Inflation** **Zoning Regulations** **Agricultural Preservation**

ACTS & ARTICLES

Essential Commodities Act, 1955 **Agricultural Produce Market Committee (APMC) Acts** **Article 39(b) of the Constitution of India**

03

GS PAPER 3 - SCIENCE & TECHNOLOGY / GS PAPER 2 - INTERNATIONAL RELATIONS

Global Governance of AI Technologies and National Security Jurisprudence

STORY 1 **The Hindu**

US urges hands-off approach to AI regulation at G20 technology meeting

> The United States advocated for a hands-off regulatory approach toward artificial intelligence during a major G20 technology ministers meeting hosted in North Carolina.

> U.S. technology adviser Michael Kratsios presented the Carolina Principles, urging participating nations to forgo restrictive new laws and focus strictly on novel security risks.

> Industry leaders from Google DeepMind, Meta, and SpaceX addressed delegates via video link, advocating for global regulatory flexibility to sustain rapid technological progress.

> American representatives argued that heavy compliance burdens could severely impede model releases and disadvantage domestic AI developers in global technology competition.

> The policy stance underscores a deepening global debate between innovation-first regulatory models and stringent governance systems adopted by international jurisdictions like the EU.

STORY 2 Times of India

Hong Kong activist Joshua Wong pleads guilty to foreign collusion charges

> Pro-democracy activist Joshua Wong pleaded guilty in a Hong Kong court to charges of conspiring to collude with foreign entities under the National Security Law.

> Prosecutors alleged that Wong conspired with exiled figures between July and November 2020 to solicit foreign sanctions and political blockades against Hong Kong and Beijing.

> The offense carries a potential maximum penalty of life imprisonment under the security legislation enacted by Beijing in mid-2020 to penalize political dissent.

> Foreign diplomats attended the high-profile court hearing, reflecting international human rights scrutiny over the legal standards applied to civil society leaders.

> The judicial proceedings demonstrate the stringent enforcement of extraterritorial security laws and their transformative impact on regional political rights and global diplomatic relations.

UPSC RELEVANCE

Examines competing international regulatory philosophies on artificial intelligence and legal mechanisms governing national security and foreign association.

PRELIMS FACTS

- The Carolina Principles advocate applying existing legal frameworks to artificial intelligence applications rather than enacting broad preemptive regulatory bans.
- G20 technology forums facilitate policy consensus among member nations regarding global cross-border data flows, digital public infrastructure, and AI ethics.
- Hong Kong's National Security Law, promulgated in June 2020, penalizes acts of secession, subversion, terrorism, and collusion with foreign forces.

MAINS FRAMEWORK

Intro: The rapid advancement of artificial intelligence and digital connectivity has created profound friction between light-touch market regulation and state-centric security enforcement globally.

DIMENSIONS

- **Technological Innovation vs Regulation:** Major tech exporter nations favor flexible, self-regulatory frameworks to avoid stifling proprietary algorithmic developments.
- **Sovereignty & Foreign Collusion:** Emerging national security statutes increasingly target cross-border political advocacy and international institutional associations.

- **Global Standards Fragmentation:** Divergent regulation between Western tech hubs, European precautionary mandates, and state security regimes complicates global tech governance.

Way forward: Establish interoperable global AI ethics baselines through multilateral bodies while ensuring national security laws adhere to international human rights norms.

> **PYQ LINK**
>
> Examine the global divergence in regulating Artificial Intelligence and discuss the balance between fostering technological innovation and managing societal risks.

KEY TERMS

Carolina Principles | AI Regulation Governance | National Security Law | Extraterritorial Jurisdiction | G20 Digital Economy

ACTS & ARTICLES

Information Technology Act, 2000 (India) | Hong Kong National Security Law, 2020 | EU Artificial Intelligence Act

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04

GS PAPER 3 - ENVIRONMENT & ECOLOGY

Ecological Restoration, Invasive Species Control, and Soil Hydrology

STORY 1 Times of India

Invasive rat eradication triggers native seedling boom on Palmyra Atoll

> Conservation teams successfully eradicated an estimated 30,000 invasive rats from Palmyra Atoll in the central Pacific Ocean during a targeted ecological campaign.

> Five years post-eradication, ecological monitoring revealed native tree seedlings surged from fewer than 150 across the atoll to more than 7,700 thriving specimens.

> Researchers from UC Santa Cruz and the U.S. Fish and Wildlife Service confirmed that removing rodent seed predators unlocked immediate ecosystem regeneration.

> The restoration effort enabled native plant species to re-establish canopy dominant cover that had been severely suppressed for over a century by invasive rodents.

> The outcome provides a definitive empirical benchmark for island restoration strategies, demonstrating how single-species eradication can rehabilitate degraded tropical habitats.

STORY 2 **Times of India**

Eucalyptus plantation fails to curb soil salinity in Australian hydrological study

> A 15-year scientific experiment in south-western Australia evaluated whether planting deep-rooted eucalyptus trees could effectively control rising soil salinity.

> Researchers monitored a mixed Eucalyptus cladocalyx plantation established over a saline seep to track groundwater movements and salt redistribution patterns.

> The study published in Agricultural Water Management found that while trees consumed significant groundwater, they failed to permanently halt the underlying saline seep.

> Findings proved that sub-surface geological structures prevented deep salt flushing, demonstrating that tree water consumption alone cannot override complex soil geochemistry.

> The scientific trial offers critical lessons for eco-restoration projects globally, warning against relying solely on afforestation to solve deep-rooted hydro-geological soil degradation.

UPSC RELEVANCE

Studies ecological recovery following invasive species eradication and evaluates scientific limitations in biological solutions for soil salinity.

PRELIMS FACTS

- Palmyra Atoll is a unorganized, unincorporated U.S. territory in the central Pacific Ocean managed as a National Wildlife Refuge.
- Complete removal of invasive rodents from isolated island ecosystems often yields exponential natural regeneration of native canopy tree species.
- Eucalyptus species are characterized by deep taproot systems and high transpiration rates, which can lower local water tables without necessarily changing deep geological salt seeps.

MAINS FRAMEWORK

Intro: Restoring degraded terrestrial and oceanic ecosystems requires targeted biological interventions alongside an empirical understanding of local hydro-geological constraints.

DIMENSIONS

- **Invasive Species Elimination:** Eradicating non-native predators releases seed banks from suppression, allowing rapid natural regeneration of native forest floras.
- **Hydrological & Geological Limits:** Afforestation with water-intensive tree species alters shallow water tables but may fail to neutralize deep-seated geological soil salinity.
- **Biodiversity Conservation Synergies:** Island ecosystem recovery enhances nesting grounds for pelagic seabirds and stabilizes vulnerable coastal coral reef buffer zones.

Way forward: Combine targeted invasive species eradication with comprehensive hydro-geological mapping prior to executing large-scale ecological engineering projects.

> **PYQ LINK**
>
> Discuss the impact of invasive alien species on island ecosystems and evaluate integrated methods for habitat restoration.

KEY TERMS

Invasive Alien Species | Ecosystem Restoration | Soil Salinization | Groundwater Hydrology | Palmyra Atoll Refuge

ACTS & ARTICLES

UN Convention on Biological Diversity (Kunming-Montreal Global Biodiversity Framework) | Biological Diversity Act, 2002 (India) | UN Decade on Ecosystem Restoration (2021-2030)

05

GS PAPER 3 - SCIENCE & TECHNOLOGY / ENVIRONMENT

Plant Pathology, Biodiversity Conservation, and Pathogen Dynamics

STORY 1 Times of India

Scientists infect 6000 young elms to select Dutch elm disease resistance

> Scientists deliberately infected 6,000 young American elm trees with Dutch elm disease in a large-scale selective breeding experiment to find disease-resistant strains.

> Dutch elm disease, spread by invasive bark beetles, destroyed an estimated 100 million American elms across North America over the past six decades.

> The experimental survival-of-the-fittest trial aims to identify rare individual trees capable of enduring the lethal fungal pathogen without wilting.

> Restoring resilient American elms is considered crucial for urban forestry planning due to the species' exceptional urban heat tolerance and high pollution absorption capacity.

> The project highlights innovative forestry management strategies where controlled pathogen exposure is utilized to restore functionally extinct native tree species.

STORY 2 **Times of India**

Parasitic zombie fungus uses soft water cannon to spread spores

> Biologists discovered that the parasitic fungus Entomophthora muscae uses high-pressure fluid bursts to forcefully launch infectious spores from dead fly hosts.

> High-speed videography published in the Journal of The Royal Society revealed that pressure builds inside microscopic fungal stalks until a weak point ruptures.

> The specialized liquid cannon propels single spores through the stagnant layer of air surrounding the host corpse into active surrounding air currents.

> Researchers noted that spore size is finely calibrated by evolutionary selection to maximize movement through boundary layer air toward healthy houseflies.

> Understanding such precise biological propulsion systems offers key scientific insights for bio-control applications targeting agricultural insect pests.

UPSC RELEVANCE

Examines selective breeding strategies against invasive plant pathogens and high-speed biological force mechanisms in parasitic fungi.

PRELIMS FACTS

- Dutch elm disease is caused by micro-fungi transmitted primarily by native and introduced elm bark beetles.
- Entomophthora muscae is a specialized pathogenic fungus that infects houseflies and utilizes internal hydraulic pressure to eject infectious spores.
- Mass-inoculation trials in plant pathology accelerate natural selection by exposing large sapling cohorts to lethal pathogens to identify disease-resistant phenotypes.

MAINS FRAMEWORK

Intro: Forest biodiversity faces catastrophic threats from invasive fungal pathogens, requiring advanced epidemiological research and active genetic selection to build ecological resilience.

DIMENSIONS

- **Epidemiological Devastation:** Fungal diseases like Dutch elm disease can eliminate entire urban tree canopies, altering microclimates and urban heat dynamics.
- **Genetic Selection Interventions:** Deliberately challenging large sapling populations with controlled infections accelerates identification of naturally immune genetic lines.
- **Biomechanical Adaptations:** Parasitic organisms utilize sophisticated physical structures, such as hydraulic spore cannons, to maximize host infection success rates.

Way forward: Invest in forest genetic conservation banks, integrate bio-mechanical pathogen research into plant protection schemes, and expand climate-adapted forestry breeding programs.

PYQ LINK

Explain the role of genetic diversity and selective breeding in protecting agricultural and forestry assets from fungal diseases.

KEY TERMS

Dutch Elm Disease | Pathogen Resistance | Entomophthora muscae | Spore Dispersal Kinetics | Selective Breeding

ACTS & ARTICLES

Destructive Insects and Pests Act, 1914 (India) | National Forest Policy, 1988 | UN Agenda 2030 (Goal 15: Life on Land)

06

GS PAPER 3 - ENVIRONMENT & ECOLOGY / GS PAPER 2 - SOCIAL JUSTICE

Human-Wildlife Conflict, Infrastructure Safety, and Indigenous Conservation

STORY 1 The Hindu

Wild elephant electrocuted in Chittoor district triggering official inquiry

> A wild male elephant was electrocuted after contacting live electrical wires connected to a ground-level farm well pump near Mangalampeta forest beat in Chittoor district.

> Andhra Pradesh Deputy Chief Minister Pawan Kalyan ordered an immediate inquiry and directed power distribution authorities to elevate power lines across wildlife areas.

> District Forest Officer G. Subburaj confirmed the victim was part of a 13-elephant herd roaming the Chittoor-Piler corridor bordering agricultural mango orchards.

> The incident brought the recorded toll of wild elephants killed by electrocution and illegal snares in the region to nearly 25 since 2014.

> The mortality highlights critical safety gaps along forest-farm fringes and underscores the need for strict enforcement of CEA electrical safety guidelines.

STORY 2 The Hindu

Andhra Pradesh Deputy CM stresses indigenous traditional knowledge in forest conservation

> On International Day of the World's Indigenous Peoples, Andhra Pradesh leadership recognized tribal communities as primary guardians of natural ecosystems and forest heritage.

> The state highlighted this year's theme, 'Honouring Indigenous Midwives: Safeguarding Life and Well-being,' commending traditional health knowledge passed down through generations.

> Government welfare initiatives such as 'Adavi Thalli Baata' were cited as key measures improving road connectivity and healthcare access in remote forest habitations.

> Official statements emphasized that mutual protection between forests and tribal habitations forms the foundational core of sustainable biodiversity conservation.

> The policy stance aligns with rights-based forest governance, emphasizing that empowering indigenous populations leads to better ecological stewardship and socio-economic inclusion.

UPSC RELEVANCE

Focuses on mitigating linear infrastructure hazards to wildlife and utilizing indigenous traditional knowledge in natural resource governance.

PRELIMS FACTS

- Elephants are listed under Schedule I of the Wildlife Protection Act, 1972, granting them the highest level of legal protection in India.
- Central Electricity Authority (CEA) guidelines prescribe minimum ground clearance heights for high-tension and low-tension distribution lines passing through wildlife corridors.
- International Day of the World's Indigenous Peoples is observed annually on August 9 to highlight indigenous rights and traditional knowledge preservation.

MAINS FRAMEWORK

Intro: Unplanned linear infrastructure expansion into wildlife habitats exacerbates fatal human-wildlife conflicts, requiring integrated mitigation and community-led conservation frameworks.

DIMENSIONS

- **Infrastructure Mitigation:** Uninsulated ground-level electrical connections and sagging overhead power lines present acute, fatal risks to migrating elephant herds.
- **Indigenous Guardianship:** Tribal communities possess invaluable traditional ecological knowledge crucial for forest maintenance, maternal health, and biodiversity protection.
- **Inter-Agency Coordination:** Forest and power distribution departments frequently lack real-time coordination needed to maintain safe infrastructure height standards.

Way forward: Mandate aerial insulation for power lines in designated wildlife corridors, install automated circuit breakers, and formally integrate tribal councils into forest management.

PYQ LINK

Examine the causes of human-wildlife conflict in India and discuss the role of local communities and indigenous knowledge in wildlife conservation.

KEY TERMS

Human-Wildlife Conflict | Electrocution Hazards | Linear Infrastructure | Indigenous Traditional Knowledge | International Day of Indigenous Peoples

ACTS & ARTICLES

Wildlife Protection Act, 1972 | Forest Rights Act (FRA), 2006 | Article 48A of the Constitution of India

07

GS PAPER 2 - INTERNATIONAL RELATIONS / TRADE

Geoeconomics, Trade Battles, and Global Political Stability

STORY 1 Times of India

Canada rejects aggressive US trade terms as bilateral negotiations stall

> Canadian Prime Minister Mark Carney criticized aggressive U.S. rhetoric, urging Washington to stop public barbs and engage seriously following stalled trade negotiations.

> Carney stated that proposed U.S. trade terms would effectively turn Canadian domestic industries into subsidiaries of American firms or force their complete shutdown.

> Bilateral trade talks between Washington and Ottawa collapsed in August 2026 after both nations clashed over tariff structures and cross-border commercial protections.

> Carney reaffirmed that Canada would not accept terms threatening domestic industrial survival but remained open to resuming talks if the U.S. demonstrated serious intent.

> The diplomatic row highlights intensifying geoeconomic friction between historically integrated trading partners amidst rising continental economic protectionism.

STORY 2 Times of India

US Vice President highlights political stability risks from political violence

> U.S. Vice President JD Vance stated in a interview that the nation narrowly avoided severe political strife following the 2024 assassination attempt on Donald Trump.

> Vance reflected on the July 13, 2024, Butler, Pennsylvania shooting where a sniper killed gunman Thomas Matthew Crooks after a bullet grazed Trump's ear.

> The Vice President noted that a successful assassination would have compromised the perceived legitimacy of the U.S. political system and triggered deep conspiracy theories.

> He emphasized that extreme political polarization severely threatens institutional trust, democratic stability, and peaceful political transitions across democratic societies.

> The statement underlines global concerns regarding how political violence and systemic distrust undermine domestic governance stability in major world powers.

UPSC RELEVANCE

Examines friction in bilateral trade negotiations, tariff escalation impacts, and domestic political stability risks in major democracies.

PRELIMS FACTS

- Bilateral trade disputes often center on domestic content requirements, industrial subsidies, and cross-border tariff impositions.
- Mark Carney serves as Prime Minister of Canada, leading trade negotiations amidst rising economic tensions with the United States.
- Political stability and institutional legitimacy in constitutional democracies rely on smooth political transitions and non-violent electoral processes.

MAINS FRAMEWORK

Intro: Escalating trade friction between major economic partners alongside domestic political polarization creates profound uncertainty in global trade and political stability.

DIMENSIONS

- **Economic Protectionism:** Demands for aggressive trade terms risk reducing partner industries to economic subsidiaries, prompting counter-tariff measures.
- **Supply Chain Disruption:** Unilateral trade barriers disrupt deeply integrated North American industrial manufacturing chains and agricultural supply lines.
- **Democratic Institutional Vulnerability:** Political violence and assassination attempts threaten the perceived legitimacy of constitutional democratic systems.

Way forward: Resume structured multilateral trade negotiations based on mutual economic respect while reinforcing democratic security and institutional resilience.

PYQ LINK

Discuss how rising trade protectionism and geopolitical polarization impact international economic stability and global supply chains.

KEY TERMS

Bilateral Trade Battles | Tariff Barriers | Supply Chain Integration | Political Polarization | Economic Sovereignty

ACTS & ARTICLES

WTO General Agreement on Tariffs and Trade (GATT) | USMCA (United States-Mexico-Canada Agreement) | Article 51 of the UN Charter

08

GS PAPER 2 - EDUCATION POLICY / GS PAPER 3 - URBAN DEVELOPMENT

Pedagogical Standards and Urban Infrastructure Policy

STORY 1 The Hindu

MCQ format in Humanities higher education faces critique over analytical skill assessment

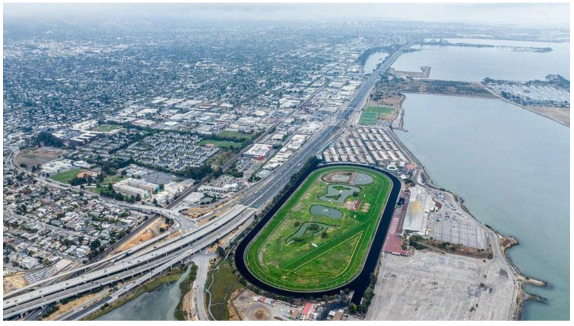
> University professors raised serious concerns over the dominant use of MCQ formats for screening candidates in postgraduate and doctoral Humanities entrance examinations.

> Academic analysis of CUET-UG, CUET-PG, and UGC-NET test papers revealed an over-reliance on questions testing memory recall, factual connectivity, and quote recognition.

> Scholars noted that while MCQs efficiently test isolated facts, they fundamentally fail to evaluate critical thinking, historiographical analysis, and complex argumentation.

> The evaluation format risks discouraging deep analytical reading habits among undergraduate students, steering coaching methods toward rote memorization of factual trivialities.

> The debate highlights the imperative under NEP 2020 to redesign national competitive testing frameworks to assess higher-order conceptual and interpretive competencies.



STORY 2 Times of India

California moves 125 million dollar climate bond for waterfront park creation

> California lawmakers advanced $125 million in state funding to purchase the former 162-acre Golden Gate Fields racetrack to create a major public waterfront park.

> The proposed state contribution is funded through Proposition 4, a climate bond approved by voters in 2024 to finance environmental adaptation and urban open space.

> The East Bay Regional Park District is managing the $175 million acquisition, seeking additional local funding to close the remaining $30 million financing gap.

> Transforming the private industrial racetrack into a public park permanently protects urban shoreline habitat and expands public access along the San Francisco Bay.

> The land conversion project serves as an innovative blueprint for utilizing climate resilience bonds to fund public urban infrastructure and ecological land reclamation.

UPSC RELEVANCE

Evaluates testing methodologies in higher education humanities and examines innovative urban land financing models for climate adaptation.

PRELIMS FACTS

- Common University Entrance Test (CUET) and UGC-NET utilize Multiple Choice Questions (MCQs) for standardized national higher education admissions.
- Municipal climate bonds, such as California's Proposition 4, leverage public debt to finance urban waterfront climate resilience and green infrastructure.
- Shift from factual recall to analytical assessment is a core objective specified in National Education Policy (NEP) 2020.

MAINS FRAMEWORK

Intro: Reforming educational evaluation tools to measure analytical depth and repurposing disused urban infrastructure into public green spaces are key pillars of modern governance.

DIMENSIONS

- **Assessment System Reform:** MCQ formats in Master's and Ph.D. entrance tests favor factual memorization over critical analysis and interpretive writing capabilities.
- **Urban Infrastructure Redevelopment:** Reclaiming decommissioned commercial sites for public parks enhances urban biodiversity, carbon sequestration, and coastal flood resilience.
- **Fiscal Mechanisms for Parks:** Utilizing voter-approved climate bonds enables sub-national governments to bridge major funding gaps for large-scale land acquisitions.

Way forward: Introduce hybrid examination formats blending standardized screening with essay-based analytical testing, and leverage green bonds for urban land reclamation.

PYQ LINK

Critically examine the reform imperative in India's higher education assessment systems to foster critical thinking and analytical competence.

KEY TERMS

Pedagogical Evaluation | Higher Education Reforms | Climate Bonds | Urban Green Space | Public-Private Land Restoration

ACTS & ARTICLES

University Grants Commission (UGC) Act, 1956

National Education Policy (NEP) 2020

Article 21A of the Constitution of India

Practice MCQs (UPSC Prelims)

Attempt these questions on your own first. The answer key is on the next page.

GS PAPER 3 - DISASTER MANAGEMENT

Transboundary Climate Vulnerability and Flash Flood Disasters in the Himalayas

Nepal flash floods death toll reaches 1127 as climate impacts worsen

Q1. Regarding transboundary river dynamics and disaster vulnerability in the Himalayan region, consider the following statements: 1. The Bhotekoshi River is a transboundary tributary originating in Tibet before entering Nepal. 2. Atmospheric shifts caused by global climate change can intensify flash flooding across Himalayan river basins regardless of political borders. 3. Flash floods in high-altitude Himalayan catchments are strictly limited to local cloudburst events and are unaffected by international river flows. Which of the statements given above are correct?

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

GS PAPER 3 - ENVIRONMENT & ECOLOGY

Ecological Restoration, Invasive Species Control, and Soil Hydrology

Eucalyptus plantation fails to curb soil salinity in Australian hydrological study

Q2. A long-term hydrological experiment conducted in south-western Australia regarding Eucalyptus plantations and soil salinity revealed which of the following findings?

A. Deep-rooted eucalyptus trees completely eliminated soil salinity within five years.

B. Plantations altered shallow groundwater levels but failed to stop deep saline seeps due to sub-surface geology.

C. Eucalyptus trees consumed less water than surrounding pasture crops, causing groundwater tables to rise.

D. Trees absorbed all sub-surface salt and converted the soil into arable agricultural land.

GS PAPER 3 - SCIENCE & TECHNOLOGY

Plant Pathology, Biodiversity Conservation, and Pathogen Dynamics

Parasitic zombie fungus uses soft water cannon to spread spores

Q3. With reference to the parasitic fungus Entomophthora muscae, consider the following statements: 1. It infects houseflies and utilizes hydraulic pressure to launch infectious spores. 2. Spores are forcefully propelled through the stagnant air boundary layer surrounding dead host insects. 3. The fungus is a bacterial pathogen that mutates the genetic code of mammalian hosts. Which of the statements given above is/are correct?

A. 1 only

B. 1 and 2 only

C. 2 and 3 only

D. 1, 2 and 3

GS PAPER 3 - INDIAN ECONOMY

Essential Commodities Price Dynamics and Agricultural Land Governance

Onion retail prices surge by 74 percent across major Indian cities

Q4. In the context of agricultural price stabilization in India, which of the following tools is directly deployed by the government to mitigate extreme retail price spikes in essential horticultural commodities like onions?

A. Price Stabilization Fund (PSF) buffer releases

B. Minimum Support Price statutory procurement guarantees

C. Monetary Policy Committee interest rate hikes

D. Commission for Agricultural Costs and Prices statutory mandates

GS PAPER 3 - ENVIRONMENT & ECOLOGY

Human-Wildlife Conflict, Infrastructure Safety, and Indigenous Conservation

Wild elephant electrocuted in Chittoor district triggering official inquiry

Q5. With reference to elephant conservation and infrastructure safety in India, consider the following statements: 1. Asian Elephants are designated under Schedule I of the Wildlife Protection Act, 1972. 2. Ground-level electrical connections for agricultural pumps present electrocution risks to wild elephant herds in forest-edge corridors. 3. Central Electricity Authority guidelines forbid placing electrical power lines near designated forest areas under all circumstances. Which of the statements given above are correct?

A. 1 and 2 only

B. 2 and 3 only

C. 1 and 3 only

D. 1, 2 and 3

GS PAPER 3 - URBAN INFRASTRUCTURE

Pedagogical Standards and Urban Infrastructure Policy

California moves 125 million dollar climate bond for waterfront park creation

Q6. How can municipal or state governments effectively finance the conversion of disused urban industrial sites into public green climate resilience parks without overwhelming annual operating budgets?

A. By issuing voter-approved public climate bonds dedicated to ecological acquisition and infrastructure adaptation.

B. By imposing mandatory land nationalization orders without compensation.

C. By converting public forest reserves into private commercial real estate.

D. By relying exclusively on short-term high-interest commercial bank overdrafts.

Answer Key — Practice MCQs

Quick reference and explanations for the practice questions on the previous page.

Q1: A **Q2: B** **Q3: B** **Q4: A** **Q5: A** **Q6: A**

Q1 Option A · 1 and 2 only

Statements 1 and 2 are correct. The Bhotekoshi River originates in Tibet and flows into Nepal, causing transboundary flooding that Nepal's Prime Minister attributed to broader climate change dynamics. Statement 3 is incorrect because major Himalayan flash floods can be triggered across borders by upstream melting, glacial lake outbursts, or international river surges, not just localized cloudbursts.

Q2

Option B · Plantations altered shallow groundwater levels but failed to stop deep saline seeps due to sub-surface geology.

A 15-year study published in Agricultural Water Management showed that while eucalyptus plantations consumed significant water and altered groundwater levels, underlying hydro-geological conditions prevented the trees from stopping the saline seep.

Q3 Option B · 1 and 2 only

Statements 1 and 2 are correct. Entomophthora muscae is a specialized parasitic fungus that builds up fluid pressure inside its stalk to propel spores through the air boundary layer of dead houseflies. Statement 3 is incorrect because it is a fungal pathogen targeting insects (houseflies), not a bacterial pathogen affecting mammals.

Q4 Option A · Price Stabilization Fund (PSF) buffer releases

The central government utilizes the Price Stabilization Fund (PSF) to maintain strategic buffer stocks of essential horticultural produce like onions and pulses, releasing them into retail markets or via special transport (e.g., dedicated goods trains) to curb price surges.

Q5 Option A · 1 and 2 only

Statements 1 and 2 are correct. Elephants receive highest protection under Schedule I of WPA 1972, and uninsulated ground-level wires near agricultural pumps cause frequent electrocutions in corridors like Chittoor. Statement 3 is incorrect; CEA guidelines do not forbid power lines in forest areas but prescribe strict minimum ground clearances and insulation safety standards.

Q6

Option A · By issuing voter-approved public climate bonds dedicated to ecological acquisition and infrastructure adaptation.

As demonstrated by California's Proposition 4 climate bond allocating $125 million to acquire the former Golden Gate Fields racetrack for a public waterfront park, dedicated public climate bonds offer long-term capital financing for major urban ecological adaptation projects.