

POLITY GS PAPER II

Supreme Court judgement on "Bulldozer Justice"

The Supreme Court of India delivered a landmark judgment condemning the use of bulldozers by state authorities to demolish the homes of individuals accused of criminal offenses.

The court criticized the practice as an illegal and arbitrary display of power, issuing detailed directives to ensure accountability and protect due process.

Supreme Court's Directives for Demolition Procedures

The Supreme Court invoked Article 142 of the Constitution to establish binding guidelines for state authorities to address concerns over arbitrary demolitions.

- i) Notice Requirements: Authorities must provide at least 15 days' notice before demolishing a property.
- ii) Detailed Notice: The notice must specify the nature of the unauthorized construction, particular violations, and grounds for demolition.
- iii) Opportunity to Respond: Owners or occupants should have a fair chance to contest the demolition before a designated authority.
- iv) Reasoned Order: Final demolition orders must include reasoned conclusions. The demolition process must be recorded.
- v) Consequences of Non-compliance: Violations of these guidelines could lead to contempt charges, prosecution, and restitution liabilities for responsible officials.

The court clarified that these directives would not apply to encroachments on public property or demolitions ordered by a court.

SC observations on "Collective Punishment"

Justice B.R. Gavai noted that demolishing homes as a form of "collective punishment" violated the rule of law:

- i) Innocent Parties Affected: Family members, such as spouses and children, should not be penalized through demolitions without any involvement in criminal activities.
- ii) Violation of Basic Rights: Destroying homes infringes on the constitutional right to life, which includes the right to shelter and dignity.
- iii) Presumption of Innocence: The court emphasized that an accused person is presumed innocent until proven guilty in a court of law.

Emphasis on "Rule of Law" and "Separation of Powers"

- 1. Role of Judiciary: The judiciary, not the State, is empowered to determine guilt or innocence. The State cannot unilaterally impose excessive punishment, even on convicted individuals.
- Institutional Accountability: Arbitrary exercise of power by public officials, including punitive demolitions, should be subject to judicial review.
 Standard for Selective Demolitions: If a single property is targeted for demolition while similar nearby structures
- **3. Standard for Selective Demolitions:** If a single property is targeted for demolition while similar nearby structures remain untouched, this could indicate malicious intent.
- 4. The judgment underscored the value of home ownership, stating that for many, a home is a result of years of hard work. A house represents stability, security, and future aspirations. Authorities should only consider demolition if no other alternatives exist.

GS PAPER2- POLITY- ISSUES AND CHALLENGES PERTAINING TO THE FEDERAL STRUCTURE

Challenges of delimitation in India

The article discusses the challenges of delimitation in India. It highlights how reallocating Lok Sabha seats based on population growth could harm non-Hindi states. Solutions include freezing delimitation, decentralizing power, or balancing representation to preserve federalism and unity.

What is Delimitation?

Delimitation is the process of redrawing the boundaries of electoral constituencies based on population. Article 82 of the Constitution mandates this after every Census. However, the process was frozen in 1976 and 2001 to avoid penalizing states that controlled population growth. This freeze ends in 2026 unless extended.

Why is Delimitation Controversial?

- 1. **Disparity in Population Growth**: States with lower Total Fertility Rates (TFR), such as Kerala and Tamil Nadu (1.6-1.8), have successfully controlled population growth. In contrast, Hindi-speaking states like Uttar Pradesh and Bihar have TFRs around 3.5, leading to potential shifts in representation.
- 2. **Reduction in Representation**: If delimitation occurs, the proportion of Lok Sabha seats from southern states may drop from 25% to 17%, while Hindi-speaking states' representation may rise from 40% to 60%.
- 3. **Economic Contribution vs Representation**: States like Karnataka, Maharashtra, and Tamil Nadu contribute far more to direct taxes but receive only 30% of their contributions in return. In contrast, states like Bihar and Uttar Pradesh receive 250%-350% of their contributions.
- 4. **Imbalance in Political Power**: Southern states would lose influence, while Hindi-speaking states, dominated by the BJP, would gain electoral dominance, leading to skewed policymaking at the Union level.

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5. **Ethno-Linguistic Shift**: Since 1947, Hindi speakers' population proportion has risen from 36% to 43%, nearing a majority. This could threaten India's federal structure, designed to balance diverse ethno-linguistic groups.

What are Possible Solutions?

- 1. **Extend the freeze on delimitation**: Continue the approach of Indira Gandhi and Atal Bihari Vajpayee by postponing delimitation for another 25 years to maintain current political stability.
- Permanently freeze seat redistribution: Avoid inter-state redistribution of Lok Sabha seats to prevent political imbalances.
- 3. **Balance delimitation with decentralization**: Implement delimitation but expand the State List, abolish the Concurrent List, and transfer more powers from the Union to the States.
- 4. **Increase the number of seats in each state**: Preserve current proportions while increasing total seats to address population growth, reducing representational disparities. **These solutions aim to preserve federalism and prevent regional dominance.**

GS PAPER3-INFRASTRUCTURE-ENERGY

India's need for an equitable energy transition to meet rising power demand

The article highlights India's need for an equitable energy transition to meet rising power demand. It highlights seven shifts, including decentralizing energy, focusing on operational costs, investing in climate resilience, and integrating digital technologies and circular economy practices, with people at the core.

What Are the Key Shifts Needed for India's Energy Transition?

- 1. Shift to Decentralized Energy Systems:
 - a. India aims to solarize 10 million households, adding 30 GW of clean energy through rooftop solar installations.
 - b. However, rooftop solar remains expensive for low-income groups. A Council on Energy, Environment and Water (CEEW) study found that ~30% of India's rooftop solar potential lies in the 0-1 kW category, which is still costly even after subsidies.
 - c. Community solar models or partnerships can make solar energy more accessible.

2. Adopt Operational Expenditure Models:

- a. Transitioning from capital expenditure (capex) to operational expenditure (opex) can lower barriers for clean energy adoption.
- b. Examples include utilities setting up solar systems and charging pay-as-you-go, district cooling services, and sustainable mobility models like per-kilometer payments for clean transportation.
- 3. Invest in Climate-Resilient Systems:
 - a. Over 80% of India's population resides in climate-vulnerable districts, as highlighted by a CEEW study.
 - b. Investments in resilient energy systems and climate-proofing infrastructure are critical to avoid macroeconomic shocks.

4. Integrate into Global Supply Chains:

- a. India should focus on collaborating in solar PV and green hydrogen supply chains instead of adopting protectionist industrial policies.
- b. Participation in global supply chains promotes energy security through interdependence and collaboration.

5. Combine Decarbonization and Digitalization:

- a. With 820 million active internet users, over half from rural areas, India can merge digital and energy systems.
- b. Prepaid smart meters and AI systems optimize energy distribution, making renewable integration more efficient.

6. **Promote Circular Economy:**

- a. By 2030, India's solar energy waste may reach 600 kilotonnes, equivalent to 720 Olympic-sized swimming pools.
- b. Recycling minerals like silicon and cadmium from this waste supports environmental sustainability and energy security.

7. Center Policies Around People:

- a. Financing small-scale consumer needs, such as electric two-wheelers or rooftop solar, can create aggregated market opportunities.
- b. This approach shifts focus from power developers to end-use consumers.

GS PAPER3-AGRICULTURE – MARKETING OF AGRICULTURAL PRODUCE

Sustainability challenges in India's agricultural exports

The article discusses the sustainability challenges in India's agricultural exports, focusing on tea, sugar, and millets. It highlights ecological, social, and economic issues, emphasizing the need for better practices to balance exports, resource use, and worker welfare.

What is the importance of agricultural exports in India?

- 1. India's agricultural exports were valued at \$53.1 billion in 2022-2023, up from \$8.7 billion in 2004-2005.
- 2. Exports strengthen the economy by increasing revenue, foreign exchange, and transaction options.
- 3. The rapid growth of exports raises sustainability concerns in production, processing, and distribution.

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When is an agricultural commodity sustainable?

- 1. Sustainability depends on three pillars: ecological, economic, and social factors.
- 2. Good governance and policies are necessary for sustainable systems.
- 3. Sustainability extends across all stages: pre-sowing, on-farm production, and post-harvest.
- 4. Tea and sugar illustrate these challenges well.

What are the sustainability challenges in tea production?

- 1. **Human-wildlife conflicts:** 70% of tea plantations are near forests, leading to frequent interactions with elephants.
- 2. Chemical pesticide use:
- 85% of pesticides used are synthetic, increasing chemical residues like DDT and Endosulfan in tea.
- These chemicals pose risks of cancer, diabetes, and neurotoxicity.
- 3. Labour issues:
- Over 50% of workers are women, often underpaid and working in hazardous conditions.
- Regulations under the **Plantations Labour Act (1951)** are poorly enforced.

What are the sustainability challenges in sugar production?

- 1. Water consumption:
- Producing 1 kg of sugar requires 1,500–2,000 kg of water.
- Sugarcane occupies 25% of India's cropped area but uses 60% of irrigation water.
- Increased cultivation in Maharashtra and Karnataka has stressed groundwater and ecosystems.
- Drip irrigation could reduce water use by 40-50%.
- 1. Labour concerns:
- Workers face poor conditions, long hours, and rising temperatures, harming their physical and mental health.
- Many workers are trapped in debt cycles.

How can millets contribute to sustainable agriculture?

- 1. Millets are seen as a sustainable alternative because they require fewer resources and are resilient to harsh conditions.
- 2. They also help in maintaining soil health and ensuring nutritional security.
- 3. Millet exports have been growing, with \$75.45 million worth exported in 2022-2023, showing their potential in sustainable agriculture.

What is needed to improve sustainability in agriculture?

- 1. There is a need for better management practices, stricter regulations, and a focus on reducing the environmental impact of agriculture.
- 2. This includes enhancing water management, reducing pesticide use, and improving labor conditions to create a more sustainable and inclusive agricultural system in India.

SCIENCE AND TECHNOLOGY GS III

Biodegradable Nanocoating for Fertilizers

Researchers at the Institute of Nano Science and Technology (INST), Mohali have developed a novel biodegradable nanocoating for fertilizers that can increase nutrient use efficiency by enabling slow release.

 This technology could reduce the amount of fertilizer required while sustaining high crop yields, offering environmental and economic benefits.

Key Features and Composition

- Nanocoating Material: The coating is made from nanoclay-reinforced binary carbohydrates, specifically chitosan and lignin, combined with an anionic clay that creates stable bonds.
- It has hydrophobic properties which allow fertilisers to be released slowly, minimising rapid dissolution and nutrient loss to soil and water.

Nanotechnology

- Nanotechnology is the manipulation of matter on a near-atomic scale to produce new structures, materials and devices.
- **Applications:** It promises scientific advancement in many sectors such as medicine, consumer products, energy, materials, and manufacturing.

Nano fertilizers: These are nutrients that are encapsulated or coated within nanomaterial in order to enable controlled release, and its subsequent slow diffusion into a soil.

Eg. Nano Urea and Nano DAP

Material Sustainability and Biocompatibility

• The nanomaterials used are low-cost, nature-derived materials such as nano-clay, chitosan, and starch.

• Designed to be biodegradable and mechanically stable, the coating supports sustainable agricultural practices by reducing waste and enhancing soil health.

Application Process

- A rotary drum system is employed to uniformly coat fertilizers like muriate of potash (KCl), which provides around 80% of potassium needed in fertilizers.
- This system, equipped with a sand air gun, achieves consistent coating that withstands transportation and handling.

Advantages and Benefits

- Improved Nutrient Use Efficiency: The slow-release mechanism aligns nutrient availability with crop needs, enhancing efficiency and reducing the total amount of fertilizer required.
- This technology reduces the recommended fertilizer dose for crops such as rice and wheat, maintaining or potentially increasing yields.
- Environmental and Economic Impact: By limiting fertilizer run-off and interaction with surrounding soil and water, this innovation mitigates environmental risks associated with conventional fertilizers.
- It also holds the potential to improve farmers' socio-economic conditions by decreasing fertilizer costs and increasing agricultural output, which could contribute positively to the national economy.

Potential for Broader Applications

- The **3D nanostructure of these polymers** has applications beyond agriculture due to its **biodegradability**, **biocompatibility**, and thermos-responsive properties.
- Future applications might involve other fields where controlled release and environmental sustainability are desired.

PRELIM FACTS

1.Bio-derived foam

Researchers at the Indian Institute of Science (IISc), Bengaluru, have developed an Bio-derived from biological sources. It is designed to specifically reduce plastic pollution.

About Bio-derived foam

- 1. This recyclable, bio-derived foam supports a circular economy, reducing landfill waste. This biodegradable foam is a sustainable alternative to EPS and PU foams.
- 2. Unlike traditional plastic foams, it degrades naturally in landfills without contaminating groundwater.
- 3. It offers a sustainable packaging option for FMCG, replacing conventional plastic foams.
- 4. It is made from FDA-approved, non-edible oils and natural hardeners and thus it is eco friendly. Epoxidized fatty acids and tea-sourced polyphenol hardeners ensure the foam remains fully biodegradable.
- 5. Switching to this bio-foam could cut greenhouse gas emissions, as producing 10,000 plastic foam cups emits 680 pounds of CO₂. It is also highly durable and withstands 10,000 cycles of use, making it ideal for FMCG packaging.

Need for Sustainable Packaging

With the Indian foam market valued at \$7.9 billion and projected to grow to \$11.1 billion by 2032, there is a pressing need for environmentally conscious solutions.

Presently, less than 1% of the 2.3 million tonnes of plastic foam produced each year is recycled, creating significant waste.

2.Exercise 'Sea Vigil-24'

Recently, the Indian Navy is to Conduct the Fourth Edition of the Coastal Defence Exercise 'Sea Vigil-24'.

About Exercise 'Sea Vigil-24'

Aspects	Description
About	1. It is a Pan-India Coastal Defence Exercise from 20–21 November 2024.
	2. It is the fourth edition following the initial exercise held in 2018.
	3. It is the largest edition yet, covering India's entire 11,098 km coastline and a vast EEZ of 2.4
	million sq km. It has involvement of six Ministries and 21 different organisations and agencies.
	4. Participation from fishing communities, coastal populations, NCC cadets, and Bharat Scouts and
	Guides which aims to raise awareness about maritime security and engage local stakeholders.
Objective	To validate and strengthen India's coastal defence and security mechanisms
Focus areas	1. Security of critical coastal assets like ports, oil rigs, Single Point Moorings, and Cable Landing
	Points.
	2. Enhanced awareness about maritime security among coastal communities, including fishing
	populations and students.
Feature	It emphasis on securing strategic locations, including ports, oil rigs, Single Point Moorings, Cable

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	Landing Points, and other vital infrastructure. It focuses on coastal population security alongside critical infrastructure
Significance	 It provides a holistic assessment of India's maritime defence capabilities. It helps identify strengths and weaknesses in the current preparedness of maritime security agencies. It serves as a precursor to the Indian Navy's biennial Theatre Level Readiness Operational Exercise (TROPEX).

3. Domestic Systemically Important Banks

The Reserve Bank of India (RBI) on Wednesday retained the State Bank of India, HDFC Bank and ICICI Bank as Domestic Systemically Important Banks (D-SIBs).

About Domestic Systemically Important Banks (D-SIBs):

- The RBI had first announced the framework dealing with D-SIBs in 2014.
- What is D-SIBs?
 - Banks classified as "Too Big To Fail (TBTF)" due to their size, interconnectedness, and critical role in the economy.
 - Their failure could disrupt the financial system and economic activity.
- Which Banks are D-SIBs?
 - o State Bank of India (SBI) (2015)
 - o ICICI Bank (2016)
 - o HDFC Bank (2017)
- Need for D-SIBs
 - o Prevent systemic risk and ensure the uninterrupted availability of essential banking services.
 - Reduce moral hazard by imposing additional capital requirements and regulatory oversight.
- Different Buckets under D-SIBs
 - o Banks are placed in buckets based on systemic importance:
 - 1. SBI: Bucket 4
 - 2. HDFC Bank: Bucket 3
 - 3. ICICI Bank: Bucket 1
- Capital Requirements
 - Additional Common Equity Tier 1 (CET1) requirements based on bucket:
 - 1. SBI: 0.80% of Risk Weighted Assets (RWAs).
 - 2. HDFC Bank: 0.40% of RWAs.
 - 3. ICICI Bank: 0.20% of RWAs.
 - o Higher surcharges applicable from April 1, 2025.
- Selection Criteria
 - o Banks with size >2% of GDP are assessed.
 - A composite score is calculated based on size, cross-jurisdictional activity, complexity, substitutability, and interconnectedness.
 - Banks above a threshold score are classified as D-SIBs.
- Global Systemically Important Banks (G-SIBs)
 - o Identified by the Financial Stability Board (FSB) in consultation with the Basel Committee on Banking Supervision (BCBS).
 - o 2023 G-SIB list includes JP Morgan Chase, HSBC, Bank of China, BNP Paribas, etc.

4.Fingerling

As part of the **artificial reef project** under the Pradhan Mantri Matsya Sampada Yojana (PMMSY), the State Fisheries Department in Kerala launched a sea ranching initiative by releasing 20,000 pompano fingerlings off the Vizhinjam coast.

About Fingerlings:

- Scientific name:
 - o **Pompano:** Trachinotus blochii
 - O Cobia: Rachycentron canadum
- Ministry involved:
 - Ministry of Fisheries, Animal Husbandry, and Dairying in collaboration with the National Fisheries Development Board (NFDB).
- Scheme:
 - Implemented under the Pradhan Mantri Matsya Sampada Yojana (PMMSY).



- Budget:
 - o Rs.3 crore allocated for the current phase in Thiruvananthapuram.
 - o **Proposed extensions:** Rs.29.76 crore for Kollam, Alappuzha, Ernakulam, and Thrissur districts; Rs.25.82 crore for northern districts.
- Aim:
 - Replenish marine fishery resources.
 - o Promote sustainable fishing practices by enhancing biodiversity.
- Features of Fingerlings:
 - o Pompano and cobia fingerlings stocked and reared at Ayiramthengu fish farm.
 - o Fingerlings weigh between 8 to 10 grams.
 - o 10 lakh fingerlings planned for release across 10 artificial reef locations off the Thiruvananthapuram coast.

About Mission Fingerling:

- Launch year: 2017
- Ministry: Union Ministry of Agriculture and Farmers' Welfare
- Aim:
 - Achieve the Blue Revolution by promoting the holistic development and management of fisheries.
 - o Increase fisheries production from 10.79 MMT (2014-15) to 15 MMT by 2020-21.

ANSWER WRITING

Q. North-East India has been grappling with insurgency for decades. In the context of the recent Manipur crisis, analyse the factors that contribute to the armed insurgency in the region. Discuss the implications of these insurgencies on India's internal security and regional stability.

The North-East India, a region marked by its diverse ethnic and cultural landscape, has grappled with insurgency for decades. The recent eruption of violence in Manipur in Jiribam, fueled by ethnic tensions between the Meitei and Kuki communities, has brought the region's long-standing issues to the forefront Factor contributing to Insurgency in North East.

Factors behind Insurgency in North East

- Historical Ethnic Divisions: Northeast's diverse ethnic groups frequently demand autonomy or separate homelands because of feeling of cultural disconnect with mainland India leading to alienation and secessionist tendencies
 - For example: The Naga and Kuki insurgencies seek self-determination and political representation.
- Geographical Isolation and Underdevelopment: Northeast India is geographically separated from the mainland, with limited connectivity, infrastructure, and economic opportunities
- Drug Trafficking and Organised Crime: The region's proximity to the "Golden Triangle" (Myanmar, Laos, and Thailand) has facilitated drug trafficking networks, which insurgent groups exploit for funding.
 - For example: 98% of borders of region are International Border (ARC 7th report)
- Demand for Political Autonomy: Ethnic groups demand greater control over governance to preserve identities.
 - For example: Kukis in Manipur seek a separate Union Territory.
- Mistrust of Government Forces: AFSPA's long deployment has led to human rights abuse allegations, creating resentment.
 - For example: AFSPA has been operational in Manipur since 1980, marking over 40 years of enforcement.

Factors Contributing to Armed Insurgency in the Recent Manipur Crisis

- Skewed Political Representation: Manipur's geography is 90% hilly, inhabited by Kuki and Naga tribes, while the Meitei community occupies the 10% valley region. This smaller valley area holds substantial political power, creating perceptions of marginalisation among hill communities.
- Ethnic Tensions between Kukis and Meiteis: Conflicts over political and land rights have escalated. For example: Meitei demand for Scheduled Tribe (ST) status raises Kuki fears of land rights loss.
- Drug Trafficking and Border Security: Manipur's border with Myanmar enables cross-border trafficking to finance insurgency.
 - For example: Increased poppy cultivation in Kuki areas highlights external funding allegations.
- Influx of Refugees from Myanmar: Refugee inflows strain local resources and increase tensions. For example: The arrival of Chin refugees complicates dynamics with Meiteis.
- Political Discontent and Demand for Autonomy: Kukis and Nagas seek separate administration due to perceived Meitei dominance.

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For example: the Kuki National Organization (KNO) has advocated for a separate Union Territory to address their concerns.

Mistrust of State Governance: Perceived bias in Meitei-dominated governance fuels Kuki militancy.
 For example: Kuki people are not supportive of police establishment in the state, leading to clashes between the two.

Implications of Insurgencies on India's Internal Security

- Strain on Security Forces: Prolonged insurgency stretches Indian security resources.
 - For example: Conflict with insurgents in Manipur diverts resources from counter-terrorism and other critical areas.
- Humanitarian and Social Cost: Violence leads to mass displacement, straining resources and stability of neighbouring states
 - For example: Manipur's violence led to 97% of internal displacements in South Asia in 2023.
- Challenges to National Integration Efforts: Insurgency complicates integration into the national mainstream.
 - For example: Development projects often stall due to insurgent disruption.
- Impact on Economic Investments: Persistent unrest deters investment, perpetuating poverty and unrest. For example: Infrastructure projects face delays in insurgency-prone areas, affecting economic connectivity.

Implications of Insurgencies on Regional Stability

- Increased Cross-Border Drug Trade: Golden Triangle routes expand narcotics trade, affecting regional stability.
 - For instance: Drug routes impact Indian border states, worsening youth addiction.
- Impact on India's Look East Policy: The conflict can hinder India's efforts to strengthen ties with Southeast Asian countries, as it diverts attention and resources from regional cooperation.
 - For example: Delays in the India-Myanmar-Thailand Trilateral Highway affect regional trade.
- Cross-Border Terrorism: Insurgent groups in the region often have links with external forces, leading to cross-border terrorism and instability
- Risk of Spillover into Neighboring States: Insurgency in one state can trigger unrest in neighbouring states, given the interlinked ethnic and tribal identities like Manipur, Nagaland, and Assam.
- Exacerbation of Illegal Arms Trade: Cross-border arms trade supplies insurgents, threatening border security.
 - security.

 For example: Arms smuggling from Myanmar escalates violence in the region.
 - Impact on Bilateral Infrastructure Projects: Instability delays crucial connectivity projects.
 - For example: Delays in the India-Myanmar-Thailand Trilateral Highway affect regional trade.

Way Forward

- Strengthening Cross-Border Security: Enhanced border security with Myanmar can curb trafficking and arms smuggling.
 - For instance: Increased patrolling and surveillance can reduce insurgent resources.
- Facilitating Inclusive Dialogue: Multi-stakeholder dialogue can address grievances and promote reconciliation.
 - For example: Peace committees modelled after the Mizoram Accord may reduce tensions as happened in the Bodo Accord.
- Boosting Economic Development in Conflict Zones: Targeted development can reduce insurgency appeal. For example: Special Economic Zones (SEZs) in Manipur can generate employment.
- Leveraging Regional Cooperation for Stability: Collaborative initiatives with Myanmar and Bangladesh address insurgency.
 - For instance: Joint task forces can control mutual threats and improve security cooperation.
- Reviewing and Phasing Out AFSPA: Gradual AFSPA reform can enhance human rights and trust in governance as recommended by Jeevan Reddy Committee on AFSPA.
 - For example: Transitioning to local law enforcement in stable areas reduces propaganda.

The insurgency in Northeast India highlights challenges rooted in ethnic divisions, socioeconomic disparity, and geopolitical complexities. Addressing the Manipur crisis requires solutions that balance internal security and regional stability. Through enhanced border security, dialogue, and economic initiatives, India can cultivate sustainable peace, supporting both security and integration in the Northeast.



- With reference to the recent Supreme Court ruling on property demolitions, consider the following statements:
 - 1. The Supreme Court has mandated that demolitions should proceed only after providing a personal notice and time for appeal to the affected individuals.
 - 2. Any officials found to be in violation of the Court's demolition guidelines will be held personally responsible for the restitution of the demolished property.
 - 3. The Supreme Court has ruled that its guidelines on demolitions will be applicable to all unauthorized structures, including those on public roads and footpaths.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2, and 3
- With reference to India's renewable energy sector, consider the following statements:
 - 1. As per the 'Panchamrit' goals announced by India, the country aims to reach 500 GW of non-fossil fuelbased energy capacity by 2030.
 - 2. India's renewable energy targets include specific capacities for solar, wind, and nuclear energy.
 - 3. Large hydro projects are classified as part of India's renewable energy portfolio by the Ministry of New and Renewable Energy (MNRE).

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2, and 3
- With reference to the term "sea ranching," consider the following statements:
 - 1. Sea ranching involves the release of hatchery-bred juvenile fish into natural water bodies to replenish fish
 - 2. It is primarily used to increase fish populations in open water environments rather than enclosed lus aquaculture systems.
 - 3. Sea ranching requires any long-term habitat modification.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2, and 3
- With respect to the identification and regulation of Systemically Important Banks in India, which of the following criteria are used by the Reserve Bank of India to classify banks as Domestic Systemically Important Banks (D-SIBs)?
 - 1. Size of the bank as a percentage of GDP.
 - Level of cross-jurisdictional activities.
 - Degree of interconnectedness within the financial system.

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2, and 3
- Consider the following statements:
 - Delimitation refers to the process of adjusting the number of Lok Sabha seats based on population and redrawing the boundaries of constituencies.

- The most recent delimitation of the Lok Sabha was conducted using data from the 2011 Census.
- State governments do not have any roles in delimitation.
- The orders of the Delimitation Commission can only be challenged in the Supreme Court.

Which of the statements given above are correct?

- a) 1, 2 and 3 only
- b) 1 and 3 only
- c) 1, 3 and 4 only
- d) 1 and 2 only
- Which of the following statements correctly describes the Nirbhay Cruise Missile?
 - a) It is a supersonic cruise missile with a maximum range of 500 km.

b) It can operate at very low altitudes and has deep penetration capabilities.

- c) The missile is exclusively nuclear-capable.
- d) It is a fully imported missile used by India's defense
- Which of the following statements is true regarding the "State of the Global Climate Report"?
 - a) It is published bi-annually by the IPCC to track climate goals.
 - b) It does not include any updates for UN climate summits.
 - c) It has been published by the WMO since 2016.
 - d) It is an annual report by the WMO providing updates on key climate indicators.
- The Unity of India' and 'The Discovery of India' are books written by:
 - c) B. R. Ambedkar PSC/OPSC
 d) C. Rajagonalachar
- Consider the following statements:
 - Millets are water-intensive crops.
 - Sugarcane cultivation significant environmental impacts.
 - India is the largest tea producer in the world.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All three
- d) None
- 10. Consider the following statements:

Statement-I: The has been a consistent rise in the share of non-communicable diseases (NCDs) in India.

Statement-II: India is experiencing significant effects of climate change.

Which one of the following is correct in respect of the above statements?

- Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I Both Statement-I and Statement-II are correct
- and Statement-II is not the correct explanation for Statement-I
- Statement-I is correct but Statement-II is incorrect c)
- Statement-I is incorrect but Statement-II is correct