ForumIAS



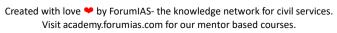
Mains Marathon

3rd Week February, 2025

HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT

INDEX

The Panchayati Raj system in India is facing distress due to structural and functional challenges. Discuss the evolving development paradigm in which panchayats operate today and suggest measures to strengthen grassroots democracy
The recent thaw in Bangladesh-Pakistan relations presents new strategic challenges for India. Discuss how this development impacts India's regional diplomacy and what steps India should take to secure its strategic interests2
Thermal power-producing states in India bear a disproportionate burden of pollution while supplying electricity to power-consuming states. Discuss the environmental and socio-economic challenges faced by these states and suggest measures to ensure equitable compensation and sustainable energy transition
In light of recent proposals to amend the Disaster Management Act, discuss the challenges and benefits of involving states in the disbursal of disaster relief funds. How can a more decentralized approach improve disaster management in India?4
The recent decline in school enrolment in India raises concerns about the sustainability of its demographic dividend. Analyze the underlying causes of this trend and discuss its long-term socioeconomic implications. Suggest policy measures to reverse this decline
Critically analyze the impact of Uttarakhand's Uniform Civil Code (UCC) provisions on live-in relationships. Discuss the implications of regulating such relationships in the context of individual autonomy, social norms, and legal safeguards
Political instability in Myanmar and the resulting refugee influx are straining Northeast India's security, economy, and border management. Discuss the challenges posed by this situation and suggest measures to maintain stability and economic engagement
India and Qatar have significantly strengthened their bilateral relations despite occasional differences. Discuss the key areas of cooperation between the two countries and analyze the challenges that may impact this partnership8
"Building inclusive climate resilience in India's cities is essential in the face of rapid urbanization. Discuss the significance of integrating informal settlements into long-term resilience strategies and suggest measures to achieve this."
The revival of the Indo-US nuclear deal and proposed legislative reforms offer a unique opportunity to unlock India's nuclear energy potential. Discuss the significance of aligning India's liability framework with global norms and suggest measures to accelerate the country's clean energy transition through nuclear power





The Panchayati Raj system in India is facing distress due to structural and functional challenges. Discuss the evolving development paradigm in which panchayats operate today and suggest measures to strengthen grassroots democracy.

Introduction: Contextual Introduction

Body: Highlight challenges faced by PRIs and measures to strengthen grassroots democracy.

Conclusion: Way forward

The 73rd Amendment to the Indian Constitution (1992) was a landmark step in deepening democracy by institutionalizing local governance through the Panchayati Raj system.

Challenges Faced by Panchayati Raj Institutions (PRIs)

- **Incomplete Administrative Decentralization**: While the Constitution mandates the devolution of 29 subjects under the Eleventh Schedule, less than 20% of states have fully implemented this. State governments continue to exercise control over key administrative functions, limiting panchayats' autonomy.
- **Fiscal Dependence and Declining Financial Autonomy**: Panchayats earn only 1% of their revenue through local taxes, making them heavily dependent on government grants. The central government's focus on tied grants reduces the financial autonomy of panchayats and increases control through centrally sponsored schemes.
- **Reduced Role Due to Direct Welfare Transfers**: The increasing use of the Jan Dhan-Aadhaar-Mobile (JAM) platform for welfare delivery (e.g., PM-KISAN) has bypassed panchayats, diminishing their role in beneficiary selection and grievance redressal.
- **Politicization and Declining Public Participation**: Local elections, while widely contested, often reflect party politics rather than genuine decentralization of governance. The engagement of political parties has led to factionalism, reducing the focus on grassroots development.
- **Urbanization and Changing Development Priorities**: Migration and rural depopulation weaken the relevance of panchayats, as administrative attention shifts to cities.

Measures to Strengthen Panchayati Raj and Grassroots Democracy

- **Enhancing Administrative and Functional Autonomy**: States must devolve all 29 subjects mandated by the 73rd Amendment, along with clear accountability mechanisms. Strengthening the role of State Finance Commissions in recommending devolution of powers and financial resources.
- **Restoring Fiscal Autonomy**: Increasing untied grants to panchayats, allowing them greater flexibility in fund utilization. Expanding local revenue sources by enabling property tax collection, user charges, and public-private partnerships.
- Reintegrating Panchayats into Welfare and Governance Mechanisms: Panchayats should play
 an active role in beneficiary selection, local monitoring, and grievance redressal in welfare
 programs. Leveraging panchayats for digital inclusion programs, ensuring rural citizens can access
 government services efficiently.
- Reviving Public Participation and Local Accountability: Strengthening Gram Sabhas as vibrant democratic forums for participatory decision-making. Implementing social audits and participatory budgeting to ensure local communities have a say in resource allocation.

Conclusion

A revitalized panchayati raj system can bridge the rural-urban divide, enhance participatory governance, and ensure inclusive development in India's villages.

The recent thaw in Bangladesh-Pakistan relations presents new strategic challenges for India. Discuss how this development impacts India's regional diplomacy and what steps India should take to secure its strategic interests.

Introduction: Contextual Introduction

Body: Impact of Bangladesh-Pakistan relations on India and measures to secure its strategic interests

Conclusion: Way forward



The recent diplomatic outreach between Bangladesh and Pakistan marks a shift in Dhaka's foreign policy orientation, particularly after the fall of the Sheikh Hasina government. This recalibration in Bangladesh's external relations poses significant strategic concerns for India, given its historical and economic ties with Dhaka. The evolving geopolitical dynamics necessitate a reassessment of India's regional diplomacy to safeguard its strategic interests.

Impact on India's Regional Diplomacy

- Shifting Regional Alignments The increasing engagement between Bangladesh and Pakistan, including high-level military interactions, signals a potential shift in Dhaka's strategic outlook. This could dilute India's influence in the region.
- **Security Implications** The visit of senior Bangladeshi military officials to Pakistan and participation in Pakistan-led naval exercises raise concerns regarding military cooperation that may indirectly impact India's northeastern security.
- **China's Expanding Footprint** A Bangladesh-Pakistan thaw could provide China greater leverage in South Asia, particularly in forming an alternative regional axis that sidelines India.
- **Economic and Trade Considerations** While India remains Bangladesh's largest trading partner, the normalization of Bangladesh-Pakistan economic ties may lead to attempts at diversifying trade relations away from India, even if logistical constraints persist.
- Impact on Border and Internal Security Any shift in Bangladesh's counterterrorism stance or intelligence cooperation with India could pose risks, particularly concerning militant activities along the India-Bangladesh border.

Strategic Steps for India

- Reinforcing Bilateral Ties India must deepen economic cooperation with Bangladesh, focusing
 on infrastructure projects, energy collaboration, and trade facilitation to reinforce its position as
 Dhaka's primary partner.
- **Strengthening Security Cooperation** Clear red lines must be established on issues such as military cooperation with adversarial nations, counterterrorism efforts, and arms trade to ensure regional stability.
- **Leveraging Cultural and Historical Bonds** India should actively engage in public diplomacy to counter anti-India narratives in Bangladesh and strengthen people-to-people ties.
- Addressing Border and Water Disputes Proactive resolution of issues related to smuggling, border security, and water-sharing agreements will enhance goodwill and prevent any diplomatic drift.
- **Countering Emerging Alliances** India must monitor and diplomatically counter any Bangladesh-China-Pakistan axis that could undermine its strategic interests in the region.

Conclusion

While the Bangladesh-Pakistan thaw presents new geopolitical challenges, India retains significant economic and strategic advantages in its relationship with Dhaka. A balanced approach—combining strategic vigilance with constructive engagement—will be key to maintaining India's influence and ensuring long-term regional stability.

Thermal power-producing states in India bear a disproportionate burden of pollution while supplying electricity to power-consuming states. Discuss the environmental and socio-economic challenges faced by these states and suggest measures to ensure equitable compensation and sustainable energy transition.

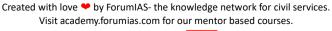
Introduction: Contextual Introduction

Body: Highlight Environmental and Socio-Economic Challenges & measures to ensure energy transition

Conclusion: Way forward

India's thermal power-producing states bear a disproportionate environmental and socio-economic burden while supplying electricity to power-consuming states. Despite generating electricity for national needs, they face high pollution, ecological degradation, and public health crises, with little to no compensation.

Environmental and Socio-Economic Challenges





- **Air and Water Pollution:** Thermal power plants contribute to high carbon emissions (20,794.36 kg per year), causing severe air pollution in producing states. Fly ash disposal contaminates soil and groundwater, while power plants consume large amounts of water, leading to water scarcity.
- Health Impacts and Livelihood Losses: States like Iharkhand, Chhattisgarh, and Odisha suffer from higher rates of respiratory illnesses and chronic diseases due to pollution. Traditional livelihoods such as agriculture and fisheries are adversely affected by environmental degradation.
- Economic Disparities and Resource Curse: Coal-rich states generate maximum thermal power but have lower per capita electricity consumption and economic growth. These states do not receive tax revenue from power generation while consuming states benefit from cheaper electricity.

Measures for Equitable Compensation and Sustainable Energy Transition

- **Introduction of a Generation Tax:** States hosting central sector power plants should be allowed to levy a tax on electricity generation, ensuring revenue for local development. Alternatively, the Union government can collect and transfer a generation tax to these states.
- Compensation Through the Finance Commission: The 16th Finance Commission should introduce fiscal transfers to power-producing states based on environmental degradation and climate impact. A formula similar to previous devolution criteria for forest cover and climate concerns can be applied.
- National Clean Energy and Environment Fund Expansion: The fund should be restructured to provide direct compensation to states affected by coal-based power generation. Funds can be allocated for pollution control technologies and renewable energy projects in these states.
- Stronger Environmental Regulations and Green Energy Investments: Enforce retrofitting of old thermal plants with Flue Gas Desulfurization (FGD) and stricter emission norms. Invest in solar, wind, and hydro projects to reduce dependence on coal-based power. Encourage state-level green energy transition policies through fiscal incentives.

Conclusion

Thermal power-producing states face an unjust economic and environmental burden. Introducing a generation tax, fiscal transfers, and a structured compensation mechanism can ensure fairness. Simultaneously, accelerating renewable energy adoption is crucial for a sustainable and equitable energy future in India.

In light of recent proposals to amend the Disaster Management Act, discuss the challenges and benefits of involving states in the disbursal of disaster relief funds. How can a more decentralized approach improve disaster management in India?

Introduction: Contextual Introduction

Body: Challenges in current DMA & benefits of involving states in the disbursal of disaster relief funds

Conclusion: Way forward

The ongoing controversy surrounding the disbursal of disaster relief funds from the Union government to states, particularly after the devastating effects of Cyclone Fengal in Tamil Nadu, highlights significant gaps in the existing disaster management framework.

Challenges in the Current Framework

- Inadequate Funding: States like Tamil Nadu have expressed concerns that the funds allocated under the State Disaster Response Fund (SDRF) are insufficient to meet the immediate and longterm needs after major disasters.
- Inequitable Fund Distribution: The current disaster relief system, based on formulas devised by the Finance Commission, often leads to dissatisfaction among states that feel they are not adequately compensated for the scale of destruction they face.
- **Centralization of Decision-making:** The centralized nature of the National Disaster Management Authority (NDMA) has been criticized for its lack of flexibility in responding to regional needs.

Proposed Decentralized Approach:





Created with love ♥ by ForumIAS- the knowledge network for civil services.

- **Decentralized Decision-Making:** The NDMC would allow for a more democratic and balanced approach to decision-making, with a weighted voting system based on each state's representation in the Rajya Sabha.
- **Fairer Fund Allocation**: By giving states a larger share of the decision-making power, the NDMC would prioritize the most affected regions and ensure that resources are allocated based on the severity of the disaster.
- **Timely Disbursal:** The Bill also aims to expedite the release of funds, addressing a major pain point where states face considerable delays in receiving financial assistance for immediate relief efforts.

Benefits of the Decentralized Approach

- **Tailored Responses:** States, having a clearer understanding of their regional vulnerabilities and needs, can deploy funds more effectively, targeting areas that require urgent attention. This approach fosters more localized and specialized disaster management.
- Enhanced Accountability and Transparency: With states being directly involved in the decision-making process, there is an increased possibility of better monitoring and utilization of funds, reducing the chances of fund mismanagement or underutilization.
- **Strengthened Federalism:** By giving states more autonomy in disaster management, the proposal aligns with the principles of cooperative federalism. It acknowledges that local governments, being closer to the ground, are better positioned to respond to specific regional crises.

Conclusion

The proposed amendments to the Disaster Management Act offer a promising shift towards a more decentralized, equitable, and transparent disaster management system. By involving states more directly in the decision-making process regarding disaster relief funds, India can ensure that financial resources are allocated more effectively and on time. However, to be fully successful, the system will require careful design to address disparities in state capacities and ensure effective coordination between the Centre and states. The proposed NDMC could be a critical step towards improving disaster preparedness and response across the country.

The recent decline in school enrolment in India raises concerns about the sustainability of its demographic dividend. Analyze the underlying causes of this trend and discuss its long-term socio-economic implications. Suggest policy measures to reverse this decline.

Introduction: Contextual Introduction

Body: Highlight causes of decline in school enrolment & measures to reverse this decline

Conclusion: Way forward

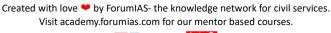
India's demographic dividend, driven by a young and expanding workforce, has long been seen as a key driver of its economic growth.

Causes of Declining School Enrolment

- **Demographic Shifts** The primary reason for the drop in enrolment is the declining school-age population. Between 2014-15 and 2023-24, the 6-17 age group shrank by 17.3 million (5.78%), closely mirroring the 24.51 million (9.45%) decline in total school enrolment.
- **Falling Fertility Rates** India's Total Fertility Rate (TFR) dropped to 2.01 in 2022, below the replacement level of 2.10, reducing the number of children entering the school system.
- Declining Public School Enrolment Government and government-aided schools, which serve
 the majority of disadvantaged students, witnessed a significant drop (13.8% and 16.41%,
 respectively). This shift may reflect a preference for private schooling or dissatisfaction with public
 education quality.
- **Migration and Disruptions in Education** Seasonal migration for work leads to irregular attendance and eventual dropout, particularly among economically weaker sections.

Long-Term Socio-Economic Implications

• **Weakening of India's Workforce Advantage** – A shrinking student base today means a smaller working-age population in the future, reducing India's capacity for economic expansion.





- **Premature Aging Without Economic Preparedness** Developed countries experienced aging after achieving economic prosperity. In India, aging before wealth accumulation could strain welfare systems and slow growth.
- **Rising Economic Inequality** The sharp drop in enrolment in government schools may disproportionately affect poorer families, further widening the gap between rich and poor.
- Pressure on Higher Education and Skill Development The eventual spillover of declining school enrolment into higher education institutions may lead to a reduced pool of skilled professionals.

Policy Measures to Reverse the Decline

- Boosting Fertility Through Supportive Policies Countries like Japan and South Korea have implemented policies such as childcare support and parental leave. India can consider incentives like tax benefits and subsidized childcare.
- **Strengthening Public School Systems** Improving teacher quality, infrastructure, and curriculum in government schools can help retain students and rebuild trust in the system.
- Enhancing Vocational and Alternative Learning Pathways Expanding skill-based education and digital learning platforms can provide flexible options for children at risk of dropping out.
- Addressing Migration-Related Education Gaps Establishing mobile schools and special enrolment drives for migrant children can reduce disruptions in learning.

Conclusion

Policymakers must act swiftly to ensure that education remains a priority, not just to sustain the demographic dividend but to prepare for an inevitable demographic shift toward an aging society.

Critically analyze the impact of Uttarakhand's Uniform Civil Code (UCC) provisions on live-in relationships. Discuss the implications of regulating such relationships in the context of individual autonomy, social norms, and legal safeguards.

Introduction: Contextual Introduction

Body: Implications of Uttarakhand UCC on live-in relationships and implications on individual and

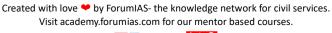
society

Conclusion: Way forward

The Uttarakhand Uniform Civil Code (UCC) introduces mandatory registration and regulatory oversight of live-in relationships, marking the first instance of such a move in India. While ostensibly aimed at protecting vulnerable partners, particularly women, the law raises concerns about individual autonomy, legal overreach, and societal policing.

Impact of Uttarakhand's UCC Provisions on Live-in Relationships

- Violation of Individual Autonomy and Privacy: The law disregards the personal liberty of individuals, particularly young couples who may enter live-in relationships as a trial phase before marriage or as an alternative to traditional marriage. Mandatory registration contradicts judicial precedents such as K.S. Puttaswamy v. Union of India (2017), which upholds the right to privacy. It also contradicts S. Khushboo v. Kanniammal (2010), which affirmed that live-in relationships do not require social or legal validation.
- Reinforcement of Moral Policing and Social Stigmatization: The UCC imposes conventional marital norms on live-in relationships, undermining their experimental nature. Instead of providing protection, it exposes couples to societal scrutiny, coercion, and potential moral policing by state and non-state actors.
- **Gender Justice: Protection vs. Overregulation:** Historically, the legal system has sought to extend protections to women in vulnerable live-in relationships, particularly those cohabiting with already married men (*Malimath Committee, 2003*). The Protection of Women from Domestic Violence Act, 2005 (PWDVA) included "relationships like marriage" to grant safeguards against abuse. However, subsequent Supreme Court rulings (*Velusamy v. D Patchaiammal, 2010; Indra Sarma v. V.K. Sharma, 2013*) restricted the scope of protection, leaving many women outside legal safeguards. The UCC does little to expand protections for women in precarious relationships, instead forcing legal recognition upon couples who may not seek it.





Implications of Regulating Live-in Relationships

- **Legal Overreach and Inconsistencies:** The definition of live-in relationships remains diverse, encompassing trial marriages, alternative relationships, and unions of divorced/widowed individuals. The law fails to address variant forms of live-in relationships, such as same-sex cohabitation or relationships where one partner is already married.
- Ambiguities in Rights and Obligations: The UCC mandates registration but does not clearly
 define the extent of legal rights conferred upon partners. Unintended consequences may include
 complicated litigation over separation, financial claims, and child custody. Instead of enhancing
 protections, the law imposes constraints that deter individuals from entering such relationships,
 leading to a backdoor push for marriage.

Conclusion

A more balanced legal response should ensure protections without coercively formalizing live-in relationships into a marital framework.

Political instability in Myanmar and the resulting refugee influx are straining Northeast India's security, economy, and border management. Discuss the challenges posed by this situation and suggest measures to maintain stability and economic engagement.

Introduction: Contextual Introduction

Body: Highlight Challenges Posed by Myanmar's Instability & measures to resolve these challenges.

Conclusion: Way forward

The 2021 military coup in Myanmar has led to widespread armed resistance, forcing thousands to flee into India's Northeast, particularly Manipur and Mizoram. This has strained security, disrupted economic linkages, and complicated border management.

Challenges Posed by Myanmar's Instability

- **Security Threats:** The insurgency in Myanmar has strengthened linkages between Indian insurgent groups and Ethnic Armed Organizations (EAOs), fueling instability in Manipur. The porous Indo-Myanmar border has facilitated arms smuggling, drug trafficking, and militant movements.
- Ethnic Conflicts and Social Strain: The refugee influx, particularly of Mizo-Chin-Kuki groups, has exacerbated tensions in Manipur, intensifying the Meitei-Kuki conflict. Contrasting responses from states—Mizoram showing empathy while Manipur raising concerns—have complicated governance strategies.
- **Economic Disruptions:** The conflict has halted trade in border towns like Moreh, stalling India's ambitions to make Northeast India a gateway to Southeast Asia. Key projects like the India-Myanmar-Thailand Trilateral Highway have been delayed, affecting regional connectivity.
- **Border Management Challenges:** The Free Movement Regime (FMR) is being restricted to 10 km, limiting cross-border trade and cultural exchanges. The lack of clear coordination between India and Myanmar has led to ad-hoc policy responses.

Measures to Maintain Stability and Economic Engagement

- Enhanced Border Security and Intelligence: Strengthen border infrastructure and surveillance to curb insurgent movement and illicit trade. Increase cooperation with Myanmar's ethnic organizations to prevent cross-border insurgency linkages.
- **Humanitarian and Development Initiatives:** Establish relief camps with adequate healthcare and education to manage refugee influx. Develop economic infrastructure in Myanmar's border regions to reduce the pressure on Indian states.
- **Diplomatic and Strategic Engagement:** Collaborate with ASEAN and other regional players to nudge Myanmar towards a federal democratic transition. Engage Myanmar's stakeholders to revive stalled economic projects like the Trilateral Highway.
- **Revitalizing Economic Connectivity:** Promote local trade through border haats and special economic zones. Use border management policies to facilitate economic integration rather than restrict movement.



Conclusion

While Myanmar's instability poses significant challenges, a calibrated response combining security measures, humanitarian support, and economic diplomacy can safeguard India's interests. India must seize the first opportunity to enhance connectivity and economic engagement with Myanmar and Southeast Asia.

India and Qatar have significantly strengthened their bilateral relations despite occasional differences. Discuss the key areas of cooperation between the two countries and analyze the challenges that may impact this partnership.

Introduction: Contextual Introduction

Body: Highlight key areas of cooperation between the two countries and analyze the challenges that may

impact this partnership. **Conclusion:** Way forward

The recent visit of Oatari Amir Sheikh Tamim bin Hamad Al-Thani to India after a decade underscores the growing significance of India-Qatar ties. Despite differing geopolitical perspectives, both nations recognize each other's strategic importance in regional and global affairs.

Key Areas of Cooperation

- **Energy Security:** Qatar supplies 45% of India's LNG requirements, forming a critical part of bilateral trade. India seeks long-term energy security through stable LNG imports.
- **Trade and Investment:** Bilateral trade stood at \$15 billion, with an agreement to double it by 2030. Oatar plans to invest \$10 billion in India's infrastructure, manufacturing, and other sectors.
- **Diaspora and Economic Cooperation:** 800.000+ Indian expatriates contribute significantly to Qatar's economy. India and Qatar signed a Double Taxation Avoidance Agreement to facilitate business operations.
- Strategic and Geopolitical Engagement: India upgraded ties with Qatar to a Strategic Partnership, aligning with similar agreements with UAE and Saudi Arabia. Qatar plays a key role in India's engagement with the Taliban regime in Afghanistan.
- Defense and Security: Qatar's decision to pardon eight Indian naval personnel marked a diplomatic success. Enhanced maritime security cooperation and joint naval exercises strengthen regional stability. India has extended counterterrorism collaboration with Oatar to curb extremist financing and radicalization.

Challenges in the Partnership

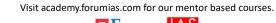
- Geopolitical Differences: Qatar maintains ties with groups like Hamas and the Taliban, contrasting India's cautious approach. Divergence in responses to the Israel-Gaza conflict may strain diplomatic alignment.
- Economic and Energy Dependencies: India's reliance on Qatari LNG could be a vulnerability amid global energy shifts.
- Regional Complexities: Qatar's hosting of a U.S. military base while engaging with regional militia groups adds diplomatic sensitivities.
- Labor Issues: Despite agreements, occasional concerns about worker conditions and human rights issues remain.

Conclusion

Despite geopolitical nuances, India and Qatar have reinforced their partnership through economic collaboration, energy security, and strategic alignment. Their commitment to doubling trade and deepening cooperation signals a forward-looking approach to sustaining bilateral ties.

"Building inclusive climate resilience in India's cities is essential in the face of rapid urbanization. Discuss the significance of integrating informal settlements into long-term resilience strategies and suggest measures to achieve this."

Introduction: Contextual Introduction





Created with love ♥ by ForumIAS- the knowledge network for civil services.

Body: Highlight the significance of integrating informal settlements into long-term resilience strategies and suggest measures to achieve this.

Conclusion: Way forward

With rapid urbanization and increasing climate challenges, India's cities are struggling to manage disasters such as extreme heat, floods, and water shortages. The Disaster Management (Amendment) Bill, 2024, offers a promising step by establishing urban disaster management authorities. However, it risks perpetuating the exclusion of informal settlements, where nearly one in five urban Indians reside. Ensuring their integration into resilience strategies is crucial for sustainable urban development.

Significance of Integrating Informal Settlements

- **Frontline Vulnerability:** Informal settlements are at the forefront of climate risks but often lack infrastructure, making them highly susceptible to disasters.
- **Improved Disaster Preparedness:** The inclusion of these settlements in planning—such as Jodhpur's Heat Action Plan—enables better vulnerability assessments and targeted interventions.
- **Economic and Social Stability:** Informal workers are vital to urban economies; their displacement due to climate events disrupts economic productivity.
- **Scalable Local Solutions:** Community-led resilience strategies, such as Odisha's sustainable sanitation project, showcase effective adaptation models that can be replicated.
- Public Health and Safety: Poor living conditions amplify the effects of climate hazards, increasing disease burden and mortality rates.

Measures to Enhance Urban Climate Resilience

- **Community Participation:** Leveraging local knowledge for risk mapping and decision-making (e.g., SEEDS and AI-driven heat vulnerability mapping in Delhi).
- **Technology and Digital Tools:** AI-based solutions and mobile platforms can improve early warning systems and resource allocation.
- **Diversified Financing Models:** Public-private partnerships, microfinance, and fintech solutions (e.g., Three Wheels United's electric rickshaw financing) can improve accessibility to climate-resilient infrastructure.
- **Institutional Integration:** Embedding resilience strategies into State budgets, city climate plans, and urban legislation for long-term sustainability.
- **Policy and Governance Reforms:** Strengthen urban governance with pro-poor policies, integrating informal settlements into municipal planning.

Conclusion

Investing in resilient futures for informal settlements is both a moral and strategic imperative. By incorporating community-driven innovations, financial inclusion, and policy reforms, India can build equitable and climate-resilient cities aligned with its sustainable development goals.

The revival of the Indo-US nuclear deal and proposed legislative reforms offer a unique opportunity to unlock India's nuclear energy potential. Discuss the significance of aligning India's liability framework with global norms and suggest measures to accelerate the country's clean energy transition through nuclear power.

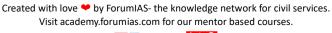
Introduction: Contextual Introduction

Body: Highlight significance of aligning India's liability framework with global norms and suggest measures to accelerate the country's clean energy transition through nuclear power.

Conclusion: Way forward

The Indo-US nuclear deal, reaffirmed in recent diplomatic engagements, holds strategic importance for India's energy security. The 123 Agreement enabled India to access nuclear technology despite being a non-signatory to the NPT, but challenges like restrictive US regulations and India's stringent liability laws have hindered progress. Addressing these issues through legislative reforms can help India achieve its target of 100 GW nuclear power capacity by 2047.

Significance of Aligning India's Liability Framework with Global Norms





- Attracting Foreign Investment: India's Civil Liability for Nuclear Damage (CLND) Act, 2010, deviates from international norms like the Convention on Supplementary Compensation (CSC), making foreign suppliers hesitant. Aligning with global practices by limiting supplier liability to intentional damage or contractual agreements can boost investor confidence.
- **Strengthening Technological Cooperation**: The removal of Indian nuclear entities from the US "Entity List" in 2025 facilitates technology transfers, fostering partnerships in projects like Kovvada (Westinghouse) and Jaitapur (EDF).
- **Enhancing Energy Security and Climate Goals:** Nuclear energy, with its low-carbon footprint, is crucial for reducing fossil fuel dependence and achieving India's clean energy ambitions.
- **Boosting Domestic Nuclear Capacity**: India aims to increase its nuclear power contribution from the current 3% to at least 10% by 2047. Easier investment norms can help in setting up more reactors.

Measures to Accelerate Nuclear Energy Adoption

- Reforming Liability Laws: Amendments to the CLND Act and Atomic Energy Act, 1962, allowing private sector participation while ensuring accountability.
- **Facilitating Joint Reactor Development**: Enabling manufacturing of American-designed reactors in India by amending the 10CFR810 clause.
- **Expanding Public-Private Partnerships**: Encouraging domestic firms through regulatory reforms and financial incentives.
- **Ensuring Safety and Accountability**: Learning from disasters like Chornobyl and Bhopal to build a robust regulatory framework.
- **Developing Indigenous Technologies**: Strengthening research in thorium-based reactors, given India's vast thorium reserves.
- Expediting Regulatory Clearances: Simplifying land acquisition and environmental approvals for faster reactor construction.

Conclusion

By balancing liability reforms with safety measures, India can position itself as a global leader in next-generation nuclear technology, driving a sustainable and energy-secure future.



