



Mains Marathon
Compilation

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Examine the causes of landslides in India, focusing on both natural and anthropogenic factors. How do these factors vary across different regions of the country?

Introduction: Contextual introduction

Body: Highlight both natural and anthropogenic factors and regional variations across the country.

Conclusion: Way forward

The devastating landslide in Wayanad on July 30th has caused unprecedented loss of life in Kerala, with over 250 fatalities reported. Experts have labeled it the deadliest landslide disaster in the state's history.

Natural Factors

- **Topography:** Steep slopes in regions like the Himalayas, Western Ghats, and Northeastern hills make them susceptible to landslides.
- **Geology:** Unstable rock formations and loose soil contribute to landslide susceptibility.
- **Climate:** Intense rainfall, especially during monsoons, saturates the soil, leading to landslides. Short, heavy downpours can act as triggers, as seen in Kerala.
- **Seismic Activity:** Earthquakes can destabilize slopes, particularly in the Himalayan region.

Anthropogenic Factors

- **Deforestation:** Cutting down native trees, especially for plantations like tea and coffee, weakens soil stability by removing deep-rooted vegetation that binds the soil to the bedrock.
- **Agricultural Practices:** Monocropping and changes in land use reduce soil cohesion and increase landslide risks.
- **Infrastructure Development:** Unscientific construction, road building, and mining destabilize slopes.
- **Urbanization:** Haphazard urban development in landslide-prone areas amplifies the risks.

Regional Variations in Landslide Susceptibility

- **Himalayan Region:** Susceptible due to steep slopes, deforestation, high seismic activity, and heavy monsoon rains. The terrain's young and unstable geological formations make this region particularly susceptible. Eg, Uttarakhand, and Himachal Pradesh.
- **Western Ghats:** High rainfall combined with deforestation and plantation agriculture leads to frequent landslides. Eg, Kerala, Karnataka & Maharashtra.
- **Northeast India:** Landslides are common due to high rainfall, deforestation, and shifting cultivation practices. Eg, Arunachal Pradesh, Meghalaya, and Mizoram.
- **Eastern Ghats:** Previously underappreciated, but new studies indicate susceptibility due to geomorphology and deforestation. Eg, Odisha, Andhra Pradesh, and Tamil Nadu.

Conclusion

It's crucial to establish comprehensive guidelines for human settlements, construction, and infrastructure development in hilly areas. Governments should use tools like the India Landslide Susceptibility Map before investing in projects. Experts emphasize that informed decision-making and adherence to best practices are essential to reduce the impact of landslides in India's vulnerable regions.

Evaluate the significance of the Broadcasting Regulation Bill, 2024, in the context of the evolving media landscape in India. What are the potential benefits of this regulation?

Introduction: Contextual Introduction

Body: Significance and benefits of the Bill

Conclusion: Way forward

The Broadcasting Regulation Bill 2024 aims to regulate various broadcasting forms, including TV networks, OTT platforms, and digital news. It introduces a unified regulatory framework, promotes self-regulation, and ensures accessibility for persons with disabilities.

Significance of the Bill

- **Consolidation of Regulations:** The Bill essentially provides regulatory provisions for various broadcasting services under a single legislative framework. It seeks to replace the Cable Television Networks (Regulation) Act of 1995 and other policy guidelines currently governing the broadcasting sector in India.
- **Self-Regulation Mechanisms:** The Bill introduces 'Content evaluation committees' for self-regulation and a 'Broadcast Advisory Council' to "advise the central government on program code and advertisement code violations.
- **Make Broadcasting Inclusive:** The Bill aims to make broadcasting more inclusive and accessible to people with disabilities. It promotes the use of subtitles, audio descriptors, and sign language. The Bill has a provision for appointing a "Disability Grievance officer" & hence promotes "ease of living".
- **Ease of Doing Business:** The bill aims to streamline business operations in the broadcasting sector by establishing a dispute resolution framework.

Potential benefits

- **Push for "Digital India":** The measure aims to encourage service evolution and technological improvement in the broadcasting industry, which will contribute to the achievement of our "digital India" goal.
- **Allows for "Right of Way":** The bill includes a provision for "Right of Way," which would make it simpler for cable operators to get approval from different municipal authorities to expand their network into a new city.
- **Encourages infrastructure sharing:** Just as telecom companies profited from pooling spectrum and cellular towers, broadcasters would also benefit from infrastructure sharing.
- **Ensure fairness and equity:** The Bill provides statutory penalties like advisory, warning, censure, or monetary penalties, for operators and broadcasters. Provision for imprisonment and/or fines is also there, but only for very serious offenses, such as obtaining registration with a false affidavit. These are linked to the financial capacity of the entity, taking into account their investment and turnover to ensure fairness and equity.

Conclusion

It is essential to conduct a thorough and transparent consultation process with industry stakeholders, civil society, and media experts to address the concerns like **government interference in Broadcast Advisory Council (BAC), increasing control over digital media, and more compliance for online platform which could be viewed as "license raj"**. Hence, the need is to ensure that the bill strikes a balance between regulation and freedom of expression.

Examine the significance of the recent Supreme Court verdict on caste sub-classification in India. How does this ruling address historical injustices and ensure equitable distribution of benefits among marginalized communities?

Introduction: Contextual introduction

Body: Significance of the verdict and how does it address historical injustices among SC & ST?

Conclusion: Way forward

The recent Supreme Court judgment allowing state governments to sub-divide reservation quotas for Scheduled Castes (SC) and Scheduled Tribes (ST), and potentially exclude the "creamy layer" from these benefits, marks a significant shift in India's approach to affirmative action. This decision, stemming from *the State of Punjab vs. Davinder Singh case, overturns the 2004 E V Chinniah* ruling, which treated SCs and STs as homogenous categories that could not be further subdivided.

Significance

- **Need for Evidence-Based Policies:** The judgment underscores the importance of data-driven approaches to social justice, possibly reinforcing the case for a nationwide caste census. This would provide the necessary data to implement more precise and effective affirmative action policies.
- **Fairer Allocation of Resources:** Sub-classification can lead to a fairer allocation of resources and benefits within the SC and ST quotas. It ensures that the most disadvantaged groups receive a proportionate share of the pie.
- **Maximizing the Impact of Reservations:** By targeting the most marginalized sections, the government can maximize the impact of reservation policies and achieve the goal of social upliftment more effectively.

Addressing Historical Injustices

- **Recognition of Heterogeneity:** This ruling acknowledges the diversity within SC and ST groups, allowing for a more nuanced approach to affirmative action that considers the unique needs and disadvantages of different sub-groups.
- **Rectifying Unequal Access:** The verdict recognizes that the benefits of affirmative action have not been evenly distributed across all SC and ST communities. By permitting sub-classification, the ruling aims to rectify these imbalances and ensure that the most disadvantaged sub-groups receive the support they need.
- **Targeted Interventions:** By permitting sub-classification, the government can now implement more targeted interventions and affirmative action programs to uplift the most vulnerable sections within these categories to break the cycle of poverty and discrimination that has persisted for centuries.
- **Empowering Marginalized Groups:** The decision empowers marginalized groups within the SC and ST communities to demand their rightful share of resources and opportunities. It gives them a stronger voice in the fight for social justice.

Conclusion

Overall, the Supreme Court's verdict on caste sub-classification is a landmark decision that has the potential to significantly improve the lives of millions of marginalized people in India. It is a step forward in the country's journey towards a more just and equitable society.

Discuss the role of regulatory frameworks and enforcement mechanisms in ensuring the safety of educational institutions in urban areas. How can these be strengthened to prevent future tragedies?

Introduction: Contextual Introduction

Body: Role of regulatory frameworks & enforcement mechanisms and how to strengthen them?

Conclusion: Way forward

Urban areas in India, such as Delhi and its National Capital Region (NCR), have faced severe challenges in managing monsoon rains, leading to tragic incidents and highlighting the inadequacies of existing infrastructure. The safety of educational institutions in these environments is directly tied to the effectiveness of regulatory frameworks and enforcement mechanisms.

Role of Regulatory Frameworks and Enforcement Mechanisms

- **Building Codes and Safety Standards:** Regulations must ensure that buildings are constructed following stringent safety codes, including earthquake-resistant designs in seismic zones, proper ventilation, and fire-resistant materials.
- **Health and Hygiene Standards:** Ensuring clean and adequate sanitation facilities is critical to prevent the spread of diseases. Regulatory oversight of eateries ensures that students receive safe and nutritious food.
- **Regular Inspections and Audits:** Government authorities must conduct regular inspections to ensure that institutions comply with safety regulations. These inspections should cover structural integrity, fire safety, sanitation, and security measures.
- **Penalties for Violations:** Strict penalties for institutions that fail to adhere to regulations, including suspension or closure.

Strengthening Regulatory Frameworks and Enforcement Mechanisms

- **Updating Infrastructure Standards:** Regulatory frameworks need to be updated to reflect modern urban realities and climate change-induced challenges. This includes revising building codes to ensure that all structures, including educational institutions, are designed to withstand extreme weather events and are equipped with adequate drainage systems.
- **Regular Inspections and Maintenance:** Regular inspections of drainage systems, buildings, and urban infrastructure are essential to identify and address vulnerabilities before they lead to disasters. Desilting drains and maintaining stormwater systems can significantly reduce the risk of waterlogging and related hazards.
- **Community Involvement:** Engaging the community in safety initiatives, including parent-teacher associations and neighborhood watch groups.
- **Public Awareness and Preparedness:** Educating the public, especially students and staff in educational institutions, about the risks of waterlogging and how to respond to emergencies can save lives. Emergency drills, proper signage, and clear communication channels are critical components of preparedness.

Conclusion

The tragedies that have occurred in cities like Delhi underscore the urgent need to strengthen regulatory frameworks and enforcement mechanisms to ensure the safety of educational institutions. Inclusive and resilient urban planning, coupled with public awareness, will be key to preventing future disasters and safeguarding the lives of those in educational settings.

Examine the progress made in ensuring the dignity, freedom, and self-determination of transgender individuals since the landmark judgment. Highlight the challenges and gaps in the implementation of the Transgender Persons (Protection of Rights) Act, 2019.

Introduction: Contextual Introduction

Body: Highlight progress made since judgment and list challenges and gaps in execution.

Conclusion: Way forward

The recognition of transgender individuals in the *NALSA vs. Union of India* judgment in 2014 as a third gender was a landmark moment in India's journey towards equality. The subsequent Transgender Persons (Protection of Rights) Act, 2019, aimed to further solidify their rights and protections.

Progress Made

- **Legal Recognition and Rights:** The NALSA judgment and the Transgender Persons (Protection of Rights) Act, 2019, have legally recognized the identity of transgender individuals, providing them with the right to self-identification and protection against discrimination in education, employment, healthcare, and access to public spaces.
- **Increased Visibility and Awareness:** These legal developments have contributed to greater visibility and awareness of transgender issues in Indian society. Media representation, public discourse, and advocacy have all played a role in challenging stereotypes and reducing stigma.
- **Educational and Employment Initiatives:** Some state governments and private organizations have initiated schemes and programs to promote the inclusion of transgender persons in education and employment. For instance, reservations in education and government jobs for transgender individuals have been introduced in states like Karnataka and Tamil Nadu.
- **Healthcare Access:** The Act mandates that transgender individuals have access to healthcare services without discrimination, including free sex reassignment surgeries (SRS) and hormone therapy in select government hospitals.

Challenges and Gaps in Implementation

- **Implementation Issues:** Despite the law, implementation remains a major challenge. Many transgender individuals face discrimination in accessing education, employment, and healthcare.
- **Social Stigma and Discrimination:** Deep-rooted societal prejudices and discrimination continue to hinder the full integration of transgender individuals into mainstream society.
- **Lack of Awareness:** There is a significant gap in awareness about the rights of transgender persons among the general public, law enforcement agencies, and government officials.
- **Incomplete Protection:** The Act falls short in addressing crucial issues such as hate crimes, access to justice, and comprehensive healthcare.
- **Economic Marginalization:** Transgender individuals continue to face economic hardships and a lack of livelihood opportunities.

Conclusion

While India has made significant strides in recognizing the rights of transgender individuals, the journey towards a truly inclusive society is far from over. Effective implementation of the Transgender Persons Act, coupled with sustained efforts to change societal attitudes, is essential to ensure the dignity, freedom, and self-determination of this marginalized community.

Evaluate the benefits of direct seeding in terms of water and labor savings, cost reductions, and environmental impact. Compare these benefits with the conventional methods of rice cultivation in India.

Introduction: What is DSR?

Body: Highlight its benefits and compare it with conventional methods of rice cultivation.

Conclusion: Way forward

Direct Seeding of Rice (DSR), is a method of rice cultivation where paddy seeds are directly sown in the field, instead of the traditional method of transplanting seedlings from a nursery into the main flooded field.

Benefits

- **Water:** The DSR technique conserves water more effectively than traditional transplanting methods. Experts estimate that adopting DSR can save approximately 15% to 20% of groundwater.
- **Labor:** DSR significantly reduces labor costs. Traditionally, transplanting an acre of paddy requires 4-5 laborers, costing around Rs 4,000. In contrast, a DSR machine can cover the same area in just 1.25-1.5 hours, using only about 3 liters of diesel at Rs 90 per liter, which greatly lowers the overall cost of cultivation.
- **Cost benefits:** The DSR method also saves power compared to the traditional method. It helps reduce weed problems and decreases the incidence of nutrient deficiencies, particularly iron, due to less nutrient leaching and deeper root development. This has made DSR increasingly popular among farmers in Haryana and Punjab.
- **Climate:** Field experiments have shown that DSR is a viable alternative to mitigate methane emissions, compared to the conventional paddy planting method, which is a major source of methane.

Comparison with conventional methods of rice cultivation

- **Water savings:** Direct Seeding requires less water while conventional transplanting requires significant amounts of water for both the nursery and the field, leading to higher water consumption. Water savings can be as high as 30-40% compared to traditional methods.
- **Labour Cost:** Direct Seeding reduces labor requirements significantly as it eliminates the need for nursery preparation, seedling uprooting, and transplanting while conventional transplanting is labor-intensive, requiring manual work for seedbed preparation, seedling transplantation, and subsequent field management.
- **Cost Reductions:** Direct Seeding requires lower labor costs, reduced water consumption, and potential for mechanization contributing to overall cost reduction while conventional transplanting is associated with the high cost of labor, water, and longer crop duration, leading to increased spending on inputs like fertilizers and pesticides.
- **Environmental Impact:** DSR is superior as it leads to significantly reduced methane emissions & improved soil health as compared to the conventional method which leads to depletion of the water table, higher greenhouse gas emissions & soil degradation.

Conclusion

India can achieve significant progress in water conservation, reducing the environmental footprint of rice cultivation, and improving the livelihoods of farmers by gradually shifting towards direct seeding.

Discuss the psychological impacts of climate-induced disasters on affected communities. How can these impacts be mitigated through policy and community-level interventions? (250 words)

Introduction: Contextual Introduction

Body: Highlight psychological impacts of climate-induced disasters and mitigation strategies

Conclusion: Way forward

Climate-induced disasters, such as hurricanes, floods, and wildfires, have profound psychological impacts on affected communities.

Psychological Impacts of Climate-Induced Disasters on Affected Communities

- **Post-Traumatic Stress Disorder (PTSD):** Climate-induced disasters, such as landslides and floods, often result in PTSD, characterized by distressing dreams, flashbacks, and heightened anxiety. For instance, after the 2021 Chamoli floods, survivors reported nightmares and heightened fear of future disasters.
- **Chronic Stress Responses:** Continuous exposure to stressors, such as prolonged heavy rains or persistent threats from climate-induced events, leads to maladaptive stress responses.
- **Cognitive Impairments:** Research has shown that individuals affected by major fires exhibited impaired selective attention and working memory. Emotional-interference processing, where emotional stimuli disrupt cognitive tasks, was notably affected.
- **Economic and Social Displacement:** Displacement due to disasters, such as the 2016 floods in Indonesia, impacts economic stability and mental well-being. While some displaced individuals report improved mental well-being, those in unstable or temporary housing often experience worsened mental health outcomes.

Mitigation Strategies

- **Detailed Planning:** Experts emphasize the importance of having a detailed disaster-management plan that includes steps for immediate response, identification of next of kin, resource assessment, and support networks. This logical approach can help shift from emotional to cognitive responses in the face of disaster.
- **Psychological First Aid (PFA):** Psychological First Aid involves initial disaster response interventions designed to promote safety, stabilize survivors, and connect them to resources. PFA includes meeting basic needs, listening to survivors, accepting their feelings, and referring them for further treatment.
- **Community-Based Approach:** PFA focuses on rebuilding community support systems rather than providing on-site therapy. The model emphasizes equipping communities to handle future calamities.
- **Health Vigilance:** Experts have highlighted the need for government and health authorities to monitor mental and physical health indicators in disaster-affected populations. This includes tracking the increased risk of both mental health conditions and physical diseases, such as metabolic and communicable diseases.

Conclusion

Mitigating the psychological impacts of climate-induced disasters involves integrating mental health support into disaster planning, fostering community resilience, and providing targeted assistance to vulnerable groups. Collaboration among government bodies, mental health professionals, and community organizations is key to effective recovery.

Critically evaluate the impact of the Union Budget on scientific research and development in India. How does the budget address the challenges of basic research and innovation? (250 words)

Introduction: Contextual Introduction

Body: Impact of budget on scientific research & how does it address challenges and concerns.

Conclusion: Way forward

The Union Budget plays a pivotal role in shaping the trajectory of scientific research and development (R&D) in India. The Union Budget of Modi's third term continues to build on previous initiatives aimed at advancing technology and scientific research in India.

Impact

- **Focus on Advanced Technology and Innovation:** The Budget reinforces India's commitment to advanced technology sectors, including quantum technologies, supercomputing, and space exploration.
- **Support for Critical Sectors:** The Budget allocates funds to critical areas like climate-resilient agriculture, critical minerals, and clean energy. These are strategically important sectors given global challenges such as climate change and energy security.
- **Agricultural Innovation:** The focus on agricultural productivity and resilience, supported by initiatives like speed breeding platforms and climate-resilient crop varieties, indicates a targeted approach to transforming Indian agriculture through biotechnology.
- **Private Sector Engagement:** The budget highlights a shift towards increased private sector participation in R&D through the operationalization of the Anusandhan National Research Foundation (ANRF) with a ₹1 lakh crore corpus. This initiative aims to bridge the gap between academic research and commercial application, encouraging private investment in research.

Concerns and Challenges

- **Stagnation in Basic Research Funding:** Despite the increased allocations, concerns persist about the adequacy of funding for basic research. Leading scientists have pointed out that, when adjusted for inflation, the increase in allocations is nominal.
- **Operational Challenges of ANRF:** The operationalization of the ANRF is seen as a positive step, but there are concerns about its emphasis on prototype development alongside basic research.
- **Disparities in Funding Distribution:** There is a notable disparity in the distribution of research funding, with a significant portion going to central institutions like IITs, while state-run institutions receive a smaller share.
- **Sustainability of Research Funding:** The reliance on zero budgeting systems (ZBS) and quarterly reports creates challenges for research institutions, as these mechanisms are better suited to predictable and quantifiable projects, not the inherently uncertain nature of scientific research.
- **Nominal Budget Increases:** While there are increases in budget allocations, many scientists believe that these are not sufficient to keep pace with the growing demands of the research community.

Conclusion

More effort must be put into raising research funding as a share of GDP and implementing rules that guarantee fair distribution and support for both basic and applied research if India's scientific community is to reach its full potential.

Discuss the systemic barriers faced by survivors of gender-based violence in rural India. What reforms are necessary to ensure a more supportive and just legal framework for these survivors?

Introduction: Brief contextual Introduction

Body: Highlight systemic barriers faced by survivors of GBV & measures to deal with them

Conclusion: Way forward

Survivors of gender-based violence (GBV) in rural India encounter a complex web of systemic barriers that hinder their access to justice and recovery. These barriers are deeply rooted in societal norms, patriarchal structures, and inadequate infrastructure.

Systemic Barriers

- **Social Ostracism:** Survivors of GBV, especially sexual violence, can experience stigma and ostracism in rural areas. They are deterred from reporting occurrences since they are frequently held responsible for the violence.
- **Legal Illiteracy:** A large number of survivors and their families do not know how to report GBV or about their legal rights. This ignorance also includes not knowing what exactly GBV is.
- **Geographical Barriers:** It can be challenging for survivors to file complaints or obtain medical attention in rural areas due to the lack of access to police stations, legal aid offices, and healthcare facilities.
- **Institutional Violence:** Survivors face systemic violence that begins even before they attempt to report GBV. The skepticism and apathy of law enforcement officials, the cumbersome and traumatic judicial processes, and the societal stigma attached to survivors all contribute to a vicious cycle of violence and injustice.

Necessary Reforms for a Supportive and Just Legal Framework

- **Including GBV in Political Agendas:** GBV should be given top priority in political party manifestos. Voters should hold candidates responsible for addressing and enacting GBV-related policies.
- **Enhancing Law Implementation:** Although India has robust legal provisions against domestic abuse and other gender-based violence, these laws are frequently not adequately enforced. Ensuring effective enforcement of laws and instituting accountability procedures for those who fail to uphold them should be a national priority.
- **Empowering Marginalized Communities:** National expansion is necessary for initiatives like Vanangna's government official training courses on survivor- and woman-centered procedures. These initiatives can contribute to the development of a more approachable and accommodating legal system for survivors, especially those from underrepresented groups.
- **Reducing Judicial Backlogs:** It is imperative to deal with the vast backlog of cases in the judiciary, especially those about GBV. Streamlining GBV cases and guaranteeing prompt justice can greatly enhance survivors' interactions with the legal system.

Conclusion

Political leaders and voters must treat gender-based violence not only as a societal issue but as a core matter of justice and human rights. Prioritizing GBV and establishing survivor-focused institutions are essential steps toward building a more just and equitable society that safeguards the safety and dignity of women in India.

Critically analyze the potential economic benefits and societal costs of allowing doorstep delivery of alcohol in Indian states. How can governments balance revenue generation with public health concerns?

Introduction: Contextual Introduction

Body: Highlight economic benefits and societal costs of doorstep alcohol delivery.

Conclusion: Way forward

States like Delhi, Karnataka, and Tamil Nadu are considering alcohol delivery via platforms like Swiggy. India, the sixth-largest alcohol market, saw per capita consumption rise from 1.6 liters in 2005 to 5.5 liters by 2018, with 16 crore users in 2018.

Economic Benefits and Societal Costs of Doorstep Alcohol Delivery

- **Excise Taxes:** States stand to gain significant revenue from the doorstep delivery of alcohol, as taxes on alcohol sales contribute up to 25% of the total revenue for many state governments.
- **Job Creation and Economic Activity:** The integration of alcohol delivery into platforms like Swiggy, BigBasket, and Zomato could stimulate economic activity by creating jobs in logistics, delivery, and the broader e-commerce ecosystem.
- **Normalization of Alcohol Use:** Doorstep delivery may normalize alcohol consumption in households, potentially leading to changes in social norms around drinking. This could increase alcohol-related harm, including domestic violence, particularly in households where alcohol misuse is already prevalent.
- **Questionable Safety for Women:** While doorstep delivery could theoretically reduce on-premise violence against women by eliminating the need to visit bars, it may not mitigate the broader issue of domestic violence linked to alcohol consumption.

Balancing Revenue Generation with Public Health Concerns

- **Strict Controls and Pricing:** Governments could implement strict regulatory measures, such as higher taxes on delivered alcohol, to discourage excessive consumption. Pricing strategies can make alcohol less accessible and reduce impulse buying.
- **Data Sharing and Monitoring:** Platforms offering alcohol delivery must share data with the government to monitor consumption patterns and assess the impact on public health. Continuous evaluation would allow for policy adjustments if evidence of harm emerges.
- **Awareness Campaigns:** Governments should invest in public health campaigns to educate citizens about the risks associated with alcohol consumption and promote responsible drinking.
- **Enhanced Support Services:** Allocating a portion of alcohol tax revenues to fund treatment programs for alcohol-use disorders and support services for affected families can help mitigate the negative social impacts.

Conclusion

Allowing alcohol delivery in Indian states presents a trade-off between economic gains and societal costs. While it could boost revenue and consumer convenience, the public health risks are considerable. Governments should enforce strict regulations, prioritize public health, and use a data-driven approach to balance these outcomes effectively.

Analyze the significance of low-skilled, employment-intensive manufacturing in India's economic growth. Compare this approach with the IT services-led growth experienced in the 2000s.

Introduction: Contextual Introduction

Body: Significance of low-skilled employment and compare this with IT service-led growth

Conclusion: Way forward

India's economic growth narrative is often marked by optimism, fueled by high GDP growth rates and the aspiration of becoming a major global economic player. However, for India to sustain this momentum and achieve its goal of becoming a \$30-trillion economy by 2047, a shift towards low-skilled, employment-intensive manufacturing is crucial.

Significance of Low-Skilled, Employment-Intensive Manufacturing in India's Economic Growth

- **Addressing Labor Market Challenges:** With 46% of India's labor force still engaged in low-productivity agriculture and a female labor force participation rate (FLFPR) of just 37%, there is an urgent need to create job opportunities in sectors that can absorb large numbers of workers.
- **Learning from the Asian Tigers:** The success of countries like South Korea, Taiwan, Japan, and Vietnam—often referred to as the 'Asian Tigers'—in achieving rapid economic growth through export-oriented, low-skilled manufacturing serves as a model for India.
- **Export Competitiveness and Global Integration:** Low-skilled manufacturing can help India become more competitive in global markets, particularly if the country can capitalize on the current geopolitical landscape, such as the China+1 strategy being adopted by multinational companies. By focusing on export-driven growth, India can increase its share in global trade and enhance its economic resilience.

Comparison with IT Services-Led Growth in the 2000s

- **Inclusivity and Broad-Based Growth:** The IT services-led growth in the 2000s primarily benefited urban areas and the educated middle class, creating a significant but somewhat narrow impact on the overall economy. While it contributed to India's GDP and positioned the country as a leader in the global IT industry, this growth model did not significantly address the employment needs of the broader population, particularly those in rural areas.
- **Reduce Regional Disparities:** Low-skilled manufacturing has the potential to create jobs across different regions and social strata, fostering more inclusive growth. This sector can help reduce regional disparities by encouraging industrial development in less-developed areas, thereby promoting balanced economic development.
- **Resilience and Sustainability:** The IT sector, while a major driver of India's economic growth, is vulnerable to external shocks such as global demand fluctuations and technological disruptions. On the other hand, low-skilled manufacturing offers a more stable growth path, as it is less susceptible to global market volatility and can absorb a larger portion of the workforce.

Conclusion

Low-skilled, employment-intensive manufacturing holds the key to unlocking India's economic potential, providing jobs to millions, and driving inclusive growth. By focusing on manufacturing and export-led growth, India can build a more resilient and inclusive economy, avoiding the middle-income trap and achieving its long-term economic goals.

Analyze the impact of political stability in Bangladesh on India's strategic and economic interests. How can India ensure continued cooperation despite political changes in Dhaka? (250 words)

Introduction: Contextual Introduction

Body: Impact of political stability on India and how to ensure continued cooperation despite political changes.

Conclusion: Way forward

In a surprising development, Sheikh Hasina has resigned as the Prime Minister of Bangladesh and left the country. Her departure marks the end of her 15-year tenure and signifies a dramatic shift in Bangladesh's political landscape.

Impact

- **Regional Security:** Political stability in Bangladesh has a direct impact on regional security in South Asia. A stable government in Dhaka ensures better cooperation on counter-terrorism, border management, and curbing insurgency activities along the India-Bangladesh border.
- **Geopolitical Balance:** Bangladesh plays a crucial role in India's Act East Policy and in counterbalancing China's growing influence in the region. A stable Bangladesh under a government favorable to India helps maintain a strategic balance.
- **Bilateral Trade:** Political stability has been instrumental in deepening India-Bangladesh trade relations. A stable regime ensures the implementation of trade agreements, adherence to policies like duty-free quota access under SAFTA, and the smooth functioning of trade routes.
- **Investment Climate:** Stability in Bangladesh creates a conducive environment for Indian businesses to invest in sectors like textiles, pharmaceuticals, and energy. Political unrest or changes in government could lead to policy reversals, increased regulatory risks, and potential losses for Indian investors.

Ensuring Continued Cooperation Despite Political Changes

- **Regional and Multilateral Engagement:** India can leverage regional forums like BIMSTEC and SAARC to engage with Bangladesh on broader issues, ensuring that cooperation continues at the multilateral level even during domestic political transitions.
- **Implementation of Smart Border Management** - It's essential to create joint task forces that include law enforcement agencies from both countries to effectively tackle cross-border issues such as drug smuggling, human trafficking, and illegal immigration.
- **Diplomatic Engagement:** India should maintain strong diplomatic ties with all major political entities in Bangladesh. By engaging with multiple stakeholders, India can ensure that bilateral relations remain robust, regardless of who is in power.
- **People-to-People Relations:** Strengthening cultural and educational exchanges can create a strong foundation for bilateral relations that transcends political changes. Enhanced engagement through tourism, cultural exchanges, and academic partnerships can foster goodwill and understanding between the populations of both countries.

Conclusion

Political stability in Bangladesh is crucial for safeguarding India's strategic and economic interests. With a multi-faceted approach that includes diplomatic engagement, strengthening institutional frameworks, and fostering economic and cultural ties, India can ensure continued cooperation with Bangladesh, even amid political changes in Dhaka.

Discuss the Supreme Court's recent judgment on the All India Stray Dogs case. How does it reflect the balance between state and municipal laws versus central legislation regarding animal welfare?

Introduction: Contextual Introduction

Body: Key Aspects of the Judgement and balancing act among various agencies

Conclusion: Way forward

The recent Supreme Court judgment on the All India Stray Dogs case, officially titled *Animal Welfare Board of India & Anr. vs. People for Elimination of Stray Troubles & Ors.*, addressed the contentious issue of stray dog population management in India. The case, which had been ongoing for 15 years, was a legal battle between proponents of animal rights and those advocating for aggressive measures to control stray dog populations, including culling.

Key Aspects

- **Legislative Changes:** The judgment was influenced by the introduction of the new Animal Birth Control Rules, 2023, which further reinforced the central law's stance against culling and emphasized sterilization and vaccination.
- **Scientific and Humane Approach:** The Supreme Court's decision was grounded in a scientifically backed approach to stray dog population control, as endorsed by the World Health Organization (WHO) and other expert bodies. The Court highlighted that culling had not proven effective in controlling stray dog populations, whereas sterilization had been recognized as the only humane and effective method.
- **Constitutional and Ethical Considerations:** The judgment also invoked Article 51A(g) of the Constitution of India, emphasizing the fundamental duty of citizens to show compassion towards all living creatures. The Court's ruling reflects a broader ethical perspective on how stray animals should be treated, aligning legal enforcement with constitutional values.

Balancing Act: Central, State, and Municipal Laws

- **Central vs. State and Municipal Laws:** The case centered on whether municipal and local authorities could kill stray dogs under state and municipal laws or whether they were bound by central laws like the Prevention of Cruelty to Animals (PCA) Act, 1960, and the Animal Birth Control (ABC) Rules, 2001. The Supreme Court ruled that local authorities must adhere to central legislation, which prohibits indiscriminate killing and mandates sterilization and vaccination as the humane and effective method for controlling stray dog populations.
- **Central Legislation:** Acts like the Prevention of Cruelty to Animals Act (PCA Act) provide a broad framework for animal welfare. They set national standards and guidelines.
- **State Legislation:** Many states have their animal welfare laws, which may provide more specific regulations or address regional issues.
- **Municipal Bylaws:** Local authorities often have bylaws to manage stray animals within their jurisdiction. These bylaws are crucial for on-ground implementation but can vary widely.

Conclusion

The judgment advocates for a humane and scientifically validated approach, resolving a protracted legal issue while also emphasizing ethical animal treatment. This ensures a careful balance between maintaining public safety and protecting animal rights.

Analyze the importance of winning local population support in counter-terrorism operations. How can the Indian Army balance operational efficiency with community engagement in Jammu?

Introduction: Contextual Introduction

Body: Importance of local population in counter-terrorism ops & balance between operational efficiency with community engagement

Conclusion: Way forward

The Jammu region's counter-terrorism efforts are facing significant challenges, exacerbated by the re-deployment of troops to the Line of Actual Control (LAC) and the increasing threat from infiltrated terrorists. The induction of additional troops, including Special Forces and Assam Rifles, into the region highlights the government's commitment to addressing the deteriorating security situation.

Importance of Local Population Support in Counter-Terrorism

- **Intelligence gathering:** Locals frequently have important knowledge regarding the whereabouts and activities of terrorists.
- **Early Warning Systems:** By promptly alerting the public to possible threats, security forces can take preventative action.
- **Refusing Safe Havens:** Terrorists frequently use locals as human shields and are dependent on their support. An antagonistic public can seriously impede their activities.
- **Long-Term Stability:** Reconstruction after a conflict and averting a return to violence depend on developing a relationship of trust and collaboration with the local populace.
- **Minimizing Collateral Damage:** Engaging positively with the community helps minimize unintended harm to civilians, which can otherwise fuel anti-security sentiments.

Balancing Operational and Community Needs

- **Civilian-Military Cooperation:** Establish robust civil-military coordination mechanisms to ensure that counter-terrorism operations do not alienate the local populace.
- **Humanitarian Aid:** Provide essential services like healthcare, education, and infrastructure development to demonstrate the army's commitment to the community's well-being.
- **Trust-Building Measures:** Implement community policing initiatives, conduct regular interaction programs, and address local grievances to build trust.
- **Information Dissemination:** Maintain open communication channels with the public, providing accurate and timely information about operations to counter misinformation.
- **Respect for Human Rights:** Adhere strictly to human rights principles and international humanitarian law to prevent civilian casualties and maintain public confidence.
- **Local Recruitment:** Consider recruiting locals into the security forces to foster a sense of ownership and responsibility.
- **Capacity Building:** Empower local communities to take ownership of their security by providing training in first aid, disaster management, and early warning systems.

Conclusion

Balancing operational efficiency with community engagement in Jammu requires a strategic approach that integrates new troops effectively with existing units, leverages local knowledge, and fosters positive relationships with the local population. This approach not only improves operational effectiveness but also contributes to long-term stability in the region.

Critically analyze the relationship between agricultural productivity and nutritional security in India. Suggest measures to enhance both in a sustainable manner. (250 words)

Introduction: Contextual Introduction

Body: Relationship between agri productivity & nutritional security and measures to enhance both

Conclusion: Way forward

According to the FAO (2009), nutritional security refers to the ability of every individual to access a balanced diet, clean drinking water, a safe environment, and adequate health care (both preventive and curative).

Relationship between Agricultural Productivity and Nutritional Security in India

- **Agricultural Productivity as a Foundation:** Agricultural productivity directly influences food availability, access, and affordability, which are crucial for nutritional security. High productivity in staple crops like rice and wheat has historically ensured calorie security for a large portion of India's population.
- **Nutritional Security Requires Diversity:** While increased agricultural productivity has enhanced food security, it has not necessarily translated into nutritional security. The focus on staple crops has led to a decline in the production of nutrient-rich crops like pulses, fruits, and vegetables, contributing to widespread micronutrient deficiencies.
- **Economic Access and Affordability:** Increased agricultural productivity can reduce food prices, making it easier for low-income households to access a variety of foods. However, the current model, which prioritizes staple crops, limits access to diverse diets essential for nutritional security.

Measures to Enhance Agricultural Productivity and Nutritional Security Sustainably

- **Promotion of Nutritious Crops:** Encourage the cultivation of pulses, millets, fruits, and vegetables through government support and incentives. Diversifying cropping patterns will not only improve soil health but also enhance the nutritional quality of diets.
- **Agroecological Approaches:** Implement sustainable farming practices that include crop rotation, organic farming, and intercropping. These practices improve soil fertility, reduce dependency on chemical inputs, and increase the resilience of farming systems.
- **Incorporating Nutrition into PDS:** Reform the PDS to include a broader range of food items, such as millets and pulses, which are more nutritious and locally adapted.
- **Bio-Fortification:** Promote the development and distribution of bio-fortified crops that are enriched with essential vitamins and minerals, addressing specific nutritional deficiencies.
- **Enhancing Economic Access:** Implement policies that increase the income of smallholder farmers, allowing them to afford a more diverse diet. Subsidies and minimum support prices (MSP) should also be aligned with the production of nutritious crops.

Conclusion

The findings of the Household Consumption Expenditure Survey 2022-23 highlight the persistent issue of nutritional insecurity in India, particularly among the poorest segments of the population. Addressing this challenge requires a multi-faceted approach that includes policy shifts, innovative nutritional interventions, and a focus on women's education and healthcare. Ensuring nutritional security is not only vital for individual health and well-being but also for the socio-economic development of the nation.

Discuss the significance of a legal framework like the Disaster Management Act, of 2005 in strengthening disaster preparedness and response in India. How can its provisions be better utilized? (250 words)

Introduction: Contextual Introduction

Body: Significance of new amendments and how can the Act be improved.

Conclusion: Way forward

The Government of India's introduction of the Disaster Management (Amendment) Bill, 2024, aims to improve operational efficiencies in responding to natural disasters. While the Bill brings several notable changes, it also misses some crucial opportunities to enhance disaster management in India comprehensively.

Significance

- **Establishment of Urban Disaster Management Authorities:** The introduction of Urban Disaster Management Authorities for large metropolitan cities is a crucial step towards addressing the unique challenges posed by urban disasters, such as urban flooding.
- **Legal Status to National Crisis Management Committee (NCMC):** Granting legal status to the NCMC and designating it as the nodal body for dealing with disasters of national significance is a positive step towards centralizing decision-making in critical situations.
- **Mandatory SDRF Establishment:** Making it mandatory for states to raise and maintain State Disaster Response Forces (SDRF) is a significant move to standardize disaster response capabilities across the country.
- **Creation of Disaster Databases:** The requirement for the NDMA and SDMA to create and maintain disaster databases is a significant step towards improving data-driven decision-making in disaster management.

Enhancing the Act's Effectiveness

- **Institutional Strengthening:** Strengthen the NDMA by filling key positions, granting greater administrative and financial autonomy, and enhancing its capacity to manage complex disaster scenarios.
- **Community Engagement:** Promote community-based disaster management by involving local stakeholders in planning and decision-making processes. This can help build resilience at the grassroots level.
- **Integration of Climate Risks:** Incorporate climate change adaptation and mitigation strategies into disaster management plans, ensuring that they are equipped to deal with the increasing risks posed by climate change.
- **Modernization of Early Warning Systems:** Invest in the modernization of early warning systems and ensure their integration with national and local communication networks for timely dissemination of alerts.

Conclusion

The Disaster Management Act, of 2005, is a vital legal framework that has significantly strengthened disaster preparedness and response in India. By focusing on these areas, India can build a more resilient and prepared society, capable of effectively managing and mitigating the impacts of disasters.

Examine the practice of weight-cutting in sports, focusing on its implications for athletes' health and fair competition. How can regulatory bodies address these concerns? (250 words)

Introduction: Define weight-cutting.

Body: Highlight the implications on health and measures to address these concerns

Conclusion: Way forward

The practice of weight-cutting in combat sports has long been a controversial issue, with significant implications for athletes' health and the fairness of competition. Vinesh Phogat's recent disqualification due to weight-cutting highlights the risks and pressures athletes face in this process. Athletes often engage in weight-cutting—drastically reducing their body weight in the short period before a weigh-in—to qualify for a lower weight class. They aim to rehydrate and regain weight after the weigh-in, hoping to enter the competition at a size advantage relative to their opponents.

Implications

- **Physical Health Risks:** Dehydration can lead to heatstroke, kidney damage, cardiovascular stress, and even fatal outcomes, as seen in the cases of athletes like Yang Jian Bing. The strain on the body from rapid weight loss and subsequent rehydration can also lead to long-term health issues, such as hormonal imbalances and bone loss.
- **Mental Health Risks:** The stress of cutting weight can lead to anxiety, depression, and disordered eating patterns. This can also impair cognitive functions, affecting decision-making and focus during competition.
- **Questions on Fairness of Sport:** Weight-cutting raises ethical concerns about competition fairness. Athletes who regain weight after weigh-ins can have a significant size and strength advantage, undermining the purpose of weight classes and leading to uneven, potentially dangerous matchups. The pressure to cut weight also drives risky behaviors, jeopardizing athletes' health and the sport's integrity.

Possible Regulatory Measures

- **Regular Weigh-Ins and Hydration Testing:** Conducting weigh-ins over an extended period before the competition can prevent extreme last-minute weight cuts. Hydration tests can ensure that athletes are not dehydrating themselves to gain weight.
- **Education and Support:** Athletes should be educated on the risks of weight-cutting and provided with nutritional and psychological support to manage their weight safely.
- **Flexible Weight Classes and Penalties:** Introducing catchweight options or revising weight classes to reduce the pressure for drastic weight loss can promote safer competition practices. Penalties for unsafe weight-cutting practices can also deter athletes from engaging in these behaviors.

Conclusion

Weight-cutting in combat sports poses a challenge, balancing competitive advantage with athlete health and fair play. Regulatory bodies can address this by enforcing stricter weigh-in rules, educating athletes, and exploring alternative competition formats, thereby safeguarding both the integrity of the sport and athletes' well-being.

Discuss the role of antitrust laws in regulating the dominance of tech giants in the global digital economy. How do these laws protect consumer interests and ensure fair competition? (250 words)

Introduction: Contextual Introduction

Body: What is the role of antitrust laws and how do these laws protect consumer interest?

Conclusion: Way forward

The ruling in the antitrust case against Google highlights significant issues regarding the company's dominance in the digital market, particularly its monopoly in web search and advertising.

Role

- **Preventing Monopolistic Practices:** Antitrust laws prevent tech giants from engaging in monopolistic practices such as acquiring potential competitors to eliminate market competition or using their market power to set unfair prices. By blocking anti-competitive mergers and acquisitions, these laws help maintain a diverse and competitive marketplace.
- **Regulating Data Practices:** In the digital economy, where data is a valuable asset, antitrust laws can also address issues related to data monopolies. These laws can prevent tech giants from using their control over vast amounts of data to unfairly advantage themselves or disadvantage competitors.
- **Promoting Innovation:** A competitive marketplace encourages innovation as companies strive to differentiate themselves. Antitrust laws help maintain this dynamic environment.
- **Leveling the Playing Field:** By preventing anti-competitive practices, antitrust laws ensure that smaller companies have a fair chance to compete, fostering a more equitable digital ecosystem.

How do laws protect consumers and fair competition?

- **Promoting Fair Competition:** These laws ensure that tech giants do not use their dominant market position to undermine competitors through predatory pricing or exclusive deals that prevent other companies from accessing essential resources or platforms. This fosters a competitive environment where new and smaller companies can enter the market and compete effectively. Antitrust laws, such as Section 2 of the Sherman Act, are designed to prevent and address monopolistic practices.
- **Protecting Consumer Interests:** By ensuring competition, antitrust laws help protect consumers from high prices, poor service quality, and limited choices. A competitive market encourages innovation and drives companies to improve their products and services, benefiting consumers with better options and lower costs.

Conclusion

The court's ruling could lead to significant changes, including potential remedies such as breaking up Google or ending its exclusive deals with mobile makers. These measures aim to restore competitive balance and prevent further abuse of monopoly power. The Google case underscores the importance of these regulations in maintaining a healthy digital economy.

Discuss the implications of the rising threats posed by Artificial Intelligence and cyber-attacks on national security. How can India strengthen its cybersecurity framework to counter these evolving threats? (250 words)

Introduction: Contextual Introduction

Body: Implications of AI on national security and how can India counter evolving threats.

Conclusion: Way forward

The rapid advancement of Artificial Intelligence (AI) and the increasing frequency and sophistication of cyber-attacks particularly in the context of major global events like the 2024 Summer Olympics in France and other significant occurrences in the same year.

Implications of AI and Cyber-Attacks on National Security

- **Escalation of Cyber Threats:** The potential for cyber-attacks to disrupt critical infrastructure, such as telecommunications and power grids, has grown significantly. The Microsoft Windows glitch that led to global disruptions serves as a stark reminder of the vulnerabilities in our interconnected world.
- **AI-Driven Disinformation:** The rise of AI, particularly Generative AI and AGI, has made the spread of disinformation more effective and harder to detect. The disinformation campaign during the Taiwan elections and the ongoing conflict in Ukraine demonstrate how AI can be weaponized to create deep fakes, manipulate public opinion, and sow discord.
- **Global Security Events as Targets:** The 2024 Olympics were seen as a prime target for cybercriminals, highlighting the increased risk that such global events face in the digital age.
- **Economic and Social Impact:** Cyber fraud, identity theft, and other digital crimes are becoming more prevalent, affecting individuals and businesses alike.

Strengthening India's Cybersecurity Framework

- **Adapting to New Threats:** India needs to update its cybersecurity strategies to account for the new threats posed by AI. This includes developing AI-driven tools to detect and counter disinformation and deep fakes.
- **Collaborative Security Efforts:** Given the global nature of cyber threats, India should engage in international collaborations to share intelligence, develop joint defense mechanisms, and establish norms for cyberspace.
- **Legal and Regulatory Framework:** A comprehensive legal and regulatory framework is necessary to govern cybersecurity and AI development. This includes data protection laws, cybercrime laws, and regulations for AI development and deployment.
- **Public Awareness and Education:** As AI-driven threats become more sophisticated, there is a need for public awareness campaigns to educate citizens and businesses about the risks and how to protect themselves.
- **Strengthening Critical Infrastructure Security:** Implementing robust cybersecurity measures across critical infrastructure sectors, including energy, finance, and healthcare, is essential.

Conclusion

India can build a resilient cybersecurity framework capable of countering the complex and evolving threats posed by AI and cyber-attacks, thereby safeguarding national security.

Examine the role of the state in promoting sports excellence in India, with a focus on the lessons learned from India's recent performances in international sports events. How can policy interventions enhance India's sports infrastructure and talent development? (250 words)

Introduction: Contextual Introduction

Body: What is the role of the state in promoting sports and policy interventions to enhance sports infrastructure?

Conclusion: Way forward

The debate over the state's role in promoting elite sports, particularly in a country like India where resources are limited and public welfare needs are vast, raises critical questions about the best use of public funds. The involvement of private wealth, such as that of the Ambani family, in sports initiatives highlights the potential of private investment to drive sporting success, but it also challenges us to reconsider the state's responsibilities.

State's Role in Promoting Sports Excellence in India

- **Public Health and Welfare:** The primary role of the state should be to improve the general well-being of its population. Investing in public health, education, and housing directly benefits the most marginalized sections of society.
- **Elite Sports and Nationalism:** Sponsoring elite sports, on the other hand, tends to serve more symbolic purposes, such as fostering national pride and creating moments of collective joy.
- **Political Patronage and Inefficiency:** In India, the administration of sports is often intertwined with political patronage, leading to inefficiencies and a focus on party politics rather than nurturing talent. This has resulted in the underperformance of sports bodies and a lack of accountability.

Policy interventions

- **Strengthening Grassroots Development:** Expanding programs like Khelo India to reach more schools and rural areas can help identify talent early. Integrating sports into the school curriculum and providing basic facilities at the grassroots level are essential.
- **Regulatory Framework:** A clear and transparent regulatory framework can ensure that private investments in sports are aligned with broader national goals and that they do not exacerbate inequalities or divert resources from critical public welfare needs.
- **Sports as an Industry:** Recognizing sports as a potential industry with its economic benefits, such as job creation and tourism, can help justify both public and private investments in this sector.
- **Public-Private Partnerships:** The state can encourage private investment through public-private partnerships, offering incentives such as tax breaks or matching grants for private entities that invest in sports infrastructure or talent development.

Conclusion

The state's involvement in elite sports in India must be carefully weighed against the pressing needs of public welfare. While fostering national pride and achieving sporting glory are valuable, these goals should not overshadow the state's responsibility to improve the lives of the majority. By rebalancing priorities and encouraging greater private sector involvement, India can build a more sustainable and equitable sports ecosystem that serves both the elite and the general population.

Examine India's current regulations regarding ballast water management. How does the lack of stringent laws impact marine biodiversity and coastal livelihoods?

Introduction: Contextual Introduction

Body: Explain current regulations regarding ballast water management & impact due to the lack of such laws on biodiversity and livelihood.

Conclusion: Way forward

India's current regulations on ballast water management are primarily guided by the Ballast Water Management (BWM) Convention of the International Maritime Organization (IMO) which came into force in 2017 to help prevent the spread of potentially harmful aquatic organisms and pathogens in ships' ballast water.

Current Regulations

- **India's position:** Documents of the IMO show that 97 countries have signed on to the BWM as contracting states. India is not on the list of countries. This means that there is no obligation on the part of ships calling on Indian ports to enforce the BWM convention. While other rules such as relating to the discharge of oil apply in Indian ports, the discharge of ballast water brought in from other countries is not subject to checks or regulation.
- **No Mandatory Compliance:** Ships calling Indian ports are not obligated to adhere to the strict BWM standards.
- **Focus on International Voyages:** Regulations primarily target Indian ships on international voyages, leaving domestic shipping largely unregulated.

Impact on Marine Biodiversity and Coastal Livelihoods

- **Impact on Marine Biodiversity:** The lack of stringent ballast water management regulations has led to the proliferation of invasive species such as the charru mussel (*Mytella strigata*), which is a serious threat to India's marine biodiversity. This species, introduced through ballast water discharge, has rapidly colonized areas like Pulicat Lake in Tamil Nadu and Ashtamudi Lake in Kerala, outcompeting native species and disrupting local ecosystems. The high survival and reproductive rates of these mussels allow them to dominate these habitats, leading to a decline in native biodiversity.
- **Impact on Coastal Livelihoods:** The spread of invasive species through ballast water has direct economic consequences for coastal communities. Invasive species can clog fishing nets, damage aquaculture operations, and disrupt the availability of native fish stocks, all of which are vital for the livelihoods of local fishermen. For example, the proliferation of the charru mussel has hindered fishing activities in affected areas, leading to reduced income and economic instability for those dependent on these ecosystems.

Conclusion

Without stringent laws and proactive measures to monitor and control ballast water discharge, invasive species will continue to disrupt local ecosystems and harm the livelihoods of communities that rely on them. Strengthening India's ballast water management policies and ensuring compliance with international standards is crucial to mitigating these risks.

Discuss the role of broiler chicken farming in promoting economic development in rural India. What are the environmental and public health concerns associated with this industry?

Introduction: Context

Body: Highlight the role of broiler chicken farming & environmental and public health concerns

Conclusion: Way forward

Broiler chicken farming has emerged as a significant contributor to rural India's economic growth.

Role of broiler chicken farming in promoting economic development in rural India

- **Steady Revenue Stream:** Broiler chicken farming provides a stable source of income for rural farmers who can generate significant revenue from multiple cycles of broiler farming each year.
- **Contract Farming Benefits:** The integration with large poultry companies, such as IB Group, offers farmers access to resources like day-old chicks (DOCs), feed, and technical support. This system reduces risks associated with market fluctuations and ensures a reliable income.
- **Labor Requirements:** The operation of poultry farms, especially those with environmentally controlled (EC) sheds, creates jobs for local labor in maintenance, feeding, and cleaning, contributing to rural employment.
- **Skill Development:** Farmers gain expertise in modern poultry farming techniques, including managing environmental controls, understanding feed conversion ratios, and adhering to biosecurity measures.

Environmental Concerns

- **Manure and Waste Disposal:** The disposal of chicken manure and other farm waste can lead to environmental issues if not managed properly. The accumulation of waste can contribute to soil and water pollution, which may harm local ecosystems.
- **Energy and Water Use:** EC sheds, while more efficient in land use, require significant energy and water inputs for cooling, cleaning, and maintaining optimal conditions for bird growth. This can strain local resources, especially in regions with limited water supply.
- **Land Conversion:** The expansion of broiler farms may lead to land conversion from natural habitats to poultry sheds, potentially reducing local biodiversity. Additionally, the focus on monoculture farming practices can have long-term ecological impacts.

Public Health Concerns

- **Use of Antibiotics:** The use of antibiotics to promote growth and prevent disease in broiler chickens raises concerns about antibiotic resistance. Over time, this can lead to the development of resistant bacteria, which pose a significant public health threat.
- **Residue in Meat:** The presence of antibiotic residues in poultry products can lead to health risks for consumers, including allergic reactions and long-term health effects.
- **Disease Transmission:** The high density of birds in broiler farms can increase the risk of zoonotic diseases spreading from animals to humans. The proximity of birds and the potential for poor sanitation practices further heighten this risk.

Conclusion

Broiler chicken farming plays a pivotal role in promoting economic development in rural India by providing farmers with a stable income, employment opportunities, and access to modern agricultural practices.

Evaluate the effectiveness of alternative corporate governance models, such as Public Benefit Corporations, in promoting ethical AI development.

Introduction: Contextual Introduction

Body: Highlight the effectiveness of alternative corporate governance models

Conclusion: Way forward

The development of artificial intelligence (AI) has brought with it a host of ethical concerns, from bias and discrimination to privacy and autonomy. Traditional corporate governance models, focused primarily on maximizing shareholder value, may not be optimally equipped to address these complex challenges. As a result, alternative models like Public Benefit Corporations (PBCs) have emerged as potential solutions.

Effectiveness of alternative models

- **Stronger Alignment with Ethical Values:** PBCs are explicitly designed to consider broader societal impacts, increasing the likelihood that ethical considerations are integrated into AI development processes.
- **Enhanced Stakeholder Engagement:** The PBC model encourages greater involvement of stakeholders, including those directly affected by AI systems, in decision-making processes. This can help identify and address potential ethical concerns early on.
- **Long-term Perspective:** PBCs have a greater incentive to focus on long-term sustainability and ethical considerations, rather than short-term profit maximization. This can lead to more responsible AI development practices.
- **Increased Transparency and Accountability:** PBCs often have stricter reporting requirements regarding their social and environmental impact, which can enhance transparency and accountability in AI development.
- **Attraction of Ethical Investment:** These corporations are likely to attract impact investors who are committed to ethical and sustainable business practices, further reinforcing a commitment to ethical AI.
- **Regulatory and Public Perception:** By formally integrating ethical commitments into their corporate structure, PBCs may enjoy a more favorable public image and potentially more lenient regulatory scrutiny, both of which can be advantageous in the context of AI development.

Conclusion

While Public Benefit Corporations and similar governance models hold the potential for promoting ethical AI development, their effectiveness is limited by the underlying profit-driven nature of the tech industry. The pressures of generating returns for investors often overshadow the commitment to social good, especially when financial resources are scarce or when profit motives are strongly incentivized. To enhance the effectiveness of these alternative governance models, there is a need for strong regulatory support and economic incentives that align profit motives with ethical objectives. The success of alternative governance models, therefore, lies not just in their structure but also in the broader economic and regulatory environment that supports ethical business practices.

Critically analyze the effectiveness of India's vehicle scrappage policy in combating air pollution. What challenges have impeded its success, particularly in states like Karnataka and Maharashtra?

Introduction: Contextual Introduction

Body: Highlight the effectiveness of the scrappage policy and the challenges impeding its success.

Conclusion: Way forward

India's vehicle scrappage policy, introduced in 2022, aims to address the critical issue of air pollution by phasing out old and polluting vehicles, particularly heavy vehicles that contribute significantly to particulate matter (PM) 2.5 and Nitrogen Oxide (NOx) emissions.

Effectiveness of India's vehicle scrappage policy

- **Targeting High-Polluting Vehicles:** The policy focuses on removing older, high-emission vehicles from the roads, which is essential given that heavy vehicles contribute 60-70% of vehicular PM emissions and 40-50% of NOx emissions in urban areas.
- **Improved road safety:** Older vehicles are often less safe due to technological advancements in safety features. Scrapping them can enhance road safety.
- **Boost to the automotive industry:** The policy can stimulate demand for new vehicles, benefiting the automotive sector.
- **Lax Enforcement:** Existing government policies, such as regular vehicle emission testing and bans on open garbage burning, are often poorly enforced. This lack of stringent implementation undermines the overall effectiveness of the vehicle scrappage policy.

Challenges

- **Limited Impact in Maharashtra:** Despite Maharashtra offering incentives like discounts on road tax or new vehicle purchases, the policy has not yet had a substantial impact on reducing air pollution in the state. This suggests that financial incentives alone are insufficient to drive widespread adoption of the scrappage program.
- **Exclusion of Heavy Vehicles from CAFE Norms:** The Corporate Average Fuel Economy (CAFE) norms are a positive step towards reducing CO2 emissions from cars, but they exclude heavy vehicles. Given that heavy vehicles are major contributors to air pollution, their exclusion from these norms represents a significant gap in the policy framework.
- **Inadequate Infrastructure:** In Karnataka, the policy's implementation has been hindered by the lack of sufficient scrapyards—only two for the entire state. This scarcity of facilities makes it logistically challenging for vehicle owners to comply with the scrappage requirements.
- **Voluntary Nature of the Policy:** The voluntary aspect of the policy also limits its impact. Many vehicle owners, especially in Bangalore, continue to use older vehicles, including BMTTC buses, private vans, and heavy vehicles, which are significant sources of pollution.

Conclusion

India's vehicle scrappage policy represents a crucial step towards reducing vehicular emissions and improving air quality. To achieve the policy's full potential, the government must address these challenges through stronger enforcement, expanded infrastructure, and more comprehensive inclusion of all vehicle types in emission reduction strategies. Additionally, promoting mass transit systems and ensuring strict compliance with existing regulations will be vital in combating the severe air pollution crisis facing India.

What role does the socio-economic integration of students play in achieving educational equity, and how has the resistance to this principle affected the implementation of the RTE Act?

Introduction: Contextual Introduction

Body: Highlight the role of socio-economic integration in educational equity and resistance to RTE.

Conclusion: Way forward

The RTE Act, passed by the Indian Parliament in 2010, which mandates free and compulsory education for children aged 6 to 14 and includes provisions for the inclusion of children from disadvantaged groups in private and government-aided schools was intended to be a transformative law for Indian education, particularly in terms of socio-economic integration.

Role of Socio-Economic Integration in Achieving Educational Equity

- **Equitable learning environment:** The Act's most notable provision requires private unaided schools to reserve 25% of their seats for children from economically weaker sections (EWS). This provision was designed to mix children from different socio-economic backgrounds, creating a more equitable and enriched learning environment.
- **Fostering Inclusivity and Social Cohesion:** Integration in classrooms allows students from diverse backgrounds to interact and learn from each other, promoting inclusivity and reducing social barriers.
- **Reducing Inequality:** By mixing students from various socio-economic backgrounds, schools can mitigate the effects of systemic inequality. It can help level the playing field, ensuring that all students, regardless of their background, have a fair chance to succeed academically and socially.

Resistance and Its Impact on RTE Implementation

- **State Government Resistance:** Several state governments, including Maharashtra, Karnataka, and Punjab, have taken measures to circumvent the RTE's provisions. For example, Maharashtra attempted to exempt private schools from the EWS reservation if a government school was located within 1 kilometer.
- **Private School Opposition:** Private schools have resisted the EWS reservation, viewing it as an intrusion into their autonomy and an imposition on their resources. Some schools have attempted to segregate EWS students into separate sections or classes, effectively diluting the integrative intent of the RTE.
- **Amendments and Policy Dilution:** Over time, amendments to the RTE Act have weakened its original provisions, reducing its effectiveness. For instance, the failure to revamp teacher training, despite clear guidelines from the JS Verma Commission, has hindered the creation of a supportive and inclusive classroom environment.
- **Legal and Political Challenges:** The socio-economic integration envisioned by the RTE has been met with legal and political challenges that have slowed its implementation. The case in Maharashtra, where the government's attempt to bypass the EWS reservation was struck down by the courts, highlights the ongoing battle over the Act's enforcement.

Conclusion

The RTE Act was a historic step toward educational equity in India, particularly through its promotion of socio-economic integration. To overcome obstacles, a renewed commitment to the RTE's principles and stronger enforcement mechanisms are essential.

How effective would arming women doctors with self-defense tools like stun guns be in preventing violence, and what other measures could complement this approach?

Introduction: Contextual Introduction

Body: Effectiveness of self-defense tools and other measures to ensure the safety of women

Conclusion: Way forward

The issue of women's safety in India, highlighted by tragic incidents like the rape and murder of a trainee doctor in Kolkata, underscores the persistent and severe threats faced by women across the country. Despite advancements in legislation and societal awareness, crimes against women continue to rise, revealing systemic failures in ensuring their safety.

Effectiveness of Self-Defense Tools

- **Immediate Deterrence:** Stun guns could serve as a deterrent against attackers, giving women doctors a tool to defend themselves in dangerous situations. The mere presence of such a device could discourage potential aggressors.
- **Empowerment and Confidence:** Carrying self-defense tools can provide a sense of empowerment and confidence, making women feel more secure in environments where they might otherwise feel vulnerable.
- **Situational Constraints:** In many cases, doctors may not have the time or space to use a stun gun effectively during an attack, especially if they are caught off guard.
- **Training and Usage:** Proper training is required to use stun guns safely and effectively. Without it, there is a risk of accidental harm to the user or others.
- **Escalation of Violence:** The presence of a weapon, even a non-lethal one, can sometimes escalate a situation, leading to greater harm.

Complementary Measures

- **Legal Frameworks:** Laws such as the Protection of Women from Domestic Violence Act, 2005, and the Sexual Harassment of Women at Workplace Act, 2013, aim to provide legal recourse for victims.
- **Nirbhaya Fund:** Established to finance projects for women's safety and security.
- **Investigation Tracking System for Sexual Offenses:** A tool to monitor and track the investigation of sexual assault cases.
- **One-Stop Centers and Women Helplines:** Provide integrated support and assistance to women affected by violence.
- **Police and Judicial Reforms:** Gender-focused recruitment and training, establishment of fast-track courts, and enhanced representation of women in the judiciary are essential for ensuring timely and fair justice.
- **Media Sensitivity:** The media should responsibly cover cases of violence against women, focusing on legal outcomes to reinforce the consequences of such crimes.
- **Civil Society Participation:** Active involvement of civil society in advocating for women's rights and assisting law enforcement can play a critical role in curbing violence.

Conclusion

The safety of women in India is a complex issue that requires coordinated efforts at multiple levels. While self-defense tools and immediate protective measures can offer some security, they must be complemented by systemic changes that address the root causes of violence and discrimination.

Critically examine the mental health challenges faced by medical students in India. How effective are current policies in addressing these issues? Suggest measures for improvement. 250 words, 15 marks

Introduction: Brief contextual Introduction

Body: Suggests challenges, effectiveness, and measures for improving mental health

Conclusion: Way forward

Medical students in India are increasingly facing severe mental health challenges, highlighted by alarming statistics such as the 122 suicides among medical students in the last five years. A recent survey by the National Medical Commission (NMC) revealed that 27.8% of undergraduate students suffer from mental health conditions, and 31.3% of postgraduate students have experienced suicidal thoughts.

Key Challenges

- **Academic Pressure and Burnout:** The intense and competitive nature of medical education leads to chronic stress, anxiety, and burnout.
- **Stigma and Underreporting:** Stigma associated with mental health issues prevents students from seeking help, further exacerbating their conditions.
- **Inadequate Support Systems:** Many institutions lack adequate mental health resources, such as counseling services and mental health professionals.

Effectiveness of Current Policies

- **Underfunding:** The allocation of funds for mental health is starkly insufficient. In 2019, only Rs 600 crore was earmarked for mental health out of an estimated need of over Rs 93,000 crore, with a significant portion directed to tertiary institutions.
- **Poor Implementation:** The 2014 policy and the 2017 Act provide a framework for mental health care but lack clarity on implementation strategies, timelines, and resource allocation.
- **Inadequate Coverage:** With an 80% treatment gap in mental health care, current policies are not reaching the majority of those in need, particularly in community-based settings.

Suggested Measures for Improvement

- **Creation of an Autonomous Agency:** Similar to the National AIDS Control Organisation (NACO), an autonomous agency dedicated to mental health could be established. This agency would focus on mobilizing resources, coordinating between stakeholders, and implementing strategies at the national and state levels.
- **Enhanced Funding:** Substantial increases in funding are needed to bridge the treatment gap, develop mental health infrastructure, and ensure that resources are available at both institutional and community levels.
- **Community-Based Interventions:** Emulating successful models like Banyan and Sangath, which offer holistic, community-anchored mental health care, the government should scale up such initiatives.

Conclusion

India can better support medical students and the general public by emphasizing mental health through these all-encompassing approaches, guaranteeing that mental health is given the same urgency and priority as physical health.

Analyze the strategic importance of the India-Japan partnership in the context of regional security and the Indo-Pacific region. How do initiatives like the '2+2' meetings enhance this relationship? 250 words, 15 marks

Introduction: Contextual Introduction

Body: Highlight the strategic importance of partnership and the relevance of 2+2 meetings.

Conclusion: Way forward

The India-Japan partnership, rooted in historical ties and shared democratic values, has grown significantly in recent years, particularly in the context of regional security and the Indo-Pacific region. This partnership is built on a foundation of mutual respect and common interests, such as maintaining regional stability, promoting economic cooperation, and ensuring a free and open Indo-Pacific.

Strategic Importance of the India-Japan Partnership

- **Regional Security and Defense Cooperation:** India and Japan have recognized the need for closer security and defense cooperation to counterbalance the influence of China and maintain regional stability. Joint military exercises, defense technology cooperation, and agreements like the Acquisition and Cross-Servicing Agreement (ACSA) strengthen their defense capabilities and ensure better coordination between their armed forces.
- **Economic Collaboration and Infrastructure Development:** Japan is a crucial partner for India in economic development, particularly through infrastructure projects like the High-Speed Rail project and initiatives in India's northeastern region.
- **People-to-People Exchanges:** The foundation of the India-Japan relationship is further strengthened by people-to-people exchanges. Initiatives like the "Japan-India Tourism Exchange Year" and cultural exchange programs help build a deeper understanding and foster stronger ties between the citizens of both countries.
- **Women, Peace, and Security (WPS) Agenda:** The collaboration on the WPS agenda highlights the shared commitment of both nations to global peace and security. Japan's focus on promoting women's participation in leadership and peacekeeping roles aligns with India's efforts in deploying women in UN Peacekeeping Operations (PKOs).

Role of '2+2' Meetings

- **Strategic Dialogue:** The '2+2' meetings facilitate high-level discussions on the strategic environment in the Indo-Pacific, allowing both countries to align their perspectives and strategies on issues like regional security issues, such as maritime security, cybersecurity, and countering terrorism.
- **Defense and Security Cooperation:** These meetings are instrumental in advancing defense cooperation between India and Japan. They provide a platform to discuss joint military exercises, defense technology cooperation, and other defense-related initiatives.
- **Coordination on Regional Security:** The '2+2' meetings enable India and Japan to coordinate their efforts in promoting a free and open Indo-Pacific. This includes reaffirming their commitment to international law, opposing unilateral actions that seek to change the status quo by force, and ensuring the security of key maritime routes.

Conclusion

The India-Japan partnership is a strategic imperative for ensuring a stable and prosperous Indo-Pacific region.

Discuss the significance of the Small Satellite Launch Vehicle (SSLV) in India's space exploration and economic landscape. What challenges does it face in achieving a substantial share in the global space economy? (250 words)

Introduction: Contextual Introduction

Body: Significance of SSLV & challenges facing SSLV

Conclusion: Way forward

The launch of the Small Satellite Launch Vehicle (SSLV) from ISRO's Satish Dhawan Centre on August 16, 2024, marks a significant milestone in India's space research and economic landscape. The SSLV, which can carry payloads up to 500 kg, is poised to be a game changer in the space industry, particularly for small satellites.

Significance of the SSLV

- **Rapid Deployment and Assembly:** The SSLV can be assembled in less than a week by a smaller team, making it ideal for quick launches. This flexibility is crucial for meeting the growing demand for timely deployment of small satellites in sectors like weather forecasting, communications, defense, urban planning, and disaster management.
- **Support for Emerging Space Sectors:** The utility of small satellites is expanding, particularly in the Internet of Things (IoT), which is becoming increasingly important in various industries. SSLV's ability to quickly launch these satellites makes it a key enabler of this growth.
- **Private Sector Expansion:** With ISRO planning to transfer technology to private players, the SSLV is expected to stimulate significant growth in India's space sector. Companies like Skyroot and Agnikul are already making strides in this space, with ambitious plans to launch rockets regularly. This aligns with India's broader goal to increase its share in the global space economy from 2% to a projected 8% by 2033.
- **Strategic and Social Objectives:** Beyond commercial applications, the SSLV supports India's strategic and social objectives. It is critical for defense, climate-change mitigation, and various government initiatives in education, healthcare, and agriculture.

Challenges Facing the SSLV

- **Global Competition:** The SSLV enters a highly competitive global market dominated by companies in the US, EU, and China. With China planning to launch over 13,000 satellites by 2030 to establish a 6G communications network, SSLV will need to carve out a niche to compete effectively.
- **Regulatory Mechanisms:** India's space policy recognizes the need to transition from an ISRO-dominated ecosystem. However, the challenge lies in framing a regulatory mechanism that balances the expansion of private sector capabilities with the country's welfare imperatives.
- **Technological Reliability and Scale:** While the SSLV's rapid assembly and launch capabilities are advantageous, it must consistently demonstrate technological reliability to gain customer confidence.

Conclusion

The SSLV is set to be a transformative force in India's space sector, enabling quicker and more affordable access to space for small. The success of the SSLV could mark the beginning of a new era for India's space industry, driving innovation, economic growth, and strategic independence.

Examine the relationship between rising income inequality and corruption in India. How does economic disparity influence corruption, particularly in the intersection of government and business? What measures can be taken to address these issues effectively? (250 words)

Introduction: Contextual Introduction

Body: Relationship between inequality and corruption and measures to address this.

Conclusion: Way forward

The relationship between rising income inequality and corruption in India is intricately linked, with economic disparity acting as a significant driver of corrupt practices, particularly at the intersection of government and business.

Interplay Between Inequality and Corruption

- **Incentive for Corruption:** A widening wealth gap creates a fertile ground for corruption. Individuals from lower socioeconomic strata, facing economic hardships, may be more susceptible to bribery or other corrupt practices
- **Weakened Institutions:** High levels of inequality can erode trust in government institutions. When people perceive the system as unfair and biased towards the wealthy, it undermines the legitimacy of laws and regulations.
- **Political Influence:** Economic disparity can translate into political influence, as wealthy individuals and corporations often have greater resources to lobby for favorable policies and regulations.

Influence of Economic Disparity on Corruption

- **Concentration of Wealth and Power:** As highlighted in the Gallup World Poll (GWP) Survey and the Centre for Monitoring Indian Economy (CMIE)'s Consumer Pyramid Household Survey, the rising wealth inequality in India has created a powerful elite that exerts substantial influence over political and economic processes, often through corrupt means.
- **Corruption in Government-Business Nexus:** The study highlights that economic inequality fuels corruption within the government-business nexus, where public officials and private investors engage in corrupt practices to further their interests.

Measures to Address Income Inequality and Corruption

- **Taxation and Redistribution:** Progressive taxation and effective wealth redistribution are essential to reducing the economic disparities that fuel corruption.
- **Trust in the Judiciary:** The study finds that a higher conviction rate enhances trust in the judicial system, which in turn acts as a deterrent to corrupt practices.
- **Speculative Investments vs. Savings:** The study reveals that income inequality in India has been largely fueled by speculative investments, such as mutual funds, which benefit the wealthy disproportionately. In contrast, more conservative savings options, like fixed deposits (FDs) and post office savings, tend to curb inequality.

Conclusion

Rising income inequality in India has a profound impact on the levels of corruption, particularly in the intersection of government and business. Only by tackling the root causes of inequality can India hope to reduce corruption and build a more equitable society.

Critically examine the challenges faced by the Indian public administration system in adopting an outcomes-based approach. How can lateral entry be a solution, and what are its limitations?

Introduction: Contextual Introduction

Body: Challenges faced by administration and limitations of lateral entry

Conclusion: Way forward

The challenges faced by the Indian public administration system in adopting an outcomes-based approach are deeply rooted in its structure, legacy, and political environment.

Challenges

- **Rigid Bureaucratic Structure:** The Indian civil service continues to operate within a hierarchical, centralized, and process-oriented framework inherited from the British colonial era that emphasizes rules and regulations over innovation and flexibility, making it difficult to shift towards an outcomes-based approach that requires adaptability and responsiveness.
- **Political Dynamics:** The reality of strong opposition and the need for consensus-building among diverse political actors have not been fully internalized by the government. This complicates the implementation of policies focused on measurable outcomes, as political considerations often override long-term objectives.
- **Public vs. Corporate Governance:** Public administration deals with a wide range of sectors, each with varying objectives that can shift with changes in government. Unlike corporate governance, which is driven by clear, unchanging goals like profit maximization, public administration requires adaptability to changing policy priorities.

Lateral Entry as a Solution

- **Infusion of Expertise:** Lateral entrants can bring specialized knowledge and innovative practices from the private sector, potentially driving the government towards an outcomes-based approach.
- **Successful Precedents:** The successful implementation of projects like Aadhaar, led by Nandan Nilekani, demonstrates the potential of lateral entry when individuals are given the authority and resources needed to achieve specific outcomes.

Limitations of Lateral Entry

- **Systemic Resistance:** The entrenched bureaucratic system may resist lateral entrants, especially if they are brought in at lower levels without the authority or support needed to make substantial changes.
- **Mismatch in Objectives:** Public administration requires managing diverse and shifting objectives, unlike the clear goals in corporate governance. Lateral entrants may struggle to navigate this complexity without the necessary understanding of the public sector's unique challenges.
- **Need for Structural Change:** Simply bringing in external talent is insufficient. Without broader systemic reforms, including political ownership and coordination between central and state governments, lateral entrants may be unable to fully leverage their skills.

Conclusion

Broader systemic changes, including reforms in bureaucratic processes, political alignment, and coordination between central and state governments, are necessary to create an environment conducive to outcomes-oriented governance.

Assess the progress and challenges in India's ethanol blending programme. How does the 'food versus fuel' debate impact this initiative, and what steps can be taken to balance energy needs with food security?

Introduction: Contextual Introduction

Body: Highlight progress, challenges and steps to balance energy needs with food security

Conclusion: Way forward

India's ethanol blending program has made significant strides towards its target of blending 20% ethanol with petrol by 2025-26. However, the "food versus fuel" debate continues to challenge the program, particularly as it increasingly relies on food grains like maize and sugarcane.

Progress in India's Ethanol Blending Program

- **Ethanol Blending Targets:** India has rapidly increased its ethanol blending percentage, moving from 8% in 2021 to around 13-15% by 2023. The target is to achieve 20% blending by 2025-26, which requires the production of approximately 1,000 crore liters of ethanol annually.
- **Capacity Expansion:** Significant investments have been made in expanding ethanol production capacity. By December 2023, India's ethanol production capacity had reached 1,380 crore liters, with a major component coming from sugarcane-based distilleries.
- **Economic and Environmental Benefits:** Ethanol blending is expected to reduce greenhouse gas emissions and save an estimated \$4 billion annually in foreign exchange by reducing fossil fuel imports. It also bolsters the rural economy by providing a stable market for agricultural produce.

Challenges and the Food Versus Fuel Debate

- **Reliance on Food Crops:** The program's heavy reliance on sugarcane and maize raises concerns about food security. Sugarcane, which is water-intensive, competes with essential food crops for irrigation resources, potentially impacting agricultural sustainability. The diversion of maize and other grains to ethanol production has led to increased imports of maize, driving up prices and affecting key sectors like poultry and livestock feed.
- **State-Level Variations:** The impact of the ethanol economy varies across states. For instance, Uttar Pradesh has aligned its policies with the central government's ethanol mission, while Tamil Nadu faces challenges due to its focus on liquor production and the political sensitivity surrounding the use of food grains for fuel. Maharashtra, where ethanol production is less attractive compared to other uses of sugarcane derivatives, highlights the economic trade-offs between ethanol production and other industrial uses.

Balancing Energy Needs with Food Security

- **Diversification to Second-Generation (2G) and Third-Generation (3G) Biofuels:** To reduce the pressure on food crops, the government should accelerate the shift towards 2G and 3G biofuels, which use non-food biomass and waste materials. This would mitigate the impact on food security while maintaining progress towards blending targets.
- **Enhancing Agricultural Productivity:** Improving the yield of crops like maize through better agricultural practices and technology can help meet the demand for both food and fuel. This includes expanding maize cultivation in areas where it does not compete with essential food crops.
- **Policy Adjustments:** The government should ensure that ethanol pricing reflects the true cost of production, including the environmental impact, and incentivize the use of non-food feedstocks.
- **Water Management:** Given the water-intensive nature of sugarcane, promoting water-efficient crops and sustainable irrigation practices is crucial. This could include rotating sugarcane with less water-intensive crops like maize, as suggested by experts in Tamil Nadu.

Conclusion

India's ethanol blending program is on track to meet its ambitious targets, but it must carefully navigate the food versus fuel dilemma. A balanced approach that includes diversifying ethanol sources, improving agricultural productivity, and implementing sustainable practices will be key to ensuring that the country's energy needs do not come at the expense of food security.

Examine the economic implications of the recent tariff hikes by major telecom companies in India. How do these changes reflect the challenges in balancing affordability and service quality in a price-sensitive market like India? (250 words)

Introduction: Contextual Introduction

Body: Economic implications & how is balance maintained between affordability & service quality?

Conclusion: Way forward

The recent tariff hikes by major telecom companies in India reflect a complex balancing act between maintaining service quality and ensuring affordability in a highly price-sensitive market.

Economic Implications

- **Reduced Affordability:** Tariff hikes can make telecom services less accessible, especially for lower-income consumers, potentially limiting their ability to access essential services such as education, healthcare, and communication.
- **Decreased Consumer Spending:** Higher telecom costs can reduce consumers' disposable income, leading to lower spending on other goods and services, which could have a ripple effect on the broader economy.
- **Risk of Market Concentration:** If tariff hikes result in significantly higher profits for the major telecom companies, it could create barriers for new entrants and increase market concentration. This could reduce competition and limit consumer choice.
- **Increased Tax Revenue:** Higher revenue for telecom companies can translate into increased tax payments to the government, which can be used for public services and infrastructure development.
- **Investment in Infrastructure:** The increased revenue from tariff hikes can be used to invest in network upgrades, such as deploying 5G technology and expanding coverage.

Balancing Affordability and Service Quality

- **5G Rollout:** The additional revenue from higher tariffs is likely to support the 5G rollout, which requires significant capital investment. Better service quality through advanced technologies like 5G can lead to higher productivity and economic growth in the long term.
- **Digital Divide:** Tariff hikes can make telecom services less affordable, particularly for low-income users, widening the digital divide. In a country where internet access is increasingly essential for education, business, and government services, this could have adverse social and economic consequences.
- **Consumer Retention:** Telecom companies may face challenges in retaining price-sensitive customers who might reduce their usage or switch to more affordable plans, leading to potential revenue loss despite higher tariffs.

Conclusion

The recent tariff hikes by telecom companies in India reflect a broader shift in the industry from a focus on low prices to a more balanced approach that includes improving service quality. While the Indian market is traditionally price-sensitive, there is evidence that consumers are willing to pay more for better services, as seen in other sectors like entertainment. However, the challenge remains in ensuring that these hikes do not disproportionately impact low-income users and widen the digital divide. The role of regulators like TRAI and the potential for public sector intervention will be critical in navigating these changes.

Analyze the role of local governance and community-based initiatives in sustainable resource management, with reference to the challenges faced by the people of Wayanad. (250 words)

Introduction: Contextual Introduction

Body: Role of local governance and challenges faced by people of Wayanad

Conclusion: Way forward

The role of local governance and community-based initiatives in sustainable resource management is critical, particularly in regions like Wayanad, where the population faces significant environmental challenges.

Role of Local governance and community-based initiatives

- **Role of Panchayati Raj Institutions (PRIs):** In Wayanad, PRIs are crucial in implementing and enforcing environmental regulations. However, the effectiveness of these local governance bodies is often undermined by the influence of powerful interests in collusion with bureaucrats and politicians, as seen in the ongoing support for quarrying operations despite their harmful impacts.
- **Community-Based Initiatives:** The resistance led by local women from Kudumbashree units against quarrying in Chemban Mudi is a powerful example of community-based initiatives. These women, backed by local governance structures and community solidarity, successfully halted destructive quarrying activities, highlighting the potential of grassroots movements to protect natural resources.

Challenges Faced by the People of Wayanad

- **Environmental Degradation and Human Rights Violations:** The people of Wayanad, like those in other parts of the Western Ghats, face severe challenges due to environmental degradation. Landslides, such as the one in Meppadi that claimed 400 lives, are increasingly common due to human activities like quarrying and deforestation. Local governance often fails to act decisively against these activities, leading to the suffering of the local population.
- **Marginalization of Indigenous Communities:** Tribal communities in Wayanad, traditionally reliant on the land for their livelihoods, are disproportionately affected by environmental degradation. The displacement of these communities and the health impacts of quarrying, such as asthma and cancer, underscore the need for stronger local governance and community-based resource management strategies.

Conclusion

Local governance and community-based initiatives are vital for sustainable resource management in Wayanad. However, these efforts are often hindered by the powerful interests that prioritize short-term economic gains over long-term environmental sustainability. Empowering local communities through ownership of resources, promoting sustainable tourism, and advocating for legal reforms are essential steps in addressing the environmental challenges faced by the people of Wayanad. The experience of grassroots movements in the region demonstrates the potential for community-driven solutions to lead the way in sustainable development, even in the face of significant challenges.

Examine the strategic benefits and challenges for India in strengthening ties with Ukraine amidst the ongoing Russia-Ukraine conflict.

Introduction: Contextual Introduction

Body: What are the benefits of the relationship and challenges for India amidst ongoing conflict?

Conclusion: Way forward

Prime Minister Narendra Modi's visit to Ukraine represents a significant departure from India's traditional foreign policy stance, particularly in the context of its historical relationship with Russia. This visit, which follows Modi's recent meeting with Russian President Vladimir Putin, signals a nuanced shift in India's diplomatic strategy, particularly in its engagement with Eastern Europe.

Strategic Benefits

- **Energy Security:** Ukraine is a major exporter of agricultural products, including wheat and sunflower oil. Strengthening ties with Ukraine can ensure a reliable supply of these commodities for India, mitigating the risks associated with dependence on other suppliers.
- **Defense Cooperation:** Ukraine has a strong defense industry and can offer India potential opportunities for defense cooperation, including joint ventures, technology transfer, and co-production of military equipment.
- **Geopolitical Influence:** India's engagement with Ukraine can enhance its international standing and influence, particularly in Eastern Europe and the broader European security architecture.
- **Counteracting China's Influence:** By strengthening ties with Ukraine, India can diversify its strategic partnerships and counter China's growing influence in the region.

Challenges

- **Russia's Influence:** Russia is a close ally of India and has significant influence in the region. Strengthening ties with Ukraine could strain India's relationship with Russia, leading to potential economic and diplomatic consequences.
- **Economic Costs:** Engaging more deeply with Ukraine may involve economic costs, such as investments in infrastructure, defense cooperation, or humanitarian aid.
- **Security Concerns:** The ongoing conflict in Ukraine poses security risks for India, including the potential for spillover effects and increased instability in the region.
- **Domestic Considerations:** Strengthening ties with Ukraine may face domestic opposition, particularly from those who prioritize India's relationship with Russia.
- **Impact on BRICS and SCO Dynamics:** Russia is a key member of BRICS and the Shanghai Cooperation Organisation (SCO), where India also plays a significant role. Strengthening ties with Ukraine could introduce tensions within these multilateral platforms, potentially impacting India's strategic interests in these groups.

Conclusion

Prime Minister Modi's visit to Ukraine is a clear signal of India's evolving foreign policy, which seeks to diversify its international partnerships and assert its strategic autonomy. While this visit represents a departure from the traditional pro-Russia stance, it does not signify a break in India-Russia relations. Instead, it highlights India's ability to balance multiple relationships in a complex global environment, all while expanding its influence and opportunities in regions like Eastern Europe.

Examine the ethical dilemmas involved in the practice of passive euthanasia, with reference to recent judicial pronouncements in India. Discuss the implications of these ethical considerations on the rights of terminally ill patients to die with dignity.

Introduction: Contextual Introduction

Body: Highlight ethical dilemmas and implications regarding passive euthanasia

Conclusion: Way forward

The ethical dilemmas surrounding passive euthanasia in India are complex, as highlighted by recent judicial pronouncements, particularly in the case involving Harish Rana. The case reveals not only the legal ambiguities but also the profound ethical challenges in balancing the right to die with dignity against cultural and medical norms.

Ethical Dilemmas

- **Autonomy:** The ethical principle of autonomy supports the right of individuals, or their surrogates, to make decisions regarding their medical care, including the refusal of life-sustaining

treatment. However, the denial of permission to remove the Ryles tube in Harish's case effectively overrides this autonomy, ignoring the expressed wishes of his parents, who have endured immense suffering and financial strain.

- **Beneficence:** Beneficence, or acting in the patient's best interest, is compromised when prolonging life results in more harm than good. Forcing a patient to endure a low quality of life, particularly when they are in a vegetative state with no hope of recovery, violates this principle.
- **Non-Maleficence** The ethical principle of non-maleficence (not harm) is called into question when medical interventions that offer no hope of recovery are continued, causing prolonged suffering to both the patient and their caregivers. In Harish's case, maintaining the Ryles tube may have prolonged life, but it did not contribute to a dignified existence.
- **Justice:** The decision to deny the removal of the Ryles tube may reflect a societal and judicial bias against acknowledging the right to die with dignity, thus denying justice to the patient and their family.

Implications for Terminally Ill Patients

- **Right to Die with Dignity:** The denial of the right to withdraw clinically assisted nutrition in cases like Harish Rana's represents a significant infringement on the right to die with dignity. It suggests that legal and cultural biases continue to prioritize the mere prolongation of biological life over the quality of life and the dignity of death.
- **The Role of Medical Experts:** The case highlights the necessity for judicial decisions on euthanasia to involve medical and ethical experts, particularly those trained in palliative care. The absence of such expertise in the decision-making process can lead to rulings that are medically unsound and ethically questionable.
- **Cultural and Social Considerations:** The reluctance to permit the withdrawal of feeding tubes may be influenced by cultural taboos surrounding death and dying, where the act of feeding is imbued with deep social and existential significance. However, this cultural perspective must be balanced with the ethical imperative to alleviate suffering and respect patient autonomy.

Conclusion

The Harish Rana case underscores the urgent need for greater legal clarity and ethical consistency in the application of passive euthanasia in India. Addressing these issues requires not only judicial clarity but also the involvement of medical experts in end-of-life care decisions, ensuring that the rights and well-being of patients and their families are upheld.

Examine the implications of the Reserve Bank of India's (RBI) regulatory measures on the liquidity and stability of the rupee-linked derivatives market. How can these measures impact the broader economic environment?

Introduction: Contextual Introduction

Body: Implications of RBI regulatory measures and impact on the economic environment

Conclusion: Way forward

The Reserve Bank of India's (RBI) recent regulatory measures in the rupee-linked derivatives market have significant implications for liquidity, stability, and the broader economic environment. While these measures aim to manage currency volatility and maintain the stability of the Indian rupee, they raise concerns about the role of regulations in currency management and the potential long-term impacts on market dynamics.

Implications of RBI's Regulatory Measures

- **Prohibition of Speculative Trades on Exchanges:** The RBI's restrictions on speculative trading in the onshore rupee market have caused an 80% drop in trading volumes, reducing liquidity and

pushing activity to offshore markets. This move increases hedging costs for businesses and diminishes India's market attractiveness to global investors.

- **Regulation of Offshore Trading Platforms:** The RBI's attempt to regulate offshore electronic trading platforms (ETPs) could discourage these platforms from engaging with Indian entities, reducing global market access for Indian businesses. Instead of expanding regulatory reach, making the onshore market more appealing could naturally attract trading volumes back to India.
- **Oral Instructions to Banks:** The RBI's ad hoc interventions, like instructing banks to manage rupee-dollar exchange rates and settle trade in rupees, create market uncertainty. While effective short term, these measures can disrupt market expectations and raise business costs in RBI-regulated sectors.

Impact on the Broader Economic Environment

- **Increased Uncertainty and Market Distortion:** The use of regulatory powers to manage currency volatility introduces uncertainty into the central bank's currency policy. Market participants may find it difficult to anticipate the RBI's actions, leading to distorted market signals and potentially higher costs for businesses involved in currency trading.
- **Impact on Business Competitiveness:** The restrictions on speculative trading and the regulation of offshore platforms could increase the cost of hedging currency risks for Indian businesses. This may reduce their competitiveness in global markets, as they face higher costs and fewer options for managing their currency exposures.
- **Long-Term Market Development:** The RBI's approach to currency management through regulatory interventions may have long-term implications for the development of the rupee-linked derivatives market. By stifling market dynamics and reducing liquidity, these measures could slow the growth of a mature and globally integrated financial market in India.

Conclusion

A more balanced approach that emphasizes market-based solutions and minimizes regulatory interventions could better support the rupee's stability and the broader economic environment.

Critically evaluate the impact of mark inflation and mark compression in Indian school board examinations on the quality of higher education and employability of students.

Introduction: Contextual Introduction

Body: Highlight the impact of mark inflation and mark compression on the quality of higher education and the employability of students

Conclusion: Way forward

Mark inflation and mark compression in Indian school board examinations significantly impact the quality of higher education and the employability of students. These practices, where marks are artificially inflated or clustered at higher levels, undermine the credibility of the education system and present several challenges.

Impact on Higher Education Quality

- **Diluted Academic Standards:** Mark inflation and compression make it difficult for universities to distinguish between students' actual academic abilities. This leads to the admission of students who may not be adequately prepared for the rigors of higher education, thereby lowering academic standards and potentially increasing dropout rates.
- **Unreliable Meritocracy:** When a significant number of students receive high marks, it becomes challenging for higher education institutions to identify truly deserving candidates. This diminishes the value of merit-based admissions and often forces institutions to rely on additional criteria like entrance exams, which may not fully reflect a student's academic potential.

- **Questionable Comparisons Across Boards:** Variations in mark distribution across different school boards complicate the comparison of student performance nationally. Without a standardized scale, students from boards with more lenient grading practices may have an unfair advantage in university admissions, further distorting academic quality.

Impact on Employability

- **Erosion of Employer Confidence:** As employers become aware of mark inflation, they may begin to distrust academic qualifications, leading them to rely more on alternative assessments like entrance exams, interviews, or skill-based tests. This can reduce the value of school-leaving certificates and complicate the job search for recent graduates.
- **Skill Gaps:** Students entering the workforce with inflated marks may lack the necessary skills and knowledge required by employers. This mismatch can result in underperformance at work, lower job satisfaction, and potentially higher unemployment rates among graduates.
- **Increased Hiring Costs:** Companies may need to invest more in training and development to bridge the gap between inflated academic credentials and actual job readiness. This increases hiring costs and may lead employers to become more selective, reducing job opportunities for recent graduates.

Conclusion

The widespread practice of mark inflation and compression in Indian school board examinations compromises the quality of higher education and the employability of students. Standardizing assessment practices, increasing transparency in the marking process, and introducing rigorous auditing measures can help restore credibility to the education system, ensuring that students are better prepared for both higher education and the job market.

Discuss the challenges and opportunities of transitioning from a contributory pension system to a defined benefit system in the context of India's demographic and economic scenario. (250 words)

Introduction: Contextual Introduction

Body: Highlight challenges and opportunities of transition to a defined benefit system

Conclusion: Way forward

Recent years have seen a re-emergence of interest in defined benefit pension schemes in India, as several state governments have announced shifts back to the old pension scheme (OPS) from the National Pension System (NPS). The Union government has responded by approving a new Unified Pension Scheme (UPS) for central government employees, which incorporates elements from both the old and new pension schemes.

Challenges

- **Fiscal Burden:** The new Unified Pension Scheme (UPS) guarantees a pension equal to 50% of an employee's average basic pay before retirement. This, coupled with the government's higher contribution rate of 18.5%, adds significant financial strain, with an initial additional cost of ₹6,250 crore and ₹800 crore in arrears.
- **Crowding Out Effect:** Increased pension spending could reduce the fiscal space for essential sectors like infrastructure, education, and healthcare, potentially hindering economic growth.
- **Moral Hazard:** Guaranteed pensions may reduce personal savings and increase dependency on government support.
- **Equity Issues:** The UPS benefits a small segment of the workforce, which could be seen as inequitable, particularly in a country with widespread income disparity.

- **Sustainability Concerns:** If state governments also adopt the UPS, the combined pension expenditure could further strain budgets, especially in states where pension allocations already represent a large share of revenue expenditure.
- **Reduced Flexibility:** Unlike the National Pension System (NPS), the defined benefit approach limits the government's ability to adjust during economic downturns.

Opportunities

- **Stable Income for Retirees:** The defined benefit component ensures a predictable income for retirees, reducing old-age poverty and providing financial security.
- **Public Confidence:** A well-managed pension system can boost trust in the government's commitment to social security.
- **Electoral Appeal:** Reintroducing a defined benefit scheme may address the demands of a vocal electorate, contributing to political stability.
- **Unified Approach:** The UPS could lead to more consistent pension policies across states.
- **Hybrid Model:** The UPS blends defined benefits with defined contributions, aiming to balance fiscal responsibility with retirement security.
- **Reform Opportunities:** The pension debate offers a chance to implement broader fiscal reforms for long-term sustainability.

Conclusion

The shift to a defined benefit system in India offers greater retirement security and potential political stability but also poses significant fiscal challenges. Balancing these factors is crucial for the sustainable management of India's pension system and overall economic health.

Examine the impact of frequent mass wasting events in the Tibetan Plateau on the hydrological and geomorphic regime of the Brahmaputra River in Northeast India. Suggest measures to mitigate the associated risks.

Introduction: Contextual Introduction

Body: Highlight the impact of mass wasting events and mitigation measures in Northeast India

Conclusion: Way forward

The Tibetan Plateau, a high-altitude region known for its fragile ecosystems, is prone to frequent mass wasting events like landslides, debris flows, and avalanches. These events can significantly impact the hydrological and geomorphic regime of the Brahmaputra River, which originates in the plateau and flows through Northeast India.

Impact of Frequent Mass Wasting Events in the Tibetan Plateau on the Brahmaputra River

- **Altered River Flow:** The debris mobilization in the Sedongpu Gully since 2017 has caused temporary blockages of the Tsangpo River. Breaching of these natural dams can trigger flash floods downstream in Arunachal Pradesh and Assam, significantly altering the Brahmaputra River's flow regime.
- **Increased Sediment Load:** Over 700 million cubic meters of debris have entered the Brahmaputra, making it one of the world's most sediment-laden rivers. This raises riverbeds, increasing flood risks during the monsoon.
- **Water Quality Deterioration:** The debris influx harms water quality, impacting aquatic ecosystems and reducing the river's suitability for drinking, agriculture, and other uses.
- **River Channel Instability:** The heightened sediment load destabilizes river channels, leading to frequent course changes, riverbank erosion, and infrastructure damage.

- **Enhanced Erosion and Siltation:** Increased sedimentation makes the Brahmaputra more braided in Assam, intensifying erosion and choking river channels, and disrupting navigation and fishing livelihoods.

Mitigation Measures

- **Geophysical Monitoring:** Implement satellite-based and ground monitoring systems to detect early signs of mass wasting events and river blockages in the Tibetan Plateau.
- **Real-time Data Sharing:** Establish cross-border data-sharing mechanisms between India and China to facilitate early warnings of potential landslide-induced floods.
- **Riverbank Reinforcement:** Strengthen riverbanks using both natural vegetation and engineered solutions like levees to prevent erosion and safeguard nearby communities.
- **Joint Research Initiatives:** Encourage collaborative research between Indian and Chinese geoscientists to better understand and manage the transboundary impacts of mass wasting events.
- **Bilateral Agreements:** Negotiate bilateral agreements to ensure cooperation in disaster management, particularly concerning flood risks posed by the Tibetan Plateau's geological instability.

Conclusion

By implementing these measures, it is possible to mitigate the negative impacts of mass wasting events on the Brahmaputra River and its surrounding communities.

Evaluate the effectiveness of traditional security measures in addressing violence against health workers in India. Suggest alternative approaches that could provide long-term solutions. (250 words)

Introduction: Contextual Introduction

Body: Effectiveness of traditional security measures and alternative approaches for the long term.

Conclusion: Way forward

The violent incidents against health workers in India, particularly those highlighted in Maharashtra and Kolkata, underscore the persistent inadequacy of traditional security measures in addressing the root causes of such violence.

Effectiveness of Traditional Security Measures

- **Superficial Impact:** Traditional security measures, such as bolstered hospital security and legal provisions, provide a temporary sense of safety but fail to address the deeper issues. These solutions often emerge as reactive responses to high-profile incidents, lacking long-term sustainability or effectiveness.
- **Ignoring the Role of Corruption:** The Kolkata incident sheds light on the insidious role of corruption within the public health system, which has not been adequately recognized or addressed. Corruption, as the World Health Organization estimates, significantly drains resources that could otherwise improve healthcare and reduce violence against health workers.
- **Underfunded Healthcare Systems:** The underfunding of healthcare facilities, combined with poor oversight, creates an environment where both corruption and violence can thrive. Traditional security responses do little to alleviate the systemic issues of underfunding, which are at the heart of the problem.

Alternative Approaches for Long-term Solutions

- **National Task Force:** The national task force's role should extend beyond recommending safety measures to include devising comprehensive strategies to combat corruption in the healthcare sector.

- **Whistleblower Protections:** Effective mechanisms for reporting and protecting whistleblowers within the healthcare system are essential.
- **Reforming Public Hospitals:** The "control and command" structure of Indian public hospitals is outdated and inefficient. Modernizing hospital management practices to include more participatory and transparent decision-making processes could improve the working environment for healthcare professionals and reduce the likelihood of violent outbursts.
- **Fast-track Courts:** Establishing fast-track courts to handle cases of violence against health workers can ensure swift justice, which is critical for deterrence.
- **Community Policing and Mediation:** Involving community leaders and local law enforcement in mediation efforts between healthcare workers and patients' families can help de-escalate potential conflicts before they turn violent.

Conclusion

A comprehensive, multidisciplinary approach that includes combating corruption, modernizing hospital management, enhancing legal frameworks, and engaging the community is essential for providing long-term solutions.

Analyze the benefits and challenges associated with the implementation of the Unified Pension Scheme (UPS) for government employees in India. How does it balance fiscal prudence with social security? (250 words)

Introduction: Contextual Introduction

Body: Highlight benefits, challenges of UPS & its balance with fiscal prudence with social security.

Conclusion: Way forward

The implementation of the Unified Pension Scheme (UPS) for government employees in India is a significant policy development with broader implications for cooperative federalism, fiscal sustainability, and social security.

Benefits of the Unified Pension Scheme (UPS)

- **Assured Pension Benefits:** The UPS ensures that retirees receive 50% of the average basic pay drawn in the last 12 months of service, providing predictability and stability in their post-retirement income. This assurance addresses concerns of financial insecurity among pensioners, offering a sense of certainty about their future.
- **Continuity in Pension Reforms:** The UPS retains the contributory nature of pensions, where employees contribute a portion of their salary towards their pension, and the funded nature, wherein the government sets aside funds in advance to meet future pension obligations.
- **Increased Transparency and Fiscal Responsibility:** The UPS, combined with the Union government's push for transparency in state finances, particularly in off-budget borrowings, contributes to a more accountable and sustainable fiscal environment.

Challenges of the Unified Pension Scheme (UPS)

- **Resistance from Opposition States:** Some states, particularly those governed by non-NDA parties, have shown resistance to the UPS, opting instead to revert to the OPS. The reluctance of these states to embrace the UPS indicates potential political hurdles in achieving widespread implementation.
- **Balancing Short-Term Fiscal Relief with Long-Term Sustainability:** While the UPS promotes long-term fiscal sustainability, it requires states to contribute their share to the pension fund, which may be seen as a short-term fiscal burden.

Balancing Fiscal Prudence with Social Security

- **Fiscal Prudence:** The UPS's contributory and funded nature helps in controlling the government's pension liabilities, ensuring that future obligations are met without resorting to unsustainable borrowing or fiscal practices.
- **Social Security:** The assurance of 50% of the average basic pay as pension provides a safety net for retirees, addressing concerns of financial insecurity and ensuring that government employees who have served the nation are adequately supported in their retirement years.

Conclusion

The Unified Pension Scheme (UPS) offers a comprehensive solution that balances the need for fiscal prudence with the imperative of providing social security to government employees. However, the challenges of political resistance, short-term fiscal pressures, and ensuring employee understanding must be addressed to fully realize the scheme's benefits.

Should technology platforms be held accountable for the content they host? Justify your answer

Introduction: Contextual Introduction

Body: Highlight arguments for and against holding technology platforms accountable.

Conclusion: Way forward

The laissez-faire approach to content hosting, as exemplified by Telegram and its founder Pavel Durov, presents significant challenges in balancing the commitment to free speech with the responsibility to prevent harm. While free speech is a fundamental right, it is not absolute and is subject to restrictions to protect public order, morals, and public health, as codified in the Universal Declaration of Human Rights.

Arguments for Holding Technology Platforms Accountable

- **Misinformation and Disinformation:** Platforms like social media sites have been used to spread false information, which can have serious consequences, such as influencing elections or spreading harmful health misinformation (e.g., during the COVID-19 pandemic). Holding platforms accountable encourages them to take measures to curb such content.
- **Hate Speech and Extremism:** Online platforms have been used to disseminate hate speech, which can incite violence and contribute to societal divisions. Accountability would ensure that platforms actively moderate such content to prevent harm.
- **Platform Power:** Technology platforms wield significant influence over public discourse and have the technological means to control or moderate content. With great power comes great responsibility; they should therefore be accountable for the consequences of the content they host.

Arguments Against Holding Technology Platforms Accountable

- **Censorship Risks:** Holding platforms accountable for content could lead to over-censorship, where platforms remove or suppress content excessively to avoid liability, thus stifling free expression and open debate.
- **Stifling Innovation:** Strict accountability could discourage the development of new platforms or technologies, as startups might fear the legal risks associated with hosting user-generated content.
- **User Responsibility:** The primary responsibility for content lies with the users who create it. Holding platforms accountable might absolve users of responsibility for their actions, undermining individual accountability.
- **Competition:** Large platforms may be better equipped to handle the costs and complexities of content moderation, potentially squeezing out smaller competitors who can't afford such measures.

Conclusion

Finally, technology platforms like Telegram should indeed be held accountable for the content they host, especially when that content poses a threat to public safety and morality. The balance between free speech and responsibility is delicate, but necessary, to ensure that the digital spaces we inhabit are safe and conducive to the well-being of all.

Analyze the challenges and opportunities in ensuring equitable access to vaccines in the Global South, particularly in light of the ongoing mpox outbreak. How can lessons from the COVID-19 pandemic be applied to improve global health equity? (250 words)

Introduction: Contextual Introduction

Body: Highlight challenges, opportunities, and lessons learned from COVID-19

Conclusion: Way forward

The ongoing mpox outbreak, declared a Public Health Emergency of International Concern (PHEIC) by the World Health Organization (WHO), underscores the urgent need for equitable access to vaccines in the Global South.

Challenges in Ensuring Equitable Access

- **Inadequate Vaccine Production:** The Global South continues to grapple with limited vaccine manufacturing capabilities, a challenge starkly highlighted during the COVID-19 pandemic. With only a small number of mpox vaccine doses currently available and a significant demand, the Global South risks being left behind once again.
- **High Vaccine Costs:** The estimated cost of a mpox vaccine shot at \$100 presents a formidable barrier to access in low- and middle-income countries (LMICs). This economic disparity further exacerbates the unequal distribution of vaccines.
- **Delayed Technology Transfers:** Effective and timely technology transfers are crucial for scaling up vaccine production in the Global South. However, historical precedents show that delays in the transfer of know-how, patents, and biological resources have hampered equitable access to vaccines.

Opportunities to Improve Access

- **Leveraging Existing Manufacturing Capabilities:** Indian manufacturers, such as the Serum Institute of India and Bharat Biotech, have the potential to play a pivotal role in scaling up the production of the MVA-BN vaccine.
- **Regulatory Flexibility:** The recent decision by India's drug regulatory agency to waive clinical trial requirements for drugs approved in other countries represents a significant step toward expediting vaccine availability.

Applying Lessons from COVID-19

- **Investment in Local Manufacturing:** Strengthening vaccine production capabilities in the Global South is essential to avoid the pitfalls of dependency seen during the COVID-19 pandemic.
- **Equity as a Core Principle:** The inclusion of equity in the recent amendments to the International Health Regulations (IHR) highlights the importance of ensuring that the global response is rooted in fairness and inclusivity.

Conclusion

While the mpox outbreak presents significant challenges, it also offers an opportunity to apply the hard-earned lessons from the COVID-19 pandemic. By fostering global cooperation, prioritizing technology transfers, and leveraging the manufacturing capabilities of countries like India, the world can take decisive steps toward ensuring equitable access to vaccines and improving global health equity. The time to act is now before history repeats itself.

Assess the impact of the Pradhan Mantri Jan Dhan Yojana (PMJDY) on financial inclusion in India. What challenges remain in extending its benefits to underserved populations? (Answer in 250 words)

Introduction: Contextual Introduction

Body: Highlight the impact of PMJDY on financial inclusion and the challenges associated with it.

Conclusion: Way forward

The Pradhan Mantri Jan Dhan Yojana (PMJDY) has significantly impacted financial inclusion in India by bringing millions of unbanked individuals into the formal financial system.

Impact on Financial Inclusion:

- **Increased Bank Accounts:** PMJDY has led to a surge in bank accounts, particularly in rural and underserved areas. The scheme has successfully opened over 53.1 crore bank accounts, significantly narrowing the gap between rural and urban access to banking.
- **Government Benefits:** The PMJDY's impact extends beyond just providing bank accounts. It has enabled the integration of the JAM trinity (Jan Dhan, Aadhaar, and mobile), which has revolutionized the delivery of government benefits through direct benefit transfers (DBTs). This system has improved targeting and reduced leakages, with total cumulative transfers reaching Rs 38.5 lakh crore.
- **Reduce gender disparity:** Approximately 67% of accounts are in rural and semi-urban areas, and 56% of the account holders are women, highlighting the scheme's role in bridging both regional and gender disparities in financial access.
- **Financial Support:** The scheme has also supported citizens during crises, such as providing financial aid to women Jan Dhan account holders during the COVID-19 pandemic. Moreover, the Unified Payments Interface (UPI), linked to the JAM framework, has transformed payment systems, enabling financial transactions for low-income households.

Challenges

- **Low Usage:** Despite the rise in bank accounts, many beneficiaries, particularly in rural areas, have limited usage. This is due to factors like low financial literacy, restricted access to ATMs and banking infrastructure, and concerns about fraud.
- **Account Dormancy:** A substantial number of PMJDY accounts have become dormant, often because beneficiaries lack proper documentation or are unaware of the advantages of keeping their accounts active.
- **Exclusion of Vulnerable Groups:** While PMJDY has advanced financial inclusion, certain vulnerable populations, such as the elderly, disabled, and those in remote areas, still struggle to access its benefits.
- **Digital Divide:** The growing dependence on digital banking services presents challenges for those without access to smartphones and internet connectivity, potentially excluding them from the benefits of PMJDY.

Conclusion

The banking system faces challenges in managing the costs of opening and servicing PMJDY accounts. There is a need to develop financial products tailored to low-income households, considering their irregular incomes and lack of collateral. The new Unified Lending Interface could help address the needs of these underserved segments.

Discuss the significance of introducing shorter, safer regimens for drug-resistant tuberculosis (TB) in India. How can these regimens improve treatment outcomes and contribute to the goal of TB elimination by 2025?

Introduction: Contextual Introduction

Body: What is the significance of short, safer drugs, and how to improve treatment outcomes of TB?

Conclusion: Way forward

The introduction of shorter, safer regimens for drug-resistant TB, such as the World Health Organization (WHO)-recommended BPaL/M regimen, is crucial for enhancing TB treatment in India.

Significance

- **Improved Adherence:** Shorter regimens are easier for patients to follow, increasing adherence and ensuring better treatment outcomes.
- **Reduced Side Effects:** The BPaL/M regimen is associated with minimal side effects compared to traditional treatments, improving patient comfort and safety.
- **Higher Success Rates:** The regimen has shown a higher success rate (89%) compared to the traditional 68%, significantly improving cure rates.
- **Cost Savings:** Implementing this regimen could lead to substantial cost savings, estimated at \$740 million annually for global health systems, thus allowing for more efficient allocation of resources.

Strategies for Improvement

- **Diagnosis and Screening:** Expanding TB screening and testing is essential. Utilizing health datasets and GIS mapping to identify high-risk populations and implementing targeted screening drives can enhance early detection.
- **Technological Advancements:** Leveraging AI-driven portable X-ray machines and rapid molecular tests over traditional microscopy can significantly reduce diagnostic delays and improve TB detection.
- **Proactive Approach:** Addressing gaps in diagnosis, especially in asymptomatic cases and vulnerable populations, will be key to achieving higher detection rates and ensuring timely treatment.

Contribution to TB Elimination by 2025:

- **Enhanced Treatment Efficiency:** By adopting shorter and more effective regimens, India can improve treatment outcomes and reduce the TB burden more rapidly.
- **Economic and Social Benefits:** Reducing the treatment duration and side effects will lessen the financial and social impact on patients, supporting better economic stability and adherence.
- **Expedited Access:** With many countries already rolling out the BPaL/M regimen, accelerating its implementation in India will be crucial for meeting TB elimination goals.

Conclusion

The introduction of shorter, safer regimens represents a crucial advancement in improving TB treatment and progressing toward TB elimination by 2025. When combined with enhanced diagnostic strategies, these developments will bring India closer to achieving a TB-free future.

Do you think Isolating women in public spaces, such as airline seats, an effective measure to ensure their safety? Discuss with reference to alternative strategies that could be more effective. (250 words)

Introduction: Contextual Introduction

Body: How effective are new measures proposed and discuss alternative strategies

Conclusion: Way forward

Isolating women in public spaces, such as airline seats, as a measure to ensure their safety, is a response that addresses the symptoms of the problem rather than its root cause. While it may offer a temporary sense of security, it ultimately fails to promote gender equality or to create a truly safe environment.

Ineffectiveness of Isolation Measures

- **Perpetuation of Gender Inequality:** Segregating women by offering them "pink seats" or similar options implies that the burden of avoiding harassment falls on women, rather than addressing the behavior of male passengers.
- **Temporary and Superficial Solution:** Such measures might provide a short-term sense of security for some women, but they do not address the fundamental issue of why harassment occurs.
- **Inconvenience and Possible Misinterpretation:** Women who prioritize comfort, such as choosing specific seats for their location or accessibility, may feel compelled to compromise their preferences to avoid sitting next to men. This could lead to unnecessary discomfort and even stigmatization, as men might interpret a woman's choice not to use a "pink seat" as a sign of being more "broadminded" or tolerant of inappropriate behavior.

Alternative Strategies for Ensuring Women's Safety

- **Training and Sensitization of Airline Staff:** Indian airlines can adopt international protocols, ensuring that crew members are trained to recognize and swiftly address inappropriate behavior, including stopping alcohol service and relocating perpetrators thus maintaining safety without segregating passengers.
- **Enforcement of Strict Safety Protocols:** Airlines should focus on robust safety protocols that protect all passengers, regardless of gender. This includes clear reporting mechanisms for harassment, immediate action against offenders, and visible support for victims.
- **Public Awareness and Education:** Campaigns aimed at educating passengers about appropriate behavior on flights, similar to the efforts at Delhi airport to manage queue-jumping, can help in cultivating a culture of respect and consideration among travelers.
- **Technological and Legal Recourse:** Airlines can implement technology that allows passengers to discreetly report harassment in real time, enabling faster intervention.

Conclusion

The progress India has made in gender equality in the aviation industry, particularly in the number of female pilots, shows that when given the opportunity, women can thrive without needing special provisions. The same principle should apply to passenger safety: rather than isolating women, efforts should be made to ensure that all passengers, regardless of gender, can travel safely and comfortably.

Discuss the challenges faced by State Election Commissions (SECs) in India in conducting timely and fair elections for local governments. What reforms are necessary to empower SECs on par with the Election Commission of India? (250 words)

Introduction: Contextual Introduction

Body: Highlight challenges faced by SECs & reforms necessary to empower SECs.

Conclusion: Way forward

State Election Commissions (SECs)(Article 243K(1) in India are responsible for conducting elections to local governments, including Panchayats and Municipalities under Article (243ZA).

Challenges Faced by State Election Commissions (SECs)

- **Lack of Autonomy and State Interference:** Despite constitutional provisions granting SECs the authority to conduct local elections, state governments often undermine their independence. Cases like the Karnataka SEC's legal battles highlight how state authorities can delay or obstruct elections, weakening the SECs' ability to function effectively.
- **Resource Constraints and Legal Ambiguities:** Many SECs lack the necessary resources, such as funding, staff, and technology, to conduct elections efficiently. Furthermore, the absence of uniform laws across states creates legal ambiguities, leaving SECs vulnerable to manipulation by state governments.
- **Inadequate Empowerment in Delimitation and Reservation:** Only a minority of states have empowered SECs to conduct ward delimitation and seat reservations, leading to arbitrary and politically motivated delays in local elections. The lack of clear and fixed intervals for these processes exacerbates the problem, undermining the SEC's authority.

Necessary Reforms to Empower SECs

- **Enhancing Independence and Transparency:** SECs should be brought on par with the ECI by ensuring a transparent and independent appointment process. A three-member SEC appointed by a committee including the Chief Minister, Leader of the Opposition, and Chief Justice of the High Court would reduce state government influence and increase accountability.
- **Mandating Fixed Intervals for Delimitation and Reservation:** Delimitation of wards and seat reservations should be conducted at fixed intervals, such as every ten years, to prevent state governments from arbitrarily delaying elections. This would ensure timely elections and reduce political interference.
- **Vesting Delimitation and Reservation Powers in SECs:** SECs should be entrusted with the powers of ward delimitation and seat reservation, including positions like mayors and presidents, to avoid delays caused by state government inaction. This would also help maintain the integrity of local elections.
- **Entrusting SECs with Election Oversight:** SECs should oversee the election of mayors, presidents, and standing committees to prevent malpractices by presiding officers appointed by state governments. This reform would further protect the electoral process from undue influence.

Conclusion

SECs should be given complete authority and shielded from state government interference to ensure fair and efficient local elections. Implementing these reforms will strengthen local democracy, fulfill the constitutional mandate, and foster public trust in local governance.

Analyze the strategic significance of nuclear-powered submarines like INS Arighaat in strengthening India's maritime defense capabilities. How does this contribute to India's overall nuclear deterrence strategy?

Introduction: Contextual Introduction

Body: What is the significance of these submarines in maritime defense and nuclear deterrence?

Conclusion: Way forward

The commissioning of INS Arighaat marks a significant milestone in strengthening India's maritime defense capabilities and enhancing its overall nuclear deterrence strategy.

Significance

- **Enhanced Maritime Strike Capability:** With the induction of INS Arighaat, India now has two operational nuclear-powered submarines (SSBNs), joining the INS Arihant. This enhances India's sea-based nuclear deterrence, a crucial element of its nuclear triad, which includes air and land-based platforms.
- **Strategic Balance and Regional Stability:** The nuclear triad is a vital component in maintaining strategic balance in the region. By bolstering the sea-based leg of the triad, India can project power more effectively in the Indo-Pacific region, deterring potential adversaries like China and Pakistan.
- **Indigenous Technological Advancements:** The Arighaat incorporates advanced technology and indigenous systems, reflecting significant progress in India's defense manufacturing capabilities. This enhances the reliability and effectiveness of India's second-strike capability, ensuring that the platform remains technologically superior and capable of overcoming challenges posed by more advanced adversarial forces.

Contributing to Nuclear Deterrence Strategy

- **Strategic Deterrence Patrols:** These patrols are a visible demonstration of India's readiness to defend itself against nuclear threats, serving both as a deterrent and as a message to potential adversaries about India's resolve and capability.
- **Elusiveness and Endurance:** INS Arighaat is powered by an 83 MW pressurized light-water nuclear reactor, allowing it to remain submerged for prolonged periods and operate undetected. This capability is essential for ensuring survivability in the event of a first strike by an adversary, thus reinforcing India's no-first-use nuclear policy.
- **Fleet Expansion and Operational Readiness:** With the commissioning of INS Arighaat, India has achieved its authorized strength of 18 submarines, although operational availability may be lower due to refits. The inclusion of this second SSBN provides the Indian Navy with greater operational flexibility and the ability to maintain continuous at-sea deterrence (CASD). This ensures that India can always keep at least one nuclear-armed submarine on patrol, ready to respond to any nuclear threat.

Conclusion

The commissioning of INS Arighaat significantly strengthens India's maritime defense capabilities by enhancing the country's nuclear deterrence, ensuring a credible second-strike capability, and contributing to strategic stability in the region. As a key component of India's nuclear triad, INS Arighaat plays a decisive role in safeguarding national security and maintaining a balance of power in the Indo-Pacific, reaffirming India's position as a responsible nuclear power.

Evaluate the economic and environmental implications of hosting the Olympics in India. What strategies can India adopt, to ensure a cost-effective and eco-friendly approach, taking lessons from the Paris 2024 Olympics?

Introduction: Contextual Introduction

Body: What are the economic and environmental implications & strategies to learn from Paris 2024?

Conclusion: Way forward

Hosting the Olympics in India, particularly the 2036 Games as envisioned by Prime Minister Narendra Modi, presents both significant economic and environmental implications. The success of such an ambitious undertaking will hinge on strategic planning, collaboration, and learning from the experiences of other host cities like Paris.

Economic & Environmental Implications

- **Infrastructure Development:** The Olympics would necessitate substantial investments in infrastructure, driving growth in construction, tourism, and service sectors. States like Tamil Nadu, Delhi, and Odisha, which already have significant sports infrastructure, could be leveraged to minimize costs and ensure that the investments lead to long-term benefits.
- **Boost to Tourism and Global Image:** Successfully hosting the Olympics can boost India's global standing and tourism industry. The Games would attract millions of visitors, providing a short-term surge in economic activity, especially in the hospitality and retail sectors.
- **Environmental Impact of Construction and Urbanization:** Large-scale construction projects, necessary for the Olympics, can lead to environmental degradation, deforestation, and pollution. These activities could disrupt ecosystems, especially if they are undertaken in ecologically sensitive areas.
- **Carbon Footprint and Resource Management:** The Olympics typically generate a significant carbon footprint due to construction, transportation, and energy consumption. Managing waste, water, and energy in an eco-friendly manner will be crucial to avoid exacerbating environmental issues.

Strategies for a Cost-Effective and Eco-Friendly Olympics

- **Lesson from Paris 2024:** Paris is utilizing existing venues to reduce the need for new construction. India should similarly focus on states like Tamil Nadu, Delhi, and Odisha, which already have Olympic-standard infrastructure, to minimize costs and environmental impact.
- **Cooperative Approach:** Given that sports are a state subject in India, a collaborative approach involving states with strong sports infrastructures is essential. A multi-stakeholder committee that includes representatives from these states can ensure that the bid is comprehensive and cost-effective.
- **Green Technologies:** India should commit to sustainable practices in all aspects of the Olympics, from construction to event management. This includes using renewable energy, ensuring water conservation, and adopting green building standards.
- **Public Transportation:** Enhancing public transport networks to reduce reliance on private vehicles can also significantly lower the environmental impact.

Conclusion

India's ambition to host the 2036 Olympic Games is a bold and challenging endeavor. Drawing lessons from the Paris 2024 Olympics, India must ensure that its bid is not only economically viable but also environmentally sustainable, leaving a positive legacy for future generations.