

Regent Education & Research Foundation

GENERAL STUDIES - I	2
Social Issues	2
Law on sexual violence is skewed against women	2
GENERAL STUDIES - II	4
Governance	4
Steps for implementing land reforms in India	4
Lateral entry reform	5
Mental Health of Medical Students	8
Need for a Central Protection Act for Doctors	10
GENERAL STUDIES - III	11
Agriculture	12
A vision for agriculture in India	12
Economy	13
Essence of India's Inflation Problem	13
E-Commerce in India	15
Environment	17
India's Ethanol Blended Program	17
Science and Technology	19
Reshaping the governance structure of AI Companies	19
Security	21
Why India's Nuclear Doctrine remains relevant?	21

GENERAL STUDIES - I

Social Issues

Law on sexual violence is skewed against women

Sexual violence in India continues to be a pervasive and distressing issue, exacerbated by a political, legal, and social order that fails to address the deep-rooted impunity surrounding these crimes.

Despite various legal reforms and public outcries, the system remains largely ineffective in protecting victims and ensuring justice.

Therefore, it becomes imperative to delve into the multifaceted nature of this crisis, highlighting the shortcomings of recent legal changes, the systemic failures in addressing sexual violence, and the broader implications for society.

The Systemic Impunity of Sexual Violence -

- **The case of the horrific rape and murder of a resident doctor at RG Kar Medical College in Kolkata serves as a stark reminder of the systemic impunity that sexual violence offenders enjoy in India.**
- This incident triggered widespread protests and demands for justice, reflecting the collective trauma and anger within the community.
- However, the transfer of the case to the Central Bureau of Investigation (CBI) following the Calcutta High Court's intervention reflects the pervasive mistrust in the local justice system and this mistrust is not unfounded.
- The Bharatiya Nyaya Sanhita (BNS), introduced as a reform to the penal code under the pretext of gender justice, has failed to create a culture of deterrence.

An Analysis of Legal Reforms and Their Limitations -

- Symbolism Over Substance —
 - The renumbering of crimes against women in the penal code is largely a symbolic act that does not translate into real-world deterrence.
 - The underlying assumption is that by merely placing these crimes at the forefront, the law will somehow command greater respect and adherence.
 - However, legal reforms that focus on symbolic gestures rather than substantive changes do little to create a culture of accountability.
 - The persistent high rates of sexual violence across different states in India, whether in Uttarakhand, Bihar, or Maharashtra, underscore the failure of such reforms to make a tangible impact on the ground.
- The Death Penalty as a Controversial Measure —
 - This decision has sparked significant debate, with many feminists and legal scholars arguing that it does not serve as an effective deterrent.
 - Moreover, the death penalty does not address the root causes of sexual violence, such as societal attitudes, gender inequality, and the failure of institutions to protect women.
 - The imposition of the death penalty also reflects a broader trend within the legal system to prioritise punitive measures over preventive ones.
- Overlooking Structural and Cultural Factors —
 - Legal reforms cannot operate in a vacuum; they must be accompanied by changes in societal attitudes and institutional practices.
 - The failure to address these underlying issues limits the effectiveness of the BNS and similar legal reforms.
 - For instance, the law does not adequately tackle the issue of impunity, where powerful

individuals or groups can escape accountability due to their social, economic, or political influence.

- **Moreover, the focus on punitive measures such as the death penalty detracts from the need to strengthen the institutional frameworks** that support survivors of sexual violence.
- Disregard for Feminist Recommendations and Verma Committee Recommendations —
 - The **Verma Committee, established in the wake of the 2012 Delhi gangrape, provided comprehensive recommendations** aimed at addressing sexual violence in a holistic manner.
 - **One of the key recommendations was to make those in positions of command responsible for preventing mass-scale sexual violence**, thereby ensuring accountability at all levels.
 - However, **this recommendation was ignored in the drafting of the BNS**, reflecting a reluctance to challenge entrenched power structures.
 - The **failure to incorporate feminist perspectives into legal reforms also manifests in the expansion of state control over sexuality**, rather than the protection of bodily autonomy for all victims of sexual violence.

Some Other Broader Systematic Failures in Addressing Sexual Violence -

- Institutionalisation of Backlash —
 - The **institutionalisation of backlash against those who fight sexual harassment**, even within the courts, **undermines the possibility of any meaningful change in rape culture**.
 - The **Vishaka judgment, which aimed to empower women-led processes in addressing sexual harassment, has been effectively undermined** by handing over these processes to employers with vested interests.
 - The **Hathras case is a glaring example of how protest and dissent are criminalised**, reinforcing a patriarchal caste order that perpetuates sexual violence.
- Mass-Scale Defunding of Women's Groups —
 - One of the **most alarming developments in recent years has been the mass-scale defunding of women's groups** that have historically worked with rape survivors and victims of gender-based violence.
 - This **de-funding has resulted in a significant loss of experience and expertise**, leaving survivors with even fewer resources and support systems.
 - **As institutions gather impunity, women are left more vulnerable**, particularly in environments where nepotistic and arbitrary processes in admissions and recruitment prevail.
- The Failure to Provide Safe Spaces and Compensation —
 - The state's neglect in providing safe shelters, financial support, and appropriate compensation to survivors reflects a troubling disregard for the rights and dignity of women.
 - **The language of compensation has been so degraded that it is often viewed with suspicion, perpetuating harmful stereotypes that women fabricate stories** of sexual violence for monetary gain.
 - This cynical perspective further marginalises survivors and undermines their quest for justice.
- The Monopolisation of the Discourse on Sexual Violence —
 - The male-dominated state apparatus continues to shape the discourse on sexual violence in ways that undermine feminist perspectives.
 - **Discussions about forensic evidence, such as the quantity of semen in autopsy reports, often devolve into pornography by other means**, reinforcing male bonds over the violated bodies of women.
 - **This reflects a broader societal issue, where patriarchal and majoritarian narratives dominate**, marginalising feminist constitutionalism and the empowering languages that have emerged from feminist legal advocacy.

The Role of Tort Law and Intersectionality in Addressing Sexual Violence -

- To create a culture of deterrence, **it is essential to develop a safety jurisprudence that**

incorporates tort law, holding institutions accountable for failing to provide safe environments for women.

- **The law on constitutional torts should be applied more rigorously** to institutions that neglect their duty of care.

- **Additionally, intersectionality must play a central role in addressing the unique challenges faced by women from marginalised communities, such as Muslim and Dalit women, who face routine discrimination and violence.**
- **The leaking of documents, photographs, and videos by both state and non-state actors, often for political gain, further exacerbates the trauma of survivors.**
- **The circulation of such material, particularly ‘atrocities videos,’ highlights the ways in which sexual violence is exploited for competitive party politics, deepening the crisis of impunity.**

Conclusion -

- **The enduring crisis of sexual violence in India reflects the deep-seated flaws within the political, legal, and social systems.**
- **Despite numerous legal reforms and public outcries, the culture of impunity remains pervasive, perpetuating violence and injustice.**
- **To address this crisis, it is essential to challenge the patriarchal and majoritarian narratives that dominate the discourse, implement meaningful reforms that protect victims, and hold institutions accountable for their failures.**

Source - [The Indian Express](#)

QUESTION - Critically examine the systemic failures in addressing sexual violence in India, with a focus on the limitations of recent legal reforms such as the Bharatiya Nyaya Sanhita (BNS). Discuss the role of societal attitudes, institutional practices, and the disregard for feminist recommendations in perpetuating impunity. How can India develop a more effective legal and social framework to combat sexual violence and protect survivors?

GENERAL STUDIES - II

Governance

Steps for implementing land reforms in India

The Centre has decided to provide states with Rs 10,000 crore in incentives for implementing land-related reforms in rural and urban areas, and Rs 5,000 crore for creating a Farmers' Registry during the financial year 2024-25 (FY25).

The funds will be provided under the Scheme for Special Assistance to States for Capital Investment 2024-25.

Promises Related to the Land Reforms Made in the Union Budget 2024-2025 -

- **Land-related reforms in the rural areas** — These will include —
 - Assignment of unique land parcel identification numbers (ULPIN) or **Bhu-Aadhaar** for all lands,
 - Digitisation of cadastral maps,
 - Survey of map subdivisions as per current ownership,
 - Establishment of land registry, and
 - Linking to the farmers registry.
- **Land-related reforms on the urban front** — These will include —
 - Digitisation of land records with GIS mapping.
 - Establishing an IT-based system for property record administration, updating, and tax administration.
 - These will facilitate **improving the financial position of urban local bodies.**
- **Implementation of the Digital Public Infrastructure (DPI) in agriculture** —
 - The Indian government (in partnership with States) will facilitate the implementation of the DPI in agriculture for coverage of farmers and their lands in 3 years.

- . This programme will include a “**digital survey**” of the kharif crop in 400 districts and the land details being brought into a “**land registry**”.
- . These actions will facilitate credit flow and other agricultural services to rural land.

Significance of Actions on Reforms around Land -

- It points towards a **recognition that States are the key actors** on these issues, and that **approaches and constraints can vary across States.**
- Overall better land registries and cadastral maps are key -
 - . **To understanding land-use around the country,**
 - . To enforce building codes, and
 - . To evaluate the risks due to various hazards, including **natural disasters.**
- Information about land-use and land-use change are also key to understanding India’s **emissions inventory.**

Challenges towards Implementing Actions on Land Reforms -

- India has been trying to develop such land maps since the 1980s, with limited success.
- One particular pitfall has been **lack of standards.**
 - . These maps have been made by **manual digitisation** and are **not properly geo-referenced**, i.e. the digital data is not mapped to fixed geographical coordinates.
 - . The States have used **different mapping projections**, so maps prepared by one State’s processes are not directly compatible with those of another.
- Thus, it is important to develop GIS data standards and interoperability for various end applications first.
- These efforts also **need technology support and upgrading**, while appropriate and enabling institutional arrangements will need to be worked out at state and city levels.

What is the Scheme for Special Assistance to States for Capital Investment 2024-25?

- In view of a **higher multiplier effect** of capital expenditure and in order to provide a boost to capital spending by States, the scheme was **announced in the Union Budget 2024-25.**
- The scheme (first launched in 2020-21) **provides financial assistance to state governments** in the form of 50-year interest-free loans for capital investment projects.
- In 2024-25, the scheme was redesigned with an overall allocation of ₹1.30 lakh crore, and includes 2 mandatory conditions for the next fiscal year:
 - . With many states tweaking the names of centrally sponsored schemes (CCSs), the Centre has made it mandatory that to avail of the capex loan, **states would have to retain the official name of all schemes.**
 - . The Centre has now mandated that states have to deposit the central share of interest earned in SNA accounts till March 31 (2024), in the Consolidated Fund of India.
 - **The single nodal agencies (SNA) model** requires states to notify an SNA for each CSS to receive funds from both the Centre and from state budgets.

Source - **Multiple**

QUESTION - The Indian Union Budget for 2024-25 includes a Scheme for Special Assistance to States for Capital Investment aimed at enhancing capital spending by state governments. Analyse the key features of this scheme and discuss the significance of the allocated funds for land-related reforms in both rural and urban areas. Additionally, evaluate the potential challenges in implementing these land reforms and suggest measures to overcome them.

Lateral entry reform

Since the 2024 elections, **the Indian government has been grappling with increasing uncertainty and a more complex political landscape.**

Some officials are struggling to adapt to the new reality, where strong opposition and the need for collaboration are crucial.

This shift is highlighted by various events, including controversies over policies like the reversal on lateral entry without reservation in the civil service.

Lateral Entry and the Illusion of Reform -

- The government's reliance on lateral entry as a solution to administrative challenges reflects a broader misconception.
- In 2014, the then-prospective Prime Minister **promised a government of maximum governance, minimum government, but the opposite seems to have occurred.**
- Instead of streamlining the bureaucracy, **the government has expanded, leading to a realisation that there are insufficient civil servants** to meet the needs of India's growing population.
- To address this issue, **the government has not only expanded recruitment through traditional channels but also sought to introduce mid-level professionals** from the private sector, hoping they might correct the perceived shortcomings of existing civil servants.
- However, **this approach reveals a fundamental misunderstanding of the differences between public administration and corporate governance.**

The Challenges of Integrating Corporate Practices into Public Administration -

- Objectives and Mission: Diverging Purposes —
 - **At the heart of corporate governance is the pursuit of clear, often singular, objectives:** maximising profit, enhancing shareholder value, and ensuring the growth and sustainability of the company.
 - These **goals are straightforward and unchanging**, guiding every decision made by corporate managers.
 - **Public administration**, on the other hand, **operates within a far more complex and multifaceted framework.**
 - The **primary mission of public administration is to implement the policies of the government, which can vary widely across different sectors** such as health, education, infrastructure, defence, and social welfare.
- Decision-Making Processes: Stability vs. Flexibility —
 - **Decision-making in corporate governance is typically characterised by a top-down approach**, where directives are issued by a central authority.
 - This **hierarchical structure ensures that decisions align closely with the company's overarching goals**, and changes in strategy are relatively infrequent, occurring in response to market conditions or shifts in the competitive landscape.
 - **In contrast, public administration requires a more decentralised and participatory approach** to decision-making.
 - **Given the diverse and often conflicting interests that public administrators must balance—ranging from the demands of various interest groups to the legal constraints imposed by the constitution—**decisions are made through extensive consultation and collaboration.
- Accountability and Transparency: Public Scrutiny vs. Private Confidentiality —
 - **One of the most significant differences** between public administration and corporate governance lies in **the level of accountability and transparency required.**
 - **Corporate governance, while certainly accountable to shareholders and regulatory bodies**, operates with a degree of confidentiality that allows for strategic discretion.
 - **Public administration, however, is subject to a higher standard of accountability and transparency.**
 - As stewards of public resources, government officials must ensure that their actions withstand public scrutiny.
- Leadership and Management: Fixed vs. Variable Objectives —
 - **Corporate leaders are often seen as visionaries** who drive their companies towards well-defined goals.
 - Their leadership is based on achieving specific financial outcomes, and they operate

with a relatively stable set of variables.

- . **In public administration, leadership is more about stewardship and balancing competing interests.**

- . Public leaders must manage a wide array of variables that can change with every election or policy shift.
- . **Their success is not just measured by the efficient implementation of policies but also by their ability to maintain social harmony**, uphold the rule of law, and respond to the evolving needs of the public.
- Resource Allocation: Profit-Driven vs. Welfare-Driven —
 - . Resource allocation in corporate governance is primarily driven by the goal of maximising returns on investment.
 - . **Resources are allocated based on their potential to generate profit**, and decisions are made with the bottom line in mind. **This often leads to a focus on areas that promise the highest financial returns.**
 - . **In public administration, resource allocation is driven by the broader objective of public welfare.**
 - . Decisions about where and how to allocate resources are influenced by considerations of equity, social justice, and long-term national development.
- Impact of Political Dynamics: Stability vs. Volatility —
 - . **Corporate governance operates within a relatively stable environment** where market forces are the primary drivers of change.
 - . While corporations must adapt to economic cycles, regulatory changes, and technological advancements, the overall environment is more predictable than that of public administration.
 - . **Public administration, by contrast, is deeply intertwined with political dynamics.**
 - . The priorities of public administration can shift dramatically with changes in government, public opinion, and global events.
 - . **Public administrators must be agile, able to respond quickly to new directives**, and adept at managing the often volatile and unpredictable nature of politics.

Systemic Issues in the Indian Civil Service -

- In his book **Building a World Class Civil Service for 21st Century India**, S K Das argues that **the Indian civil service has perpetuated and even deepened the hierarchical, rigid, and centralised bureaucratic model** inherited from the British.
- The **outdated and cumbersome rules and regulations have only multiplied over the years**, creating a regulatory environment that stifles innovation and best practices.
- **The problem, therefore, is systemic rather than individual.** Civil servants, whose skill sets are not significantly different from those in the private sector, can achieve remarkable results if the system allows for flexibility and support.
- **Examples of successful outcomes from lateral entry include Nandan Nilekani, who was brought in to develop the Aadhaar system, and S Ramadorai, who was tasked with creating a skill development framework.**
- **Both individuals were given Cabinet Minister ranks**, allowing them to exercise authority and achieve significant results.
- However, **bringing in corporate professionals at lower levels, such as joint secretaries or directors, is unlikely to yield the same outcomes**, as the existing system does not allow them to fully utilise their skills and talents—a challenge that even highly educated civil servants face.

Way forward -

- Political Ownership —
 - . For India to achieve meaningful systemic change at both national and state levels, **several key factors must be addressed.**
 - . **Central and state-level political ownership is crucial**, with empowered authorities led by the Prime Minister and Chief Ministers.
- State Acceptance —
 - . **Just as the GST was implemented through state cooperation**, large-scale administrative changes require state acceptance.

. The NITI Aayog, which includes all the Chief Ministers as members, could serve as a platform for driving this change.

- Learning from Global Models —

- **Studying the administrative systems of countries like Australia, New Zealand, and OECD nations and adapting their practices to India's context is essential.**
- The Department of Administrative Reforms and Public Grievances (DAR&PG) could spearhead this initiative with assistance from the Commonwealth Secretariat.

Conclusion -

- **Overhauling a deeply entrenched system will require time, effort, and careful consideration of constitutional provisions such as reservation.**
- However, **by recognising the systemic issues within the civil service and adopting a holistic approach to reform, India can gradually transform its governance model to better serve its people in the 21st century.**

Source - [The Indian Express](#)

QUESTION - Critically analyse the challenges and implications of integrating corporate governance practices into public administration in India, with particular reference to the government's reliance on lateral entry as a reform measure. How do these challenges reflect broader systemic issues within the Indian civil service?

Mental Health of Medical Students

Mental health has long been a neglected issue in India, despite alarming statistics and growing evidence of its profound impact on the population.

The recent formation of a Task Force by the National Medical Commission to address the mental health and wellbeing of medical students highlights the urgent need for a comprehensive and strategic policy approach to mental health in the country.

The situation is dire and demands immediate attention and therefore it is important to have an assessment of the current situation of mental health in India and ways ahead to address the gaps in policy.

The Current State of Mental Health in India -

- **The National Mental Health Survey of 2015-16 provides a stark picture of the mental health crisis in India.**
- **It revealed that 10.6 percent of the population over the age of 18 suffers from mental health disorders, with 16 percent of those affected being in the productive age group of 30-49 years.**
- **The survey also highlighted a lifetime morbidity affecting 150 million people, with 1 percent reporting high suicidal risk.**
- **Despite this, the human resources and treatment facilities required to address these conditions are grossly inadequate, resulting in a treatment gap of 80 percent.**
- **This gap underscores the critical need for increased policy attention and resource allocation to mental health.**

Policy Gaps, Challenges and Resource Allocation in Mental Health -

- Overview of Policy Gaps in Mental Health —
 - **India's approach to mental health has been historically inadequate, marked by significant policy gaps and insufficient resource allocation.**
 - **Despite the recognition of mental health as a critical public health issue, it has not been matched by appropriate government action or funding.**
 - **The discrepancy between the growing need for mental health services and the resources allocated to address this need is a glaring issue that has persisted over time.**
- Insufficient Funding and Budget Allocation —
 - **In 2019, the Union government allocated a mere Rs 600 crore to mental health, a**

fraction of the estimated Rs 93,000 crore required to adequately address the mental health crisis.

- . Even with a slight increase to Rs 1,000 crore in the latest budget, mental health spending remains less than 1 percent of the overall health budget and this is grossly insufficient given the scale of the problem.
- . The underfunding of mental health is further highlighted by the fact that the majority of the allocated funds were directed toward tertiary institutions, such as the National Institute of Mental Health and Neurosciences (NIMHANS) and psychiatry departments of medical colleges.
- Challenges in Community-Based Initiatives —
 - . The allocation of Rs 40 crore for the District Mental Health Programme (DMHP) and other community-based initiatives is particularly concerning.
 - . The DMHP is crucial as it is designed to extend mental health services to the grassroots level, particularly in rural and underserved areas where access to mental health care is limited.
 - . However, the minimal funding it receives severely restricts its capacity to operate effectively, leaving large portions of the population without access to necessary mental health services.
- Underutilisation of Allocated Funds —
 - . Moreover, the actual expenditure of the allocated funds is another area of concern.
 - . Of the Rs 40 crore allocated for community-based initiatives, only Rs 2.91 crore was reportedly spent.
 - . This underutilisation of funds reflects not only a lack of prioritisation but also possible inefficiencies in the system, such as bureaucratic delays, lack of trained personnel, and inadequate infrastructure.
- Systemic Issues and Knowledge Gaps —
 - . The gap in knowledge refers to the challenges policymakers face in understanding how to effectively intervene in mental health issues and when such interventions should occur.
 - . Unlike other health issues, mental health requires a nuanced approach that considers the socio-economic, cultural, and psychological factors that contribute to mental health disorders.
 - . The lack of comprehensive data, limited research, and insufficient training of healthcare professionals further exacerbate the problem, making it difficult for policymakers to design and implement effective mental health strategies.

Legislative Initiatives, Implementation Challenges and Lessons from India's HIV AIDS Response -

- Legislative Initiatives and Implementation Challenges —
 - . The National Mental Health Policy of 2014 and the Mental Health Act of 2017 marked a shift in policy towards ensuring that mental health is given the same priority as physical health.
 - . These initiatives emphasised the need for dignity and equal treatment for those with mental health conditions.
 - . However, despite the clear vision provided by these policies, there remains a lack of clarity on implementation, particularly regarding the financial and physical resources required and the timelines for achieving these goals.
 - . This disconnect between policy and implementation is a common critique of India's policymaking system.
- Lessons from India's HIV-AIDS Response —
 - . India's success in addressing the HIV-AIDS epidemic offers valuable lessons for tackling mental health challenges.
 - . The National Aids Control Programme (NACP) III, implemented by the National Aids Control Organisation (NACO), demonstrated the effectiveness of strategic interventions based on epidemiological evidence, the importance of modelling different options, and the need for wide-ranging interventions tailored to different geographies and target groups.

- . **This approach provided crucial data on cost-effectiveness and scalability**, which were essential for scaling up interventions.

Way forward -

- **Need for Holistic Approaches to Mental Health —**
 - . A **similar approach on the lines of India's response to HIV-AIDS is urgently needed** to develop an implementable strategy for mental health patients.
 - . **Like HIV-AIDS patients, individuals with mental health conditions require empathy** from society and commitment from various government sectors.
 - . **Mental health issues are often exacerbated by societal pressures and stressors such as poverty**, growing inequalities of opportunity, and discriminatory environments based on caste, gender, and religion.
 - . **These triggers, if left unaddressed, can cause mental health problems to recur** despite medical treatment.
 - . Therefore, a **purely biomedical approach is insufficient to address mental health conditions**; a more holistic approach that includes community-anchored and affordable interventions is necessary.
- **The Role of Civil Society —**
 - . Despite the policy vacuum, **civil society in India has been active in addressing mental health challenges**.
 - . **Organisations such as Banyan in Tamil Nadu, Sangath in Goa, and the Centre for Mental Health Law and Policy in Pune have pioneered models of rehabilitation and care** for individuals with mental disorders.
 - . **These evidence-based strategies**, such as short-stay homes, emergency care centres, and peer-led interventions, **need to be studied for potential scaling up**.
 - . **For instance, Banyan's Home Again intervention, which addresses the needs of an estimated 60 lakh homeless and abandoned women with mental illnesses**, offers a comprehensive strategy that includes awareness, rescue, treatment, rehabilitation, and reintegration with family.

Conclusion -

- **The mental health crisis in India demands urgent and comprehensive policy attention** and by learning from the successes of the HIV-AIDS response, **India can develop and implement effective strategies** to address the mental health needs of its population.
- **This will require political will, adequate resource allocation, and active engagement with all stakeholders**, including civil society and affected communities.
- **Only then can India hope to bridge the treatment gap** and ensure that mental health is given the priority it deserves.

Source - [The Indian Express](#)

QUESTION - The mental health crisis in India is both alarming and deeply neglected, despite the increasing evidence of its widespread impact on society. Evaluate the current state of mental health in India, highlighting the policy gaps, challenges, and resource allocation issues.

Need for a Central Protection Act for Doctors

Resident doctors across India are on strike, demanding laws to ensure their safety after the rape and murder of a young doctor at R.G. Kar Medical College in Kolkata on August 9. The protests began after her body was found in the hospital's emergency building, with doctors criticising the hospital and State government for attempting to downplay the incident. They highlight the lack of a Central law to protect healthcare workers.

Current status -

- **Legal provisions —**
 - . As per constitutional provisions, health and law and order are State subjects.
 - . Hence, it is the primary responsibility of the State government or Union Territory

administration to take note of events and eventualities, and do what is necessary to prevent violence.

- . It should be noted that, the details of the number of fatalities of medical professionals due to attacks by families of patients are not maintained centrally.
- **Violence against healthcare workers at the workplace is not new in India —**
 - . In 1973, **Aruna Ramchandra Shanbaug** working as a junior nurse at King Edward Memorial Hospital, Mumbai, was sexually assaulted by a hospital sweeper.
 - . She died in 2015 after spending over 41 years in a vegetative state following the attack.
- **Need for a safe work environment —**
 - . Experts have pointed out that medical colleges often have ill-lit corridors, poorly secured wards, and long distances between departments.
 - . There is an urgent need to improve working and living conditions by ensuring proper lighting, security guards, cameras, and manned walk-throughs between departments, operation theatres, and emergency areas.
 - . These simple measures could make a real difference.

Situation around the world -

- Violence against healthcare workers is a global issue, but several countries have implemented effective measures to protect their medical professionals.
- **U.K.** enforces a zero-tolerance policy on violence, supported by a dedicated security team and a comprehensive reporting system.
- In **U.S.**, some States classify assaults on healthcare workers as felonies, acting as a strong deterrent.
- **Australian hospitals** have introduced safety measures like security personnel, panic buttons, and mandatory de-escalation training.
- India must urgently introduce a Central protection Act and adopt similar measures to take stringent actions to ensure a safer environment for its healthcare workers.

Demands of doctors -

- The Indian Medical Association (IMA) has urged the Union government to recognise and address violence against doctors at healthcare centres.
- In its list of demands, the IMA calls for hospital security protocols similar to those at airports, declaring healthcare centres as safe zones with mandatory security measures like CCTVs and security personnel.
- The IMA highlighted the poor working conditions of doctors, noting that the victim was on a 36- hour shift with no safe place to rest.
- It also emphasised the need for a thorough investigation of the crime, justice for the victim, identification and punishment of those responsible for vandalism, and appropriate compensation for the victim's family.

Steps taken by the Centre -

- Recently, the Ministry of Health and Family Welfare issued an order requiring the head of an institution to file an FIR within six hours in the event of any violence against healthcare workers on duty.
- This order responds to the increasing violence against doctors and healthcare staff in government hospitals, often perpetrated by patients or their attendants.
- Additionally, the National Medical Commission (NMC) has directed all medical colleges to develop policies ensuring a safe work environment for staff.
- The NMC also mandated that incidents of violence against medical students be promptly investigated, with an FIR filed and a detailed report sent to the NMC within 48 hours.

Source - [The Hindu](#)

QUESTION - The recent tragedy involving the rape and murder of a young doctor in Kolkata has reignited the debate on the safety of healthcare workers in India. Critically assess the current legal and institutional measures in place to protect healthcare professionals, and discuss whether there is a need for a Central law to address this issue.

GENERAL STUDIES - III

Agriculture

A vision for agriculture in India

India's agricultural sector has played a pivotal role in its socio-economic development. While it has witnessed significant progress, challenges persist, particularly in ensuring food security, improving farmer incomes, and addressing environmental concerns. This analysis examines the historical context of India's agricultural development, identifies key challenges, and proposes policy recommendations for a sustainable and prosperous future.

Historical Context -

- India's post-independence agricultural journey has been marked by significant strides, particularly with the Green Revolution. This period saw a surge in agricultural productivity, leading to a reduction in food insecurity and poverty. However, the sector has also faced challenges such as land fragmentation, dependence on monsoon rainfall, and the growing threat of climate change.
- Lessons from China's agricultural reforms offer valuable insights for India. China's successful transition from a predominantly agrarian economy to a global manufacturing powerhouse can provide valuable lessons for India's agricultural development. China's experience in implementing land reforms, promoting agricultural modernisation, and fostering rural-urban linkages can be particularly relevant for India.

Key Challenges -

- **Low Productivity** — India's agricultural productivity remains relatively low compared to many other countries. This is due to factors such as small and fragmented landholdings, lack of access to modern technology, and inefficient irrigation practices.
- **Income Disparity** — Farmers, especially small and marginal farmers, continue to face income disparity. This is exacerbated by factors such as low prices for agricultural commodities, high input costs, and limited access to markets.
- **Environmental Concerns** — Issues like soil erosion, water scarcity, and climate change pose significant threats to India's agricultural sector. The increasing frequency and intensity of extreme weather events, such as droughts and floods, can disrupt crop production and livelihoods.
- **Dependency on Imports** — India remains dependent on imports for certain agricultural commodities, particularly pulses and edible oils. This dependence can make the country vulnerable to global price fluctuations and supply disruptions.

Policy Recommendations -

- **Agricultural Research and Development** — Invest in research to develop climate-resilient crops and improve agricultural practices. This includes developing new varieties that are resistant to drought, pests, and diseases.
- **Irrigation Infrastructure** — Expand and modernise irrigation facilities to address water scarcity. This can involve constructing new irrigation systems, improving water management practices, and promoting rainwater harvesting.
- **Land Reforms** — Facilitate land lease markets to improve land utilisation and enhance farmer incomes. This can help consolidate small and fragmented landholdings, making it easier for farmers to adopt modern agricultural practices and access larger markets.
- **Value Chain Development** — Promote value addition to agricultural products to increase farmer incomes and reduce post-harvest losses. This involves investing in infrastructure, such as cold storage facilities and processing plants, and developing marketing channels for value-added products.
- **Price Support Mechanisms** — Implement effective price support mechanisms to protect farmers from price fluctuations. This can include minimum support prices, procurement programs, and subsidies for inputs.

- **Sustainable Agriculture Practices** — Encourage sustainable farming practices to protect the environment and ensure long-term food security. This includes promoting organic farming, agroforestry, and precision agriculture.

- **Nutrition Security** — Prioritise nutrition security by addressing malnutrition and promoting healthy diets. This involves promoting the production and consumption of nutritious crops, such as millets and legumes, and providing nutrition education to farmers and consumers.
- **Public-Private Partnerships** — Foster collaboration between the government, private sector, and farmers to drive innovation and efficiency. This can involve joint ventures, technology transfer, and capacity building programs.

Conclusion -

India's agricultural sector is at a critical juncture. By addressing the challenges and implementing the proposed policy measures, the country can achieve sustainable agricultural growth, ensure food security, and improve the livelihoods of its rural population. A concerted effort from the government, farmers, and other stakeholders is essential to realise this vision.

Source - [The Indian Express](#)

QUESTION - Critically analyse the challenges faced by India's agricultural sector and propose sustainable solutions to ensure food security, improve farmer incomes, and address environmental concerns. Draw upon historical experiences, global best practices, and contemporary policy frameworks to support your arguments.

Economy

Essence of India's Inflation Problem

The **Economic Survey** preceding this year's **Union Budget** presentation introduces a **significant proposal** with profound implications for inflation control in India.

The **suggestion to exclude food prices from the Reserve Bank of India's (RBI) inflation targeting framework** has **sparked debate** among economists and policymakers.

To understand the ramifications of such a policy shift, **it is essential to examine the recent trajectory of inflation in India**, the effectiveness of current inflation control measures, and the broader implications for economic policy.

Food Price Inflation and its Impact -

- A Significant and Persistent Issue —
 - Food price inflation has emerged as a **significant and persistent issue in India**, with far-reaching implications for the economy and the everyday lives of its citizens.
 - **Unlike the occasional spikes** that might be expected due to external shocks or short-term supply disruptions, **India's food price inflation has been consistently elevated over an extended period.**
 - **This trend is not merely a recent phenomenon linked to global events such as the COVID-19 pandemic or the Ukraine war;** it predates these crises, indicating that domestic factors are predominantly responsible.
 - **In June of this year, food prices in India rose by nearly 10%** compared to the same month in the previous year.
- Effects of Food Price Inflation —
 - The impact of food price inflation in India **extends beyond the direct cost of food.**
 - As food prices rise, **they exert upward pressure on wages, particularly in sectors where a large portion of the workforce is engaged** in manual or low-skilled labour.
 - **Workers demand higher wages to cope with the increased cost of living**, especially when it comes to feeding their families.
 - **In turn, rising wages contribute to higher production costs for businesses**, which may respond by increasing the prices of goods and services, thereby fuelling further

inflation across the economy.

- **This cycle of rising costs and prices creates a feedback loop** that can be challenging to break.

- Broader Macroeconomics of Food Inflation —
 - When a significant portion of the population is grappling with higher food costs, **consumer spending on non-food items tends to decline**.
 - **This can lead to a slowdown in demand for goods and services** across various sectors, dampening economic growth.
 - Additionally, **persistent food price inflation can erode consumer confidence**, leading to a more cautious approach to spending and investment.
- Implications for Policy and Society —
 - The **persistent and high level of food price inflation has profound implications for policy and society in India**.
 - **For policymakers, it underscores the need for a more nuanced approach** to inflation control—one that **goes beyond monetary policy and addresses the structural issues in agriculture and food distribution**.
 - This might include **investing in agricultural research and development to improve crop yields**, enhancing storage and transportation infrastructure to reduce post-harvest losses, and implementing policies that stabilise food prices through effective market interventions.

The Justification for Removing Food Prices from Inflation Targeting -

- The **Economic Survey's suggestion to remove food prices from the inflation target raises critical questions** about its justification and potential effectiveness.
- First, given that **food accounts for nearly 50% of household expenditure in India**—a proportion significantly higher than in developed economies—**excluding food prices from the inflation target would overlook a critical component of the cost of living** for a large segment of the population.
- **In contrast, in the United States, food constitutes less than 10% of household expenditure**, reflecting a much higher standard of living.
- **Therefore, any policy that disregards food price inflation would fail to address the economic realities** faced by millions of Indians.
- **Proponents of the proposal argue that food price fluctuations are transitory** and should not be factored into long-term inflation targets.
- **However, this argument is not supported by recent data**. Since 2011-12, food price inflation in India has not been negative in any year, indicating a persistent upward trend rather than temporary spikes.
- As a result, **excluding food prices from the inflation target would amount to ignoring a fundamental economic challenge** that has a direct impact on the welfare of the population.

The Limitations of Targeting Core Inflation -

- The **second critical issue is whether the RBI would be more successful in controlling core inflation if it were to exclude food prices from its target**. Historical data suggests otherwise.
- Over the **past 13 years, core inflation has consistently exceeded the RBI's target**, indicating that monetary policy alone may not be sufficient to control inflation in an economy like India's.
- This is **partly because changes in interest rates, the primary tool of monetary policy, do not have a straightforward or predictable impact on core inflation**.
- In some cases, **raising interest rates to curb inflation can lead to higher prices** as firms attempt to protect their profit margins in the face of rising costs and falling demand.
- **Furthermore, food price inflation has been found to influence core inflation**, complicating efforts to manage inflation through monetary policy alone.
- Since food prices affect wages, which in turn influence the cost of production across various sectors, **ignoring food inflation could undermine the effectiveness of inflation targeting**.

- This interconnectedness suggests that a **comprehensive approach to inflation control is needed, one that acknowledges the role of food prices** in the broader inflationary process.

The Broader Implications of Excluding Food Prices from Inflation Targeting -

- Impact on Economic Policy and Governance —
 - . Excluding food prices from the inflation target **would fundamentally alter the focus of the RBI's monetary policy.**

- . Currently, the RBI's mandate includes managing "headline" inflation, which encompasses the entire consumer price index (CPI), including food prices.
- . **This approach recognises the centrality of food prices** in the overall cost of living for Indian households.
- . **By shifting to core inflation targeting** where food and fuel prices are excluded, **the RBI would concentrate on controlling the inflation of non-food and non-energy goods and services.**
- Social and Welfare Implications —
 - . The exclusion of food prices from the inflation target **also raises significant concerns about social welfare and equity.**
 - . **Food inflation disproportionately affects lower-income households**, which spend a larger share of their income on food.
 - . **For these households, even modest increases in food prices can lead to severe economic hardship**, reducing their ability to afford other essential goods and services such as healthcare, education, and housing.
 - . **If food prices were excluded from the inflation target, monetary policy would be less attuned to these welfare concerns.**
- Long-Term Economic Consequences —
 - . If food inflation is not adequately controlled, **it could lead to a situation where inflation expectations become unanchored**, leading to persistently high inflation across the economy.
 - . **This could erode the credibility of the RBI's inflation-targeting framework** and undermine confidence in the central bank's ability to manage inflation effectively.

Conclusion -

- The **broader implications of excluding food prices from the inflation target are complex and multifaceted.**
- **While the proposal may offer some technical benefits in terms of focusing monetary policy on core inflation, it also carries significant risks**, particularly in terms of social welfare, economic equity, and the overall effectiveness of inflation control.
- **To manage inflation effectively in India, policymakers need to adopt a comprehensive approach that addresses the unique challenges of the Indian economy**, including the persistent issue of food price inflation.

Source - [The Hindu](#)

QUESTION - The Economic Survey has suggested the exclusion of food prices from the Reserve Bank of India's (RBI) inflation targeting framework, a proposal that has sparked significant debate. Critically examine the potential implications of excluding food prices from the inflation target in the context of India's economy.

E-Commerce in India

Aiming at the largest online retailer in the world - Amazon, the Union Minister of Commerce and Industry voiced concerns about the rapid expansion of the e-commerce sector in India.

What is E-commerce?

- Meaning — E-commerce (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet.
- Advantages —
 - **No geographical barrier** — Delivery of products is taking place in the remotest part of the country, which has brought suppliers and customers closer together — boosting output and creating ideal competition.
 - **Lower cost** — Due to decrease in miscellaneous expenses and increase in economy of

scale, cost of the products also gets reduced.

- **Personalisation and product recommendation** — Customers can learn more about the products thanks to the feedback and remarks system.

- **For business** — Advantages include an expanded customer base, increased sales, extended business reach, and the convenience of recurring payments and instant transactions.
- **Disadvantages** —
 - **Security and privacy issues** — The general acceptance of e-commerce buying habits is hampered by the lack of strong encryption techniques to protect identification, personal data, and financial transactions.
 - **Limited customer service** — Compared to e-commerce websites, physical storefronts make it easier to resolve concerns and determine whether a product is suitable.
 - **Regulatory concerns** — The lack of clarity regarding the laws governing online sales creates mistrust between consumers and sellers.
 - **Limited understanding of product suitability** — Buying things online eliminates the opportunity to physically handle them. Instead, one must rely exclusively on digital photos.
 - **There is lesser accountability on part of e-commerce companies** — The product quality may or may not meet the expectations of the customers.

Key Factors Promoting the Growth of E-Commerce in India -

- **Price - A trump card for Indian e-commerce players** — As most of the products that are available online are cheaper than the same products available offline.
- **Payment options** —
 - The Government of India's **Digital India** initiative has been a key factor in enhancing internet penetration across the country.
 - With the advent of digital wallets and **UPI** (Unified Payments Interface), the payment options have grown over the years.
 - However, the **Cash on Delivery (COD)** is prevalent in India due to a large amount of cash being circulated in the economy.
- **Domestic consumption** — India's growth story driven by domestic demand and the high consumption of the aspirational Indian consumer has ensured the growth of e-commerce.
- **Language** — Most e-commerce portals in India are in English and that has played a big role in the growth of the industry, as India has the largest English-speaking middle-class population.

Government Initiatives to Promote E-commerce in India -

- Since 2014, initiatives like **Digital India, Make in India, Start-up India, Skill India, and Innovation Fund** have supported the growth of E-commerce in the country.
- **Government e-Marketplace (GeM)** — It is an online platform for public procurement in India that was launched in 2016 by the Ministry of Commerce and Industry.
 - Its objective is to create an inclusive, efficient, and transparent platform for the buyers and sellers to carry out procurement activities in a fair and competitive manner.
- **National Retail Policy** — In order to administer offline retail and e-commerce in an integral manner, the government had identified five areas in its proposed national retail policy —
 - Ease of doing business,
 - Rationalisation of the licence process,
 - Digitisation of retail,
 - Focus on reforms and
 - An open network for digital commerce (ONDC).
- **ONDC** —
 - It has been built to promote open networks for all aspects of the exchange of goods and services over digital or electronic networks.
 - It uses open specifications and open network protocols independent of any specific platform.
- **The Consumer Protection (e-commerce) Rules 2020** — It directed e-commerce

companies to display the country of origin alongside the product listings.

. In addition, the companies will also have to reveal parameters that go behind determining product listings on their platforms.

- **5G** — Heavy investment made by the Government in rolling out a fibre network for 5G will help boost E-commerce in India.

Concerns regarding E-Commerce Sector in India -

- According to a Pahle India Foundation's report 'Net Impact of E-Commerce on Employment and Consumer Welfare in India',
 - . E-commerce is growing at an annual rate of **27%**, meaning that e-commerce **will double every three years**.
 - . Online vendors have **generated 15.8 million jobs** in India (including 3.5 million for women), with about 1.76 million retail enterprises participating in e-commerce activity.
- The Union Minister of Commerce and Industry (at the launch of the report) claimed that this growth of the e-commerce sector in India would be the consequence of "**predatory pricing**".
 - . **Predatory pricing is a practice** (generally by a new player in the market) of keeping prices superficially low to undercut competition and gain market share.
 - . He singled out **Amazon** for indulging in predatory pricing and selling products directly to consumers even though it isn't allowed to do so.
- According to the minister, this might cause "**social disruption**" because it would **negatively affect an estimated 100 million small retailers nationwide**.

Source - Multiple

QUESTION - Discuss the impact of the rapid expansion of the e-commerce sector in India on traditional retail businesses. Critically analyse the concerns raised regarding predatory pricing and its potential effects on small retailers, citing specific government initiatives aimed at regulating the sector. How should India balance the growth of e-commerce with the protection of small retailers?

Environment

India's Ethanol Blended Program

India is on its way to achieve its target of blending 20% of petrol with ethanol by 2025-26. But concerns about fuel efficiency in existing vehicles and the food vs fuel debate still loom large over the ethanol economy.

About Ethanol (C₂H₅OH) and Ethanol Blending -

- Ethanol is an **agricultural by-product** which is mainly obtained from the processing of sugar from sugarcane, but also from other sources such as rice husk or maize.
- Since ethanol is produced from plants that harness the power of the sun, it is also considered as **renewable fuel**.
- **In India**, ethanol is mainly produced from sugarcane molasses by fermentation process.
- **Ethanol is 99.9% pure alcohol** that can be blended with petrol.
- To supplement ethanol supplies, the Government of India has permitted the procurement of ethanol produced from sources other than molasses, which is known as **first generation ethanol or 1G**.
- Aside from molasses, ethanol can be derived from rice straw, wheat straw, corn stover, bagasse, bamboo and woody biomass, which are known as **second generation ethanol sources or 2G**.

India's Ethanol Blended Petrol (EBP) Programme -

- About —
 - . It was launched by the Ministry of Petroleum and Natural Gas in **2003** to promote the use of alternative and environment friendly fuels.
 - . **This programme has been extended** to the whole of India (except UTs of Andaman Nicobar and Lakshadweep islands) with effect from **1st April, 2019** wherein Oil

Marketing Companies (OMCs) sell petrol blended with ethanol up to **10%**.

- The all-India average blending of ethanol with petrol has risen from 1.6% in 2013-14 to **11.8% in 2022-23.**

- **India's goal is to grow this ratio to 20%** by 2030, but when the NITI Aayog released the ethanol roadmap in 2021, that deadline was advanced to **2025**.
 - . 20% by 2025-26 would mean producing some 1,000 crore litres of ethanol for blending with petrol.
- Benefits of EBP programme —
 - It will reduce India's import bill.
 - It will reduce environmental pollution.
 - It will increase farm income.
 - Biofuels demand least incremental investment for manufacturers.
- Challenges when it comes to 20% ethanol blended fuel —
 - Engines would **need to be tweaked** so as to process petrol which has been blended with 20% ethanol.
 - Ethanol burns completely emitting nil CO₂. However, **it does not reduce the emission of another key pollutant** - nitrous oxide.
 - Another source of contention is **inefficient land usage** in ethanol production and the **amount of water required to cultivate crops for ethanol**.
 - **Food security concerns**, given the uncertainties surrounding future output.

Status of Ethanol Production Capacity in India -

- The Niti Aayog's roadmap had laid down that —
 - . The capacity of sugarcane-based distilleries would need to increase from 426 crore litres in 2021 to 760 crore litres in 2026.
 - . While grain-based distilleries' capacity should increase from 258 to 740 crore litres.
- **Two interest subvention programmes** for establishing new distilleries had facilitated the ramping up of ethanol generation capacity.

Challenges Hanging Over India's Ethanol Economy -

- Fuel vs. food debate —
 - In India, all the emphasis has been on **first generation (1G) ethanol** that is directly made from foodgrains and sugarcane.
 - **For example**, sugarcane gives rise to three main related products - sugarcane juice and syrup, B-heavy molasses and C-heavy molasses, in the order of decreasing sugar content.
 - The first two would typically go to making sugar while the third will be used for ethanol production.
 - In a bid to up fuel ethanol production, **the government had started permitting the diversion of the first two away from sugar production to fuel ethanol**.
- Concerns about agricultural sustainability — Expanding sugarcane cultivation would redirect irrigation water from essential food-grain crops, exacerbating concerns about agricultural sustainability.
- Rising import bill —
 - . India ranks as a major maize producer globally, but domestic consumption consistently outpaces production.
 - . This is also because maize has been used to produce more fuel ethanol to compensate for restrictions on using sugarcane products.
 - . As a result, **maize import has increased** (from April to June 2024, the import is already worth \$103 million) compared to last year.
- More cultivation area to meet the 20% target — As per NITI Aayog's estimates, **some 4.8 million hectares will have to be added to maize** cultivation area to meet the 20% target, which is almost half of the typical maize cultivation area.
- Fuel efficiency in existing vehicles — The NITI Aayog report notes that ethanol brought down fuel efficiency in vehicles not suited for ethanol by an average of 6%.
- Performance across states —
 - . While the fuel ethanol pricing is the same across India, States determine the pricing of

Extra Neutral Alcohol (ENA) that goes into making liquor for consumption and other uses.

- . **In UP**, the government is fully aligned with the central government's mission on ethanol and reserves ~25% of the ethanol for ENA.
- . **In Tamil Nadu**, where liquor is a highly lucrative market for distilleries, fuel ethanol has not yet caught on as much.

Way forward -

- The government should **diversify and move to 2G and 3G** ethanol that have less adverse effect on India's food security.
- Existing vehicles may have to go for an **engine retuning and change over** to E20 supported material.
- As liquor revenue forms a large chunk of revenue of most state governments, many across the industry demand **an increase in ethanol pricing**.

Source - [The Hindu](#)

QUESTION - The ethanol blending program in India aims to achieve a 20% blending of ethanol with petrol by 2025-26, which promises significant economic and environmental benefits. However, this ambitious target brings with it a range of challenges related to food security, agricultural sustainability, and vehicle efficiency. Critically examine the potential impact of the 20% ethanol blending target on India's food security, fuel efficiency, and agricultural sustainability.

Science and Technology

Reshaping the governance structure of AI Companies

Corporate governance in capitalistic and neo-capitalistic economies has historically prioritised the theory of shareholder primacy and this model places the goals of profit generation and wealth creation for shareholders above other business objectives.

However, recent years have seen a growing movement toward stakeholder capitalism, which seeks to balance the interests of all stakeholders, including employees, customers, and society at large.

It is important to explore the shifting landscape of corporate governance in the context of AI development, examining the challenges and opportunities presented by stakeholder capitalism.

The Traditional Model: Shareholder Primacy and the Rise of Stakeholder Capitalism -

- The Traditional Model: Shareholder Primacy —
 - The **shareholder primacy model** has dominated corporate governance for decades, driven by the belief that the primary responsibility of a corporation is to maximise profits for its shareholders.
 - This **perspective was famously articulated by economist Milton Friedman in 1970**, who argued that the social responsibility of business is to increase its profits.
 - **Under this model, other objectives**, such as social or environmental considerations, **are secondary to the goal of financial gain**.
 - This **approach has shaped the decision-making processes of countless corporations**, leading to a focus on short-term profits and shareholder returns.
- The Rise of Stakeholder Capitalism —
 - In contrast to shareholder primacy, **the stakeholder benefit approach to corporate governance advocates for maximising the benefits of all stakeholders**, not just shareholders.
 - **This model recognises that businesses operate within a broader social and environmental context** and that their actions can have far-reaching consequences.
 - The **rise of stakeholder capitalism reflects a growing awareness that corporations have a responsibility to contribute to the public good**, not just to generate profits.
 - This **shift has been particularly evident in industries where the social impact of products and services is significant**, such as the development of AI technologies.

The Need for Alternative Governance Structures for AI Companies -

- The Intrinsic Nature of AI —
 - **AI, especially Generative AI, is fundamentally different from traditional technologies** in that it learns and evolves by processing vast amounts of data.
 - This capability **allows AI systems to generate new content, make decisions, and even predict human behaviour.**
 - However, **this same capability raises significant concerns about the potential for misuse, bias, and unintended consequences.**
 - **Traditional governance models, which prioritise shareholder profits, often overlook these risks** in favour of short-term financial gains.
- Social and Ethical Implications of AI —
 - **AI technologies are increasingly embedded in critical aspects of daily life, from healthcare and finance to education and social media.**
 - As such, **the decisions made by AI systems can have wide-ranging implications** for individuals and society.
 - **One of the most pressing concerns is the potential for AI to perpetuate and even exacerbate existing social biases and inequalities.**
 - **For example, Amazon's experience with its AI-driven recruiting algorithm highlights how AI can unintentionally embed and amplify gender biases** present in historical data.
 - The **ethical implications of AI extend beyond bias. There is also the concern of AI systems making decisions that affect individuals' lives** without sufficient transparency or accountability.
- Public Scrutiny and Regulatory Pressures —
 - As AI becomes more pervasive, **there is increasing public scrutiny of how these technologies are developed and deployed.**
 - **Stakeholders, including consumers, employees, and advocacy groups, are demanding greater accountability from corporations** that develop AI technologies.
 - They are **calling for governance structures that prioritise ethical considerations** and protect public interests over mere profit-making.
 - **Regulatory bodies around the world are also responding to the challenges posed by AI.**
 - For example, **the European Union has proposed the Artificial Intelligence Act,** which seeks to regulate AI technologies by imposing strict requirements on high-risk AI systems.
- The Emergence of Alternative Governance Structures —
 - **In response to these challenges, some corporations are experimenting with alternative governance structures** that aim to balance the profit motive with broader social responsibilities.
 - **One such example is the creation of public benefit corporations, which are legally required to consider the impact of their decisions on all stakeholders, not just shareholders.**
 - **OpenAI and Anthropic, two leading AI firms, have adopted such models** to align their business practices with their ethical commitments.
 - **OpenAI, for instance, was initially founded as a non-profit organisation** with the mission of ensuring that AI benefits all of humanity.
 - However, **as the company grew and its need for capital increased, it transitioned to a hybrid structure** with a capped-profit subsidiary.
 - This **structure allows OpenAI to attract investment** while still maintaining its focus on public benefit.

Way forward -

- To address the challenges posed by the intersection of AI development and corporate governance, **policymakers must develop innovative regulatory frameworks** that balance the interests of profit and social responsibility.

- **This could involve enhancing the long-term profit potential of companies that adopt public benefit purposes**, incentivising managerial compliance with these objectives, and reducing the costs associated with such compliance.

- Additionally, establishing ethical standards for AI governance and providing regulatory support through corporate governance reforms will be crucial in promoting the responsible development of AI technologies.

Conclusion -

- The evolution of corporate governance in the age of AI reflects a broader shift from shareholder primacy towards stakeholder capitalism.
- While this transition is still in its early stages, it is clear that the development of AI technologies presents both significant challenges and opportunities for businesses.
- By adopting innovative regulatory approaches and ethical standards, it is possible to create a framework that promotes both the responsible development of AI and the long-term success of businesses in the technological age.

Source - [The Hindu](#)

QUESTION - Discuss the evolution of corporate governance from the traditional shareholder primacy model to stakeholder capitalism, particularly in the context of AI development. How do the intrinsic nature and ethical implications of AI technologies necessitate alternative governance structures? Examine the potential role of regulatory frameworks in balancing profit motives with social responsibility in the development of AI.

Security

Why India's Nuclear Doctrine remains relevant?

In the aftermath of the Pokhran II nuclear tests in 1998, India moved swiftly to draft its nuclear doctrine, underscoring its vision as a nuclear weapons state.

On August 17, 1999, the National Security Advisory Board, led by K. Subrahmanyam, presented a draft of this doctrine to the then National Security Advisor.

After 25 years, it is crucial to examine the historical context, evolving security threats, and ongoing relevance of India's nuclear doctrine, arguing that it remains a beacon of stability despite the changing global and regional security landscape.

Historical Context and Core Principles of India's Nuclear Journey and Need for a Doctrine -

- India's Entry into the Nuclear Club —
 - India's journey toward becoming a nuclear weapons state culminated with the **Pokhran II tests in May 1998, a significant milestone** that demonstrated its capability and resolve.
 - These tests, **conducted under a shroud of secrecy**, marked India's entry into the **exclusive club of nuclear-armed states**.
 - However, **the tests were not just about showcasing technological prowess; they were a strategic signal to the world**, especially to neighbouring Pakistan and China, about India's readiness to defend its sovereignty.
- International Response and the Need for a Doctrine —
 - The global community, **particularly Western powers, viewed India's nuclear ambitions with suspicion and concern**.
 - **It was within this context that India needed to articulate a clear and responsible nuclear doctrine** that would allay fears of a potential arms race in South Asia, while simultaneously asserting its right to self-defence.
 - **The development of a draft nuclear doctrine was a response to this necessity.**

An Analysis of the Components of India's Draft Nuclear Doctrine and Evolving Threat Landscape -

- The Draft Doctrine: Transparency and Democratic Ethos —

- **On August 17, 1999**, Subrahmanyam, a prominent strategist and the convenor of the first National Security Advisory Board (NSAB), **presented the draft nuclear doctrine**.
- This **document was significant for several reasons**. Firstly, it was one of the few instances where a **nuclear weapons state publicly shared its nuclear strategy** before finalising it, reflecting a commitment to transparency.
- **Secondly, by making the draft public**, the Indian government, led by PM Vajpayee, **sought to ensure that the doctrine would be thoroughly debated and understood**, both domestically and internationally, before it was officially adopted.
- This **move was in line with India's democratic ethos**, where major policy shifts are subject to public discourse and scrutiny.
- Conceptualising Nuclear Weapons as Political Instruments —
 - The draft doctrine laid out the foundational principles that would guide India's nuclear policy.
 - **Central to these principles was the conceptualisation of nuclear weapons** as primarily political instruments, rather than tools of warfighting.
 - This **perspective was rooted in the belief that nuclear weapons, by their very nature, are weapons of mass destruction** that should be used solely for deterrence and not for actual combat.
 - The **doctrine emphasised that India's nuclear weapons were intended to deter aggression**, particularly nuclear aggression, by maintaining a credible minimum deterrent.
 - This **meant that India would build and maintain a nuclear arsenal that was sufficient to inflict unacceptable damage on an adversary** in the event of a nuclear attack, thereby deterring such an attack in the first place.
- The No-First-Use Policy: A Reflection of Restraint —
 - This **policy stated that India would not be the first to initiate a nuclear strike but would retaliate massively** if attacked with nuclear weapons.
 - The **NFU policy reflected India's strategic culture**, which has traditionally been marked by restraint and non-aggression.
 - **By committing to NFU, India sought to position itself as a responsible nuclear power**, one that would use nuclear weapons only in retaliation and not as a tool of coercion.
- Building a Diverse and Flexible Nuclear Force —
 - The **draft doctrine also advocated for a nuclear force that was effective, enduring, diverse, flexible, and responsive**.
 - This **implied that India's nuclear arsenal would be designed to survive a first strike and retaliate effectively**, ensuring that any adversary contemplating a nuclear attack would be deterred by the certainty of a devastating response.
 - The **emphasis on diversity and flexibility highlighted the need for a mix of delivery systems, including land-based missiles, aircraft, and sea-based platforms**, to ensure the survivability and credibility of India's deterrent.
- Evolving Threat Landscape —
 - The **security environment in South Asia has evolved since the doctrine's conception**.
 - Pakistan's frequent assertions of its full spectrum deterrence and China's rapid expansion of its nuclear capabilities pose significant challenges.
 - **Pakistan's use of cross-border terrorism and China's increasingly assertive behaviour have emerged as primary security threats** for India.
 - The possibility of these two nuclear-armed neighbours collaborating against India further complicates the strategic calculus.

Why India does not Need to Abandon the Core Principles of Draft Doctrine?

- The Debate on No-First-Use Policy —
 - **Critics argue that this policy is overly reactive** and cedes strategic initiative to adversaries, particularly considering Pakistan's and China's aggressive postures.
 - **Some advocate for adopting a first-use strategy** or at least maintaining strategic ambiguity to keep adversaries uncertain.

- . **However, this argument falters when scrutinised** because a **credible first-use strategy would necessitate an extensive and sophisticated nuclear arsenal**, capable of delivering a disabling strike on an adversary's nuclear forces.

- . This would require significant investments in accurate delivery systems, ISR capabilities, and ballistic missile defences—none of which would come easily or cheaply.
- . Moreover, the risk of miscalculation and escalation inherent in a first-use policy could lead to catastrophic consequences, particularly against adversaries with robust second-strike capabilities.
- Debate on Tactical Nuclear Weapons and Escalation Control —
 - . The draft doctrine has also faced criticism for not explicitly incorporating the use of tactical nuclear weapons as a means of deterrence.
 - . Proponents of this view argue that tactical nuclear weapons, with their purported ability to achieve limited destruction, could provide a more credible deterrent.
 - . However, the very nature of nuclear weapons makes the concept of 'limited destruction' highly dubious.
 - . Even a so-called tactical use could quickly escalate into full-scale nuclear conflict, with unpredictable and devastating consequences.

Way forward -

- Beyond the quantitative aspects of nuclear deterrence, recent technological advancements by adversaries necessitate a closer examination of India's nuclear strategy.
- These include improvements in conventional delivery systems, cyber capabilities targeting nuclear command and control, and advances in intelligence, surveillance, and reconnaissance (ISR).
- Such developments could make India's nuclear forces more vulnerable to a first strike, underscoring the need to enhance the survivability and resilience of its nuclear arsenal.
- However, these technological challenges do not inherently require a change in the core principles of India's nuclear doctrine.
- Instead, they call for an adaptation in numbers and command structures to ensure the continued effectiveness of the deterrence.
- The emphasis remains on maintaining a credible second-strike capability, rather than shifting towards a first-use policy or altering the foundational doctrine.

Conclusion -

- While the evolving security landscape and technological advancements necessitate ongoing adaptations in India's nuclear force structure and capabilities, the core principles of its nuclear doctrine remain sound.
- India's nuclear policy is a pillar of stability in an increasingly volatile world, providing a measured and responsible approach to nuclear deterrence that contrasts sharply with the aggressive postures of some of its adversaries.

Source - [The Hindu](#)

QUESTION - In light of the 25th anniversary of the Pokhran II nuclear tests and the subsequent drafting of India's nuclear doctrine, critically analyse the historical context and core principles of India's nuclear policy. Discuss the evolving security threats faced by India and argue whether the core principles of the nuclear doctrine, particularly the No-First-Use (NFU) policy, remain relevant in the current global and regional security landscape. How should India adapt its nuclear strategy to address emerging technological challenges while maintaining its commitment to responsible nuclear deterrence?