

## Regent Education & Research Foundation

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# GENERAL STUDIES - I

## Social Issues

### Hema Committee Report on Women Abuse in Cinema

The release of the **Hema Committee (HC) report on August 19** marks a significant moment in the ongoing struggle for gender equality within the Malayalam film industry.

**This report, commissioned by the Chief Minister of Kerala** at the request of the Women in Cinema Collective (WCC), is a **critical reflection on the myriad issues faced by women in this sector.**

The **reaction to the report has been mixed**, with sensationalism and apathy overshadowing meaningful engagement.

Therefore, **it is important to delve into the report's findings, the systemic issues it highlights,** and the broader implications for gender equity in the film industry and beyond.

#### Hema Committee Report -

- A Comprehensive Documentation of Gender-Based Issues —
  - . **One of the most critical aspects** of the Hema Committee report is **its role as a thorough documentation of the gender-based challenges faced by women** in the Malayalam film industry.
  - . The **report is not limited to instances of sexual harassment**, though these are undoubtedly significant.
  - . It **goes beyond to expose a wide array of constitutional, labour, and human rights violations** that women in the industry endure.
  - . **By identifying at least 17 distinct forms of exploitation** across 30 different professional categories, the **report provides an unprecedented level of detail about the systemic issues within the industry.**
- A Reflection on Women's Everyday Struggle —
  - . These **findings are crucial because they bring to light the everyday struggles of women** working in various capacities within the film industry, struggles that have often been overlooked or dismissed.
  - . For many women, **the film industry has been a space where their rights are routinely violated**, where power dynamics are skewed against them, and where their contributions are undervalued.
  - . The **report's meticulous cataloguing of these issues offers a comprehensive understanding of the scale and scope of gender-based discrimination** in the industry.
- Challenging Existing Power Structures —
  - . The **significance of the Hema Committee report also lies in its challenge to the entrenched power structures** within the Malayalam film industry.
  - . The **industry has long been dominated by a patriarchal culture** that marginalises women and perpetuates gender inequities.
  - . The report, **by exposing the extent of exploitation and abuse, directly confronts these power dynamics.**
  - . It **serves as a bold indictment of the industry's failure to protect the rights and dignity of women**, highlighting the urgent need for systemic change.
- Empowering Women's Voices and Experiences —
  - . Another critical aspect of the report's significance is **its empowerment of women's voices within the industry.**
  - . For years, **women in the Malayalam film industry have been silenced**, their

experiences of discrimination and harassment ignored or trivialised.

- The **Hema Committee report provides a platform for these women to share their stories**, validating their experiences and bringing them to the forefront of public consciousness.
- A Broader Impact on Gender Equity Discourse —
  - Finally, **the significance of the Hema Committee report extends beyond the Malayalam film industry.**
  - It **contributes to the broader discourse on gender equity in the workplace, particularly in industries that have historically been male-dominated** and resistant to change.
  - The **report's findings resonate with the experiences of women in other industries**, highlighting the universal challenges of gender discrimination, harassment, and inequality.

#### Troubling aspects of response to Hema Committee Report -

- The Noise of Sensationalism and Apathy —
  - Despite the gravity of the report's findings, **the public discourse has largely focused on sensational aspects**, particularly sexual harassment, overshadowing the broader structural issues.
  - This **sensationalism distracts from the need for systemic change**, reducing the conversation to isolated incidents rather than addressing the underlying causes of gender inequity.
- The Tendency of Victim Blaming —
  - **A troubling aspect of the response** is the tendency to push the **burden of resolution back onto the victims.**
  - **Women who bravely shared their experiences with the committee are now being urged to take legal action**, a process fraught with challenges.
  - The **legal system often requires evidence that is difficult to produce in cases of sexual harassment**, leading to further victimisation and psychological distress for those involved.
- Tendency to Universalise the Issue —
  - Another significant issue is the tendency to universalise the problems identified in the report, thereby deflecting responsibility.
  - **A member of a film association remarked, "Don't these issues exist in other industries, why only blame us?"** This argument is not only morally questionable but also fundamentally flawed.
  - The **film industry, with its unique structure and lack of accountability, cannot be directly compared to other sectors.**
  - The challenges faced by women in this industry are exacerbated by the absence of a formal organisational framework, making the need for targeted solutions even more pressing.
- The Irresponsible Role of Bystanders and Government Apathy —
  - Apathy, both from individuals and institutions, is a recurring theme in the response to the HC report.
  - **Bystanders, whether in the industry or in government, often shirk responsibility, assuming that someone else will address the problem.**
  - This **lack of accountability perpetuates the status quo**, allowing systemic issues to persist unchecked.
  - The Kerala government's response has been particularly disappointing.
  - While **the initial decision to establish the Hema Committee was a positive step**, the **subsequent delay in releasing the report and the lack of concrete action suggest a waning commitment to gender equity.**
  - **The government's inaction**, despite the detailed findings of the report, **highlights a broader problem of institutional apathy towards gender-related issues.**

#### Way forward -

- **Kerala, which became the first Indian state to achieve full literacy in 1991, owes much of its progress to the cultural revolution** initiated by social reformers and the Left government in 1957.

- Today, **the state faces a similar challenge: whether to lead the way in gender inclusion and safety in the film industry** or to succumb to apathy and inertia.

- The government's actions in the coming months will be crucial not only for the future of women in Kerala's film industry but also for setting a precedent for other states.
- The choice is between superficial brand-building exercises and genuine political will to implement the necessary reforms.
- The stakes are high, as the success or failure of these efforts will shape the future of gender-inclusive spaces in cinema and beyond.

### Conclusion -

- The release of the Hema Committee report is a critical moment in the fight for gender equity in the Malayalam film industry.
- However, the response so far has been marked by sensationalism, apathy, and a lack of meaningful engagement with the report's findings.
- The Kerala government must demonstrate the political will to implement the necessary reforms, setting an example for other states and industries to follow and only then can the vision of a truly inclusive and equitable film industry be realised.

Source - [The Indian Express](#)

**QUESTION - Discuss the systemic challenges highlighted by the Hema Committee report, the significance of its findings for gender equity in the film industry, and the broader implications for other male-dominated sectors in India. Also, analyse the mixed public response to the report and suggest measures for effective implementation of its recommendations.**

## How to ensure dignity for terminally-ill?

A Supreme Court (SC) judgment concerning the withdrawal of a Ryles tube of a terminally-ill patient highlights the ongoing legal and ethical confusion surrounding euthanasia in the country.

The SC's decision, which denied the removal of the tube, brings into focus the complexities of passive euthanasia, the interpretation of life-support systems, and the broader ethical implications of such decisions.

After SC's decision, it is important to analyse all aspects, considering the medical, legal, and ethical dimensions of the case.

### The Case of Harish Rana -

- **Petition Before the Court —**
  - Harish Rana, a 32-year-old man, has been in a persistent vegetative state for over 11 years, with no chance of recovery.
  - His condition, which leaves him entirely dependent on a Ryles tube for nutrition, has not only devastated his life but also placed an immense emotional and psychological burden on his ageing parents.
  - They approached the SC seeking permission to remove the Ryles tube, hoping to allow their son a dignified death after years of what they perceive as futile suffering.
  - This case serves as a stark illustration of the legal and ethical confusion surrounding euthanasia in India.
- **Legal Confusion —**
  - The Definition and Scope of Life Support —
    - The SC's decision to deny the removal of the Ryles tube primarily hinges on the interpretation of what constitutes life support.
    - The court, led by Chief Justice, ruled that a Ryles tube is not a life support system, distinguishing it from other interventions like ventilators or dialysis machines, which are more traditionally recognised as life-sustaining.
    - This distinction is crucial because, under the SC's 2018 judgment, the withdrawal of life support is permissible in cases where the patient is terminally ill and beyond

recovery.

- . The Ambiguity Surrounding the Ryles Tube —
  - . However, **this interpretation creates a significant legal conundrum.**
  - . Clinically-assisted nutrition and hydration, which includes the use of a Ryles tube, is widely recognised in the medical community as a form of life support.
  - . The **purpose of a Ryles tube is to sustain life by providing essential nutrition** to a patient who cannot eat by normal means.
  - . By **categorising the Ryles tube differently, the court has introduced a grey area** in the legal framework governing end-of-life care.
  - . This **ambiguity not only complicates the legal landscape but also poses ethical dilemmas for both healthcare providers and families** facing similar situations.
- **Ethical Dilemmas: Beneficence, Non-Maleficence, and Autonomy** —
  - . Beneficence —
    - . **Beneficence** requires that **any action taken should be in the best interest of the patient.**
    - . For Harish Rana, who has no prospect of recovery, **the question arises: Is it truly in his best interest to continue being fed through a Ryles tube**, thereby prolonging a life that lacks any semblance of quality?
    - . The **continuous use of the Ryles tube might keep him alive, but it also prolongs a state of existence** that many would argue is devoid of dignity and purpose.
    - . This **brings into question whether the court's decision truly aligns with the principle of beneficence.**
  - . Non-maleficence —
    - . **Non-maleficence, the obligation to do no harm, is another critical ethical consideration.**
    - . While the **intent behind maintaining the Ryles tube might be to avoid causing death by starvation, it inadvertently causes prolonged suffering.**
    - . Living with a Ryles tube involves considerable physical discomfort, including the pain of insertion and the need for regular replacement, which adds to the distress of an already dire situation.
    - . **By refusing to allow the removal of the tube, the court may be perpetuating harm,** contrary to the ethical obligation to minimise suffering.
  - . Autonomy —
    - . **Autonomy, the right of the patient to make informed decisions about their own care,** is severely compromised in this case.
    - . **Since Harish Rana is in a vegetative state and unable to express his wishes, the responsibility falls on his parents,** who sought to act in what they believed to be his best interest.
    - . The **court's decision to deny their request effectively overrides their judgment and their son's autonomy,** replacing it with a legal standard that may not fully consider the unique circumstances of the case.

### The Role of Cultural Perceptions -

- The Role of Cultural Perceptions in the SC's Judgment —
  - . The SC's decision **reflects a broader cultural discomfort** with death and dying in India.
  - . **Death, particularly through passive euthanasia, is often seen as a form of murder** rather than a release from prolonged suffering.
  - . This **cultural perception is further complicated by the symbolic significance of feeding,** which is intertwined with caregiving, hospitality, and love in many cultures.
  - . The **denial of food, even in a medically assisted form like a Ryles tube, is taboo** at both a social and existential level.
  - . However, **the reality of living with a Ryles tube is far from compassionate. The procedure is painful and requires regular, distressing changes every few weeks.**
  - . **Extending such a life, with no hope for recovery, is a burden not only for the patient but also for their caregivers.**
- Broader Implications of SC's Judgement —



- The SC's rationale that removing the Ryles tube would result in death by starvation overlooks the profound suffering involved in maintaining a life of such poor quality, calling into question the ethical foundation of the court's decision.
- The SC's ruling in Harish Rana's case does more than just settle a legal matter; it sets a precedent that could affect countless others in similar situations.
- The decision to categorise the Ryles tube as separate from other forms of life support may complicate future cases, where families and medical professionals are left uncertain about the legality of withdrawing certain treatments.

#### Way Forward -

##### • The Need for Legal Clarity —

- The Harish Rana case highlights the urgent need for legal clarity regarding the distinction between euthanasia and the withdrawal of futile life-sustaining interventions.
- Involving medical and ethical experts in such decisions is essential to ensure that judgments are based on sound medical understanding and ethical principles.
- Until such legal clarity is achieved, it is crucial to educate the public about their rights and the options available through mechanisms like Advance Care Planning and Advance Medical Directives.

##### • Ethical Reform —

- A good quality of life and death is a fundamental right that should not be compromised by ethical ambiguities.
- Therefore, the court must investigate the ethical side of the judgement and must try to reform these principles.
- The SC's judgment, while well-intentioned, reveals the need for a more nuanced understanding of euthanasia and life support, one that respects the dignity and autonomy of the patient while ensuring that medical and ethical standards are upheld.

#### Conclusion -

- The SC's judgment in Harish Rana's case serves as a poignant reminder of the complex legal and ethical landscape surrounding euthanasia in India.
- The denial of permission to remove the Ryles tube, despite the patient's vegetative state and lack of recovery prospects, underscores the need for greater legal clarity and ethical reform.
- As India continues to grapple with these issues, it is imperative to involve medical and ethical experts in decision-making processes and to ensure that the rights to a dignified life and death are respected for all individuals.

Source - [The Indian Express](#)

**QUESTION - The recent Supreme Court judgment on the withdrawal of a Ryles tube from a terminally-ill patient has sparked a debate on the legal and ethical aspects of euthanasia in India. Analyse the complexities of passive euthanasia, the interpretation of life-support systems, and the broader ethical implications of such decisions.**

## GENERAL STUDIES - II

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### Governance

#### Time to review PMLA's Draconian Provisions

The Indian judicial landscape has recently been shaped by a series of Supreme Court

judgments emphasising the principle that **bail is the rule, and jail is the exception.** This

doctrine, traditionally applied to general criminal law, is now being extended to stringent special laws such as the Unlawful Activities (Prevention) Act, 1967 (UAPA) and the Prevention of Money Laundering Act, 2002 (PMLA).

**This shift in judicial perspective reflects growing concerns over the potential misuse of these laws and therefore, it is important to examine the implications of these developments,** analysing the balance between legal enforcement and civil liberties within the framework of the PMLA.

### **The Judicial Reaffirmation of Bail as a Fundamental Right -**

- **The Judicial Reaffirmation of Bail as a Fundamental Right —**
  - . The **SC's recent judgments have reiterated the foundational legal principle** that pretrial detention should be an exception rather than the norm.
  - . This **principle is grounded in the protection of individual liberty** and the presumption of innocence until proven guilty.
  - . **In the context of BRS Leader K Kavitha's case, the court observed that undertrial custody should not turn into a punishment.**
  - . This **statement underscores the judiciary's concern that prolonged detention without trial could violate fundamental rights,** effectively punishing individuals before their guilt is established.
- **Critique of the Enforcement Directorate's Practices —**
  - . The **judiciary's concern extends to the ED's application of the PMLA,** where instances of overreach have been highlighted.
  - . For example, a **Delhi Court recently criticised the ED for summoning private doctors under the stringent sections of PMLA,** labelling such actions as an abuse of power.
  - . **The court's remark that strong leaders, laws, and agencies generally come back to bite the very citizens** they vow to protect reflects a growing unease with the ED's approach.
  - . Similarly, a **Mumbai court reminded the ED of its constitutional obligation to ensure an expeditious trial,** granting bail to two accused who had been incarcerated since October 2020.
  - . **These judicial interventions indicate a need for a serious review** of the ED's functioning under the PMLA.

### **The Evolution of PMLA -**

- **Initial Purpose and Framework —**
  - . The **PMLA was enacted in 2002 in response to India's commitment to international standards on combating money laundering** and financing of terrorism, particularly under the directives of the Financial Action Task Force (FATF).
  - . The **Act's primary objective was to prevent and control money laundering,** confiscate property derived from laundered money, and deal with any other issue connected to money laundering.
  - . **At its inception, the PMLA was framed with a clear focus on financial crimes,** with strict penalties intended to serve as a deterrent against the misuse of illicit funds.
- **The 2012 Amendment: Broadening the Definition of Money Laundering —**
  - . The **first significant expansion of the PMLA's scope occurred in 2012,** when the definition of money laundering was **broadened to include activities such as concealment, acquisition, possession, and use of proceeds of crime.**
  - . This **amendment was aimed at addressing the evolving nature of financial crimes,** where money laundering schemes had become more complex and sophisticated.
  - . By **expanding the definition, the amendment sought to cover a wider range of activities associated with money laundering,** thereby increasing the law's effectiveness in curbing such crimes.
- **The 2015 Amendment: Extending Jurisdiction Beyond Borders —**
  - . The **2015 amendment to the PMLA further extended its reach** by including assets

located in India as proceeds of crime if the act of money laundering was committed abroad.

- **This amendment was a response to the growing trend of cross-border money laundering**, where illicit funds generated from criminal activities in one country were laundered in another.
- By bringing foreign assets within the ambit of the PMLA, **the amendment aimed to prevent India from becoming a haven for laundered money.**
- The 2018 Amendment: Reinstating Stringent Bail Conditions —
  - **In 2018, the PMLA was further amended to revive the "twin conditions"** for granting bail under Section 45 of the Act.
  - **These conditions required courts to be satisfied** that there were reasonable grounds to believe that the accused was not guilty of the offence and that they were unlikely to commit any offence while on bail.
  - **This amendment was a significant departure from the earlier, more lenient bail provisions**, and it placed a heavy burden on the accused to prove their innocence even before the trial commenced.
- The 2019 Amendment: Expanding the ED's Powers —
  - **The most controversial amendment to the PMLA came in 2019, when the ED's powers were significantly expanded.**
  - **This amendment allowed the ED to conduct searches, seizures, arrests, and attachment of property without the need for a FIR or chargesheet.**
  - **Moreover, money laundering was reclassified as a standalone offence**, independent of any scheduled offence, further broadening the ED's jurisdiction.

#### Challenges Posed by PMLA -

- Effectiveness of PMLA in Curbing Money Laundering —
  - **The effectiveness of the PMLA in curbing money laundering is evident** in the significant increase in cases registered and assets attached during the National Democratic Alliance (NDA) regime compared to the previous United Progressive Alliance (UPA) years.
  - **The return of confiscated assets worth Rs 15,000 crore to public sector banks is a notable achievement.**
  - **However, the low conviction rate** (only 25 cases have gone through the court processes; 24 of them resulted in a conviction) raises questions about the Act's efficacy.
  - **Moreover, the lengthy judicial processes and stringent bail conditions have resulted in prolonged detention of accused individuals**, undermining the principle of justice.
- ED's Ability to Manage Increasing Caseloads —
  - **The ED's ability to manage its increasing caseload is another area of concern.**
  - **With a sanctioned strength of only 2,067 officers, the agency has requested a significant increase in manpower to handle the over 11,000 cases** of foreign exchange violations initiated in the past three years alone.
  - **The question of how the ED prioritises its cases whether sequentially or based on other considerations remains contentious**, with accusations of selective enforcement further eroding public trust.

#### Way forward -

- While the Act was framed in line with the directives of the FATF, it **must operate within the spirit of the Indian Constitution.**
- **The potential for misuse of the PMLA's stringent provisions by any ruling government is significant**, threatening the democratic principles of fairness and justice.
- **The SC's upcoming review of the PMLA's provisions is a critical juncture.**
- **If the Court fails to provide the necessary relief, the responsibility will shift to the public and their elected representatives to advocate for amendments to the Act.**
- **Ensuring that the PMLA is not only effective in combating financial crimes but also fair and just in its application is essential** for upholding the values of democracy.

**Conclusion** -

- **The balance between stringent enforcement of financial laws and the protection of individual rights is delicate** and requires constant vigilance.

- The SC's reaffirmation of bail as a fundamental right in the context of special laws like the PMLA is a step in the right direction.
- However, the challenges posed by the ED's expansive powers under the PMLA highlight the need for judicial oversight and potential legislative reform.

Source - [The Indian Express](#)

**QUESTION** - The principle that "bail is the rule, and jail is the exception" has recently gained prominence in India's judicial landscape, especially concerning special laws like the Unlawful Activities (Prevention) Act (UAPA) and the Prevention of Money Laundering Act (PMLA). Discuss the implications of this judicial shift on the enforcement of the PMLA, particularly in terms of balancing legal enforcement with the protection of civil liberties. How does the expansion of the Enforcement Directorate's powers under PMLA challenge this balance, and what steps can be taken to ensure that the Act operates within the spirit of the Indian Constitution?

## Violence in Healthcare

The World Health Organization defines violence as the intentional use of force or power that results in injury, death, or psychological harm. Healthcare settings, often perceived as sanctuaries of healing, are not immune to this pervasive issue. In recent years, the problem of violence against healthcare workers has become increasingly prominent, highlighting the need for urgent action.

### The Problem of Violence in Healthcare -

- **Prevalence and Scope** — Violence against healthcare workers is a widespread problem, affecting individuals from various backgrounds and roles within the healthcare system. It can range from verbal abuse and threats to physical assault and even homicide.
- **Types of Violence** — Violence in healthcare can take many forms, including physical, sexual, mental, and emotional abuse. It can occur between patients and healthcare workers, among healthcare staff, or between visitors and staff.
- **Vulnerable Groups** — Certain groups within the healthcare workforce are particularly vulnerable to violence, such as women, marginalised communities, and those working in high-risk settings like emergency departments or mental health facilities.
- **Systemic Nature** — Violence in healthcare is not an isolated issue but is often rooted in broader societal problems, including cultural factors, economic inequalities, and systemic discrimination.

### Shifting the perspective -

- **Redefining Violence** — A crucial shift in perspective is needed to understand that violence in healthcare is not solely directed at healthcare workers but affects everyone involved in the healthcare system, including patients, visitors, and other staff.
- **International Humanitarian Law** — The IHL provides a legal framework for protecting healthcare workers and facilities, even in conflict situations. This principle can be extended to broader contexts of violence within healthcare settings.
- **Global Examples** — Many countries have recognised the importance of addressing violence in healthcare and have implemented legislation and policies to protect healthcare workers and patients. For instance, Taiwan has enacted stringent laws against violence in healthcare settings, including penalties for perpetrators and requirements for hospitals to implement safety measures.

### Way forward -

- **Comprehensive Policies** — Implementing strong policies and laws that protect everyone within healthcare spaces is essential. These policies should address prevention, response,

and accountability for acts of violence.

- **Zero Tolerance** — A culture of zero tolerance for violence must be established in healthcare settings, with clear consequences for perpetrators.
- **Addressing Root Causes** — Addressing broader social issues, such as poverty, inequality, and discrimination, is crucial for long-term prevention of violence in healthcare.



- **Investment in Safety Measures** — Healthcare facilities should invest in physical security measures, training for staff, and support services for victims of violence.
- **Collaboration and Advocacy** — Collaboration among healthcare organisations, governments, and civil society is essential to raise awareness, advocate for policy changes, and implement effective interventions.

### Conclusion -

Violence in healthcare is a complex issue with far-reaching consequences. By recognising the systemic nature of this problem, shifting perspectives, and implementing comprehensive measures, we can create safer and more healing healthcare environments for everyone involved. Protecting healthcare spaces is not only a moral imperative but also essential for ensuring the delivery of quality healthcare services.

Source - [The Hindu](#)

**QUESTION** - Discuss the systemic nature of violence against healthcare workers in India. Analyse the factors contributing to this problem and suggest measures to address it effectively.

## Mpox Outbreak

The World Health Organization (WHO) has declared mpox a Public Health Emergency of International Concern (PHEIC), following its outbreak in the Democratic Republic of the Congo and subsequent spread to other countries. This declaration comes as a stark reminder of the ongoing threat of global health crises, just a few years after the COVID-19 pandemic.

### The Mpox Outbreak -

- **Global Spread** — Mpox has spread beyond the African continent, with cases identified in Sweden, Pakistan, the Philippines, and other countries. This rapid dissemination highlights the contagious nature of the virus and the need for swift and coordinated global action.
- **WHO Declaration** — The WHO's declaration of a PHEIC underscores the serious nature of the outbreak and the potential for it to escalate into a global pandemic. This declaration triggers a range of international responses, including increased surveillance, contact tracing, and the mobilisation of resources.
- **Equity as a Core Principle** — The recent amendments to the International Health Regulations emphasise the importance of equity in global health responses. This means that all countries, regardless of their economic or geographic status, should have equitable access to vaccines, diagnostics, and treatments.

### International Cooperation -

- **Collaborative Efforts** — Countries, international organisations, and NGOs must collaborate to coordinate their responses, share information, and provide mutual assistance. This includes sharing data on cases, contacts, and deaths, as well as coordinating efforts to develop and distribute vaccines and treatments.
- **Resource Mobilisation** — The PHEIC declaration should trigger the rapid mobilisation of financial and technical resources, including emergency funding, healthcare workers, and medical supplies. International organisations, such as the World Bank and the International Monetary Fund, can provide financial support to countries affected by the outbreak.

### Lessons from COVID-19 -

- **Vaccine Manufacturing Capabilities** — The COVID-19 pandemic exposed the inadequacy of vaccine manufacturing capabilities in the Global South. Many countries were heavily reliant on a few major manufacturers, leading to inequitable access to vaccines.
- **Availability of Mpox Vaccine** — Unlike COVID-19, a vaccine for mpox, MVA-BN, is already available. However, the global supply is limited, and there is a need to rapidly scale up

production to meet the growing demand.

- **Technology Transfer** — To ensure equitable access to the mpox vaccine, it is essential to transfer technology to manufacturers in the Global South. This will enable them to produce the vaccine locally, reducing dependence on imports and lowering costs.

#### India's role -

- **Manufacturing Expertise** — Indian manufacturers have the potential to play a critical role in producing the MVA-BN vaccine. With their experience in manufacturing other vaccines, such as those for COVID-19 and polio, India can contribute significantly to the global response to the mpox outbreak.
- **Technology Transfer** — India should actively pursue technology transfer from the vaccine manufacturer to enable domestic production. This will not only increase the global supply of the vaccine but also strengthen India's capacity to respond to future health emergencies.
- **Government Collaboration** — The Indian government should collaborate with international organisations, such as the WHO, Gavi, and CEPI, to negotiate technology transfer and ensure equitable access to the vaccine.

#### Conclusion -

The mpox outbreak presents a global health challenge that requires a coordinated and equitable response. By learning from the lessons of the COVID-19 pandemic, fostering international cooperation, and leveraging the manufacturing capabilities of developing countries like India, we can address the current crisis and strengthen our preparedness for future public health emergencies.

Source - [The Hindu](#)

**QUESTION - Analyse the global response to the mpox outbreak, highlighting the lessons learned from the COVID-19 pandemic. Discuss the role of developing countries, particularly India, in ensuring equitable access to vaccines and addressing the challenges posed by the outbreak.**

## GENERAL STUDIES - III

### Economy

#### MUDRA 2.0 Loans

**The Pradhan Mantri MUDRA Yojana (PMMY) was launched in 2015** by the Narendra Modi government with the primary aim of fostering entrepreneurship in India.

By offering collateral-free micro-loans of up to ₹10 lakh, **the scheme sought to empower small and micro-enterprises**, significantly contributing to the grassroots economy.

**As the government anticipates the next phase, MUDRA 2.0, it is essential to evaluate the successes and challenges of MUDRA 1.0** to ensure that future initiatives are more impactful and inclusive.

#### Successes of MUDRA 1.0 -

- **MUDRA 1.0 has been instrumental in disbursing over Rs 27.75 lakh crore to 47 crore small and new entrepreneurs**, significantly impacting India's grassroots economy.
- By offering financial support to individuals previously excluded from formal credit systems, **the scheme has played a crucial role in promoting economic inclusivity.**
- **Approximately 69% of MUDRA loan accounts are held by women**, and 51% belong to entrepreneurs from SC/ST and OBC communities.

- This **focus on marginalised groups** has helped promote gender equality and social equity, enabling broader participation in the country's economic growth.

- Moreover, **MUDRA 1.0 has been pivotal in job creation, especially in rural and semi-urban areas.**
- By encouraging self-employment and supporting the development of small businesses, **the scheme has contributed to reducing unemployment and enhancing economic opportunities** for underserved communities.

#### **Challenges Faced by Mudra 1.0 -**

- **Unequal Distribution of Credit** —
  - . Despite the scheme's goal of promoting inclusivity, **the disbursement of loans was heavily skewed in favour of more developed districts.**
  - . For instance, **in the fiscal year 2021-22, the top 10 districts received loans amounting to over Rs 26,000 crore**, a figure that matched the total sanctioned for the bottom 318 districts combined.
  - . This **disparity indicates that rural and remote regions, which were supposed to be the primary beneficiaries of the scheme, lagged significantly behind** in accessing MUDRA loans.
- **Inadequate Monitoring and Implementation** —
  - . This **not only undermined the effectiveness of the scheme but also eroded the trust of beneficiaries** and financial institutions in the system.
  - . The **monitoring gaps were particularly evident in the higher proportion of non-performing assets (NPAs)** under the scheme.
  - . Although the overall NPA ratio under MUDRA loans decreased from 3.61% in FY21 to 2.1% in FY24, the Kishore and Shishu categories—loans ranging between Rs 50,001 and Rs 5 lakh and loans up to Rs 50,000, respectively—accounted for more than 75% of bad loans from FY20 to FY22.
  - . The **persistent high NPA levels in these categories highlighted the need for better oversight and more stringent credit appraisal processes** to ensure that loans were being disbursed to viable enterprises with the capacity to repay.
- **Limited Financial Literacy Among Beneficiaries** —
  - . According to available data, **only 27% of India's population is financially literate**, which means a significant portion of MUDRA beneficiaries did not have the skills to budget, save, or plan for loan repayments.
  - . This **lack of financial literacy led to widespread issues of financial mismanagement and defaults**, particularly among early-stage entrepreneurs.
- **High NPAs in Key Categories** —
  - . The **issue of high NPAs in the Kishore and Shishu loan categories posed a significant challenge** to the sustainability of MUDRA 1.0.
  - . From FY20 to FY22, **the NPA percentage in the Kishore category consistently remained above 4%**, which is significantly higher than the average NPA rate across all loan categories.
  - . This **elevated NPA rate in the Kishore and Shishu categories can be largely attributed to the lack of business acumen** and experience among the borrowers.
  - . Many of these entrepreneurs were in the nascent stages of their businesses and lacked the necessary skills to effectively manage and grow their enterprises.
  - . Furthermore, **the high NPA levels reflect broader systemic issues**, such as inadequate support and mentorship for entrepreneurs and **a lack of targeted interventions to help struggling businesses.**
- **The Insufficient Credit Guarantee Mechanism** —
  - . Another challenge was the **absence of a robust credit guarantee mechanism to protect financial institutions from potential losses.**
  - . This **lack of a safety net made banks hesitant to lend to small and micro-entrepreneurs**, particularly those perceived as high-risk borrowers.
  - . **Without adequate guarantees, banks were more cautious in their lending practices,**

which constrained the flow of credit to the very groups that MUDRA was designed to support.

- The **insufficient credit guarantee mechanism not only limited the reach of the scheme but also contributed to the unequal distribution of credit.**

- **Financial institutions tended to favour borrowers in more developed regions, where the perceived risk was lower**, further exacerbating the disparities in loan distribution between urban and rural areas.

#### **Proposed Changes for MUDRA 2.0 to Address the Challenges Faced by MUDRA 1.0 -**

- **Focused Outreach and Empowerment Zones** —
  - One of the critical changes for MUDRA 2.0 is the **establishment of Focused Outreach and Empowerment Zones, particularly in rural and semi-urban areas** where the need for financial support is most pronounced.
  - These zones **would provide access to financial services, including micro-loans, savings accounts, and insurance products.**
  - By bringing these services closer to the target population, **the scheme can better reach those who have been traditionally excluded** from the formal financial system.
- **Nationwide Financial Literacy Programs** —
  - Given the low levels of financial literacy observed among MUDRA 1.0 beneficiaries, **a nationwide financial literacy initiative should be a cornerstone of MUDRA 2.0.**
  - The **financial literacy curriculum would be tailored to the specific needs of micro and small entrepreneurs.**
  - **Topics would include understanding interest rates, managing cash flow, preparing for taxes,** and the importance of savings and investment.
  - **Special emphasis would be placed on digital financial literacy,** given the growing importance of digital payments and online banking.
- **Enhanced Credit Guarantee Scheme (ECGS)** —
  - **To address the hesitancy of banks in lending to small and micro-enterprises,** MUDRA 2.0 should include an ECGS.
  - This **scheme would reduce the risk for financial institutions,** encouraging them to extend more credit to the target beneficiaries.
  - The **ECGS would provide a credit guarantee to banks and other financial institutions,** covering a significant portion of the loan amount in case of default.
  - This **risk-sharing mechanism would make financial institutions more willing to lend to high-risk borrowers,** such as first-time entrepreneurs and those in underserved regions.
- **Robust Monitoring and Evaluation Framework (RMEF)** —
  - A **RMEF is essential** for ensuring the transparency, efficiency, and effectiveness of MUDRA 2.0.
  - This **framework would leverage technology to monitor the entire lifecycle of loans,** from disbursement to repayment, in real-time.
  - The **RMEF would incorporate digital tools to track loan disbursements,** utilisation, and repayments.
  - This **real-time tracking would help in identifying potential issues early,** such as delays in repayment or misuse of funds, allowing for timely interventions.

#### **Conclusion -**

- **MUDRA 1.0 has made significant strides in promoting entrepreneurship and economic inclusivity in India.**
- **However, its challenges, particularly in reaching marginalised groups and ensuring effective loan management, underscore the need for a more comprehensive approach in MUDRA 2.0.**
- **By expanding its scope, improving financial literacy, introducing enhanced credit guarantees, and implementing a robust monitoring framework, MUDRA 2.0 can build on the successes of its predecessor while addressing its shortcomings.**

**QUESTION** - Critically analyse the impact of the Pradhan Mantri MUDRA Yojana (PMMY) in promoting entrepreneurship and economic inclusivity in India. Discuss the key successes and challenges of MUDRA 1.0 and suggest how MUDRA 2.0 could address these challenges to enhance its effectiveness and reach.



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## Economy

### The Road to 2047 for Indian Agriculture

India's centennial year of independence in 2047 marks an ambitious milestone, **with the goal of becoming a developed nation and a crucial aspect of achieving this status involves a significant transformation of the agricultural sector.**

**This transformation is not just about enhancing productivity, but also about adopting sustainable practices** to ensure long-term environmental health and economic stability.

**As India strives to increase its per capita Gross National Income (GNI) to six times the current level, the agricultural sector, which employs nearly 46% of the workforce, plays a pivotal role in this journey.**

#### **A Closer Examination of Challenges in Agricultural Sector -**

- **Climate Change and Environmental Stress** —
  - **The increasing frequency of extreme weather events** such as unseasonal rains, droughts, floods, and heatwaves severely **impacts crop yields and agricultural productivity.**
  - For example, **the 0.7% growth in agri-GDP in 2023-24 was primarily due to unseasonal rains**, which damaged crops and reduced yields.
- **Land Degradation and Fragmentation** —
  - **Overuse of land for agricultural purposes**, coupled with deforestation and unsustainable farming practices, **has led to significant soil erosion**, loss of arable land, and declining soil fertility.
  - **This not only reduces the land's productive capacity but also increases the cost of farming**, as more inputs are required to maintain yields.
  - **Fragmentation of agricultural land due to inheritance laws and population growth further compounds the problem.**
  - As land is divided among heirs, **the average size of farms decreases, making it challenging to achieve economies of scale.**
- **Market Access and Price Realisation** —
  - **Despite the introduction of initiatives like the Electronic National Agriculture Market (eNAM)**, many farmers still face difficulties in accessing markets where they can sell their produce at fair prices.
  - **The integration of 1,361 mandis into eNAM by September 2023 is a positive step**, but it only covers a fraction of the agricultural markets in the country.
  - **Farmers often rely on traditional, local markets where they are subject to middlemen** who take a significant portion of the profits, leaving the farmers with low returns.
  - **The lack of infrastructure, such as roads, storage facilities, and transport systems, further exacerbates this issue**, as farmers are unable to store their produce for better prices or transport it to more lucrative markets.
- **Financial Challenges and Risk Management** —
  - **Many farmers are trapped in a cycle of debt due to high input costs**, low productivity, and fluctuating market prices.
  - **The Pradhan Mantri Fasal Bima Yojana (PMFBY) has been instrumental in providing financial assistance to farmers in the event of crop losses**, with claims totalling over ₹1.45 lakh crore since its inception.
  - However, **the scheme's effectiveness is often hampered by delays in claim settlements**, inadequate coverage, and challenges in assessing crop damage.

## Analysis of Population Growth, Food Demand and the Imbalance of Contribution to the GDP

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- Population Growth and Food Demand —

- India's population is **projected to reach 1.5 billion by 2030 and 1.59 billion by 2040**, according to United Nations projections.
- This **increasing population will place immense pressure on the agricultural sector** to meet the growing food demand.
- With an estimated expenditure elasticity of food at 0.45, **the demand for food is expected to grow by approximately 2.85% annually**, considering the population growth rate of 0.85%.
- India's **real per capita income increased by 41% from 2011-12 to 2021-22** and is projected to accelerate further.
- However, **the expenditure elasticity post-2023 is anticipated to be lower**, correlating a 5% rise in per capita expenditure to a 2% growth in demand.
- The **anticipated food demand will vary among commodities, with meat demand growing by 5.42% and rice demand by a mere 0.34%**.
- The Imbalance: Agriculture Contribution to the GDP —
  - A stark imbalance exists in the Indian economy, **where agriculture employs nearly 46% of the workforce but contributes only about 18% to the GDP**.
  - If current growth trends continue, this disparity will only worsen. Since 1991-92, while the overall GDP has grown at an annual rate of 6.1%, agricultural GDP has lagged at 3.3%.
  - **Under the Narendra Modi administration, overall GDP growth was 5.9%, while agriculture grew at a modest 3.6%**.
  - This **growth is insufficient for a sector that is so critical to the nation's socio-economic fabric**.
  - **By 2047, the share of agriculture in GDP might shrink to 7%-8%**, yet it could still employ over 30% of the workforce if significant structural changes are not implemented.
  - The anticipated 7.6% overall GDP growth for 2023-24 is promising, but **the anaemic growth of 0.7% in the agri-GDP, primarily due to unseasonal rains, is alarming**.

#### Government Initiatives to Boost Agricultural Growth -

- The Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) —
  - The PM-KISAN, **launched in 2019, disburses ₹6,000 annually to farmers in three instalments**.
  - This scheme has already benefited over 11.8 crore farmers, offering much-needed financial support.
- Soil Health Card (SHC) Scheme —
  - Another critical initiative, the SHC scheme, **aims to optimise soil nutrient use, thereby enhancing agricultural productivity**.
  - **Over 23 crore SHCs have been distributed**, providing farmers with crucial insights into soil health and nutrient management.
- Promotion of Nutritious Coarse Grains and Agricultural Infrastructure Fund —
  - The **government also championed the International Year of Millets in 2023**, promoting nutritious coarse grains, both domestically and internationally.
  - **The Agriculture Infrastructure Fund, with a ₹1 lakh crore financing facility, supports the development and modernisation of post-harvest management infrastructure**.
  - Within three years, **over 38,326 projects have been sanctioned, mobilising ₹30,030 crore in the agricultural infrastructure sector**.
  - These **projects have created employment for more than 5.8 lakh individuals** and improved farmer incomes by 20%-25% through better price realisation.
- Survey of Villages and Mapping with Improved Technology in Village Areas (SVAMITVA) —
  - Moreover, the SVAMITVA initiative **aims to ensure transparent property ownership in rural areas**.
  - As of September 2023, **over 1.6 crore property cards have been generated**, enhancing land security, and facilitating credit access for farmers.

**Government's Strategic Planning -**

- Strategic Planning —

- The government's strategic planning for agriculture, leading up to 2047, **focuses on several key areas**: anticipated future demand for agricultural products, insights from past growth catalysts, existing challenges, and potential opportunities in the agricultural landscape.
- **Projections indicate that the total demand for food grains in 2047-48 will range from 402 million tonnes to 437 million tonnes**, with production anticipated to exceed demand by 10%-13% under the Business-As-Usual (BAU) scenario.
- The Balanced Path Forward —
  - However, to meet this demand sustainably, **significant investments in agricultural research, infrastructure, and policy support are required.**
  - The **Budget for 2024-25, with an allocation of ₹20 lakh crore for targeted agricultural credit** and the launch of the Agriculture Accelerator Fund, **highlights the government's proactive approach to creating agricultural innovation and growth.**

### Conclusion -

- **By embracing sustainable practices, leveraging technological innovations, and implementing strategic initiatives, India can enhance farmer incomes, meet the food demands of its growing population, and achieve inclusive, sustainable development.**
- **The road to 2047 will require a concerted effort to address the existing challenges, correct the imbalances in the economy, and ensure that the agricultural sector receives the support it needs to thrive in the coming decades.**
- **With careful planning and robust policy interventions, India can transform its agricultural landscape, paving the way for a prosperous and developed nation by 2047.**

Source - [The Hindu](#)

**QUESTION - As India aims to achieve developed nation status by its centennial year of independence in 2047, a significant transformation of the agricultural sector is essential. Discuss the major challenges facing the agricultural sector in India, including climate change, land degradation, market access, and financial issues.**

## Pradhan Mantri Jan Dhan Yojana

Finance Minister Nirmala Sitharaman said the government aims to open more than 3 crore accounts under Pradhan Mantri Jan Dhan Yojana (PMJDY). Wednesday marks the 10th anniversary of the scheme.

### What is the new change?

- On the 10th anniversary of the Pradhan Mantri Jan Dhan Yojana (PMJDY), Finance Minister Nirmala Sitharaman announced the government's goal to open over 3 crore new accounts, aiming to cover the entire adult population.
- RuPay debit cards, which include a ₹2 lakh accident insurance cover, have been issued to 36.14 crore account holders.
- PMJDY has played a crucial role in providing financial support through various government schemes, especially during the COVID-19 pandemic, with 56% of the accounts belonging to women.
- The scheme has made significant strides in financial inclusion, particularly in rural and semi-urban areas, with 66.6% of accounts opened in these regions.
- The Jan Dhan-Aadhaar-Mobile (JAM) trinity has propelled India's financial inclusion rate to 80% of adults, a remarkable achievement in just six years.
- Additionally, India's digital infrastructure has enabled government-to-person (G2P) transfers totalling \$361 billion, benefiting millions of citizens across the country.

### About Pradhan Mantri Jan Dhan Yojana -

- The Pradhan Mantri Jan Dhan Yojana (PMJDY) is a flagship financial inclusion initiative

launched by the Government of India on August 28, 2014.

- The scheme aims to provide affordable access to financial services such as banking, savings and deposit accounts, remittances, credit, insurance, and pension to the unbanked population in the country.
- It is one of the largest financial inclusion initiatives in the world, designed to promote inclusive growth by ensuring that every household has access to essential financial services.

#### Objectives of the Scheme -

- **Financial Inclusion** — The primary objective of PMJDY is to ensure that every household in India has at least one bank account, thereby bringing the unbanked sections of society into the formal financial system.
- **Access to Financial Services** — The scheme aims to provide access to a wide range of financial services, including basic savings accounts, access to need-based credit, remittances, insurance, and pension.

#### Key Features of the Scheme -

- **Zero Balance Accounts** — Under PMJDY, beneficiaries can open a basic savings bank account without any requirement of maintaining a minimum balance. However, if the account-holder wishes to get a cheque book, they need to fulfil the minimum balance criteria.
- **RuPay Debit Card** — Each account holder under the scheme is provided with a RuPay debit card, which can be used for cash withdrawals, making payments, and purchasing goods and services. The **RuPay card also comes with an in-built accident insurance cover of Rs. 1 lakh** (which has been increased to Rs. 2 lakh for accounts opened after August, 2018).
- **Overdraft Facility** — PMJDY accounts are **eligible for an overdraft facility of up to Rs. 10,000 after six months of satisfactory operation**. This facility acts as a credit line for account holders, helping them meet urgent financial needs.
- **Life Insurance Cover** — Account holders under PMJDY are also **eligible for a life insurance cover of Rs. 30,000**, provided they open the account before a specified date and meet other eligibility criteria.
- **Direct Benefit Transfer (DBT)** — PMJDY accounts are linked to the Direct Benefit Transfer (DBT) scheme, enabling beneficiaries to receive government subsidies, pensions, scholarships, and other payments directly into their bank accounts.
- **Mobile Banking Facility** — The scheme also offers basic mobile banking facilities to account holders, enabling them to check their account balance, transfer funds, and perform other banking transactions using their mobile phones.

#### Impact and Achievements -

- **Financial Inclusion** — As of 2024, **more than 53 crore active PMJDY accounts exist with a total deposit balance of ₹2.3 lakh crore**. The scheme has significantly contributed to the financial inclusion of millions of unbanked households.
- **Women Empowerment** — Over **55% of PMJDY account holders are women**, promoting gender equality and empowering women by providing them with access to financial services.
- **Rural Penetration** — Approximately **67% of the accounts opened under PMJDY are in rural and semi-urban areas**, ensuring that financial services reach the remote and underserved regions of the country.

#### Major Challenges -

- **Dormant Accounts** —
  - . A significant number of Jan Dhan accounts remain inactive or have very low balances. **Many account holders, particularly in rural areas, do not actively use their accounts due to a lack of awareness, financial literacy, or limited access to banking services.**
  - . This dormancy reduces the effectiveness of the scheme. as the financial inclusion goal is

not fully achieved if accounts are not being utilised for transactions, savings, or other financial activities.

- Limited Financial Literacy —

- . A considerable portion of the population, especially in rural areas, lacks basic financial literacy. This includes understanding the benefits of having a bank account, using digital banking services, or managing personal finances.



- . The **lack of financial literacy leads to under-utilisation of the services offered under PMJDY, such as overdraft facilities, insurance, and pension schemes.**
- Infrastructure Challenges —
  - . In many remote and rural areas, there is **limited access to banking infrastructure, such as bank branches, ATMs, or banking correspondents.** This makes it difficult for account holders to access banking services, deposit or withdraw money, or seek assistance.
  - . Connectivity issues, especially in rural regions, also affect the functioning of mobile banking services and digital transactions, limiting the reach of the scheme.
- Operational Burden on Banks —
  - . The large-scale opening of Jan Dhan accounts has put an **additional operational burden on banks, particularly public sector banks, which often struggle with limited resources and staff.**
  - . Managing a high volume of low-balance accounts increases the cost for banks, as they have to maintain these accounts and provide services with minimal financial returns.

Source - **Multiple**

**QUESTION - Discuss the impact of Pradhan Mantri Jan Dhan Yojana in achieving financial inclusion in India over the past decade, and critically analyse the challenges that need to be addressed to enhance its effectiveness in the coming years.**

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## Science and Technology

### Contribution of Space Sector in India

As per the report initiated by the Indian Space Research Organisation (ISRO), India's space sector has directly contributed about \$24 billion (₹20,000 crore) to India's Gross Domestic Product over the last decade.

#### Space Sector in India -

- Overview —
  - . India's space sector has emerged as a significant player on the global stage, known for its cost-effective and innovative space missions.
  - . The journey began in 1962 with the establishment of the Indian National Committee for Space Research (INCOSPAR) under the leadership of Dr. Vikram Sarabhai, which later evolved into the ISRO in 1969.
  - . Over the decades, India has developed robust capabilities in satellite development, launch vehicle technology, space exploration, and space applications.
- Contributions —
  - . **Satellite Technology** —
    - **Communication Satellites** — The INSAT (Indian National Satellite System) and GSAT (Geostationary Satellite) series provide critical services in telecommunications, broadcasting, weather forecasting, and disaster management.
    - **Remote Sensing** — The IRS (Indian Remote Sensing) satellite series helps in resource management, agricultural monitoring, urban planning, and environmental conservation.
  - . **Launch Vehicle Technology** —
    - **Polar Satellite Launch Vehicle (PSLV)** — Known as ISRO's workhorse, PSLV is renowned for its reliability and versatility in launching satellites into various orbits.
    - **Geosynchronous Satellite Launch Vehicle (GSLV)** — GSLV, particularly the GSLV Mk III variant, is used for launching heavier satellites into geostationary orbits and is key to India's human spaceflight program.
  - . **Space Exploration** —

- **Chandrayaan Missions** — India's moon missions, Chandrayaan-1 (2008), Chandrayaan-2 (2019) and Chandrayaan-3 (2023) have significantly contributed to lunar science.

- **Mars Orbiter Mission (Mangalyaan)** — Launched in 2013, Mangalyaan made India the first country to successfully reach Mars in its first attempt, demonstrating advanced space technology at a fraction of the cost of similar missions by other countries.
- **Navigation Systems** —
  - **NAVIC** — The Navigation with Indian Constellation (NAVIC) is India's regional satellite navigation system, providing accurate positioning services over India and the surrounding region.
- **Role of Private Players** —
  - **NewSpace India Limited (NSIL)** —
    - Established in 2019, NSIL is ISRO's commercial arm responsible for transferring technologies to the private sector, manufacturing launch vehicles, and providing satellite launch services.
  - **Indian National Space Promotion and Authorisation Centre (IN-SPACe)** —
    - IN-SPACe is a regulatory body that promotes and authorises private sector participation in space activities, ensuring fair and transparent access to space resources.
  - **Private Companies** —
    - Companies like **Skyroot Aerospace**, **Agnikul Cosmos**, and **Pixxel** are emerging as key players in satellite manufacturing, launch services, and space applications.

### **Key highlights of the report -**

- **About the report** —
  - The report was initiated by ISRO to evaluate the socio-economic impact of the space sector from 2014-2023.
  - The study was conducted by Indian economics research firm econONE and Novaspac.
  - It was presented during the National Space Day celebrations in New Delhi on August 23, 2024.
    - The Space Day celebrations are to commemorate the first anniversary of the successful landing of the Chandrayaan-3 on August 23 last year.
- **Key findings** —
  - **Impact on Indian Economy** —
    - India's space sector has directly contributed about \$24 billion (₹20,000 crore) to India's GDP over the last decade.
    - It has directly supported 96,000 jobs in the public and private sector.
    - For every dollar produced by the space sector, there was a **multiplier effect of \$2.54 to the Indian economy**.
    - India's space force was 2.5 times more productive than the country's broader industrial workforce.
  - **8th largest space economy (in terms of funding) in the world** —
    - With \$13 billion invested in the last decade it is the 8th largest space economy (in terms of funding) in the world.
    - Satellite communications contributed 54% to the space economy, followed by navigation (26%) and launches (11%).
  - **Diversified space sector** —
    - The Indian space sector was diversifying and now had 700 companies including 200 start-ups.
    - It had seen revenues grow to \$6.3 billion in 2023, which was about 1.5% of the global space market.
  - **Way ahead** —
    - India's space sector has significantly enhanced the nation's prestige, sovereignty, and global leadership, but its impact on the profitability and competitiveness of companies within the country has been limited.
    - According to industry stakeholders, this is because the space program over the past decade has been primarily driven by political considerations.
    - However, there is a shift occurring as commercial space is becoming a priority.

- Regulatory reforms have been introduced but have yet to fully take effect, and an under- developed venture capital ecosystem is hindering space technology start-ups from accessing necessary capital.

**Source - [The Hindu](#)**

**QUESTION** - The Indian space sector has significantly contributed to the nation's economy, technological prowess, and global standing over the past decade. However, despite its achievements, the sector faces challenges that limit its profitability and competitiveness within the country. Critically analyse the socio-economic impact of India's space sector, as outlined in recent reports, and discuss the potential and challenges of fostering a more commercially driven space economy.

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## Environment

### Establishing a Carbon Market in India

The Indian government's announcement to shift polluting industries from energy efficiency targets to emission targets marks a significant step towards addressing climate change. This transition from the Perform, Achieve, and Trade (PAT) mechanism to a carbon market mode is a reflection of India's growing commitment to reducing greenhouse gas emissions and contributing to global efforts to combat climate change.

#### PAT vs. Emissions Trading -

- **PAT** — The Perform, Achieve, and Trade (PAT) scheme is a regulatory instrument designed to reduce specific energy consumption in energy-intensive industries. It operates on a relative basis, focusing on improving energy efficiency rather than imposing absolute emission limits.
- **Emissions Trading** — Emissions trading, also known as cap and trade, is a market-based approach to controlling pollution by providing economic incentives for reducing emissions. It involves setting a cap on total emissions and allowing companies to trade emission permits.

#### India's Efforts Towards Decarbonisation -

- **National Action Plan on Climate Change** — India has implemented a comprehensive National Action Plan on Climate Change, which includes eight missions aimed at addressing various aspects of climate change. The National Mission for Enhanced Energy Efficiency is one of these missions, focusing on improving energy efficiency in industries and promoting renewable energy.
- **Clean Development Mechanism** — India has been a major participant in the Clean Development Mechanism (CDM), a mechanism under the Kyoto Protocol that allows developed countries to earn carbon credits by investing in clean energy projects in developing countries. India has been a significant supplier of Certified Emission Reduction (CER) units to developed countries.
- **Challenges** — The growing demand for iron and steel, coupled with the need to address climate change, presents a significant challenge for India. The iron and steel industry is a major contributor to greenhouse gas emissions, and transitioning to a low-carbon economy requires substantial investments and policy changes.

#### Transition to Carbon Market Mode -

- **National Determined Contributions (NDCs)** — India's Nationally Determined Contributions (NDCs) under the Paris Agreement outline its commitments to reducing greenhouse gas emissions. These include targets for reducing emissions intensity of GDP and increasing the share of renewable energy in the energy mix.
- **Domestic Carbon Market** — India is developing its own domestic carbon market, which will likely differ from the European Union Emissions Trading System (ETS). The proposed carbon market will have a voluntary phase followed by a mandatory phase, gradually increasing the scope and coverage of regulated entities.
- **Balancing Equity and Economic Priorities** — India's approach to climate change reflects

the need to balance equity concerns with economic development priorities. While transitioning to a low-carbon economy is essential, India must also ensure that its economic growth and development are not compromised.

**Conclusion** -

India's transition to a carbon market is a crucial step towards addressing climate change and contributing to global efforts to reduce greenhouse gas emissions. By implementing effective policies and leveraging market-based mechanisms, India can achieve its climate goals while balancing its economic and development priorities. This transition also demonstrates India's commitment to sustainable development and its role as a global leader in addressing climate change.

**Source** - [The Hindu](#)

**QUESTION** - Analyse India's transition from the Perform, Achieve, and Trade (PAT) mechanism to a carbon market mode. Discuss the challenges and opportunities associated with this transition, and evaluate the effectiveness of India's approach in addressing climate change and balancing economic development priorities.