



# Weekly Current Affairs

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## INDIA-SRI LANKA FRIENDSHIP: A PARTNERSHIP FOR PROGRESS

### WHY IN THE NEWS?

Prime Minister Narendra Modi was recently awarded the ‘Sri Lanka Mitra Vibhushana’, the highest civilian honour of Sri Lanka, by President Anura Kumar Dissanayake. The award was presented during PM Modi’s state visit to Sri Lanka, which took place at the invitation of President Dissanayake. The visit was themed “Friendship of Centuries – Commitment to a Prosperous Future”, highlighting the long-standing and deep-rooted ties between the two neighbouring nations. In a social media post, Prime Minister Modi dedicated the honour to

the 1.4 billion citizens of India and to the enduring friendship between India and Sri Lanka. According to MyGov India, this is the Prime Minister’s 22nd international honour, further emphasizing his global recognition and the significance of India’s role in regional diplomacy.



### INDIA AND SRI LANKA COOPERATION IN RECENT YEARS

Area	Highlights
<b>Political Ties</b>	High-level visits (PM Modi, EAM, President Dissanayake) Joint declarations, MoUs, vision on connectivity and prosperity
<b>Economic &amp; Trade</b>	Bilateral trade: <b>USD 5.54 bn</b> (2023–24) Indian FDI: <b>USD 2.25 bn</b> ETCA talks resumed (2023)
<b>Development Aid</b>	<b>USD 7+ bn</b> total aid (credit + grant) 60,000 houses, Jaffna Cultural Centre, ambulance service Digital ID project support
<b>Crisis Support</b>	<b>USD 4 bn</b> during 2022 economic crisis Fuel, food, medicine, currency swap, ACU payment deferment
<b>Connectivity</b>	Ferry: Nagapattinam–Kankesanthurai (Oct 2023) Chennai–Jaffna flights UPI payments launch (Feb 2024) Land/pipeline/power grid planned
<b>Defence &amp; Security</b>	Exercises: <b>SLINEX, Mitra Shakti</b> MRCC setup, Dornier aircraft deployment Training: 1200 slots/year
<b>Cultural Ties</b>	Restoration of Buddhist sites Launch of Jataka Tales in Sinhala Kushinagar–Colombo direct flight for pilgrims
<b>Education &amp; Training</b>	<b>710 scholarships, 402 ITEC slots/year</b> Civil Service Training (NCGG) Hindi language chairs, teacher exchange
<b>Tourism &amp; Diaspora</b>	India = top source of tourists (20%+) Engagement with Indian-origin Tamils and PIOs

## SIGNIFICANCE OF SRI LANKA FOR INDIA

- 1. Strategic Location:** Sri Lanka sits near major sea lanes in the Indian Ocean, crucial for India's maritime security and trade routes.
- 2. Neighbourhood First Policy:** As India's closest maritime neighbour, Sri Lanka plays a central role in India's regional outreach and foreign policy priorities.
- 3. Cultural & Historical Bonds:** Deep-rooted civilizational links through Buddhism, language, and heritage strengthen people-to-people and cultural ties.
- 4. Economic & Trade Partner:** A key trade and investment partner; also vital for India's ambitions of regional economic integration through projects like ETCA.
- 5. Security & Counter-Terrorism Cooperation:** Close collaboration in defence, intelligence sharing, and maritime security under platforms like the Colombo Security Conclave.
- 6. Connectivity Hub:** Central to India's vision of multi-modal connectivity—land, sea, digital, and energy—linking southern India to Southeast Asia.
- 7. Influence Balancer in the IOR:** Helps India counterbalance China's growing presence in the Indian Ocean Region and maintain regional stability.

## SIGNIFICANCE OF INDIA SRI FOR LANKA

- 1. Closest and Time-Tested Partner:** India is Sri Lanka's nearest and most dependable neighbour, with ties rooted in history, culture, and civilizational connections.
- 2. Economic Lifeline:** India is one of Sri Lanka's largest trade partners and top source of Foreign Direct Investment (FDI), vital for economic stability.
- 3. Development Assistance:** India has extended over USD 7 billion in assistance, including housing, healthcare, education, transport, and digital infrastructure.

- 4. Crisis Support Provider:** During Sri Lanka's 2022 economic crisis, India was the first responder, providing nearly USD 4 billion in emergency aid and credit.
- 5. People-to-People Ties & Tourism:** India is the largest source of tourists and scholarships and is home to a large Sri Lankan diaspora, enhancing people-level connections.
- 6. Connectivity & Integration Partner:** Through ferry services, digital payments (UPI), power grid proposals, and port development, India aids Sri Lanka's regional integration.
- 7. Security and Regional Stability Partner:** Defence cooperation, counter-terrorism collaboration, and platforms like the Colombo Security Conclave strengthen Sri Lanka's security framework.

## AREAS OF DIVERGENCE

- 1. Fishermen Issue:** Frequent arrests of Indian fishermen for allegedly trespassing into Sri Lankan waters remains a long-standing irritant.
- 2. Ethnic Tamil Issue:** India's consistent support for the rights and reconciliation of Sri Lankan Tamils sometimes leads to sensitivities in Colombo.
- 3. Geopolitical Tilt towards China:** Sri Lanka's growing strategic and economic engagement with China (e.g., Hambantota Port lease) raises concerns for India.
- 4. Delay in Indian Projects:** Some Indian-funded infrastructure and development projects in Sri Lanka have faced delays due to red tape or political hesitation.
- 5. Trade Imbalance & ETCA Hesitancy:** Sri Lanka's concerns over trade imbalance and domestic opposition have delayed the finalization of the Economic & Technology Cooperation Agreement (ETCA).
- 6. Security & Sovereignty Sensitivities:** Joint initiatives, especially in ports and energy, sometimes raise sovereignty-related concerns among sections of Sri Lankan society.

- 7. Political Instability & Policy Inconsistency:** Changes in leadership in Sri Lanka sometimes result in inconsistent foreign policy and delays in implementing agreed-upon initiatives.

### WAYS TO STRENGTHEN BILATERAL TIES

- 1. Institutionalize High-Level Dialogues:** Regular summits, ministerial meetings, and strategic dialogues to maintain policy continuity and address concerns promptly.
- 2. Speed Up Infrastructure Projects:** Fast-track implementation of Indian-funded development and connectivity projects with clear timelines and joint monitoring mechanisms.
- 3. Resolve the Fishermen Issue Amicably:** Establish joint patrolling early warning systems and promote deep-sea fishing alternatives to reduce conflict.
- 4. Enhance Economic Integration:** Finalize ETCA with mutual safeguards, expand trade, and promote cross-investment in priority sectors like tourism, IT, energy, and pharma.
- 5. Boost People-to-People Exchanges:** Increase scholarships, cultural exchanges, direct air links, and religious tourism, especially around Buddhist and Hindu circuits.
- 6. Strengthen Defence & Security Cooperation:** Continue joint exercises (SLINEX, Mitra Shakti), intelligence sharing, and maritime surveillance to address regional threats.
- 7. Promote Trilateral and Regional Cooperation:** Work together in forums like BIMSTEC, IORA, Colombo Security Conclave, and Indian Ocean Rim cooperation to build regional stability.

### CONCLUSION

India-Sri Lanka relations embody a unique blend of geographic proximity, historical continuity, and strategic partnership. In recent years, both nations have reinvigorated their ties through robust cooperation across political, economic, defence, cultural, and development sectors. India's timely support during Sri Lanka's 2022 economic crisis reaffirmed its role as a reliable first responder and a genuine development partner. However, long-

standing challenges such as the fishermen issue, project delays, and geopolitical anxieties need sensitive and sustained engagement. Going forward, institutionalized dialogue, inclusive economic integration, and people-centric diplomacy will be key to transforming this time-tested partnership into a future-oriented alliance. Strengthening bilateral ties is not only in mutual interest but also essential for ensuring peace, stability, and prosperity in the Indian Ocean Region.

### PRELIMS QUESTIONS

**Q. Consider the following statements about India–Sri Lanka relations:**

1. India is Sri Lanka's largest source of Foreign Direct Investment (FDI) in 2022 and 2023
2. The ferry service between Nagapattinam and Kankesanthurai was launched in 2023.
3. India and Sri Lanka are members of the Colombo Security Conclave.

**Which of the above statements is/are correct?**

- |                 |                 |
|-----------------|-----------------|
| A. 1 and 2 only | B. 2 and 3 only |
| C. 1 and 3 only | D. 1, 2 and 3   |

**Answer: B**

### MAINS QUESTIONS

**Q.** "India–Sri Lanka relations are anchored in shared history and geography but tested by emerging geopolitical realities." Critically examine this statement in the context of recent developments.

**(250 words, 15marks)**

### REFORMING WAQF LAWS: PARLIAMENT'S 2025 INTERVENTION

#### WHY IN THE NEWS?

In April 2025, the Parliament of India passed the Waqf (Amendment) Bill, 2025, introducing key changes to the governance, survey, and transparency of Waqf properties in India. The bill, with its social, legal, and political implications,

became a subject of intense parliamentary debate and media attention. This article elaborates on the procedure of passing bills, the constitutional mandate, types of bills, and finally dives into the specifics of the Waqf (Amendment) Bill itself.



### PROCEDURE OF PASSING BILLS IN THE INDIAN PARLIAMENT

The Indian Parliament follows a well-defined legislative process for introducing and passing bills. Here’s a comprehensive breakdown:

1. **Drafting Stage:** A bill begins as a proposal by a ministry, often after stakeholder consultation. Drafts are vetted by the Ministry of Law and Justice for legal coherence.
2. **Cabinet Approval:** The draft bill is presented to the Union Cabinet for approval before tabling in Parliament.

3. **First Reading (Introduction Stage):** The bill is introduced in either House (except Money Bills, which only start in Lok Sabha). Example: The Waqf (Amendment) Bill, 2025 was introduced in the Lok Sabha by the Minister of Minority Affairs.
4. **Second Reading:** General Discussion: Members discuss the general merits of the bill. Committee Consideration (if referred): A Parliamentary Standing or Select Committee scrutinizes the bill clause by clause. Example: The Data Protection Bill 2023 was referred to a Joint Committee of Parliament. Clause-by-Clause Consideration: The bill is debated and amended in the House.
5. **Third Reading** The bill is debated in its final form and voted on. Minimal changes are allowed. Requires a simple majority (in the case of Ordinary Bills).
6. **Passage in Second House** The same process is repeated in the other House. If the second House rejects the bill or fails to act, a joint sitting under Article 108 may be called.
7. **Presidential Assent** Once both Houses pass the bill, it goes to the President of India. The President can: Give assent Withhold assent Return (except Money Bills) for reconsideration

### CONSTITUTIONAL MANDATE: ORIGIN, ADOPTION, AND RELEVANT ARTICLES

#### a. Origin and Adoption

The Constitution of India was adopted on 26th November 1949 and came into force on 26th January 1950. It established a bicameral legislature (Lok Sabha and Rajya Sabha) under Article 79.

#### b. Relevant Constitutional Articles

Article	Provision	Example
Art. 107	Procedure for passing bills	Used in framing the <b>Waqf (Amendment) Bill</b>
Art. 108	Joint sitting mechanism	Invoked for the <b>Prevention of Terrorism Bill, 2002</b>
Art. 110	Defines a <b>Money Bill</b>	Example: <b>Finance Bill 2024</b>
Art. 111	Presidential Assent	<b>Farm Laws (Repeal) Bill, 2021</b> got quick assent
Art. 368	Amendment of Constitution	Example: <b>GST Amendment (101st Amendment Act)</b>

These articles ensure the sanctity, scrutiny, and structure of legislative practices in the world’s largest democracy.

**TYPES OF BILLS IN PARLIAMENT**

- 1. Ordinary Bills:** Deal with general subjects like civil law, education, administration. Can be introduced in either House. Passed by simple majority. Example: The Waqf (Amendment) Bill, 2025 is an Ordinary Bill.
- 2. Money Bills (Article 110):** Concerned with taxation, borrowing, or expenditure from the Consolidated Fund of India. Can only be introduced in Lok Sabha with President’s recommendation. Rajya Sabha has limited powers. Example: Finance Bill 2025.
- 3. Financial Bills:** Broader than Money Bills, also contain non-money clauses. Require approval of both Houses. Example: Appropriation (No. 2) Bill, 2023.
- 4. Constitutional Amendment Bills:** Related to amending provisions of the Constitution. Passed by a special majority under Article 368.

Some amendments require ratification by half of the states. Example: 103rd Amendment (EWS Quota).

**THE KEY PROVISIONS ENHANCING WOMEN'S RIGHTS**

- SOCIO-ECONOMIC SUPPORT FOR WIDOWS, DIVORCED WOMEN, AND ORPHANS**
  - Waqf-alal-aulad now allows waqf income to support widows, divorced women, and orphans.
  - Section 3(r)(iv) ensures financial security for these groups, aligning with Islamic welfare principles.
- PROTECTION OF WOMEN'S INHERITANCE RIGHTS IN WAQF-ALAL-AULAD**
  - Female heirs are guaranteed their rightful share in family waqf.
  - Section 3A(2) mandates securing women's inheritance rights before dedicating property as waqf, preventing circumvention of inheritance laws.
- WOMEN'S REPRESENTATION IN WAQF GOVERNANCE**
  - Retains two Muslim women members in State Waqf Boards (Section 14) and the Central Waqf Council (Section 9).
- PROMOTION OF GENDER JUSTICE AND EQUITY**
  - Strengthens economic support and inheritance rights, addressing long-standing gender inequalities.
  - Aligns waqf administration with constitutional principles of equality and social welfare.

**THE WAQF (AMENDMENT) BILL, 2025: FEATURES AND SIGNIFICANCE**

S.No	Provision	Old Waqf Act (Before Amendment)	Waqf (Amendment) Bill, 2025
1	<b>Survey Authority</b>	Survey of Waqf property was conducted by the Waqf Board through the Survey Commissioner.	Survey to be conducted by the District Collector to ensure neutrality and remove arbitrary claims.
2	<b>Declaration of Waqf Property</b>	Properties could be declared Waqf based on oral evidence or vague historical records.	Declaration requires documentary evidence like registered waqf deed, government notification, etc.
3	<b>Inclusion of Government Land as Waqf</b>	No explicit bar; many government properties were claimed as Waqf.	Explicit prohibition on declaring Central/State Govt. lands as Waqf.
4	<b>Public Objection Mechanism</b>	No structured provision for public objection during survey.	Introduces public notice and objection mechanism to raise concerns before final listing.
5	<b>Digital Monitoring</b>	Digitization was partial and non-mandatory; WAMSIS portal used inconsistently.	Mandatory integration with WAMSIS (Waqf Asset Management System of India) for transparency and digital record-keeping.
6	<b>Burden of Proof</b>	Burden to disprove Waqf claims lay on the challenger or landowner.	Burden now lies on the Waqf Board to prove with documents that land is truly Waqf.

S.No	Provision	Old Waqf Act (Before Amendment)	Waqf (Amendment) Bill, 2025
7	<b>Encroachment Actions</b>	Enforcement against encroachers was slow and Waqf Board dependent.	District Administration empowered for swift action against encroachment.
8	<b>Transparency and Accountability</b>	Complaints of misuse and non-disclosure of assets were common.	Mandatory audits, public disclosure, and asset mapping. Regular reporting to Parliament.
9	<b>Litigation and Tribunal Access</b>	Limited judicial recourse and Waqf Tribunal had wide powers.	Narrows scope of Tribunal, enhances role of Civil Courts, improves access to justice.
10	<b>Scope of 'Waqf by User'</b>	Properties frequently declared Waqf by "longstanding user claim".	Prohibits the use of "Waqf by User" without supporting historical documentation.

**CONCLUSION**

The Waqf (Amendment) Bill, 2025 is a critical legislative step in modernizing the management of religious endowments while protecting public and private property from wrongful encroachment. It reaffirms the principles of secularism, transparency, and justice under the Indian Constitution. The bill also reflects the dynamic balance between religious rights and public interest, a core challenge in India's pluralistic democracy. By understanding its constitutional foundation, legislative process, and contemporary context, this bill serves as a case study in how democratic institutions evolve to address long-standing issues with constitutional tools.

**PRELIMS QUESTIONS**

**Q. With reference to the Waqf (Amendment) Bill, 2025, consider the following statements:**

1. It prohibits the declaration of any Central or State government land as Waqf property.
2. The Bill empowers the District Collector to conduct waqf property surveys.
3. The amendment allows oral evidence as the primary source to declare a Waqf property.

**Which of the statements given above is/are correct?**

- A. 1 and 2 only      B. 2 and 3 only

C. 1 and 3 only

D. 1, 2, and 3

**Answer: A**

**MAINS QUESTIONS**

**Q.** How does the Waqf (Amendment) Bill, 2025 strike a balance between minority rights and public land protection? Discuss with constitutional and legal references.

**(250 words, 15marks)**

**FOREIGN CONTRIBUTION (REGULATION) ACT, 2010: ENSURING TRANSPARENCY IN FOREIGN FUNDING**

**WHY IN THE NEWS?**

The Union Home Ministry has announced that foreign funds received under the prior permission route must be utilised within four years from the date of approval. This directive is in accordance with the provisions of the Foreign Contribution (Regulation) Act, 2010 (FCRA). As per the ministry, the validity period for receiving foreign contributions under prior permission is three years, and the funds must be used within a maximum of four years. For applications already approved where the remaining validity exceeds three years, the four-year limit will now be counted from the date of issuance of this new order rather than from the original date of approval. This move aims to enhance compliance

and accountability in the utilisation of foreign contributions.

### WHAT IS FCRA 2010?

The Foreign Contribution (Regulation) Act (FCRA), 2010, was enacted by the Parliament of India to consolidate the law regulating the acceptance and utilisation of foreign contributions or foreign hospitality by certain individuals, associations, or companies. It aims to prohibit such acceptance or utilisation for activities that are detrimental to the national interest and also addresses matters connected or incidental to these objectives.

### KEY PROVISION OF FCRA 2010

- 1. Registration or Prior Permission:** Any individual, association or NGO must either register or obtain prior permission from the Ministry of Home Affairs (MHA) to receive foreign contributions.
- 2. Designated FCRA Account:** Foreign contributions must be received only in a designated FCRA account at the State Bank of India, New Delhi Main Branch (NDMB).
- 3. Prohibited Recipients:** Certain entities cannot receive foreign funds, including Election candidates, Judges, Government servants, members of the legislature, Political parties and their office-bearers, Journalists (under certain conditions)
- 4. Restricted Use of Funds:** Foreign contributions must not be used for Activities against national interest, Political funding, Religious conversion, Sedition or violence, Administrative expenses beyond a permissible limit (currently capped at 20%)
- 5. No Sub-Granting (as per 2020 Amendment):** Registered organisations cannot transfer foreign funds to other NGOs or entities, even if the latter is FCRA-registered.
- 6. Maintenance of Records:** Recipients must maintain proper accounts and file annual returns detailing the receipt and usage of foreign funds.

- 7. Suspension/Cancellation of Registration:** The MHA can suspend or cancel registration in case of violations or misuse of foreign funds.
- 8. Mandatory Aadhaar for Office Bearers:** Key functionaries of NGOs must link their identity with the Aadhaar (2020 amendment).
- 9. Cap on Administrative Expenses:** Administrative expenses must not exceed 20% of total foreign contributions received (earlier it was 50%).
- 10. FCRA Online Services:** All applications for registration, renewal, and reporting are processed through the FCRA online portal.

### RECENT RULES OF FCRA 2010

- 1. TDS Refund Transfer:** The FCRA Amendment Rules 2024 clarify the process of transferring TDS refunds, addressing concerns regarding the previous ambiguity.
- 2. Carrying Forward Administrative Expenses:** The rules now permit carrying forward administrative expenses, offering some relief to organizations.
- 3. FCRA Registration Validity:** The Act states that registration certificates are valid for five years, and renewal must occur within six months before expiry.
- 4. Prohibition of Foreign Contribution:** The FCRA prohibits the acceptance of foreign contributions by individuals like candidates for elections, journalists, judges, government servants, and members of the legislature or political parties.
- 5. FCRA Account:** Organizations are required to open a designated "FCRA Account" to manage foreign contributions.
- 6. Purpose of Funds:** The FCRA mandates that NGOs utilise foreign funds only for the purposes for which they were received and as stipulated in the Act.

### IMPORTANCE OF FOREIGN FUNDS FOR NGO

- 1. Financial Support for Development Projects:** Foreign contributions fund a wide range of social, educational, health, environmental, and humanitarian programs, especially in rural and underserved regions.

2. **Innovation and Research:** Many NGOs engage in research, advocacy, and innovation, especially in fields like climate change, public health, and education, which are often funded by international donors.
3. **Capacity Building:** Foreign aid helps NGOs build infrastructure, train personnel, and improve their internal systems for better project implementation and impact assessment.
4. **Collaboration and Global Best Practices:** International funding often comes with technical expertise and global best practices, enabling Indian NGOs to align with global development goals like the UN SDGs.
5. **Filling Gaps in Governance:** NGOs supported by foreign funds often operate in areas where government programs are absent, underfunded, or inaccessible, helping improve last-mile delivery.
6. **Focus on Marginalised Communities:** Foreign funding empowers NGOs to work with marginalised and vulnerable groups, ensuring inclusivity and equity in development initiatives.
7. **Advocacy and Human Rights Work:** Many NGOs engaged in human rights, gender equality, and legal aid rely on foreign support to remain independent and effective.

#### WAY FORWARD

1. **Strengthen Compliance Without Overregulation:** Implement tiered compliance norms based on NGO size and scope. Provide dedicated support and simplified processes to reduce bureaucratic hurdles.
2. **Enhance Transparency:** Introduce digital dashboards for real-time tracking of foreign funds. Public disclosure of fund usage and third-party audits can improve accountability.
3. **Promote Domestic Philanthropy:** Offer tax incentives and CSR partnerships to encourage local funding. A national platform can help connect donors with grassroots NGOs.

4. **Build Capacity for Compliance:** Organise training workshops and create SOPs and e-learning tools to help NGOs understand and meet FCRA requirements effectively.
5. **Balance Security and Civil Liberties:** Ensure fair enforcement by avoiding blanket bans and involving civil society in policy-making. Protect freedom of association while addressing misuse.

#### CONCLUSION

While ensuring national security, FCRA must foster a supportive regulatory ecosystem for NGOs. A transparent, facilitative, and balanced framework will empower civil society to contribute meaningfully to India's development. Moreover, the government should act as an enabler rather than a controller, encouraging collaboration, trust-building, and dialogue between regulatory bodies and the non-profit sector. By promoting accountability without compromising the autonomy of genuine NGOs, India can ensure both national interest and inclusive social progress go hand-in-hand. A vibrant and well-supported NGO ecosystem is vital for a democratic, equitable, and sustainable future.

#### PRELIMS QUESTIONS

**Q. With reference to the Foreign Contribution (Regulation) Act (FCRA), 2010, consider the following statements:**

1. FCRA applies only to NGOs receiving foreign funds.
2. Under FCRA, foreign funds must be received in a designated account in the State Bank of India, New Delhi.
3. FCRA allows sub-granting of foreign funds to other FCRA-registered NGOs.
4. The administrative expenses of an organisation under FCRA cannot exceed 20% of the foreign contribution received.

**Which of the statements given above are correct?**

- A. 1 and 2 only                      B. 2 and 4 only  
C. 1, 2 and 4 only                  D. 1, 3 and 4 only

**Answer: B**

## MAINS QUESTIONS

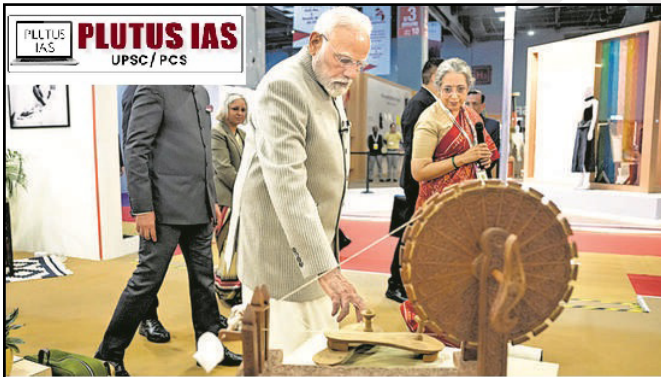
Q. Discuss the objectives and key provisions of the Foreign Contribution (Regulation) Act (FCRA), 2010. In light of recent amendments, critically analyse the challenges faced by NGOs in complying with FCRA.

(250 words, 15 marks)

## WEAVING INDIA'S ECONOMY: THE STORY OF THE TEXTILE SECTOR

### WHY IN THE NEWS?

The Indian textile sector has recently gained renewed attention due to a series of government initiatives, trade developments, and evolving global dynamics. The announcement and implementation of flagship programs like the PM MITRA Parks and the Production Linked Incentive (PLI) scheme have created a conducive environment for large-scale investment in the industry. In 2023 alone, states like Tamil Nadu and Gujarat signed MoUs with leading textile firms under these schemes, signaling an uptick in industrial momentum.



### OVERVIEW OF INDIA TEXTILE SECTOR

1. The Indian textile sector is one of the oldest industries in the country, dating back several centuries. It contributes about 2.3% to India's GDP and 12% to export earnings (Economic Survey 2022-23). The industry employs over 45 million people directly and around 100 million indirectly (IBEF Report 2023). For example, cities like Tirupur and Surat thrive solely on textile-based employment.

2. India is the second-largest producer of textiles and garments globally, after China. The global market share of Indian textiles stands at approximately 4%, according to WTO data. The country's capability in producing a wide variety of fibers and yarns makes it globally competitive. According to a McKinsey report, India's cotton yarn exports grew by 13% in 2022, supporting global supply chains.
3. The textile industry comprises both organized and unorganized sectors. While large mills operate in the organized sector, handloom and handicrafts dominate the informal segment. According to the Ministry of Textiles, the unorganized sector contributes nearly 70% of production volume. For instance, the Chanderi weaving cluster in Madhya Pradesh operates largely through traditional looms.
4. The industry is vertically integrated, covering the entire value chain from fiber to apparel. This includes ginning, spinning, weaving, dyeing, and garment production, promoting self-reliance. The Cotton Corporation of India plays a crucial role in stabilizing cotton prices and supply. A 2022 report from CRISIL shows that vertical integration improved margins for large textile firms by 15%.
5. India is a hub for natural fiber-based textiles, particularly cotton. Cotton accounts for around 51% of the total textile production (Textile Ministry Annual Report 2022). Its cultivation is prevalent in states like Maharashtra, Gujarat, and Punjab. In 2022, Maharashtra alone produced over 8 million bales of cotton.
6. The sector also has a significant presence in synthetic fibers and blended textiles. Polyester and viscose are gaining traction due to their durability and affordability. Reliance Industries is a major player in synthetic fiber production in India. The synthetic textiles market in India was valued at \$12 billion in 2022 (ASSOCHAM report).

7. Textile exports are vital to India's foreign exchange reserves. Total exports from the sector amounted to around \$44.4 billion in FY 2022-23 (DGFT Data). Major export destinations include the US, EU, UAE, and Bangladesh. For instance, apparel exports to the US alone accounted for \$8.3 billion in 2022.
8. The industry is a key player in empowering women and rural artisans. Over 70% of handloom workers are women (National Handloom Census 2019). Initiatives like 'India Handloom Brand' promote traditional skills and products. In 2023, 80% of beneficiaries of the Handloom Marketing Assistance program were women.



### TEXTILE SECTOR BASKET – COTTON, JUTE, WOOLEN

1. **Cotton Industry:** India is the largest producer of cotton globally, contributing 23% of world cotton production. As per the Cotton Advisory Board, cotton output reached 36 million bales in 2022-23. Gujarat and Maharashtra are the leading cotton-producing states. For example, Gujarat accounted for 28% of national production in FY23.
2. **Cotton textiles form the backbone of the Indian textile export market:** Products like bedsheets, shirts, and denim have significant demand globally. The US and EU are major importers of Indian cotton garments. Cotton shirt exports to the US alone were valued at \$1.1 billion in 2022.
3. **Jute Industry:** India is the largest producer of raw jute and jute goods, with West Bengal being the major hub. The jute industry supports around 4 lakh workers and 40 lakh farmers. India produces nearly 1.7 million tonnes of raw jute annually (NJB Report 2023). For example, the Raghunathganj belt in Murshidabad specializes in jute sacks.
4. **Jute is increasingly gaining traction due to eco-friendly demand:** Products such as jute bags and carpets are promoted under "Plastic-free India" initiatives. The Ministry of Environment has supported jute packaging to reduce plastic usage. In 2023, the government made jute packaging mandatory for 100% of food grains.
5. **Woolen Industry:** Concentrated in northern India, especially Punjab and Himachal Pradesh. Ludhiana is known as the "Manchester of India" for woolen wear. India imports high-quality raw wool from Australia and New Zealand. For example, 95% of India's fine wool comes from these imports (Wool Federation 2022).
6. Woolen textiles cater largely to domestic winterwear demand. Blankets, sweaters, and shawls are some common products. The Khadi and Village Industries Commission (KVIC) supports wool-based rural industries. In 2022, KVIC sold Rs 145 crore worth of woolen products.
7. **Wool production in India is limited, and domestic sheep breeds provide coarse wool:** The annual wool production is about 40 million kg, insufficient for the entire industry. Hence, India remains dependent on wool imports for quality garments. For example, Ladakh produces Pashmina wool, but in limited volumes.
8. **The textile basket also includes technical textiles, silk, and man-made fibers:** Technical textiles account for nearly 13% of total textile exports (FICCI Report 2023). Silk production is significant in Karnataka and Assam. India is the

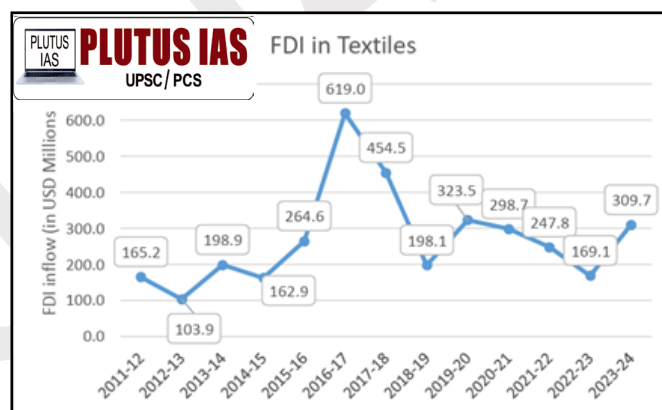
second-largest producer of silk globally, with over 35,000 MT output in 2022.

### IMPACT OF MAKE IN INDIA ON TEXTILE INDUSTRY

1. The 'Make in India' initiative has reinvigorated interest in domestic manufacturing. It has encouraged FDI and large-scale investments in textile parks. For instance, Arvind Ltd. and Welspun have expanded facilities under this push. Welspun invested Rs 2,000 crore in a smart textile park in Gujarat in 2022.
2. The scheme promotes local sourcing and self-reliance in textile production. Reduced dependence on Chinese imports has enhanced India's global standing. According to DPIIT, India's textile FDI inflow was \$4.4 billion between 2000–2022. Local spinning mills have increased yarn capacity by 10% post-2020.
3. Infrastructure development under the initiative has boosted the sector. The setting up of Mega Textile Parks is an example of cluster-based growth. PM MITRA parks aim to create world-class industrial infrastructure. The first PM MITRA park was launched in Tamil Nadu in 2023 with a Rs 4,500 crore outlay.
4. It has led to enhanced employment opportunities across regions. The Textiles Ministry estimates that 1 lakh direct jobs were created under Make in India. Skill India has trained over 11 lakh workers in the apparel sector. In Odisha, over 10,000 artisans were trained in handloom skills under this mission.
5. Local artisans and MSMEs are integrated into the national supply chain. Initiatives like One District One Product (ODOP) benefit traditional textile clusters. For example, Bhagalpur silk and Banarasi sarees gained national promotion. ODOP reports show that handloom exports from Varanasi rose by 25% in FY23.
6. Export competitiveness has improved due to enhanced compliance and branding. 'India Handloom Brand' ensures quality assurance and market access. The Indian garment sector is now better aligned with global fashion trends.

In 2022, Indian textile brands signed contracts with global retailers like H&M and Zara.

7. New technologies and automation were adopted under this initiative. Textile mills now utilize AI-based quality control and digital printing tech. Investment in R&D rose by 30% in key textile hubs like Surat and Tirupur. Example: Raymond Ltd. launched a smart fabric line with anti-viral properties.
8. Make in India has helped position India as an emerging textile hub. India was ranked among the top three textile manufacturing destinations globally (McKinsey Report 2022). The country aims to double its textile exports to \$100 billion by 2030. As per Texprocil, export orders from EU brands grew by 18% in 2023.



### GOVERNMENT INITIATIVES TO PROMOTE TEXTILE INDUSTRY

1. **PM MITRA (Mega Integrated Textile Region and Apparel) Parks:** Launched to boost integrated textile value chains across 7 states. Each park is expected to attract Rs 10,000 crore investment and create 1 lakh jobs. The Tamil Nadu park already signed MoUs with 13 textile firms in 2023.
2. **Production Linked Incentive (PLI) Scheme:** Offers incentives for high-value MMF and technical textile production. Rs 10,683 crore has been allocated, expecting \$20 billion in additional output. In FY23, 64 companies qualified for incentives under PLI for textiles.
3. **National Technical Textiles Mission:** Aims to increase India's share in global technical textiles to 10% by 2025. Rs 1,480 crore is set aside for R&D and capacity building. In 2023, 40 new

technical textile startups were incubated under the mission.

4. **Skill India and SAMARTH schemes:** Provide skill training to youth in apparel and textile operations. Over 13 lakh people trained under SAMARTH since its inception in 2017. States like Andhra Pradesh and Tamil Nadu lead in certified textile trainees.
5. **Amended Technology Upgradation Fund Scheme (ATUFS):** Supports modernization of textile machinery and infrastructure. Rs 17,822 crore worth of investment mobilized under ATUFS till 2023. Around 10,000 units benefited from machinery upgradation support.
6. **Export Promotion Measures:** Includes RoDTEP, RoSCTL, and duty drawback benefits for exporters. Apparel exports to the US rose by 20% post-extension of RoSCTL in 2022. RoDTEP covered 1,000+ textile HS codes in 2023 to ensure cost competitiveness.
7. **Handloom and Handicraft Development Programs:** National Handloom Development Program supports design and marketing. Over 1.5 lakh artisans benefitted under the Handicraft Mega Cluster scheme. For instance, the Kullu shawl cluster in Himachal Pradesh received Rs 22 crore in 2022.

## CHALLENGES FACED BY THE INDIAN TEXTILE SECTOR

1. **Infrastructure Gaps and High Logistics Costs:** Inadequate warehousing, port connectivity, and inland transport raise production costs. According to the Ministry of Commerce, logistics costs account for 13–14% of textile exports versus the global average of 8–9%.
2. **Fragmented and Unorganized Nature:** A large portion of the sector is still unorganized, leading to inconsistent quality and lack of economies of scale. As per the Textile Committee 2022 report, over 70% of textile units are micro or small enterprises lacking formal financing.
3. **Global Competition and Pricing Pressure:** Countries like Bangladesh and Vietnam offer lower labor costs and better export incentives.

For instance, India's average unit price of garment exports is 15–20% higher than Bangladesh, affecting competitiveness.

4. **Technology Obsolescence:** Many units still use outdated machinery, reducing productivity and fabric quality. A CITI survey in 2023 revealed that only 38% of spinning mills use modern machinery with AI/automation.
5. **Environmental Concerns and Sustainability:** High water consumption and chemical effluents in dyeing units raise environmental alarms. According to CPCB, the textile sector is the second-largest industrial polluter of water bodies in India.
6. **Raw Material Volatility:** Cotton price fluctuations and dependency on imported wool impact production planning. For example, cotton prices surged by 40% in 2022 due to erratic monsoons and global supply chain issues.
7. **Skilling and Labor Productivity Issues:** Despite employment potential, many workers lack formal training in modern techniques. As per NSDC, 60% of textile workers are semi-skilled or unskilled, affecting efficiency.
8. **Bureaucratic Hurdles and Compliance Load:** Multiple licenses, GST complications, and frequent policy changes deter small-scale manufacturers. A FICCI report flagged that MSMEs spend nearly 18 days annually on compliance-related paperwork alone.

## WAY FORWARD

1. **Strengthening Infrastructure and Cluster Development:** Accelerate completion of PM MITRA parks and improve multimodal connectivity to reduce logistics costs. Adopt smart infrastructure and green buildings to promote sustainability.
2. **Modernizing Machinery and Promoting R&D:** Expand ATUFS and PLI coverage to include mid-sized enterprises for wider technology adoption. Establish more textile innovation hubs in collaboration with IITs and NIFT.
3. **Promoting Sustainable and Circular Textiles:** Incentivize eco-friendly processes and use of

organic fibers through green certifications. Develop waterless dyeing and biodegradable fiber technologies.

- 4. Skill Development with Industry Collaboration:** Deepen industry-academia tie-ups for demand-driven skilling programs. Introduce apprenticeship-led training to improve productivity at the grassroots level.
- 5. Enhancing Export Competitiveness:** Negotiate favorable trade agreements like India-EU FTA to access larger markets. Simplify GST refund mechanisms and expedite RoDTEP reimbursements for MSMEs.
- 6. Empowering Handloom and Traditional Clusters:** Digitize supply chains of rural artisans and integrate them into e-commerce platforms. Use Geographical Indications (GI) and branding to boost exports of niche products.
- 7. Encouraging FDI and Joint Ventures:** Attract foreign textile brands to set up sourcing and production bases in India. Example: Encourage collaborations similar to the Aditya Birla-Zara alliance for fast fashion.

## CONCLUSION

The Indian textile sector, with its vast diversity, rich heritage, and skilled manpower, holds the promise of becoming a global textile powerhouse. While it has significantly benefitted from initiatives like Make in India, PM MITRA, and PLI schemes, persistent structural and operational challenges need resolution. By modernizing infrastructure, enhancing sustainability, and empowering both artisans and entrepreneurs, India can achieve its vision of doubling textile exports and creating millions of jobs. Strategic reforms and inclusive growth will be key to positioning India not just as the world's supplier but as a global trendsetter in textiles.

## PRELIMS QUESTIONS

**Q. With reference to the Indian textile sector, consider the following statements:**

1. India is the largest producer and exporter of cotton in the world.

2. The textile sector accounts for over 10% of India's total export earnings.
3. The unorganized segment of the textile industry contributes less than 30% of total production.

**Which of the above statements is/are correct?**

- A. 1 only                      B. 2 only  
C. 1 and 2 only              D. 2 and 3 only

**Answer: C**

## MAINS QUESTIONS

**Q. Evaluate the impact of the 'Make in India' initiative on revitalizing India's textile sector. How has it helped in improving global competitiveness?**

**(250 words, 15marks)**

## A DECADE OF GROWTH WITH PM MUDRA YOJANA

### WHY IN THE NEWS?

The Pradhan Mantri MUDRA Yojana (PMMY) was in the news recently as it marked the completion of 10 years since its launch in 2015. Prime Minister Narendra Modi hailed the scheme as a journey of "empowerment and enterprise," highlighting its significant contribution to promoting entrepreneurship across the country. Under the scheme, over 52 crore collateral-free loans amounting to ₹33 lakh crore have been disbursed over the decade. Notably, nearly 70% of the loan beneficiaries are women, and around 50% belong to SC/ST/OBC communities, reflecting the scheme's focus on inclusive growth. The MUDRA Yojana has also played a crucial role in supporting first-time business owners by providing credit of up to ₹10 lakh, and it generated over 1 crore jobs within the first three years of implementation. States like Bihar have emerged as frontrunners, with nearly 6 crore loans sanctioned, demonstrating a robust spirit of grassroots entrepreneurship.

### WHAT IS PRADHAN MANTRI MUDRA YOJANA (PMMY)?

Pradhan Mantri MUDRA Yojana (PMMY) is a flagship scheme launched by Prime Minister

Shri Narendra Modi on 8th April 2015 with the objective of “Funding the Unfunded.” The scheme aims to provide collateral-free loans of up to ₹10 lakh (now increased to ₹20 lakh) to non-corporate, non-farm micro and small enterprises. These loans are extended by Banks, NBFCs (Non-Banking Financial Companies), MFIs (Microfinance Institutions) and other financial institutions. The loans fall under three categories based on the stage of the business:

Shishu (up to ₹50,000)

Kishore (₹50,001 to ₹5 lakh)

Tarun (₹5 lakhs to ₹10 lakh)

Now expanded with Tarun Plus (₹10 lakh to ₹20 lakh) for eligible repeat borrowers.

**PM Mudra Yojana**

**MUDRA Mission**  
To create an inclusive, sustainable and value based entrepreneurial culture, in collaboration with our partner institutions in achieving economic success and financial security.

**MUDRA Vision**  
To be an integrated financial and support services provider par excellence, benchmarked with global best practices and standards, for the bottom of the pyramid universe for their comprehensive economic and social development.

**MUDRA Purpose**  
Our basic purpose is to attain development in an inclusive and sustainable manner by supporting and promoting partner institutions and creating an ecosystem of growth for micro enterprises sector.

### MANTRI MUDRA YOJANA (PMMY) VISION, MISSION AND PURPOSE

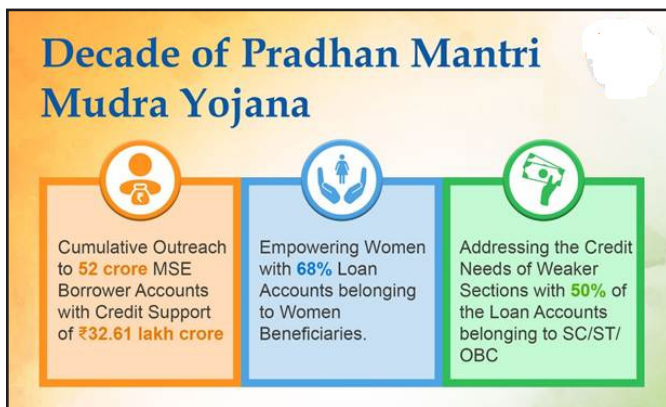
Aspect	Details
<b>Vision</b>	To create an inclusive and sustainable entrepreneurial ecosystem by facilitating access to formal financial services for underserved and unserved micro-enterprises, thereby driving self-employment, income generation, and grassroots development.
<b>Mission</b>	To “Fund the Unfunded” by providing collateral-free institutional credit to micro and small enterprises, empowering first-generation entrepreneurs, women, and marginalized communities to become part of the economic mainstream.
<b>Purpose</b>	<ul style="list-style-type: none"> <li>• Promote financial inclusion through easy access to credit.</li> <li>• Support non-corporate, non-farm micro businesses in manufacturing, trading, and services.</li> <li>• Generate employment and self-employment opportunities.</li> <li>• Bridge the credit gap with loans up to ₹20 lakh via formal financial institutions.</li> <li>• Empower SCs, STs, OBCs, minorities, and women with affordable credit.</li> <li>• Reduce dependence on informal lenders and promote financial discipline.</li> </ul>

### SALIENT FEATURES OF PMMY

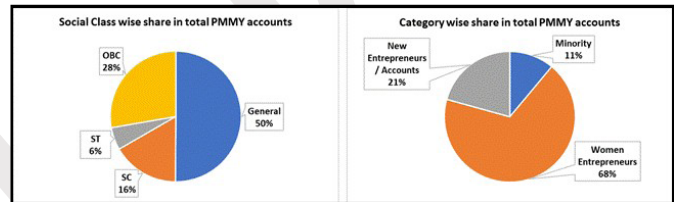
Feature	Details
<b>Launch Date</b>	8th April 2015
<b>Implementing Agency</b>	MUDRA (Micro Units Development and Refinance Agency) under the Government of India
<b>Target Segment</b>	Non-corporate, non-farm micro and small enterprises engaged in manufacturing, trading, processing, and services
<b>Loan Amount</b>	Collateral-free institutional credit up to ₹20 lakh
<b>Loan Categories</b>	<ul style="list-style-type: none"> <li>– <b>Shishu</b>: Loans up to ₹50,000</li> <li>– <b>Kishor</b>: Loans from ₹50,001 to ₹5 lakh</li> <li>– <b>Tarun</b>: Loans from ₹5,00,001 to ₹10 lakh</li> <li>– <b>Tarun Plus</b> (introduced in 2024): ₹10 lakh to ₹20 lakh (for eligible previous Tarun borrowers)</li> </ul>
<b>Collateral Requirement</b>	No collateral required

Feature	Details
<b>Lending Institutions</b>	Scheduled Commercial Banks (SCBs), Regional Rural Banks (RRBs), NBFCs, Micro Finance Institutions (MFIs), and other eligible financial institutions
<b>Credit Guarantee</b>	Coverage under the Credit Guarantee Fund for Micro Units (CGFMU)
<b>Target Beneficiaries</b>	First-time entrepreneurs, women, SC/ST/OBCs, minorities, small and micro-business owners
<b>Objective</b>	“Funding the Unfunded” – providing affordable credit to underserved entrepreneurs.
<b>Support for Repeat Borrowers</b>	Tarun Plus loans for those with a successful repayment history under the Tarun category
<b>No Processing Fee</b>	No processing fee for Shishu loans
<b>Technology Support</b>	Loan applications and tracking are enabled via digital platforms and online portals.

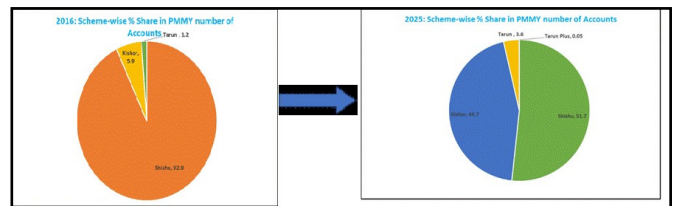
**ACHIEVEMENTS UNDER PMMY**



- MSME Credit Boom A Stronger Business Ecosystem:** Driven by Mudra’s impact, MSME lending rose from ₹8.51 lakh crore in FY14 to ₹27.25 lakh crore in FY24 and is expected to exceed ₹30 lakh crore in FY25. Its share in total bank credit increased from 15.8% to nearly 20%, enabling greater financial access in small towns and rural areas—boosting grassroots entrepreneurship and India’s self-reliant growth.
- Financial Inclusion: Empowering Women:** Women make up 68% of Mudra beneficiaries, highlighting the scheme’s role in promoting women-led enterprises. From FY16 to FY25, average loan disbursement per woman grew at a 13% CAGR to ₹62,679, and deposits at 14% to ₹95,269. States with higher women disbursement saw greater job creation, affirming Mudra’s impact on women’s economic empowerment and participation.



- Financial Inclusion Reaching Marginalised Groups:** PMMY has enabled 50% of SC/ST/OBC entrepreneurs and 11% from minority communities to access formal credit, promoting inclusive economic participation.
- Progressive Lending:** From Shishu to Tarun: Over 52 crore loans have been sanctioned, with Kishor loans rising from 5.9% in FY16 to 44.7% in FY25, reflecting a shift towards scaling up businesses. The Tarun category is also growing, supporting business expansion.



**STILL, THE ISSUE PERSISTS**

- Rising NPAs:** Non-performing assets under PMMY, especially in higher-ticket categories like Tarun, are increasing, raising concerns over credit quality and borrower repayment capacity.

2. **Regional Imbalances:** States like Tamil Nadu, Uttar Pradesh, and Karnataka dominate disbursements, while many backward and aspirational districts lag behind in both access and outreach.
3. **Lack of Monitoring Mechanisms:** There is inadequate tracking of loan utilization, leading to possible diversion of funds and limited evaluation of actual business outcomes.
4. **Low Transition to Formalisation:** Many micro units remain outside the formal economy, with limited adoption of GST registration, digital payments, or structured accounting.
5. **Credit Not Always Leading to Business Scaling:** A significant portion of loans are repeat or consumption-based rather than for genuine business expansion or productivity enhancement.
6. **Dependence on Government Push:** The scheme's momentum is heavily dependent on policy initiatives and public sector banks, with limited private sector participation in some areas.



## WAY FORWARD

1. **Strengthening Credit Appraisal and Monitoring:** Enhance due diligence and borrower assessment to reduce NPAs, especially in higher-value loan categories like Tarun and Tarun Plus.

2. **Boosting Awareness and Financial Literacy:** Launch targeted awareness campaigns in underserved regions to ensure eligible entrepreneurs understand loan processes, repayment obligations, and financial planning.
3. **Improving Regional Balance:** Address geographic disparities by incentivizing lending in low-performing states and strengthening outreach through local institutions like Self-Help Groups and cooperative banks.
4. **Capacity Building of Entrepreneurs:** Introduce business development support services, mentoring, and training programs, particularly for first-time borrowers and women entrepreneurs.
5. **Technology-Driven Monitoring:** Leverage fintech and digital platforms to improve loan disbursement, track fund utilization, and ensure real-time monitoring for better accountability.
6. **Encouraging Formalisation:** Integrate Mudra beneficiaries with GST registration, Udyam portal, and digital payment ecosystems to promote formalisation and scale-up opportunities.
7. **Impact Assessment and Feedback Mechanism:** Conduct regular, independent impact studies and beneficiary feedback surveys to measure outcomes and fine-tune policy and implementation.

## CONCLUSION

In ten years, Pradhan Mantri Mudra Yojana has consistently demonstrated the power of financial inclusion and the strength of grassroots innovation. Before 2014, access to credit often favoured the well-connected, while small entrepreneurs faced hurdles like complex paperwork or were forced to rely on informal finance. Banks handed out reckless loans to large corporates, while genuine borrowers lost access to credit. MUDRA stepped into this vacuum, offering a cleaner, inclusive alternative that gave everyone an equal chance. With over 52 crore loans sanctioned, the scheme has empowered women, SC/ST/OBC communities, and rural entrepreneurs by expanding access to formal credit. The rise in average loan size,

the growing share of MSME credit, and the shift from micro to small enterprises reflect its growing impact. PMMY is not only fuelling self-employment and job creation but also strengthening India's grassroots economy and advancing equitable growth.

### PRELIMS QUESTIONS

**Q. Consider the following statements regarding the Pradhan Mantri MUDRA Yojana (PMMY):**

1. It provides collateral-free loans up to ₹20 lakh to micro and small enterprises.
2. Loans under PMMY are only available through Scheduled Commercial Banks.
3. The scheme classifies loans into Shishu, Kishor, and Tarun categories based on loan amount.

**Which of the statements given above is/are correct?**

- A. 1 and 3 only      B. 2 and 3 only  
C. 1 and 2 only      D. 1, 2 and 3

**Answer: A**

### MAINS QUESTIONS

**Q. Critically examine the achievements and challenges of PMMY. Suggest measures to enhance its effectiveness.**

**(250 words, 15marks)**

### SEAWEED: A NUTRITIONAL POWER FROM THE OCEAN

#### WHY IN THE NEWS?

India, with its 7,500 km-long coastline, is increasingly exploring the potential of the blue economy, and seaweed farming has recently gained prominence as a sustainable and profitable livelihood option for coastal communities. The Government of India, under the Pradhan Mantri Matsya Sampada Yojana (PMMSY), is actively promoting seaweed cultivation to boost income, employment, and marine resource utilization. With a target of producing over 11 lakh tonnes of seaweed annually by 2025, states like Tamil Nadu, Gujarat, Maharashtra, and Odisha are being

developed as key hubs. Seaweed is valued globally for its applications in food, cosmetics, fertilizers, and medicine, and its rich nutrient profile makes it an emerging superfood. India aims to leverage this eco-friendly, low-input crop to become a leading player in the global seaweed economy.



#### WHAT IS SEAWEED?

Some seaweeds are microscopic, such as the phytoplankton that live suspended in the water column and provide the base for most marine food chains. Some are enormous, like the giant kelp that grow in abundant "forests" and tower like underwater redwoods from their roots at the bottom of the sea. Most are medium-sized, come in colours of red, green, brown, and black, and randomly wash up on beaches and shorelines just about everywhere. The vernacular "seaweed" is a bona-fide misnomer because a weed is a plant that spreads so profusely it can harm the habitat where it takes hold. (Consider kudzu, the infamous "mile-a-minute vine" that chokes waterways throughout the U.S. Southeast). Not only are the fixed and free-floating "weeds" of the sea utterly essential to innumerable marine creatures, both as food and as habitat, but they also provide many benefits to land-dwellers, notably those of the human variety.

#### PROMOTING SEAWEED FARMING IN INDIA

1. **Vast Potential:** India has a 7,500 km long coastline and a large Exclusive Economic Zone (EEZ), making it ideal for large-scale seaweed cultivation.

2. **Eco-Friendly Farming:** Seaweed farming requires no land, freshwater, fertilizers, or pesticides, making it highly sustainable and low-cost.
3. **Nutrient-Rich Resource:** Seaweed is rich in vitamins, minerals, amino acids, and 54 trace elements, with proven health benefits including immunity-boosting and disease prevention.
4. **Global Industry Size:** The global seaweed industry is worth \$5.6 billion, with growing demand in food, pharmaceuticals, cosmetics, fertilizers, and biofuels.
5. **India's Untapped Potential:** India has the capacity to produce up to 9.7 million tonnes of seaweed annually, yet currently contributes only a small share to the global market.
6. **Employment Generation:** Seaweed farming can generate over 6 lakh jobs, especially empowering women in coastal regions through self-help groups and cooperatives.
7. **PMMSY Support:** Under the Pradhan Mantri Matsya Sampada Yojana (PMMSY), the government aims to scale up production to 1.12 million tonnes in 5 years.
8. **Infrastructure Development:** The government is supporting the creation of seaweed nurseries, processing units, value chain infrastructure, and dedicated seaweed parks.
9. **Target States:** Coastal states such as Tamil Nadu, Gujarat, Maharashtra, Odisha, and Andhra Pradesh are identified as key seaweed farming zones.
10. **R&D and Innovation:** The National Seaweed Mission by the Department of Biotechnology focuses on technology development, commercialization, and sustainable practices to boost the sector.

## GOVT INITIATIVES OF SEAWEED DEVELOPMENTS

**1. First National Conference on Seaweed Cultivation** (Jan 2024) in Kutch, Gujarat, promoted seaweed as a job creator, especially for fish farmers. The **Kori Creek Pilot Project** was launched to boost seaweed farming.

**1. PMMSY Scheme:** Aims to increase seaweed production. Since *K. alvarezii* (a common seaweed) is disease-prone, India now allows the import of new seaweed varieties through guidelines issued in **October 2024**.

**1. Seaweed Clusters in Lakshadweep:** Promotes collaboration among small and large businesses to improve seaweed production, processing, and exports.

**1. Centre of Excellence (Mandapam, Tamil Nadu):** Launched on 9th January, 2025, Centre of Excellence in Mandapam focuses on seaweed research, better farming techniques, seed banks and creating 5,000+ jobs for 20,000 farmers.

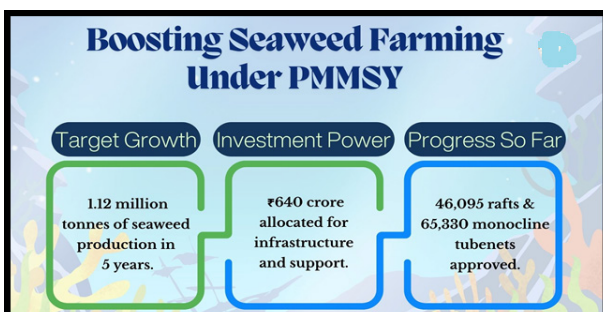
**1. Coastal Aquaculture Authority Act (2023 Update):** Supports eco-friendly practices like seaweed farming, simplifying rules to encourage business growth.

**1. Guidelines for Import of Live Seaweeds into India:** On 31st October 2024, the Department of Fisheries announced guidelines to import live seaweeds, aiming to boost seaweed farming, create jobs, and support coastal communities.

**1. Seaweed Farming in Gujarat:** The government promotes seaweed cultivation in the Gulf of Kutch (Kori Creek area) to boost local livelihoods.

## KEY BENEFITS OF SEAWEED PRODUCTION

1. **Sustainable Livelihoods:** Seaweed farming provides alternative and sustainable income opportunities for coastal communities, especially women and small-scale fishers.
2. **Eco-Friendly and Climate-Resilient:** Seaweed absorbs large amounts of CO<sub>2</sub>, helping mitigate climate change. It also purifies seawater and supports marine biodiversity by offering shelter to aquatic life.
3. **Biostimulants in Agriculture:** Seaweed is recognized as one of the eight major biostimulants that boost plant growth, improve nutrient absorption, and enhance resistance to drought, pests, and diseases.
4. **Regulated Under Fertilizer Control Order:** The Fertilizer (Control) Order, 1985 ensures quality control of seaweed-based biostimulants, promoting their safe and effective use in Indian agriculture.



5. **Boosts Organic Farming:** Seaweed-based products are used as natural fertilizers and soil enhancers, aligning with government schemes like Paramparagat Krishi Vikas Yojana (PKVY) and MOVCNDR.
6. **High Economic Returns:** Cultivation of species like *Kappaphycus alvarezii* can earn farmers up to ₹13.28 lakh per hectare per year, offering a highly profitable income source.
7. **Boosts Export Potential:** Seaweed-based products such as biofuels, bioplastics, cosmetics, and fertilizers are in global demand, helping India earn valuable foreign exchange.
8. **Supports Blue Economy:** Seaweed farming aligns with India's Blue Economy vision, promoting sustainable use of ocean resources for economic growth, livelihood, and ecosystem health.
9. **Contributes to Food and Nutritional Security:** Seaweed is rich in essential nutrients and trace elements, supporting nutritional health and offering potential for inclusion in food security programs.
6. **Animal Feed:** Added to livestock and aquaculture feed to improve nutrition, immunity, and digestion in animals.
7. **Bioplastics and Packaging:** Used in the development of biodegradable plastics, offering an eco-friendly solution to plastic pollution.
8. **Water Purification & Carbon Sequestration:** Seaweed farms help remove excess nutrients and heavy metals from seawater and absorb CO<sub>2</sub>, contributing to cleaner oceans and climate action.

### CHALLENGES IN SEAWEED FARMING

### APPLICATION OF SEAWEED

1. **Food Industry:** Used as a superfood and dietary supplement due to its high content of vitamins, minerals, amino acids, and antioxidants. Popular in salads, soups, and snacks.
2. **Pharmaceuticals & Healthcare:** Contains bioactive compounds that help in managing cancer, diabetes, arthritis, heart disease, and boosting immunity.
3. **Cosmetics & Personal Care:** Widely used in skincare and haircare products for their hydrating, anti-ageing, and anti-inflammatory properties.
4. **Agriculture (Biostimulants & Fertilizers):** Used as organic biostimulants and soil conditioners, enhancing crop growth, improving soil health, and reducing dependency on chemical inputs.
5. **Biofuel Production:** Seaweed is a promising raw material for producing bioethanol and biogas, offering a sustainable alternative to fossil fuels.
1. **Lack of Awareness and Training:** Many coastal communities are not fully aware of seaweed farming techniques, best practices, and economic potential.
2. **Limited Access to Quality Seed and Infrastructure:** There is a shortage of certified seaweed seedlings, nurseries, and cultivation infrastructure such as ropes, rafts, and boats.
3. **Seasonal and Regional Constraints:** Seaweed farming is often affected by seasonal variations, monsoons, and temperature-sensitive species, limiting year-round cultivation.
4. **Environmental Concerns:** Improper farming practices can lead to marine pollution, biodiversity disruption, and degradation of natural seaweed beds.
5. **Weak Market Linkages and Price Fluctuations:** Farmers face challenges in accessing reliable markets, resulting in unstable prices and low-profit margins.
6. **Lack of Processing and Value Addition Facilities:** Most coastal areas lack local processing units, limiting the ability to produce high-value products like biofertilizers, bioplastics, or cosmetics.
7. **Regulatory and Policy Gaps:** The absence of a comprehensive seaweed policy or clear coastal zone regulations creates confusion and delays in permissions and expansion.
8. **Limited R&D and Innovation:** Inadequate investment in research, species development, disease management, and modern cultivation technologies hamper productivity.

## WAY FORWARD

- 1. Capacity Building & Awareness:** Conduct targeted training programs, workshops, and awareness campaigns for coastal communities, especially women and youth, on seaweed cultivation and its benefits.
- 2. Develop Quality Seed Banks and Nurseries:** Establish certified hatcheries and seed banks to ensure the timely availability of high-yield and disease-resistant seaweed varieties.
- 3. Promote Public-Private Partnerships (PPP):** Encourage investment through PPP models in infrastructure, processing units, and value chains to enhance scalability and market access.
- 4. Strengthen Market Linkages:** Create organized cooperatives, digital platforms, and tie-ups with industries to ensure fair prices and reduce market dependency.
- 5. Policy and Regulatory Framework:** Formulate a comprehensive National Seaweed Policy aligned with coastal zone management, environmental sustainability, and livelihood promotion.
- 6. Invest in Research & Innovation:** Support R&D in climate-resilient species, disease control, cultivation technologies, and value-added product development through institutions and startups.
- 7. Financial and Insurance Support:** Provide subsidies, soft loans, and insurance coverage to seaweed farmers under schemes like PMMSY and Blue Economy initiatives.
- 8. Infrastructure Development:** Develop dedicated Seaweed Parks, cold chain facilities, and processing units near farming clusters to improve post-harvest value addition and exports.

## CONCLUSION

Seaweed farming can improve the lives of India's coastal communities by creating jobs and increasing incomes. It's a sustainable alternative to traditional fishing, especially for women and youth. While challenges like climate risks and market access exist, government schemes like PMMSY and the Seaweed Park in Tamil Nadu are helping the

industry grow. With more support and innovation, seaweed farming can boost India's economy and build a greener future for coastal areas.

## PRELIMS QUESTIONS

**Q. With reference to Seaweed Farming in India, consider the following statements:**

1. Seaweed cultivation requires fertilizers and pesticides for optimal growth.
2. Seaweed farming is recognized under the Pradhan Mantri Matsya Sampada Yojana (PMMSY).
3. Seaweed can be used as a biostimulant in agriculture.
4. Tamil Nadu is among the leading states identified for seaweed cultivation.

**Which of the above statements is correct?**

- A. 2 and 3 only      B. 1, 2 and 4 only  
C. 2, 3 and 4 only      D. 1, 2, 3 and 4

**Answer: C**

## MAINS QUESTIONS

**Q. Discuss the potential of seaweed farming in India as a sustainable livelihood option for coastal communities. What are the challenges and suggest a way forward for promoting its large-scale adoption?**

**(250 words, 15marks)**

## MAHAVIR: THE GREAT TEACHER OF NON-VIOLENCE AND LIBERATION

### WHY IN THE NEWS?

Lord Mahavir was recently in the news due to the celebration of Mahavir Jayanti, commemorating the birth of the 24th Tirthankara of Jainism. His teachings on Ahimsa, Anekantavada, and Aparigraha have gained renewed attention in the context of global discussions on non-violence, sustainability, and ethical living. Government initiatives promoting India's spiritual heritage have also highlighted Mahavir's legacy. Academic

interest in Jain philosophy has grown, especially in fields like peace studies and comparative religion. Jain heritage sites associated with Mahavir are being considered for UNESCO cultural recognition. His principles are increasingly seen as relevant in addressing modern challenges like climate change, consumerism, and social intolerance.



## WHO IS MAHAVIR?

Mahavir, also known as Vardhamana, was the 24th and last Tirthankara of Jainism, the spiritual victors who attained liberation and showed the path to others. He lived during the 6th century BCE, a period of great philosophical ferment, alongside Buddha and other spiritual leaders in the Gangetic plains. He is revered for attaining Keval Gyan (omniscience) after 12 years of intense penance, becoming a perfect soul free from karmic bondage. Mahavir is called a reformer who systematized ancient Jain traditions and gave them a definitive ethical framework. He emphasized personal discipline and self-effort, rejecting the role of gods or rituals in liberation. His name “Vardhamana” signifies “one who grows” and is associated with prosperity and spiritual expansion. Jain texts describe him as an embodiment of compassion, equanimity, and renunciation, whose life is an example for all aspirants of liberation.

## ABOUT MAHAVIR’S AND JAINISM

- 1. Core Principles of Jainism:** Jainism is one of the oldest Indian religions, based on principles of non-violence (Ahimsa), truth (Satya), non-possessiveness (Aparigraha), celibacy (Brahmacharya), and non-stealing (Asteya). These principles form the ethical backbone of Jain life, aiming for the purification of the
- 2. Mahavir’s Revival of Jainism:** Mahavir revived Jainism at a time when rituals and caste-based practices dominated spiritual life, offering a path based on ethical conduct and self-realization. He reasserted ancient Jain ideas in a rational and simplified manner, challenging the dominance of Vedic ritualism. His spiritual model was open to all, regardless of caste or social status, making Jainism more egalitarian.
- 3. Language of the People – Ardhamagadhi:** He used the common language Ardhamagadhi for preaching, making his teachings accessible to ordinary people. By moving away from Sanskrit, the elitist language of the time, Mahavir democratized spiritual knowledge. This linguistic choice helped spread Jain philosophy across regions and social classes.
- 4. Religion of Logic and Practice:** Jainism under Mahavir became a religion of logic, reason, and practice, rejecting blind faith and superstition. He encouraged questioning and understanding rather than rote rituals, aligning spiritual growth with personal experience. This rationality attracted thinkers, scholars, and commoners alike, enhancing Jainism’s appeal.
- 5. The Fourfold Sangha:** He institutionalized the fourfold Sangha (monks, nuns, laymen, laywomen), democratizing spiritual access beyond gender and social hierarchies. This inclusiveness empowered women and lay followers to engage actively in spiritual life. The Sangha structure became central to Jain community life and helped preserve and propagate Jain teachings.
- 6. Mahavir’s Non-Theistic Vision:** Mahavir promoted non-theism, stating that the universe operates under natural laws and karma, not divine intervention. This philosophical stance emphasized self-responsibility over divine dependence. By doing so, Jainism maintained a scientific worldview, explaining moral order

through cause and effect rather than the will of a creator god.

**7. Jainism's Lasting Legacy:** His teachings laid the foundation for Jainism as a highly disciplined, non-violent, and truth-seeking religion, influencing Indian spiritual and social life. Jain ethics shaped Indian culture, from vegetarianism to principles of tolerance and peace. Mahavir's legacy continues in India's philosophical traditions and in the lives of millions who practice or admire Jain values.

for virtue and spiritual inclination. His father was King Siddhartha, and mother Trishala, who is said to have seen 14 or 16 auspicious dreams before his birth. He had a comfortable royal upbringing, trained in statecraft, philosophy, and warfare, but showed early signs of detachment. Married to Yashoda and fathered a daughter named Priyadarshana, he fulfilled household duties before choosing renunciation. At age 30, Mahavir gave up worldly life, possessions, and attachments, seeking self-realization and truth. He practiced extreme penance and meditation for 12 years, enduring heat, hunger, and insults with complete equanimity.

### 23 TIRTHANKARAS BEFORE MAHAVIR

S.No.	Name of Tirthankara	Symbol	Key Teachings/Attributes
1	Rishabhanatha	Bull	Initiated asceticism; first Tirthankara
2	Ajitanatha	Elephant	Promoted non-violence and truth
3	Sambhavanatha	Horse	Taught inner purity and truth
4	Abhinandanatha	Monkey	Advocated detachment from desires
5	Sumatinatha	Heron	Symbol of wisdom and clarity
6	Padmaprabha	Red Lotus	Focused on purity and peaceful living
7	Suparshvanatha	Swastika	Emphasized righteousness
8	Chandraprabha	Moon	Enlightenment through calmness
9	Pushpadanta	Crocodile	Preached self-restraint and humility
10	Shitalanatha	Shrivatsa	Taught cool-headedness and compassion
11	Shreyansanatha	Rhinoceros	Known for intense meditation
12	Vasupujya	Buffalo	First to attain moksha in current half-cycle
13	Vimalanatha	Boar	Promoted self-purification
14	Anantanatha	Falcon	Preached boundless wisdom
15	Dharmanatha	Thunderbolt	Focused on righteous conduct
16	Shantinatha	Deer	Emblem of peace and spiritual calm
17	Kunthunatha	Goat	Emphasized control over desires
18	Aranatha	Nandavarta	Promoted moral values and devotion
19	Mallinatha	Water Pot	Symbol of female enlightenment (in Shvetambara)
20	Munisuvratanatha	Tortoise	Preached patience and perseverance
21	Naminatha	Blue Lotus	Taught equanimity and detachment
22	Neminatha	Conch	Renounced worldly life before marriage
23	Parshvanatha	Snake	Advocated fourfold restraint (Chaturyama Dharma)

### MAHAVIR – EARLY LIFE

Mahavir was born around 599 BCE in Kundagrama (now in Bihar) into the Ikshvaku dynasty, renowned

Finally, under a Sāl tree, he attained Keval Gyan, becoming an Arihant, one who has conquered inner enemies like anger, pride, and greed.

## MAHAVIR'S TEACHINGS

1. **The Five Great Vows (Mahavrata):** Mahavir taught the Five Great Vows for ascetics: Ahimsa (non-violence), Satya (truth), Asteya (non-stealing), Brahmacharya (celibacy), and Aparigraha (non-possession). These vows form the ethical foundation of Jain monastic life and aim at complete renunciation and spiritual purification. They are considered essential for breaking the cycle of rebirth and progressing toward liberation (moksha).
2. **Anuvratas for Householders :** For householders, he prescribed Anuvratas, which are milder forms of the same vows, showing an inclusive spiritual path. This allowed laypeople to participate in spiritual progress without renouncing worldly life. It reflected Mahavir's practical approach to spirituality, accommodating diverse lifestyles within a moral framework.
3. **Doctrine of Anekantavada:** He emphasized Anekantavada, or the idea that reality is multi-faceted, and no single viewpoint captures complete truth. This philosophy promotes intellectual humility and respect for differing perspectives. It played a major role in shaping India's pluralistic traditions and promoting harmony among diverse belief systems.
4. **Principle of Syadvada (Conditional Logic):** Through Syadvada, he encouraged conditional perspectives, enabling tolerance, dialogue, and humility in argument. The idea that truth can be expressed in multiple ways depending on context helped prevent dogmatism. It provided a rational and flexible approach to debate, fostering a culture of open-minded discourse.
5. **Ethical Self-Discipline and Karma:** Mahavir stressed ethical self-discipline, mental purity, and liberation from karma through right conduct. He taught that karma is a form of subtle matter that binds the soul due to passions and attachments. Only through ethical living and inner control can one cleanse the soul and attain spiritual liberation.
6. **Rejection of Creator God:** He opposed the idea of a creator god, instead highlighting

that liberation depends on one's own karmic purification. Mahavir's view placed complete spiritual responsibility on the individual, promoting self-reliance. This rational and non-theistic worldview contributed to Jainism's identity as a scientific and introspective faith.

7. **Self-Effort and Inner Divinity (Purushartha):** His teachings focused on self-effort (Purushartha), insisting that each soul has the potential to become divine by shedding ignorance. He emphasized that enlightenment is not granted by divine grace but earned through one's own discipline and awareness. This belief in the soul's inherent purity gave dignity and agency to every individual, regardless of birth or status.

## CONTRIBUTION TO JAINISM

1. **Codification of Jain Doctrine:** Mahavir gave final shape to Jain doctrines, codifying ethics, metaphysics, and community organization. He consolidated earlier teachings of the previous Tirthankaras into a coherent philosophical system centered on non-violence, truth, and renunciation. His structured doctrines ensured the survival and clarity of Jain principles across centuries, despite regional and linguistic diversities.
2. **Revival of Monastic Discipline:** Here-established monastic order and asceticism, defining strict rules for Jain monks and nuns (Shramanas). These rules included vows of celibacy, poverty, non-possession, and detachment from worldly life. The organized ascetic community created by Mahavir became a disciplined spiritual institution that ensured the propagation and preservation of Jain teachings.
3. **Promotion of Ahimsa-Based Lifestyle:** He encouraged vegetarianism, use of water filters, and walking barefoot to avoid harm to living beings. These practices were grounded in the principle of Ahimsa and extended even to microorganisms, demonstrating an extraordinary level of compassion. Such lifestyle choices laid the foundation for a deeply ethical and sustainable way of living that persists among Jains today.

4. **Preaching in the Vernacular:** He helped the spread of Jainism across India by preaching in Prakrit, the common people's language. By using Ardha-Magadhi and other regional dialects instead of Sanskrit, he made spiritual teachings accessible to the masses. This democratization of religion enabled wide acceptance among both urban traders and rural populations, making Jainism a truly pan-Indian movement.
5. **Rejection of Ritualism:** Mahavir rejected elaborate rituals and emphasized internal purity and personal morality over outer appearances. He taught that liberation (moksha) is attained through self-effort, not by rites, sacrifices, or priestly mediation. This inner-focused spirituality empowered individuals to seek truth within themselves rather than through temple-based practices.
6. **Support from Merchants and Rulers:** Under his guidance, Jainism gained patrons among merchants and rulers, helping in the construction of Jain temples and spread of Jain culture. Wealthy trading communities found Jain ethics compatible with their lifestyles, supporting the faith materially and culturally. This patronage led to the creation of architectural marvels like the Dilwara temples and the spread of Jain art, literature, and education.
7. **Compilation of Sacred Texts (Agamas):** His followers collected his teachings in the Agamas, the sacred scriptures of Jainism, forming a lasting spiritual tradition. These texts cover diverse topics, from philosophy and ethics to cosmology and conduct for ascetics and laypersons. Though some of the original texts were lost over time, their core messages continued to guide generations of Jain practitioners and scholars.

#### MAHAVIR'S CONTRIBUTION TO INDIAN RELIGIOUS PHILOSOPHY

1. Mahavir's concept of Ahimsa influenced not only Jainism but also Buddhism and Gandhian thought, contributing to India's spiritual heritage. His strict adherence to non-violence extended beyond physical harm to include mental and verbal actions, making it a comprehensive ethical doctrine. Mahatma Gandhi later transformed Ahimsa into a powerful tool of political resistance during India's freedom struggle, demonstrating its enduring relevance.
2. His philosophy promoted intellectual openness, encouraging respectful debate and consideration of diverse viewpoints (Anekantavada). Anekantavada, or the doctrine of manifold viewpoints, emphasized that truth is complex and cannot be grasped fully from a single perspective. This principle laid the philosophical groundwork for tolerance and pluralism in Indian thought, influencing even modern interfaith dialogues and academic discourse.
3. By rejecting ritual purity and caste privilege, he laid the foundation for a moral democracy in spiritual matters. Mahavir accepted disciples from all castes and genders, including Sudras and women, challenging the orthodox Brahmanical dominance. His egalitarian approach inspired later bhakti movements and reformers who emphasized devotion and moral conduct over birth-based hierarchy.
4. He emphasized that knowledge must be supported by practice, making Jainism a highly action-oriented religion. According to him, right knowledge (Samyak Jnana) must be accompanied by right conduct (Samyak Charitra) and right faith (Samyak Darshan). This integrated path fostered self-discipline, leading to a highly codified ethical lifestyle among Jain followers, including strict vegetarianism and vows of truthfulness.
5. Mahavir's atheistic outlook offered a naturalistic explanation of life and karma, influencing later rationalist movements. Jain cosmology denied a creator god and instead described the universe as eternal, governed by self-operating laws of karma. This rational and self-regulating model of the cosmos appealed to thinkers who sought non-theistic explanations of existence, foreshadowing ideas in modern secular ethics.
6. His insistence on compassion for all living

beings led to lasting contributions in animal rights and environmental ethics. Jain monks carry soft brooms to avoid harming even insects, reflecting an extreme sensitivity to life. Modern Jain institutions have established animal shelters (Panjarapoles) and advocate for veganism and ecological sustainability, making Mahavir a pioneer of eco-conscious spirituality.

- Through his teachings, he contributed to India's pluralistic ethos, where dialogue, tolerance, and spiritual diversity were celebrated. Jainism coexisted peacefully with Buddhism, Hinduism, and later Islam, promoting an inclusive spiritual ecosystem in India. Mahavir's legacy nurtured a culture where diverse beliefs could thrive side by side, shaping the subcontinent's unique tradition of harmonious cohabitation.

## CONCLUSION

Lord Mahavir's life and teachings continue to inspire millions across the world with his message of non-violence, truth, and spiritual liberation. His emphasis on ethical living and intellectual freedom laid the foundation for Jainism's enduring legacy. Even today, Mahavir remains a towering figure in Indian spiritual thought, with his message resonating far beyond religious boundaries, offering a timeless path of peace and self-realization.

## PRELIMS QUESTIONS

**Q. The term Syadvada in Jainism refers to:**

- The doctrine of soul's immortality
- Conditional or hypothetical standpoint
- Devotion to the Tirthankaras
- Path of devotion and surrender

**ANSWER: B**

## MAINS QUESTIONS

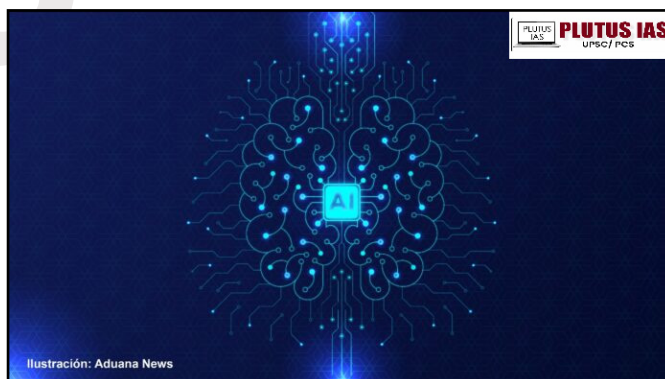
**Q. Examine the ethical relevance of Mahavir's 'Five Great Vows' in the context of modern personal and professional life.**

**(250 words, 15marks)**

## INCLUSIVE ARTIFICIAL INTELLIGENCE FOR DEVELOPMENT

### WHY IN THE NEWS?

Artificial Intelligence (AI) is reshaping economies and societies, offering significant potential to accelerate sustainable development. However, many developing countries face challenges in harnessing its benefits due to insufficient digital infrastructure, limited data access, and a lack of necessary skills. To bridge the gap with leading economies, developing countries should swiftly implement AI policies to overcome barriers to AI diffusion consistent with their development strategies and goals while addressing possible economic and social downsides of AI. The cross-border impacts of AI further highlight the need for global collaboration to make it accessible and beneficial for all, fostering inclusive innovation to tackle global challenges. As AI development is highly concentrated in a few countries and companies, stronger international cooperation is crucial to co-create inclusive governance mechanisms and to ensure AI will drive sustainable progress rather than deepening existing inequalities.



### WHAT IS AI AND ITS TYPES

Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think, learn, and make decisions. These machines can perform tasks that typically require human cognition, such as reasoning, problem-solving, perception, language understanding, and learning from experience. AI systems work using algorithms, vast data sets, and computational power to mimic intelligent behaviour, adapt to inputs, and improve over time.

Category	Type	Description	Examples / Status
<b>Based on Capability</b>	<b>Narrow AI</b>	Performs specific tasks, limited scope	Siri, Alexa, Google Translate
	<b>General AI</b>	Human-like intelligence across tasks	Under development
	<b>Super AI</b>	Surpasses human intelligence	Theoretical / Hypothetical
<b>Based on Functionality</b>	<b>Reactive Machines</b>	No memory, responds to current input only	IBM's Deep Blue Chess computer
	<b>Limited Memory</b>	Uses past data for decisions	Self-driving cars, recommendation systems
	<b>Theory of Mind</b>	Understands emotions, intentions	In research phase
	<b>Self-aware AI</b>	Has self-consciousness and awareness	Hypothetical / Future possibility

### LEVERAGING AI IN VARIOUS FIELDS

- Healthcare:** AI aids in early and accurate diagnosis through imaging analysis, supports drug discovery, enables robotic surgeries, and provides virtual health assistants for patient care.
- Agriculture:** Helps in precision farming, real-time crop and soil monitoring, pest detection, and yield forecasting, boosting productivity and sustainability.
- Education:** Enables personalized learning experiences, AI tutors, automated grading systems, and predictive analytics to improve student outcomes.
- Finance:** Enhances fraud detection, enables algorithmic trading, automates credit scoring, and provides smart financial advisory through AI-powered chatbots.
- Manufacturing:** Improves efficiency with predictive maintenance, AI-driven quality control, smart automation, and optimization of supply chains.
- Transportation:** Powers self-driving vehicles, enhances traffic management systems, streamlines smart logistics, and supports drone-based delivery.
- Retail:** AI enhances customer experience through behaviour analysis, manages inventory, offers virtual try-on tools, and enables dynamic

pricing strategies.

- Defense and Security:** Assists in surveillance, autonomous drones, threat detection systems, and analysis of large-scale security data.
- Environment:** Supports climate modelling, disaster forecasting, pollution control, and wildlife monitoring for ecological conservation.
- Governance:** AI improves public service delivery through e-governance, decision-making support, citizen grievance redressal, and increased administrative efficiency.

### GOVT POLICIES, NATIONAL AND INTERNATIONAL

#### National (India)

- National Strategy for AI (NITI Aayog):** Known as AIForAll, it focuses on inclusive growth in key areas: healthcare, agriculture, education, smart mobility, and smart cities.
- National Programme on AI (MeitY):** Implements AI in government services and builds AI computing infrastructure and R&D.
- IndiaAI Mission (Upcoming):** Proposed comprehensive mission with a focus on AI research, compute infrastructure, datasets, startups, and skilling.
- Responsible AI for Youth:** Initiative to train students in ethical AI use.

5. **AI in Digital India:** Integration of AI in e-governance, digital health, education portals, and public grievance systems.
6. **Data Governance Framework:** Under development to manage AI datasets, privacy, and responsible data sharing.
7. **Centre for AI (CAIR, IITs, IIITs):** Government supports academic institutions for research and innovation in AI.
8. **AI-related PLI Schemes:** Encourage electronics, chip-making, and AI hardware manufacturing.

### INTERNATIONAL

1. **OECD Principles on AI (2019):** Focus on trustworthy, transparent, and human-centred AI.
2. **UNESCO Recommendation on AI Ethics (2021):** First global framework on AI ethics, ensuring rights, privacy, and fairness.
3. **European Union AI Act (Ongoing):** A risk-based regulation classifying AI systems and regulating high-risk AI.
4. **USA–National AI Initiative Act (2020):** Promotes AI leadership, R&D, education, and ethical standards.
5. **China – Next Gen AI Development Plan (2017):** Ambitious AI leadership goals by 2030 through massive state investment.
6. **Global Partnership on AI (GPAI):** India is a founding member and promotes responsible and inclusive AI globally.
7. **G20 & BRICS AI Cooperation:** Platforms to share best practices and regulate AI across borders.

### CHALLENGES IN AI

1. **Data Privacy and Security:** AI systems rely on vast data, raising concerns over misuse, surveillance, and breaches of personal privacy.
2. **Bias and Discrimination:** AI can reflect or even amplify societal biases present in training data, leading to unfair decisions.
3. **Lack of Explainability (Black Box Problem):**

Many AI models, especially deep learning, work in opaque ways, making it hard to understand or trust their decisions.

4. **Job Displacement and Unemployment:** Automation through AI threatens traditional jobs, particularly in routine or repetitive sectors.
5. **Ethical and Legal Issues:** Moral dilemmas arise in areas like autonomous weapons, predictive policing, and AI-based surveillance.
6. **High Cost and Infrastructure Needs:** Developing and deploying AI systems require advanced computing power and large-scale infrastructure.
7. **Skilling and Talent Gap:** Shortage of trained professionals in AI research, data science, and ethical AI governance.
8. **Fragmented Regulation and Governance:** Lack of a unified global or national AI regulatory framework hampers responsible innovation.
9. **Misinformation and Deepfakes:** AI tools can be misused to create fake images, videos, or content, threatening democratic processes.
10. **Cybersecurity Risks:** AI systems themselves can be vulnerable to adversarial attacks or used to create smart malware.

### GLOBAL COOPERATION FOR INCLUSIVE AND EQUITABLE AI

1. **Promoting Shared Ethical Standards:** Establishing global ethical guidelines through platforms like UNESCO's Recommendation on the Ethics of AI ensures fairness, transparency, and human rights in AI deployment.
2. **Bridging the Digital Divide:** Developed nations can support developing countries through technology transfer, funding, and capacity building to prevent AI-driven inequalities.
3. **Global Research Collaborations:** Joint AI research projects between countries and multilateral institutions can foster innovation while respecting local contexts.
4. **Inclusive AI Policy Frameworks:** International cooperation through forums like OECD, G20, and UN can harmonize policies on data governance, algorithmic transparency, and cross-border AI use.

- 5. Open Data and Infrastructure Sharing:** Encouraging global open-source AI tools, datasets, and models can democratize AI access and reduce costs for low-income nations.
- 6. AI for Sustainable Development Goals (SDGs):** Collaborative use of AI in areas like healthcare, agriculture, and climate action can accelerate SDG progress in underrepresented regions.
- 7. Global Capacity Building Initiatives:** Training programs and AI skill development partnerships led by tech-advanced nations can empower youth and professionals in the Global South.
- 8. Preventing AI Weaponization and Abuse:** Global treaties and norms are essential to regulate military AI, facial recognition, and autonomous systems to prevent misuse and ensure peace.

## CONCLUSION

Artificial Intelligence holds transformative potential to drive innovation, improve service delivery, and address developmental challenges. However, to ensure that AI benefits all sections of society and aligns with sustainable development goals, it is essential to bridge the digital divide, promote ethical standards, and foster inclusive innovation. India and other developing nations must formulate proactive, adaptable, and ethical AI frameworks while enhancing skills and infrastructure. Global cooperation, knowledge sharing, and responsible governance are key to building a future where AI uplifts humanity and narrows inequalities rather than deepening them.

## PRELIMS QUESTIONS

**Q. With reference to Artificial Intelligence (AI), consider the following statements:**

1. Narrow AI systems are capable of performing multiple unrelated tasks with human-like intelligence.
2. The OECD Principles on AI promote the use of AI that is innovative and trustworthy while respecting human rights.

India is a founding member of the Global Partnership on Artificial Intelligence (GPAI).

**How many of the above-given statements are correct?**

- A. Only one                      B. Only two  
C. All three                      D. None

**Answer: B**

## MAINS QUESTIONS

**Q.** Discuss the significance of AI for India, outline the challenges involved in its adoption, and suggest how national and international efforts can promote inclusive and responsible AI governance.

**(250 words, 15marks)**

## SECURING SPACE: MILITARY SPACE DOCTRINE

### WHY IN THE NEWS?

India is currently formulating its first-ever Military Space Doctrine, as announced by the Chief of Defence Staff (CDS) in early 2025. This development marks a strategic shift in India's defence policy, recognising space as a critical warfighting domain alongside land, sea, air, and cyber. The doctrine aims to define operational roles, deterrence frameworks, and capability development in space, especially amidst rising space militarisation by countries like China and the United States. Additionally, the recent approval of a 52-satellite military constellation, including private sector participation, further underscores India's ambition to secure its assets and influence in the increasingly contested space domain.



**WHY IS A MILITARY SPACE DOCTRINE (MSD) NEEDED?**

Space, once considered a peaceful domain reserved for scientific exploration, has become the next frontier of national defense. The militarization of space is no longer hypothetical. From anti-satellite (ASAT) weapons to space-based surveillance systems, nations are now aggressively securing strategic advantages beyond the atmosphere. A Military Space Doctrine is needed to provide a clear policy framework for how a country intends to use, secure, and if necessary, defend its assets in outer space.

**EXAMPLES HIGHLIGHTING THE NEED FOR MSD:**

- 1. China’s ASAT Test (2007):** China destroyed one of its own satellites using a ballistic missile, creating over 3,000 pieces of debris in low Earth orbit (LEO). This marked a turning point in global space policy and alarmed defense establishments worldwide.
- 2. U.S. Space Force Formation (2019):** The United States formalized its space military ambitions

**KEY COMPONENTS OF AN MSD:**

Component	Description
Strategic Objectives	National goals in space: deterrence, surveillance, early warning, force projection
Command & Control Structure	Who controls space-based military operations; integration with tri-services
Space Surveillance & Intelligence	Use of satellites for ISR (Intelligence, Surveillance, Reconnaissance)
Deterrence & Defense Mechanisms	ASAT weapons, missile warning systems, cyber capabilities
Rules of Engagement	Guidelines for conflict in space; how, when, and against whom force may be used
Legal & Ethical Frameworks	Compliance with treaties like the Outer Space Treaty (OST), 1967
Interoperability	Integration with allies and global coalition forces
Research & Development (R&D)	Investment in next-gen tech: quantum sensors, laser communication, AI in space
Dual-Use Infrastructure	Leveraging civilian satellites for military uses

**IMPORTANCE OF MILITARY SPACE DOCTRINE**

- 1. National Security and Strategic Deterrence:** An MSD enhances national defense by protecting critical space infrastructure such as GPS,

with the establishment of the U.S. Space Force, a separate branch of the armed forces.

- 3. India’s Mission Shakti (2019):** India successfully demonstrated ASAT capability by shooting down a live satellite in LEO. This was a powerful signal of India’s evolving military-space ambitions.
- 4. Ukraine-Russia War (2022–24):** The war demonstrated how commercial satellite constellations (like Starlink) could be leveraged in real-time combat scenarios, blurring lines between civilian and military space assets.

**WHAT DOES A MILITARY SPACE DOCTRINE INCLUDE:**

A Military Space Doctrine is a strategic document or framework that outlines a country’s objectives, principles, and capabilities concerning military operations in outer space. It usually includes policy directives, command structures, integration with other military branches, legal frameworks, and technological roadmaps.

- communication, and early-warning systems. It deters adversaries from pre-emptive strikes and sets clear red lines.
- 2. Preventing Space Militarization Escalation:** By formalizing norms and doctrines, countries

can avoid misunderstandings or inadvertent escalations. Clear doctrines ensure transparency and responsible behavior in space.

**3. Enhancing Inter-Agency Coordination:** MSD helps harmonize civilian and military efforts in space technology, optimizing budgets and technical expertise. It also coordinates efforts between ISRO/DRDO in India or NASA/DoD in the USA.

**4. Preparedness for Emerging Threats:** As space becomes contested, congested, and competitive (3C's), doctrines ensure preparedness for emerging threats such as:

- Directed energy weapons
- Cyberattacks on satellites
- Kinetic ASAT missiles
- Electronic warfare (EW) jamming signals

**KEY DEVELOPMENTS IN INDIA:**

**5. Promoting Indigenous Capability Development:** Doctrines push for strategic investments in indigenous satellite navigation systems (like India's NavIC), secure satellite communication, space situational awareness, and space launch capabilities.

**6. Leveraging Dual-Use Technologies:** MSDs optimize the use of space assets for both civilian and military applications, maximizing return on investment.

**INDIA'S MILITARY SPACE DOCTRINE: A WORK IN PROGRESS**

India has taken major steps in developing a coherent military space policy, although a formal doctrine is yet to be fully articulated.

Institution/Program	Description
<b>Mission Shakti (2019)</b>	First successful demonstration of ASAT capability
<b>Defence Space Agency (DSA)</b>	Operationalizes space warfare strategies; coordinates with tri-services
<b>Defence Space Research Organisation (DSRO)</b>	Focuses on space-based warfare R&D
<b>Integrated Space Cell (2008)</b>	First institutional mechanism for defense-space integration
<b>GSAT-7 Series Satellites</b>	Dedicated military satellites for Navy, Army, and IAF
<b>NavIC System</b>	India's indigenous satellite navigation system; alternative to GPS
<b>SRO-DRDO Cooperation</b>	Collaboration in ASAT, surveillance, and communication technologies

India emphasizes "non-weaponization of outer space" in diplomatic forums but is clearly building deterrence and strategic autonomy through hard capabilities.

**COMPARISON TABLE**

Country	ASAT Capability	Military Doctrine	Dedicated Command	Satellite Navigation	Key Focus
USA	Yes	Yes (Space Force)	Yes	GPS	Space dominance
China	Yes	Implicit	Yes (PLA SSF)	Beidou	Counterspace warfare
Russia	Yes	Legacy-focused	Yes	GLONASS	Jamming, EW

Country	ASAT Capability	Military Doctrine	Dedicated Command	Satellite Navigation	Key Focus
India	Yes	In development	Partial (DSA/DSRO)	NavIC	Deterrence, integration
France	No	Yes	Yes	EU Galileo	Surveillance, resilience

**UNITED STATES**

1. Established U.S. Space Force in 2019.
2. Operates over 160 military satellites for navigation, communication, and missile tracking.
3. Follows the 2020 Defense Space Strategy, focusing on space dominance and proactive deterrence.
4. Uses the X-37B spaceplane for classified operations.
5. Deep integration with allies through NORAD, NATO, and Five Eyes.

**CHINA**

1. Operates a comprehensive military space program under the PLA Strategic Support Force (SSF).
2. Conducts frequent counterspace activities including co-orbital ASAT systems.
3. Developed Beidou Navigation System, rival to GPS and NavIC.
4. Active in quantum communication satellites and AI-driven surveillance.

**RUSSIA**

1. Maintains legacy space military programs from the Soviet era.
2. Focus on jamming, co-orbital satellites, and missile tracking.
3. Active in cyberwarfare capabilities and GLONASS navigation.

**FRANCE**

1. Released a military space doctrine (2019) and created Space Command.
2. Focuses on surveillance, laser defense, and cyber resilience in space.

**ISRAEL**

1. Highly advanced in miniaturized surveillance satellites (e.g., Ofek series).
2. Focus on quick-launch responsive satellite capabilities for regional conflicts.

**CHALLENGES IN FRAMING AND IMPLEMENTING AN MSD IN INDIA**

1. **Lack of Unified Doctrine:** Multiple agencies like ISRO, DRDO, and the Defence Space Agency (DSA) currently operate with distinct mandates and limited interoperability. The absence of a single, published Military Space Doctrine results in policy fragmentation, duplication of efforts, and delayed decision-making during crises.
2. **Legal Constraints:** India is a signatory to the Outer Space Treaty (OST) 1967, which prohibits the placement of nuclear weapons and other weapons of mass destruction in orbit. This international legal framework, while promoting peaceful use, constrains the development of offensive counter-space capabilities and limits strategic options in case of conflict.
3. **Budget Constraints:** Military space operations, such as deploying satellite constellations, ASAT programs, and ground control infrastructure, demand substantial and sustained capital investment. Given competing priorities in defense (land, air, maritime), space often receives a smaller allocation, affecting long-term capability-building.
4. **Human Resource Shortage:** There is a critical shortage of personnel trained in space science, orbital mechanics, AI integration, and satellite operations with a military lens. The absence of dedicated military-academic programs and limited collaboration with institutions like IIST or DRDO labs further hampers talent development.

5. **Need for Cyber-Space Integration:** Modern space warfare includes electronic warfare, cyber-attacks on satellite networks, and AI-driven decision systems. India must evolve beyond platform-based thinking to adopt a multi-domain doctrine integrating cyber, space, and electromagnetic operations for synchronized threat response.

## THE WAY FORWARD FOR INDIA'S MILITARY SPACE DOCTRINE

- 1. Formulation of an Integrated Military Space Doctrine (MSD):** India must institutionalize a comprehensive Military Space Doctrine that synchronizes the roles of the armed forces, ISRO, and private industry. This doctrine should outline strategic deterrence goals, asset protection, space situational awareness, and response mechanisms. It would serve as the foundational policy for coordinated space security planning and reflect India's commitment to peaceful yet prepared uses of outer space.
- 2. Strengthening the Defence Space Agency (DSA):** The DSA, currently a tri-service body, needs more operational autonomy and budgetary authority to function effectively. Its mandate must evolve from coordination to active development and deployment of military space assets, including small satellites and counter-space technologies. A direct command chain under the Chief of Defence Staff (CDS) can further enhance its strategic focus.
- 3. Development of Space Situational Awareness (SSA) Capabilities:** Building indigenous SSA systems is vital to track, monitor, and predict the behavior of foreign satellites and debris. This includes radar and optical sensors, AI-enabled tracking, and global data fusion centers. Collaboration with nations like France, Japan, and the U.S. can further improve interoperability and early-warning mechanisms.
- 4. Indigenous Satellite Constellations for Strategic Communications and Reconnaissance:** India should accelerate the deployment of satellite constellations such as RISAT, GSAT, and CartoSat for persistent coverage and real-time communication. These assets must be encrypted, jam-resistant, and resilient to cyber threats. Future constellations could be launched in low-Earth orbit (LEO) to ensure redundancy and quicker refresh rates.
- 5. Investment in Counterspace and Defensive Technologies:** India must continue to invest in electronic warfare systems, directed energy weapons (like DEWs), and ASAT capability upgrades to safeguard its orbital infrastructure. Additionally, technologies such as satellite hardening, maneuverability, and cloaking techniques can serve as passive defense against enemy actions.
- 6. Public-Private-Academic Collaboration in Military Space Tech:** To foster innovation and rapid deployment, India should expand the involvement of startups and academic institutions in military space programs through the IN-SPACe and iDEX platforms. Dual-use technology spin-offs can improve both civilian and military capabilities while reducing dependency on foreign vendors.
- 7. International Norm-Shaping and Diplomacy:** India should take the lead in pushing for international treaties that ban space weaponization while securing its national interests. Proposing a No First Placement of Weapons in Space (NFPWS) doctrine or collaborating in forums like CD, UNIDIR, and BRICS can reinforce its image as a responsible space power while hedging against future legal asymmetries.

## CONCLUSION

The Military Space Doctrine is no longer an abstract policy choice; it is a strategic necessity in an increasingly contested domain. With global powers racing toward space militarization, India must evolve from ad hoc measures to a coherent doctrine that aligns its strategic, scientific, and ethical imperatives. A robust MSD enables India to deter adversaries, protect its satellites, and ensure uninterrupted national services—ranging from communication to weather forecasting to defense intelligence. As technology blurs boundaries

between civilian and military roles, India's space doctrine must be forward-looking, resilient, and rooted in strategic autonomy and international peace.

### PRELIMS QUESTIONS

**Q. The Outer Space Treaty (OST) of 1967 prohibits which of the following?**

1. Deployment of nuclear weapons in space
2. Militarization of celestial bodies
3. Peaceful use of outer space

**Select the correct answer using the codes below:**

- |                 |                 |
|-----------------|-----------------|
| A. 1 and 2 only | B. 2 and 3 only |
| C. 1 and 3 only | D. 1, 2 and 3   |

**Answer: D**

### MAINS QUESTIONS

**Q. Discuss the implications of a Military Space Doctrine for India's strategic autonomy and its obligations under international space treaties like the Outer Space Treaty (1967).**

**(250 words, 15marks)**

### DRUG TRAFFICKING: A GROWING TRANSNATIONAL ORGANIZED CRIME

#### WHY IN THE NEWS?

Union Home Minister Amit Shah has said that the Modi government is mowing down drug cartels with full might. In a social media post lauding the efforts of agencies, Mr Shah said that in his vision to build a drug-free Bharat, the country's agencies have launched massive operations strangling drug cartels and seized 30.4 kilograms of methamphetamine tablets worth 24.32 crore rupees while arresting three people in Assam. He added that the government's offensive against drugs will continue with ruthless force. The Home Minister congratulated the Narcotics Control Bureau, Assam Police, and the CRPF on this breakthrough.

#### UNDERSTANDING DRUG TRAFFICKING IS AN ORGANIZED CRIME.

- 1. Definition & Nature:** Drug trafficking is the illegal production, transport, and sale of narcotics. It functions through organized criminal syndicates with transnational operations.
- 2. Organized Crime Nexus:** Deeply linked with terrorism, arms trade, money laundering, and human trafficking. Involves a hierarchy of producers, transporters, dealers, and financiers.
- 3. India's Strategic Location:** India lies between the Golden Crescent (Afghanistan, Pakistan, Iran) and the Golden Triangle (Myanmar, Laos, Thailand), making it vulnerable as a source, transit, and destination.
- 4. Social & National Impact:** Results in addiction, rising crime, youth vulnerability, and a major public health burden. Funds insurgency and weakens national institutions through corruption.
- 5. Enforcement & Legal Framework:** India enforces the NDPS Act, 1985, with key agencies like NCB, DRI, BSF, and state police. The global collaboration includes UNODC and Interpol.
- 6. Challenges:** Porous borders, cyber and dark web networks, crypto payments, lack of coordination, low convictions, and poor access to rehabilitation services.

#### DRUGS TRAFFICKING AS A THREAT TO INDIA'S NATIONAL SECURITY

- 1. Terror Funding:** Drug money is used to finance terrorist groups and insurgents, especially in border regions like Punjab, J&K, and Northeast India.
- 2. Cross-Border Smuggling:** India's porous borders with Pakistan, Myanmar, and Nepal are exploited by drug cartels, often in collaboration with hostile state actors.
- 3. Internal Instability:** Drug addiction leads to youth radicalization, social unrest, and rising crime rates, weakening social cohesion.
- 4. Undermining Institutions:** Corruption in law enforcement and politics due to drug money erodes governance and institutional integrity.

- 5. **Insurgency Links:** Northeast insurgent groups are known to engage in drug trafficking to fund operations, worsening regional conflicts.
- 6. **Economic Drain:** Public health costs, reduced productivity, and criminal justice expenses create a long-term economic burden on the state.
- 7. **Cyber & Dark Net Threats:** Modern trafficking uses the dark web and cryptocurrencies, posing digital security challenges and weakening traditional policing.

**DRUGS TRAFFICKING INDIA’S VULNERABILITY**

- 1. **Geostrategic Location:** India is sandwiched between the Golden Crescent (Afghanistan–Pakistan–Iran) and Golden Triangle (Myanmar–Laos–Thailand) — two of the world’s largest illicit drug-producing regions.
- 2. **Porous Borders:** Long, poorly monitored borders with Pakistan, Myanmar, Nepal, and Bangladesh allow easy smuggling of narcotics.

- 3. **Insurgent & Terrorist Nexus:** Drug trafficking funds insurgent groups in the Northeast and extremist networks in Punjab and Kashmir, linking drugs with national security threats.
- 4. **Coastal & Maritime Gaps:** India’s extensive coastline (over 7,500 km) lacks adequate maritime surveillance, making it vulnerable to sea-based drug trafficking.
- 5. **Transit & Destination Country:** India is not just a transit route but increasingly a consumer market, especially for synthetic drugs and opioids.
- 6. **Dark Web & Tech Abuse:** The use of darknet markets, encrypted apps, and crypto payments enables anonymous trafficking beyond traditional surveillance.
- 7. **Weak Enforcement & Coordination:** Fragmented coordination between state and central agencies, shortage of trained personnel, and low conviction rates weaken enforcement.

**LEGAL AND INSTITUTIONAL MEASURES**

Category	Measures/Institutions	Details
Legal Framework	<b>NDPS Act, 1985</b>	Prohibits production, sale, possession, and use of narcotics; prescribes severe penalties.
	<b>Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988</b>	Enables preventive detention of repeat offenders and drug traffickers.
	<b>Controlled Substances Order, 2013</b>	Regulates the manufacture and trade of precursor chemicals used in narcotics production.
	<b>Money Laundering Prevention Act (PMLA)</b>	Targets financial aspects of the drug trade, allowing asset seizures and confiscation.
Institutional Mechanisms	<b>Extradition &amp; MLATs</b>	Facilitates international cooperation for arrest, prosecution, and extradition of drug offenders.
	<b>Narcotics Control Bureau (NCB)</b>	Coordinates drug law enforcement across India and handles inter-state trafficking cases.
	<b>Directorate of Revenue Intelligence (DRI)</b>	Tracks and curbs international narcotics smuggling through ports, airports, and customs.

Category	Measures/Institutions	Details
	<b>Border Security Force (BSF)</b>	Guards India's land borders (e.g., India-Pakistan, India-Bangladesh) against drug smuggling.
	<b>Central Bureau of Narcotics (CBN)</b>	Regulates legal opium cultivation and monitors illicit diversion of opium for illegal trade.
	<b>State Anti-Narcotics Task Forces</b>	Special units at the state level focused on tackling local drug trafficking issues.
	<b>National Investigation Agency (NIA)</b>	Investigates drug-terrorism links and handles high-priority drug-related national security cases.
	<b>International Collaborations</b>	Cooperation with <b>UNODC, INTERPOL</b> , and neighbouring countries for intelligence-sharing.

### CHALLENGES IN COUNTERING DRUGS TRAFFICKING

- 1. Porous Borders:** India shares long and poorly monitored borders with countries like Pakistan, Myanmar, Nepal, and Bangladesh, making cross-border smuggling easier.
- 2. Geostrategic Location:** Positioned between the Golden Crescent and Golden Triangle, India is a prime route for drugs produced in these major illicit drug regions.
- 3. Corruption:** Corruption in law enforcement and political circles undermines effective drug control and enforcement efforts.
- 4. Use of Technology by Traffickers:** Drug traffickers exploit the dark web, encrypted apps, and cryptocurrency for anonymous transactions, evading traditional surveillance methods.
- 5. Weak Enforcement at Local Levels:** Limited resources, training, and coordination among local authorities reduce the effectiveness of drug enforcement at grassroots levels.
- 6. Drug Demand and Addiction:** Rising demand, particularly among youth, fuels both drug consumption and trafficking, complicating efforts to reduce both.
- 7. Terrorist and Insurgent Nexus:** Drug trafficking funds terrorist organizations and insurgency

groups, complicating counter-narcotic efforts and national security.

- 8. Lack of Rehabilitation Programs:** Insufficient and ineffective rehabilitation programs prevent proper treatment and reintegration of drug users into society, leading to high relapse rates.
- 9. Underreporting & Social Stigma:** The social stigma surrounding drug use and underreporting of drug-related crimes results in inadequate data and an incomplete understanding of the problem's magnitude.
- 10. Limited International Cooperation:** While some cooperation exists, inconsistent coordination between India and neighbouring countries, as well as globally, delays effective action against international trafficking networks.

### WAY FORWARD

- 1. Strengthen Border Surveillance:** Enhance border security and technology-based surveillance to prevent cross-border smuggling. Use drones, satellite monitoring, and electronic fencing to secure vulnerable borders.
- 2. International Cooperation:** Foster stronger cooperation with neighboring countries and international agencies like INTERPOL, UNODC, and SAARC for intelligence-sharing, joint operations, and tackling global trafficking networks.

3. **Enhanced Enforcement and Training:** Invest in training law enforcement agencies at the state and local levels to improve their capabilities in drug detection, investigation, and prosecution.
4. **Improved Drug Addiction Rehabilitation:** Expand and improve rehabilitation centres and social reintegration programs to address the root causes of addiction and ensure long-term recovery and reduction in recidivism.
5. **Legislative Reforms:** Introduce stronger laws and amendments to the NDPS Act to ensure faster trials, harsher penalties, and greater accountability for law enforcement agencies.
6. **Use of Technology for Monitoring:** Leverage artificial intelligence, data analytics, and blockchain to track and dismantle online drug trafficking operations and disrupt networks using the dark web and cryptocurrencies.
7. **Public Awareness Campaigns:** Launch widespread public awareness and education campaigns targeting youth to reduce the demand for drugs and address misconceptions about drug use.
8. **Target the Financial Networks:** Focus on money laundering operations linked to drug trafficking by tightening laws around financial transactions, crypto-regulations, and asset seizure.
9. **Community Involvement:** Involve local communities in combating drug trafficking by building trust with law enforcement agencies, encouraging community policing, and creating support networks for vulnerable groups.

## CONCLUSION

Drug trafficking remains a significant challenge to India's national security, public health, and socio-economic stability. Despite a robust legal framework and institutional measures, the porous borders, deep-rooted corruption, and the increasing use of technology by traffickers make the problem complex and multifaceted. The impact of drug trafficking extends beyond addiction, fueling terrorism, insurgency, and organized crime while also draining national resources. However, with the right strategies and sustained efforts, India can address

these challenges effectively. Strengthening border security, enhancing international cooperation, improving rehabilitation programs, and leveraging technology for surveillance and monitoring can go a long way in combating the drug trade. Holistic measures, focusing not only on enforcement but also on prevention and rehabilitation, are key to breaking the vicious cycle of drug abuse and trafficking.

## Q. Consider the following statements regarding the Narcotic Drugs and Psychotropic Substances (NDPS) Act of 1985:

1. It allows for preventive detention of habitual drug offenders.
2. It provides for the regulation of controlled substances used in the manufacture of narcotic drugs.
3. It does not apply to the cultivation of opium for medical purposes.

## Which of the statements given above is/are correct?

- |                 |                 |
|-----------------|-----------------|
| A. 1 and 2 only | B. 2 and 3 only |
| C. 1 and 3 only | D. 1, 2 and 3   |

**Answer: A**

## MAINS QUESTIONS

- Q. Drug trafficking poses a serious threat to India's national security, youth, and social fabric. Critically examine the challenges in combating drug trafficking and suggest a comprehensive strategy to tackle the menace.

**(250 words, 15marks)**