

INTERNAL SECURITY GS PAPER III
Terrorism and India's Security Landscape

Terrorism continues to be one of the most pressing threats to India's internal security, national unity, and regional peace. The *Pahalgam attack* (April 2025), which targeted tourists, reflects the evolving tactics of terrorist outfits despite post-2019 efforts to stabilize Kashmir through infrastructure development and political outreach.

Key Challenges:

1. **Cross-Border Terrorism:** India faces persistent threats from Pakistan-backed terrorist groups. Incidents like *Pulwama (2019)* and *Pahalgam (2025)* highlight the use of proxy warfare by Pakistan's military-intelligence establishment to destabilize Kashmir and undermine Indian sovereignty.
2. **Radicalization of Youth:** Extremist ideologies are spreading through online platforms like Telegram, particularly targeting disillusioned youth in conflict zones such as Kashmir and parts of the Northeast.
3. **Cyber Terrorism:** Terrorist groups exploit cyberspace for recruitment, propaganda, and attacks on critical infrastructure. India was the second-most cyber-attacked country in 2024, with 95 entities affected.
4. **Left-Wing Extremism (LWE):** Though incidents have declined, LWE remains active in tribal regions. The 2019 Maharashtra bomb blast underscores their capacity to launch deadly attacks.
5. **Northeast Insurgency:** Ethnic conflicts like the *Kuki-Meitei clash (2023–24)* and porous borders with Myanmar allow insurgents to smuggle arms and receive external support, notably from China.
6. **Organized Crime-Terror Nexus:** Terror groups often rely on smuggling, drug trafficking, and extortion. The Punjab Police crackdown (2025) on a cross-border cartel highlights this synergy.

Current Security Architecture:

- **Agencies:**
 - NIA handles terror investigations.
 - R&AW tackles external threats.
 - NSG and CAPFs lead counter-terror operations.
- **Legislation:**
 - UAPA (1967) and NSA (1980) provide legal tools for detention and prosecution.
- **Tech Infrastructure:**
 - NatGrid integrates multi-agency data for real-time intelligence.

Reform Measures:

- Enhance **intelligence coordination** across central and state agencies.
- Deploy **AI-driven surveillance**, facial recognition, and data analytics.
- Install **smart border fencing** and use drones to prevent infiltration.
- Promote **counter-radicalization and community engagement**, especially in J&K and Northeast.
- Amend UAPA/NSA to address lone-wolf and cyber terror threats.
- Build a **cyber counter-terrorism unit** and partner with the private sector.
- Use **economic and diplomatic pressure**, e.g., suspension of *Indus Water Treaty* with Pakistan (2025), as strategic leverage.

Conclusion:

Terrorism in India demands a **multi-layered, tech-enabled, and globally coordinated strategy**. Reinforcing intelligence sharing, legal reform, and public participation—backed by a zero-tolerance policy—will be key to neutralizing this evolving threat.

GS PAPER 3- INDIAN ECONOMY AND ISSUES RELATING TO PLANNING, MOBILIZATION OF RESOURCES, GROWTH, DEVELOPMENT AND EMPLOYMENT
India must redefine poverty amid rising incomes and challenges

India is set to become an upper middle-income country by 2030—a key milestone in its long battle against mass poverty. This progress, while promising, brings fresh challenges. The biggest among them is the need to redefine poverty in a nation undergoing significant economic and social transformation.

India's Imminent Economic Milestone

1. **Crossing into a New Income Category:** India is currently classified as a lower middle-income country. By 2030, its per capita income is expected to reach \$4,468, marginally above the World Bank's threshold of \$4,516 for upper middle-income status.
2. **IMF Forecast Highlights:** The IMF projects India's GDP will rise to \$6.77 trillion by 2030. Per capita income will increase from \$2,878 in 2025 to \$4,468 in 2030. In PPP terms, it will grow from \$10,396 to \$13,638.
3. **Classification Criteria Can Shift:** These thresholds are revised periodically. Despite estimation uncertainties, India is clearly nearing a higher economic bracket.

India's Outdated Poverty Data

1. **Stale National Estimates:** India has not updated its official poverty line since 2012. The 2017–18 consumption survey was not released, and the 2023–24 survey has not been used to define a new poverty line.
2. **How Poverty Is Measured:** Poverty lines are based on household consumption surveys. These reflect costs of basic food and essential non-food items. They must be revised with changing prices, needs, and living standards.
3. **Need for Timely Revision:** India's current poverty benchmarks are outdated and do not reflect its economic transformation. A recalibrated poverty line is urgently needed.

Re-examining Poverty Metrics

1. **Flawed Measurement Standards:** Many estimates use deprivation norms better suited to poor countries. This fails to represent the reality of an economy nearing upper middle-income status.
2. **Global Poverty Benchmarks:** India has nearly eliminated poverty by the \$2.15/day global line. But this can lead to premature optimism.
3. **Higher International Thresholds:** The World Bank recommends \$3.65/day for lower middle-income and \$6.85/day for upper middle-income countries. These offer more realistic poverty benchmarks.

Policy Implications

1. **Shifting the Optics:** Only 2.3% live below \$2.15/day, but 28.1% fall below \$3.65/day. A higher poverty line will show more poor but reveal the true picture.
2. **Reorienting Welfare Programmes:** Updated poverty data will help redesign government schemes aligned with present economic realities.

GS PAPER3-ENVIRONMENT-CONSERVATION
Expanding Tree Plantations is Key to India's Climate Action and Trade Competitiveness

India faces rising climate risks and trade pressures due to its carbon-heavy economy. To meet environmental goals and support rural livelihoods, the country must urgently expand tree plantation and carbon sequestration efforts.

Urgency of Expanding Tree Cover

1. **India's Shortfall in Forest Targets:** India's forest and tree cover is 25.17%, far below the 33% target of the 1988 National Forest Policy. Deforestation, rapid urbanisation, and industrial growth have degraded natural ecosystems.
2. **Environmental Role of Tree Plantations:** Tree plantations act as carbon sinks. They also improve soil health, recharge groundwater, reduce erosion, and help withstand extreme weather.

Government-Led Afforestation Initiatives

1. **Key Policy Measures:** The National Agroforestry Policy (2014) and the Trees Outside Forests program promote tree planting on private lands. These aim to reduce pressure on natural forests, restore degraded land, and boost rural incomes.
2. **Impact of the Green India Mission:** The Green India Mission, under the climate action plan, helped increase forest cover by 0.56% from 2017 to 2021. It focuses on reviving degraded forests and managing them sustainably.

Socio-Economic Benefits of Afforestation

1. **Job Creation and Rural Support:** Afforestation creates jobs in nurseries, forest care, and agroforestry. It is vital for rural employment.
2. **Agroforestry's Promise:** Agroforestry improves soil and raises income. ICAR found it boosts farm earnings by 20–30% through timber, fruits, and medicinal plants.
3. **Community Engagement and Support:** Governments and NGOs offer financial aid, training, and market access. This builds ownership and long-term participation.

Private Sector Participation in Tree Planting

1. **Corporate Social Responsibility Drives:** Industries like cement, automobile, and energy are investing in afforestation to offset emissions. Many use these plantations in their carbon credit strategies.
2. **Aligning with Global Trade Pressures:** The EU's Carbon Border Adjustment Mechanism from 2026 will tax carbon-heavy imports. With India-EU trade at €124 billion in 2023, Indian exporters must reduce emissions to stay competitive.
3. **Carbon Credit Benefits:** Large-scale plantations help companies earn credits under frameworks like the Verified Carbon Standard. This is cheaper than buying international carbon credits.

Sustainability as a Competitive Strategy

1. **Shift from Compliance to Strategy:** Sustainability now offers a market edge. Firms are building green supply chains, using sustainable raw materials, and adopting energy-efficient practices.
2. **Market Incentives for ESG Compliance:** With global capital favouring ESG principles, Indian industries must adapt to attract investment and retain market access.

Policy Challenges and Recommendations

1. **High Carbon Credit Costs:** In 2023, EU carbon credits cost €83 per tonne. For Indian businesses, tree planting is a cheaper alternative.
2. **Need for a National Carbon Policy:** India must build a transparent registry, set rules under Article 6 of the Paris Agreement, and offer financial incentives to attract private investment.

PRELIM FACTS
1. India's Struggles with Supporting Deep-Tech Startups
What is Deep Tech?

- **Definition:** Deep tech refers to technologies rooted in substantial scientific or engineering innovation, requiring extensive research and long gestation periods.
- **Examples:** Artificial Intelligence (AI), Quantum Computing, Semiconductors, Robotics, Biotechnology, Space Technology.
- **Impact:** Solves complex societal challenges, boosts national innovation capacity, and enhances global competitiveness.

India's Initiatives Supporting Deep Tech

- **IndiaAI Mission (2024)** – Promotes indigenous AI systems and applications.

- **National Quantum Mission** – Develops quantum communication and computing capabilities.
- **India Semiconductor Mission** – Supports chip design and manufacturing.
- **Deep Ocean Mission** – Advances deep-sea exploration tech.
- **National Research Foundation (NRF)** – Encourages R&D collaboration and funding.
- **Startup India** – Facilitates startup ecosystem development.

Key Findings from the Study by PSA Office (2024–25)

- **Incubation Deficit:** Only **25%** of public-funded R&D institutions offer startup incubation; only **1 in 6** focus on deep tech.
- **Low Collaboration:** Only **15%** collaborate with foreign industry, limiting global innovation exchange.
- **Restricted Access:** Half the labs do not allow external researchers, hindering idea exchange.
- **Budget Utilization Issues:** Out of Rs.55,685 crore spent on R&D in 2020–21, only Rs.24,587 crore was spent in non-strategic sectors.
- **Underutilization:** Only **25%** of institutions spent over 75% of their budget on actual R&D.

2. Kuldiha Wildlife Sanctuary

A poacher was arrested recently after an exchange of fire with forest guards at Kuldiha Wildlife Sanctuary in Balasore district.

About Kuldiha Wildlife Sanctuary

- **Location:** It is located in the *Balasore district of Odisha*, within the Eastern Ghats.
- **Area:** It spans an area of 272 sq.km. and falls under the *Chota Nagpur Plateau region*.
- **Conservation significance:** It forms a part of the *Simlipal-Kuldiha-Hadgarh Elephant Reserve*, serving as an important corridor for elephant movement and conservation.
- **Ecological connectivity:** The sanctuary is ecologically linked to the *Simlipal Tiger Reserve* through the *Nato and Sukhupada hill ranges*.
- **Water systems:** The sanctuary is drained by the *Kuldiha stream and its tributaries*, which play a crucial role in maintaining the region's hydrological and ecological balance.
- **Vegetation:** The forest type is a mix of *Peninsular Sal forests and moist mixed deciduous forests*. It is bordered by the Nilgiri forest to the north and the Mayurbhanj forest to the west, forming a contiguous forest ecosystem.
- **Flora:** Prominent tree species include *Sal (Shorea robusta)*, *Jamun (Syzygium cumini)*, *Piyasal (Pterocarpus marsupium)*, *Bahera (Terminalia bellirica)*, *Mango (Mangifera indica)*, and *Simul (Bombax ceiba)*.
- **Fauna:** The sanctuary is home to a variety of wildlife, including elephants, wild cats, leopards, *gaurs*, *long-tailed monkeys*, and *giant squirrels*. Notable bird species found here include *peafowl*, *hill mynas*, and *hornbills*.

3. Rafale-Marine Fighter Jet

India and France has inked an Inter-Governmental Agreement (IGA) for the procurement of **26 Rafale-M** aircraft – 22 single-seater and four twin-seater – for the Indian Navy.

About Rafale-Marine Fighter Jet

- It is a **single-seat, carrier-borne, 4+ generation** aircraft capable of performing a wide range of missions, including deep strikes, air defence, and reconnaissance.
- **Manufactured by:** France's Dassault Aviation
- It is also described as an "**omnirole aircraft**", meaning that it can conduct **both air-to-air and air-to-ground missions**
- It is designed to **operate from aircraft carriers** and will be deployed on aircraft carriers **INS Vikrant and INS Vikramaditya**, replacing the ageing MiG-29K fleet.
 - This is possible because of various **modifications**, including a reinforced **undercarriage**, strengthened **landing gears, folding wings** and a longer and strengthened nose.
- **Weaponry:** It will be loaded with the **Meteor and MICA** air-to-air missiles, **SCALP** cruise missiles, **Exocet** anti-ship missiles and **ASTRA Mk1** air-to-air **Beyond Visual Range Missile**.
- A great advantage that accrues with the induction of the 26 Rafale Ms for the Indian Navy is the **commonality with the IAF Rafales** which provides the desirable scope for **interoperability and joint training**.
About the deal
- Indian Navy will become the **first international user of Rafale-M**.
- **Composition:** The deal for **26 Rafale-M fighter jets** includes **four trainer aircraft (twin-seater)**.
- The agreement includes **Transfer of Technology** for **integration of indigenous weapons** in India.
- It also includes **setting up of a production facility** for Rafale fuselage as well as **Maintenance, Repair and Overhaul facilities** for aircraft engine, sensors and weapons in India.
- **Delivery time:** It would begin between the **next three to four years** and is likely to be **completed by 2030**.

ANSWER WRITING

Q. Terrorism remains one of the gravest threats to India's internal security, evolving in form and tactics despite countermeasures. Discuss the key challenges India faces in countering terrorism today. (250 words)

Terrorism continues to be a formidable threat to India's internal security, endangering social harmony, economic stability, and national integrity. Despite significant efforts post-2019—including infrastructural development, legislative strengthening, and enhanced surveillance—terrorism has adapted in complexity and reach.

Key Challenges:

1. **Cross-Border Terrorism:** Persistent infiltration from Pakistan-sponsored groups through the Line of Control (LoC) poses a strategic and operational challenge. Attacks like *Pulwama (2019)* and *Pahalgam (2025)* reflect their continued lethality.
2. **Radicalization and Online Extremism:** The use of social media platforms like Telegram and WhatsApp for spreading extremist ideologies has led to increased radicalization among youth, particularly in Kashmir and some urban centers.
3. **Cyber Terrorism:** Terrorists increasingly use cyberspace for propaganda, recruitment, and targeting critical infrastructure. India was the second-most attacked country globally in 2024 for cyber intrusions.
4. **Left-Wing Extremism (LWE):** Though declining, LWE persists in central and eastern India, exploiting tribal grievances and challenging state authority through guerrilla tactics.
5. **Insurgency in the Northeast:** Ethnic tensions (e.g., *Kuki-Meitei conflict*) and porous borders with Myanmar allow for arms smuggling and foreign influence, particularly from China.
6. **Organized Crime Nexus:** Terror outfits often fund their operations through drug trafficking, extortion, and smuggling, as evidenced in the Punjab cartel bust (2025).
7. **Intelligence and Coordination Gaps:** Fragmented intelligence sharing between central and state agencies often hampers swift preventive action and real-time threat neutralization.

Conclusion:

India's fight against terrorism requires a multi-dimensional strategy involving improved intelligence coordination, cyber security, community engagement, and international cooperation.

MCQ

1. With reference to the National Intelligence Grid (NATGRID), consider the following:
 1. It integrates data from multiple agencies for real-time threat assessment.
 2. It functions under the Ministry of Defence.
 3. It monitors only financial transactions.
 Which of the statements is/are correct?
 (a) **1 only** (b) 1 and 2 only
 (c) 1 and 3 only (d) 2 and 3 only
2. Which of the following laws empowers Indian authorities to detain individuals preventively without formal charges for terrorism-related activities?
 (a) Unlawful Activities (Prevention) Act, 1967
 (b) **National Security Act, 1980**
 (c) Prevention of Money Laundering Act, 2002
 (d) Armed Forces (Special Powers) Act, 1958
3. Which of the following are implications of redefining India's poverty line?
 1. More people may be classified as poor.
 2. Welfare programs can be redesigned more effectively.
 3. It will reduce the fiscal burden on the government.
 Select the correct answer:
 (a) **1 and 2 only** (b) 2 and 3 only
 (c) 1 and 3 only (d) 1, 2 and 3
4. What percentage of India's total geographical area is currently under forest and tree cover?
 (a) 21.05% (b) 24.11%
 (c) **25.17%** (d) 33.00%
5. The Green India Mission is part of which of the following?
 (a) **National Action Plan on Climate Change**
 (b) National Agroforestry Policy
 (c) Forest Rights Act
 (d) REDD+ International Framework
6. Verified Carbon Standard (VCS) is associated with:
 (a) International forest biodiversity certification
 (b) Monitoring desertification
 (c) **Carbon credit generation and validation**
 (d) EU water pollution control
7. Which of the following best describes "Deep Tech"?
 (a) Technology focused on consumer convenience
 (b) Innovation involving low-cost, rapid deployment apps
 (c) **Technology based on advanced scientific or engineering breakthroughs**
 (d) Simple automation tools for small businesses
8. Which of the following statements is/are correct?
 1. Most Indian R&D expenditure is directed towards strategic sectors like defence and space.
 2. Deep-tech ventures generally require short development times and low investment.
 Select the correct answer using the codes below:
 (a) **1 only** (b) 2 only
 (c) Both 1 and 2 (d) Neither 1 nor 2
9. Which Indian aircraft carriers will operate the Rafale-M jets?
 1. INS Vikramaditya
 2. INS Vikrant
 3. INS Vishal
 Select the correct answer:
 (a) **1 and 2 only** (b) 2 and 3 only
 (c) 1 and 3 only (d) All of the above
10. Kuldiha Wildlife Sanctuary is ecologically connected to which of the following tiger reserves?
 (a) Satkosia Tiger Reserve
 (b) **Simlipal Tiger Reserve**
 (c) Nagarjunsagar-Srisailem Tiger Reserve
 (d) Buxa Tiger Reserve