



SAIDAI DURAISAMY'S MANIDHANAHEYAM FREE IAS ACADEMY

(A unit of Manidhanaeyam Charitable Trust)



"Nothing is better than a life dedicated to people's service"
"To be able to serve without expecting anything in return, is the beauty of humanity"

UPSC CSE - 2025

CURRENT AFFAIRS



INTERNAL SECURITY

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INTERNAL SECURITY CURRENT AFFAIRS

Anti-Naxal Drive: India's Renewed Strategy Against Left-Wing Extremism

GS Paper III – Internal Security | Left-Wing Extremism | Security Forces and Challenges

Context:

The Government of India has accelerated its efforts to eliminate **Left-Wing Extremism (LWE)**, with a declared objective to **end the decades-old Naxal insurgency by March 31, 2026**. The approach combines **intensified security operations, developmental interventions, and enhanced centre-state coordination**.

Recent Gains in Maoist Hotbeds:

- Major territorial gains have been made in **Chhattisgarh, Jharkhand, and Odisha**, particularly in the **Bijapur-Sukma-Dantewada tri-junction**, previously considered the Maoist heartland.
- Strategic advances were made possible due to:
 - Establishment of **forward operating bases (FOBs)**
 - **Road construction** for better troop mobility and access
 - **Precision-based targeted operations**

High Maoist Casualties and Leadership Losses:

- **209 Maoists were killed** in Chhattisgarh alone in the **first five months of 2025**, nearly matching the **219 killed in all of 2024**.
- A major milestone was the **neutralization of CPI (Maoist) General Secretary Basavaraju** in May 2025—a significant operational and psychological blow to the insurgents.

Operation Black Forest – Turning Point:

- **Launched:** April 21, 2025
- **Led by:** CRPF and Chhattisgarh Police
- **Objective:** To dismantle the Maoist stronghold in **Kurragutta hills** on the Chhattisgarh–Telangana border.
- Resulted in:
 - Complete dismantling of fortified rebel zones
 - Recovery of weapons and intelligence assets
 - Weakening of Maoist tactical mobility

Factors Behind the Success:

1. **Strong Political Will** and unified vision

2. **Real-time Intelligence** and surveillance-backed operations
3. **Enhanced Centre-State Synergy**
4. Active role of **District Reserve Guards (DRGs)** and local tribal recruits

Persistent Challenges:

- Maoist ambushes continue in areas like:
 - **Kolhan (Jharkhand)**
 - **Abujmad (Chhattisgarh)**
- Indicates Maoists retain **asymmetric warfare capabilities**, including IEDs, ambushes, and surprise raids.

The Road Ahead: Security + Development:

To permanently eradicate LWE:

- **Military pressure must be sustained**
- Simultaneously, **governance, connectivity, education, and health outreach** must be expanded
- Focus on **land rights, forest economy**, and community engagement is essential

Model UPSC Mains Question (GS Paper III):

Q “The fight against Left-Wing Extremism cannot be won by force alone.” In light of recent operations and policy interventions, critically analyse India’s strategy to eliminate LWE.

SIPRI 2025 Report: Global Nuclear Modernisation and India’s Strategic Posture

GS Paper II – International Relations | Global Security | Disarmament and Treaties

Context:

The **2025 report** of the **Stockholm International Peace Research Institute (SIPRI)** highlights a **resurgence of nuclear weapons modernisation** across all nine nuclear-armed states, signaling a **potential global arms race**. India too has expanded its arsenal and delivery capabilities.

Key Global Trends:

Country	Warhead Stockpile (2025)	Notes
Russia	5,459 (1,718 deployed)	Modernisation accelerating as New START nears expiry in 2026
USA	5,177 (1,770 deployed)	Developing low-yield nuclear options and hypersonic delivery systems

China	~500+	Rapid expansion of silos and warhead production
India	Increased from 172 to 180	Focus on canisterised missiles , MIRV capability, and triad readiness

India's Nuclear Posture:

- **Credible Minimum Deterrence (CMD)** remains the cornerstone
- Expanding delivery systems include:
 - **Agni-V with MIRV** (Multiple Independently Targetable Re-entry Vehicles)
 - **SLBMs (Submarine-Launched Ballistic Missiles)** for sea-leg of the triad
- **Focus on canisterised systems** for swift deployment and survivability

Concerns Raised by SIPRI:

- **Arms Control Treaties Weakening:**
 - Decline in **nuclear dismantlements**
 - Uncertain future of the **New START Treaty**
- **Rise in First-Strike Doctrines** and modernization across East Asia and the Middle East
- Risk of **accidental escalation** due to cyber warfare, AI, and hypersonic tech

Model UPSC Mains Question (GS Paper II):

Q “In the face of global nuclear modernisation, India’s challenge is to balance deterrence with responsibility.” Analyse India’s nuclear posture in light of SIPRI 2025 findings.

India Fast-Tracks Defence Procurement Reforms: Enhancing Efficiency and Self-Reliance

GS Paper III – Defence and Internal Security | Indigenisation of Defence Technology

Context:

The Ministry of Defence has undertaken a **comprehensive overhaul of the defence procurement system** to enhance efficiency, reduce timelines, and boost private sector involvement. This comes in the aftermath of **Operation Sindoor**, which exposed procedural bottlenecks.

Key Reforms Introduced:

Area	Reform
Procurement Timelines	Accelerated contracting and payment processes , especially for private vendors

Trial Methodology	Shift from lengthy field evaluation trials to simulated and digital testing
Priority Sectors	Indigenous procurement in anti-drone systems, loitering munitions, smart ammunition, armored platforms
Digital Integration	Use of digital platforms for faster decision-making and transparency

Focus on Domestic Industry and Atmanirbhar Bharat:

- Increased incentives for **private defence manufacturers**
- Emphasis on **interoperability and dual-use systems**
- Alignment with **Defence Production and Export Promotion Policy (DPEPP) 2020**

Defence Expenditure Trends:

Year	Defence Budget as % of GDP
FY 2024–25	1.98%
FY 2025–26	1.91%

- Below the **recommended 2.5% GDP threshold**
- Experts suggest **minimum 2%** for credible deterrence, especially with growing regional threats

Challenges Ahead:

- Need to ensure **quality assurance** with simulated trials
- Balancing **speed and accountability** in procurement
- Upgrading **R&D ecosystem** for indigenous defence innovation

Model UPSC Mains Question (GS Paper III):

Q “Speed, transparency, and indigenisation must guide India’s defence procurement in the 21st century.” Evaluate recent reforms in defence acquisition and their implications for national security.

PROTECTED AREA REGIME

Context:

The Ministry of Home Affairs has reinstated the Protected Area Permit (PAP) requirement in Manipur, Nagaland, and Mizoram citing security concerns due to increased influx from neighboring countries.

About Protected Area Permit (PAP):

- PAP is a special permit required by foreign nationals to visit certain sensitive areas in India, especially those near international borders.

- These areas lie between the “Inner Line” and the international border, as defined under the Foreigners (Protected Areas) Order, 1958.
- The PAP regime covers entire states like Arunachal Pradesh, Manipur, Mizoram, Nagaland, Sikkim (partially), and parts of Himachal Pradesh, Jammu & Kashmir, Ladakh, Rajasthan, and Uttarakhand.

Key Features of the PAP Regime:

- **Eligibility:** All foreigners except Bhutanese citizens require a PAP to enter and stay in these regions.
- **Permissible Visits:** Allowed mainly for group tourists (minimum two persons) on restricted routes as specified in the permit.
- **Validity:** PAP is valid only for the specific area, route, and time. Permit holders must not overstay. Photocopies of the permit are to be deposited at entry and exit points.
- **Restrictions:** Citizens of Afghanistan, China, Pakistan, and those of Pakistani origin require prior MHA approval. Diplomats and officials need special clearance from the Ministry of External Affairs.
- **Registration:** Foreigners must register with the Foreigners Registration Officer (FRO) within 24 hours of arrival.
- **Legal Framework:** Governed by Foreigners (Protected Areas) Order, 1958.

Restricted Area Permit (RAP)

- Under the Foreigners (Restricted Areas) Order, 1963, foreign nationals require a RAP to visit specified restricted areas.
- Since 2009, RAP is mandatory for all foreign visits to Andaman & Nicobar Islands and some parts of Sikkim.
- RAP is generally available to individual travellers and can be obtained from Indian embassies abroad or on arrival in some cases.
- Indian citizens do not need special permission to enter restricted areas.

Inner Line Permit (ILP):

- ILP is an official document issued by the Government of India allowing Indian citizens from other states to enter protected areas for a limited duration.
- Originally introduced under the Bengal Eastern Frontier Regulations, 1873 to protect British commercial interests, now it protects tribal cultures in Northeast India.
- Different types of ILPs exist: tourist permits (routinely granted) and long-term permits for employment/residency.

- States requiring ILP: Arunachal Pradesh, Mizoram, Nagaland, and Manipur.

Entry Permit to Lakshadweep:

- As per the Laccadive, Minicoy, and Amindivi Islands (Restriction on Entry and Residence) Rules, 1967, non-natives must obtain a permit from the competent authority to enter or reside in Lakshadweep.

Model UPSC Mains Questions

- Q The reimposition of the Protected Area Permit (PAP) in certain Northeastern states has raised debates around security and development. Critically analyze the pros and cons of the PAP regime. (15 marks)
- Q “Inner Line Permit (ILP) serves as a crucial tool to safeguard the cultural and social identity of tribal populations in India’s Northeast.” Comment.

National Investigation Agency (NIA)

GS Paper II – Governance | Internal Security | Statutory Bodies | Federal Structure

Why in News?

The Supreme Court of India has ruled that the NIA's jurisdiction is not confined only to 'Scheduled Offences', and that it may also investigate non-scheduled offences if they are connected to scheduled ones, as per a broader interpretation of Section 8 of the NIA Act.

Background:

The National Investigation Agency (NIA) was established in the aftermath of the 2008 Mumbai terror attacks to strengthen India’s response to terrorism and threats to national security. Over the years, its mandate has expanded, and the recent Supreme Court ruling reaffirms the NIA's broader operational scope.

About NIA:

- **Establishment:**
Set up under the National Investigation Agency Act, 2008.
- **Headquarters:**
Located in New Delhi.
- **Leadership:**
Headed by a Director-General (DG), an IPS officer of senior rank.
- **Objective:**
To investigate and prosecute offences that threaten India's sovereignty, integrity, security, and international relations.
- **Nature:** Functions as India’s central counter-terrorism law enforcement agency.

Powers and Jurisdiction

- **Pan-India Jurisdiction:** NIA can operate across India and also has extraterritorial jurisdiction.
- **Coverage:**
Includes Indian citizens abroad, government servants, ships/aircrafts registered in India, and offences committed overseas that affect Indian citizens or interests.
- **Investigation:**
Can initiate investigation when directed by the Central Government, even suo motu under Section 6(5).
- **Prosecution:**
Prosecutes cases in special NIA courts.
- **Coordination with States:** Works in collaboration with state police forces, although conflicts over jurisdiction sometimes arise.
- **State Involvement:** States can request case transfers to NIA, but the final authority rests with the Central Government.

Schedule of Offences under the NIA Act:

The NIA investigates offences under various laws, including:

- **Unlawful Activities (Prevention) Act, 1967 (UAPA)**
- **Explosive Substances Act, 1908**
- **Atomic Energy Act, 1962**
- **Anti-Hijacking Act, 2016**
- **Weapons of Mass Destruction Act, 2005**
- **Maritime Navigation & Fixed Platforms Security Act, 2002**
- **Civil Aviation Security Act, 1982**
- **SAARC Convention (Suppression of Terrorism) Act, 1993**

Other IPC-based crimes investigated by NIA:

- **Waging war against India** (Sections 121–130)
- **Human trafficking** (Sections 370, 370A)
- **Currency counterfeiting** (Sections 489A–489E)
- **Illegal arms possession** (Arms Act, Section 25(1AA))
- **Cyber terrorism** (IT Act, Section 66F)

Supreme Court's Interpretation of Section 8 of NIA Act:

- **Section 8 Provision:** While probing a scheduled offence, the NIA can also investigate any other offence committed by the accused if it is connected to the scheduled offence.

- **Judicial Standpoint:** The Court upheld a **purposive interpretation**, allowing the NIA to address **entire crime syndicates or terrorism networks**, even if some offences fall **outside the NIA's original schedule**.

Significance of the Judgment:

- **Legal Clarity:** Reinforces NIA's legal authority in handling **composite crimes**.
- **Operational Efficiency:** Avoids fragmented investigations between central and state agencies.
- **Strengthens National Security Framework:** Allows a more integrated and holistic approach to tackling organized crime and terrorism.

Concerns and Challenges:

- **Federalism Issues:** States may perceive NIA action as an infringement on their police powers.
- **Accountability:** Greater power must be matched with checks and balances to prevent misuse.
- **Resource Burden:** Expansion in mandate increases workload and resource demands.

Conclusion:

The NIA remains a **critical pillar** in India's internal security framework. The recent Supreme Court ruling **broadens its scope**, aligning with the evolving nature of transnational crimes and terrorism. However, this expansion must be **balanced with cooperative federalism and robust oversight** mechanisms to ensure its effectiveness and legitimacy.

Model UPSC Mains Question:

Q "With its expanded legal scope, the National Investigation Agency plays a pivotal role in combating threats to India's internal security. Examine the significance of the recent Supreme Court ruling on Section 8 of the NIA Act in this context."

Kaveri Engine and SARAT: Advancements in Aerospace and Maritime Technology

GS Paper III – Science & Technology | Disaster Management | Defence & Aerospace Innovation

Why in News?

- The **Kaveri Engine**, developed by DRDO's Gas Turbine Research Establishment (GTRE), has been approved for **in-flight testing**, marking a key development in indigenous engine capability.

- The **Search and Rescue Aid Tool (SARAT) Version 2**, developed by INCOIS, was launched with enhanced precision and visualization features to aid maritime rescue efforts.

Kaveri Engine: Indigenous Jet Propulsion Breakthrough:

Background:

- Initiated in the **late 1980s**, the Kaveri engine project aimed to develop a **turbofan engine** to power the **Light Combat Aircraft (LCA) Tejas**.
- After facing technical challenges in meeting manned fighter aircraft standards, the focus shifted to developing a “**dry**” version (without afterburner) suitable for **unmanned systems** like **Ghatak UCAV**.

Current Capability & Applications:

- The **dry Kaveri engine** produces a thrust of **49–51 kN**, suitable for **UAV and UCAV platforms**.
- In-flight testing approval signals readiness for integration into advanced aerospace systems.

Significance:

- Enhances **India's defence self-reliance** and reduces dependence on foreign engine manufacturers.
- Strategic importance for projects like **AMCA (Advanced Medium Combat Aircraft)** and future drone warfare technologies.
- Boost to **Make in India** and **Aatmanirbhar Bharat** in the aerospace sector.

SARAT Version 2: Enhancing Maritime Search and Rescue

Background:

- Developed by the **Indian National Centre for Ocean Information Services (INCOIS)** under the Ministry of Earth Sciences (MoES), SARAT aids in real-time **search and rescue (SAR) operations** in marine zones.

Key Features of SARAT Version 2:

- **Improved Accuracy:** Anchors search areas directly to the **Last Known Position (LKP)** of missing objects.
- **Exportable Data:** Compatible with digital maps for better rescue planning.
- **Enhanced Visualization:** Uses **color-coded regions, trajectory paths**, and LKP markers for clarity.
- **Faster Response Time:** Quicker processing improves the **success rate of rescue missions**.

Utility and Impact:

- Designed for use by **Indian SAR agencies**, including the **Indian Coast Guard** and **naval operations**.
- Available as a **mobile application**, increasing accessibility in field missions.
- Plays a crucial role in the **Indian Ocean region**, prone to **cyclones**, **boat accidents**, and **marine distress incidents**.

About INCOIS:

- **Established:** 1999, as an autonomous institution under **Ministry of Earth Sciences**.
- **Mandate:** Provides ocean data, forecasts, and alerts (e.g., **tsunamis**, **storm surges**, **high waves**).
- **Services:** Delivers 24x7 updates and short-term **Ocean State Forecasts**, aiding marine research and coastal safety.

Conclusion:

Technological innovations like the **Kaveri engine** and **SARAT** reflect India's growing capacity in both **defence research** and **disaster response systems**. While Kaveri strengthens **strategic aerospace capabilities**, SARAT is a force multiplier for **maritime safety** and **humanitarian operations**. Together, these advancements embody the synergy of **indigenous R&D**, **public sector innovation**, and **national security priorities**.

Model UPSC Mains Questions:**GS Paper III – Science and Technology**

Q “Indigenous development of critical technologies is essential for strategic autonomy.” Discuss in the context of India's Kaveri engine project.

GS Paper III – Disaster Management

Q Examine the role of technological tools like SARAT in enhancing the efficiency of maritime search and rescue operations in India.

Indian Coast Guard: Pillar of India's Maritime Security Framework

[GS Paper III – Internal Security](#) | [Maritime Security](#) | [Role of Armed Forces](#)

Why in News?

The **Parliamentary Standing Committee on Defence** recently reviewed the operational preparedness and strategic role of the **Indian Coast Guard (ICG)** in ensuring **coastal and maritime security**, highlighting its growing significance in India's security architecture.

Background:

- The **Indian Coast Guard (ICG)** was formally established in **1978** through the **Coast Guard Act, 1978**, following recommendations of the Rustamji Committee after the 1971 war.
- It functions as an **independent armed force** under the **Ministry of Defence**, distinct from the Indian Navy.
- It plays a **multi-mission role** focused on both **security** and **non-military maritime governance**.

Mandate and Jurisdiction:

- The ICG has jurisdiction over:
 - **Territorial Waters** (up to 12 nautical miles),
 - **Contiguous Zone** (12–24 nautical miles),
 - **Exclusive Economic Zone (EEZ)** (up to 200 nautical miles).
- It is responsible for protecting India's **maritime interests**, including **coastal security**, **anti-smuggling**, **search and rescue**, and **marine environmental protection**.

Key Roles and Responsibilities:

- **Maritime Law Enforcement:** Enforces laws related to customs, immigration, and illegal fishing.
- **Search and Rescue (SAR):** Coordinates SAR operations in collaboration with INCOIS and SARAT tools.
- **Coastal Surveillance:** Operates coastal radars, patrol aircraft, hovercrafts, and interceptor boats.
- **Pollution Control:** Prevents and manages marine oil spills under the MARPOL Convention.
- **Counter-Terrorism and Anti-Smuggling:** Plays a frontline role in **pre-empting threats post-26/11 Mumbai attacks**.
- **Fisheries Protection:** Guards Indian fishermen and curbs illegal fishing by foreign vessels.

Organizational Structure:

- **Leadership:** Headed by the **Director General of Indian Coast Guard (DGICG)**, typically an IPS or equivalent military rank officer.
- **Headquarters:** Located in **New Delhi**.
- **Operational Zones:** Divided into **five regional headquarters** (West, East, North-East, Andaman & Nicobar, and North-West) for efficient maritime

coverage.

Recent Enhancements and Challenges:

- **Technological Modernization:** Induction of advanced patrol vessels, maritime surveillance aircraft (like Dornier 228), and UAVs.
- **Infrastructure Development:** New coastal radar stations and integration with National Command Control Communication and Intelligence (NC3I) network.
- **Challenges:**
 - Maritime border management complexities.
 - Coordination issues between central and coastal state agencies.
 - Need for faster modernization amid rising Chinese maritime presence in the Indian Ocean.

Significance in National Security Architecture:

- Serves as the **first responder** in maritime crises, playing a **non-military yet armed role** in coastal defence.
- Essential for **blue economy safety**, secure **maritime trade**, and **disaster relief operations**.
- Key stakeholder in India's **Sagarmala** and **Security and Growth for All in the Region (SAGAR)** initiatives.

Conclusion:

The Indian Coast Guard has transformed into a **strategic maritime force** critical to India's **coastal and oceanic governance**. As threats evolve from **traditional to non-traditional**, the ICG's **technological upgradation**, **inter-agency coordination**, and **capacity building** remain essential for a resilient and secure Indian coastline.

Model UPSC Mains Question:

GS Paper III – Internal Security

Q "The Indian Coast Guard plays a pivotal role in India's multi-dimensional maritime security matrix." Discuss its evolving responsibilities and relevance in the context of emerging maritime threats.

National Security Act (NSA), 1980: Preventive Detention in India's Security Framework

GS Paper II – Governance | Constitutional Provisions | Security Mechanisms

Why in News?

Governor Ajay Kumar Bhalla has recommended invoking the **National Security Act (NSA)** to deal with **escalating violence**, including **ceasefire violations** and **tensions in buffer zones**, bringing renewed focus on the **preventive detention law**.

Background:

- The NSA, 1980, was enacted to provide the **government with powers to detain individuals preventively**, without filing formal criminal charges, to **avert threats to national security and public order**.
- It is rooted in the **colonial-era preventive detention framework**, evolved post-independence with legislations like the **Preventive Detention Act, 1950**, and later consolidated into the current NSA.

Constitutional Basis:

- **Article 22(3)**: Preventive detention laws are exempted from the usual protection of legal rights under Article 22 (such as right to legal counsel and being informed of grounds of arrest).
- **Article 22(4)**: Preventive detention beyond 3 months requires approval by an **advisory board** comprising **judges of a High Court**.
- **44th Amendment Act, 1978**: Proposed to reduce detention without advisory board approval to **2 months**, but **this provision has not been notified**, hence is not in force.

Key Provisions of NSA:

- **Section 3**: Empowers the **Central and State Governments**, and **District Magistrates**, to detain individuals to prevent them from:
 - Acting against the **defence of India** or **relations with foreign countries**.
 - Disrupting **public order** or **essential services**.
- **Detention without Charges**:
 - No formal FIR or charge sheet required initially.
 - Individuals can be detained for **up to 10 days** without being informed of the reasons.

- **Duration:**
 - Maximum preventive detention is **12 months**.
 - Can be extended with **fresh grounds or evidence**.
- **Legal Rights and Limitations:**
 - **No legal representation** during hearings before the advisory board.
 - A person **out on bail** can still be detained under NSA.

Criticism and Concerns:

- **Violation of Fundamental Rights:** Especially **Article 21** (right to life and personal liberty) and **Article 22** (protections in arrest and detention).
- **Misuse for Political Detention:** Often invoked for **law and order issues**, leading to criticism of **overreach and abuse of executive power**.
- **Lack of Transparency:** Grounds for detention are often **withheld under 'public interest'**, limiting legal recourse.
- **Judicial Scrutiny:** Courts have limited ability to intervene unless the detention process violates statutory provisions blatantly.

Significance in Security Context:

- In volatile or conflict-prone areas (e.g., **North-East, Jammu & Kashmir**), NSA allows proactive action to prevent **communal violence, insurgency, or espionage**.
- Supports **maintenance of public order**, especially during **elections, civil unrest, or external threats**.

Conclusion:

While the **National Security Act, 1980**, remains a **critical legal tool** for preventive security, its application must be **balanced with constitutional safeguards**. Judicial and legislative oversight, along with **transparency and accountability**, is essential to **prevent misuse** and uphold democratic values.

Model UPSC Mains Question:

Q "The National Security Act, 1980 empowers the state to act pre-emptively, but also raises questions of liberty and misuse." Critically evaluate the relevance and limitations of preventive detention laws in contemporary India.

BHARATPOL: Strengthening India's International Criminal Cooperation

GS Paper II – Governance | Internal Security | International Institutions

Why in News?

The **Union Home Minister** launched the **BHARATPOL portal** on January 7, 2025, at Bharat Mandapam, New Delhi. This platform is aimed at enhancing India's capability to combat transnational crimes through improved **international police cooperation**, especially via **INTERPOL**.

Background:

- As transnational crimes like **terrorism**, **cybercrimes**, **drug trafficking**, **human trafficking**, and **financial frauds** become increasingly complex, nations are recognizing the importance of **real-time global law enforcement coordination**.
- India, being a member of **INTERPOL**, needed a dedicated and streamlined mechanism to interface effectively with **international policing systems**.
- The **Central Bureau of Investigation (CBI)**, which serves as India's **National Central Bureau (NCB)** for **INTERPOL**, spearheaded the development of this digital infrastructure.

About BHARATPOL Portal:

- **Launched By:** Central Bureau of Investigation (CBI)
- **Purpose:** To improve coordination between Indian law enforcement agencies and foreign counterparts via **INTERPOL** for effective response to **international crimes**.
- **Integration:** It brings together **51 Indian law enforcement agencies** and **500+ unit offices** across States, UTs, and Central agencies.

Key Functional Modules of BHARATPOL:

1. **Connect Module:**
 - Facilitates seamless communication between CBI (India's **INTERPOL NCB**) and domestic law enforcement agencies.
2. **Broadcast Module:**
 - Displays real-time assistance requests received from **195 INTERPOL member countries**, accessible to Indian agencies immediately.
3. **INTERPOL References Module:**
 - Allows Indian agencies to send investigative or intelligence queries to foreign counterparts via **INTERPOL**.

4. INTERPOL Notices Module:

- Manages the creation and tracking of **INTERPOL Notices** (e.g., Red Notices for fugitives).

5. Resources Module:

- Offers access to legal documents, international treaties, training manuals, and capacity-building materials.

Significance of BHARATPOL:

- **Improved Law Enforcement Coordination:** Enhances India's ability to collaborate in real time with global policing authorities.
- **Faster Information Exchange:** Allows quicker generation and dissemination of alerts, notices, and requests across borders.
- **Combating Transnational Crime:** Essential for tackling crimes that span multiple jurisdictions—e.g., cyber fraud, terrorism financing, and trafficking.
- **Digital Governance in Policing:** Demonstrates a shift toward **tech-enabled intelligence sharing and coordination**.

Challenges & Way Forward:

- **Data Privacy and Security:** Must ensure robust cyber-security measures to protect sensitive law enforcement data.
- **Standardization Across Agencies:** Effective use requires capacity-building and standard operational procedures across 51+ agencies.
- **Interoperability with Global Systems:** Continued alignment with evolving INTERPOL standards is necessary.
- **Legal & Treaty Frameworks:** Requires strengthening of bilateral treaties and extradition mechanisms.

Conclusion:

BHARATPOL represents a **major step in India's internal security and foreign criminal cooperation architecture**, combining digital infrastructure with global reach. Its success will depend on **inter-agency integration**, **cybersecurity measures**, and the ability to **leverage global legal frameworks** for swift action against international crime syndicates.

Model UPSC Mains Question:

Q “The launch of BHARATPOL marks a new era in India's response to transnational crime.” Examine the significance of international police cooperation in combating organized and cybercrime. How can digital tools like BHARATPOL enhance India's global law enforcement engagement?

PRALAY MISSILE: Enhancing India's Tactical Strike Capability

GS Paper III – Internal Security | Defence Technology | Science & Technology

Why in News?

The Defence Research and Development Organisation (DRDO) recently showcased the **Pralay missile** during the **Republic Day Parade**, underlining India's growing indigenous defence capabilities.

Background:

- Modern warfare requires **precision-guided tactical weapons** capable of rapid deployment and high-impact strikes.
- India has faced challenges along both the **Line of Control (LoC)** and the **Line of Actual Control (LAC)**, necessitating short-range missiles with **high mobility, quick response time, and pinpoint accuracy**.
- The **Pralay missile** addresses this gap by providing India a credible **conventional deterrent** that is both deployable and effective in diverse terrains.

About Pralay Missile:

- **Type:** Short-Range, Surface-to-Surface, Quasi-Ballistic Missile
- **Developed By:** DRDO, based on technology from the **Prithvi Defence Vehicle**
- **Purpose:** Designed for rapid tactical response; deployable in forward areas along borders.
- **Target Use:** Critical enemy infrastructure like **airstrips, radars, logistics bases, and command centers**.

Key Features

- **Range:** 150–500 km
- **Payload Capacity:** 500–1,000 kg (conventional warheads only)
- **Propulsion:** Solid-fuel rocket motor
- **Launch Platform:** Mobile launcher; supports quick mobility and flexibility
- **Accuracy:**
 - Equipped with modern **inertial navigation and guidance systems**
 - **Circular Error Probable (CEP)** of less than **10 meters**, making it extremely precise
- **Speed:** Achieves **terminal speed of Mach 6.1**, enhancing penetration capability

- **Quasi-Ballistic Nature:**

- Primarily follows a ballistic trajectory but capable of **manoeuvres mid-flight**, making interception by enemy air defences more difficult.

Strategic Significance:

- **Tactical Edge:** Offers India a credible, quick-reaction, high-precision conventional strike capability in border conflicts.
- **Deterrence Factor:** Acts as a deterrent in limited wars or skirmishes by threatening key enemy positions.
- **Indigenous Defence Capability:** Showcases India's progress in developing cutting-edge missile systems without foreign dependency.
- **Counterforce Role:** Complements longer-range systems like the **Agni series** and fills the short-range strike gap.

Challenges and Considerations

- **Escalation Control:** While conventionally armed, such systems can be perceived as escalatory in high-tension environments.
- **Interception Risks:** Though maneuverable, improvements in enemy air defence systems may reduce missile effectiveness over time.
- **Deployment Protocols:** Requires well-defined rules of engagement to avoid miscalculations in high-alert zones.

Conclusion:

The **Pralay missile** is a symbol of India's evolving strategic posture—focused on credible deterrence, tactical readiness, and indigenous defence production. It strengthens India's response spectrum in conventional warfare and reflects a shift toward **self-reliance in defence technology (Atmanirbhar Bharat)**.

Model UPSC Mains Question:

GS Paper III – Defence and Security

Q Discuss the significance of the Pralay missile in strengthening India's tactical strike capability. How do quasi-ballistic missiles enhance the effectiveness of short-range deterrent systems in border conflicts?

BHARGAVASTRA: India's Response to the Growing Threat of Drone Swarms

GS Paper III – Internal Security | Science & Technology | Defence Technology

Why in News?

India has successfully tested **Bhargavastra**, its first **indigenously developed micro-missile system** designed specifically to **counter drone swarms**, marking a major step forward in **asymmetric warfare preparedness**.

Background:

- **Drone warfare** has evolved rapidly, particularly with the emergence of **swarm drones** that can saturate and overwhelm traditional air defence systems.
- These drones are small, fast, and capable of autonomous or semi-autonomous coordination, posing significant threats to **military assets, border posts, and critical infrastructure**.
- Conventional missile systems are **ineffective or economically inefficient** against such fast-moving, small aerial threats.
- In this context, the **Bhargavastra** system represents a shift toward **high-volume, rapid-response micro-missile systems**.

What is Bhargavastra?

- **Type:** Micro-missile based anti-drone system
- **Developed by:** Economic Explosives Ltd. (a subsidiary of Solar Industries)
- **Platform:** Mounted on **mobile launch vehicles**
- **Purpose:** Rapid, high-volume **defence against drone swarms**

Key Features:

- **Range:**
 - **Detection:** Over 6 km
 - **Engagement/Targeting:** Over 2.5 km
- **Firepower:**
 - Can launch **64+ guided micro-missiles simultaneously**
 - Capable of engaging **multiple drones** in a single launch sequence
- **Mobility:** Operable in **diverse terrains**, including **high-altitude regions**
- **Autonomy & Speed:** Designed for **rapid-fire response**, integrated with **sensor networks** for real-time threat analysis and engagement
- **Deployment Areas:** Border regions, airfields, military convoys, and critical civilian infrastructure like oil refineries or power grids

What Are Drone Swarms?

- **Definition:** A **swarm** refers to a **group of small drones** that operate in a **coordinated manner**, using AI and pre-programmed instructions.
- **Capabilities:**
 - Can **share information** and reassign tasks dynamically
 - Are harder to detect, track, and neutralize due to their **small size**, **low radar signature**, and **distributed approach**

Strategic Significance of Bhargavastra:

- **Modern Threat Response:** Counters **next-generation warfare tactics**, including **low-cost, high-impact drone incursions**
- **Force Protection:** Ensures better protection of border troops, tanks, radar installations, and command units
- **Indigenous Capability:** Reduces reliance on costly imported counter-drone systems
- **Scalable System:** The mobile nature and swarming firepower make it **deployable in tactical battlefield zones**

Challenges Ahead:

- **Integration with Other Defence Systems:** Needs to be synchronized with surveillance radars and command-control units
- **Cost Efficiency vs. Mass Production:** Ensuring production at scale while keeping costs sustainable
- **AI Countermeasures:** Future swarms may employ **AI-based evasion tactics**, requiring adaptive engagement systems

Conclusion:

The development of **Bhargavastra** demonstrates India's proactive approach to modern battlefield threats. As drone warfare becomes a central challenge in modern military operations, such **indigenous and innovative solutions** are crucial for **national security, tactical advantage, and technological sovereignty**.

Model UPSC Mains Question:

GS Paper III – Internal Security

Q The future of warfare is being shaped by unmanned technologies and swarm-based strategies. In this context, examine the strategic significance of India's Bhargavastra micro-missile system. What are the challenges in developing effective anti-drone defence mechanisms?

Eurodrone Programme and India's Strategic Participation

GS Paper III – Security | Defence Technology | International Relations

Why in News?

India has recently joined the **Eurodrone Programme** as an **observer**, marking a significant step in its efforts to keep pace with cutting-edge unmanned aerial vehicle (UAV) technologies and foster global defence cooperation.

Background:

- **MALE UAVs (Medium Altitude Long Endurance)** have become vital assets in modern warfare for **reconnaissance, surveillance, intelligence gathering, and precision targeting**.
- The **Eurodrone** programme is Europe's answer to creating an **indigenous, sovereign UAV capability**, reducing reliance on American or Israeli drones.
- India, although developing its own drone programmes (like Rustom and Ghatak), seeks to **leverage global platforms** to improve its **indigenous design capabilities**.

About Eurodrone:

- **Full Name:** Medium Altitude Long Endurance Remotely Piloted Aircraft System (MALE RPAS)
- **Propulsion:** Twin turboprop engine design
- **Capabilities:**
 - Operates at medium altitudes for extended periods
 - Suitable for **intelligence, surveillance, target acquisition, and reconnaissance (ISTAR)** missions
 - Can be adapted for **maritime patrol and border monitoring**

About the Eurodrone Programme:

- **Initiated By:** Four European nations — **Germany, France, Italy, and Spain**
- **Coordination Agency:** Organisation for Joint Armament Cooperation (OCCAR)
- **Timeline:**
 - **Launched:** 2022
 - **Preliminary Design Review Completed:** 2024
 - **Expected Operational Date:** By 2030

- **India's Role: Observer state**, allowing it to monitor development, gain insights, and foster potential future collaboration without active decision-making powers.

Significance for India:

- **Technology Benchmarking:** As an observer, India gains insights into advanced UAV design and performance metrics, aiding its domestic drone development.
- **Strategic Partnerships:** Enhances defence diplomacy and trust with major EU powers.
- **Maritime Security:** Learning from Eurodrone can help India strengthen surveillance over the **Indian Ocean Region (IOR)**, especially amidst growing Chinese naval activity.
- **Boost to 'Make in India':** Exposure to such high-tech projects may help DRDO and Indian private players refine ongoing projects like **Rustom-II** and future UCAVs.

Challenges and Limitations:

- **Observer Status Restrictions:** India cannot influence core design or tactical features.
- **Technology Transfer Uncertainty:** Being an observer may not lead to actual **technology sharing** unless future bilateral agreements are signed.
- **Geopolitical Sensitivities:** Deeper collaboration may require navigating EU export controls and NATO-aligned policies.

Conclusion:

India's observer status in the Eurodrone project is a **strategic move**, allowing it to learn from Europe's collaborative defence development model while bolstering its own UAV ecosystem. In an era of drone warfare and network-centric operations, such partnerships are essential for long-term **strategic autonomy**.

Model UPSC Mains Question:

GS Paper III – Internal Security / Science & Technology

Q Discuss the strategic significance of India joining the Eurodrone programme as an observer. How can such engagements shape India's defence indigenisation and preparedness in the domain of unmanned aerial systems?

SANJAY Surveillance System

Why in News?

- **SANJAY:** Defence Minister launched **SANJAY**, a next-generation battlefield surveillance system, enhancing the Indian Army's situational awareness capabilities.

Background:

Modern warfare increasingly relies on real-time data, surveillance integration, and network-centric operations. The **SANJAY** system addresses India's need for an **indigenous, integrated surveillance network** for improved **decision-making in live combat zones**.

About SANJAY:

- **Full Form:** System for Automated Networked Joint ISR for Army Yudh Abhiyan (**SANJAY**)
- **Developed By:** Indian Army in collaboration with **Bharat Electronics Limited (BEL)** under the **Aatmanirbhar Bharat** initiative.
- **Purpose:** Enables seamless integration of sensor data from ground-based and aerial platforms to create a unified **real-time battlefield image**.

Features:

- **Integrated Surveillance:** Combines data from UAVs, radars, ground sensors, and satellites.
- **Communication Backbone:** Uses Army's Data Network and Satellite Communication channels.
- **Operational Advantage:** Helps commanders make **faster, data-driven decisions**, enhances intruder detection, and improves border monitoring.

Significance:

- **Force Multiplier:** Increases operational efficiency without expanding manpower.
- **Indigenization:** Reduces dependence on foreign surveillance platforms.
- **Security Boost:** Especially critical for border states facing infiltration threats.

GS Paper III – Internal Security

Q Discuss the strategic importance of the **SANJAY** surveillance system for India's modern battlefield operations. How does it reflect India's indigenization efforts in defence technology?

Revised Free Movement Regime (FMR) Along India–Myanmar Border

Background:

- India and Myanmar share a **1,643 km porous border**, with strong ethnic and cultural ties between tribes on both sides.
- The **FMR**, introduced in 1968, aimed to **preserve ethnic linkages** by allowing **visa-free travel** for residents within 10–40 km range of the border.
- However, the recent **instability in Myanmar**, refugee inflow, and security threats prompted a review.

Revised FMR Guidelines (2024):

- **QR-Enabled Passes:** Mandatory for all crossers, replacing the earlier unrestricted entry.
- **Biometric Data Collection:** Stored centrally for verification and tracking.
- **Security Oversight:**
 - **Assam Rifles:** Issue passes and monitor border movement.
 - **State Police:** Conduct security checks at the destination.
- **Operational Gates:**
 - **22 of 43** crossing points functional now (10 in Manipur, 5 each in Mizoram and Nagaland, 2 in Arunachal Pradesh).
 - Remaining to be activated in Phase 2.

Significance:

- **Balance Between Connectivity & Control:** Maintains ethnic connect while regulating movement.
- **Enhanced Monitoring:** Helps counter illegal migration, drug trafficking, arms movement.
- **Counter-Insurgency:** Aids in distinguishing legitimate movement from insurgent infiltration.

Model UPSC Mains Questions:

GS Paper III – Border Management:

Q Analyze the revised Free Movement Regime (FMR) along the India–Myanmar border. How does it attempt to balance traditional ethnic ties with the growing security challenges?

BATTLEFIELD TOURISM INITIATIVE & BHARAT RANBHOOMI DARSHAN APP

GS Paper III – Internal Security | Role of Armed Forces | Border Area Development

Why in News?

India has opened **Demchok**, a sensitive location along the **India-China Line of Actual Control (LAC)**, to civilians under the newly launched **Battlefield Tourism Initiative**, reflecting a significant shift in military-civil integration.

1. Background and Context

- In recent years, there has been a growing effort to **enhance citizen engagement** with India's defence history and **promote awareness of border conditions**.
- The initiative also seeks to **counter Chinese narratives** and **reinforce India's territorial claims** by boosting civilian presence in strategically significant but underpopulated border areas.

2. About Battlefield Tourism Initiative

Key Features:

- **Spearheaded by:** Ministry of Defence (MoD), Ministry of Tourism, and various state governments.
- **Total Sites Covered:** 77 high-altitude forward areas, including:
 - **Arunachal Pradesh (21)**
 - **Ladakh (14)**
 - **Jammu & Kashmir (11)**
 - **Sikkim (7)**
- **Prominent Locations:**
 - Tawang, Bum La, Galwan Valley, Pangong Tso, Kargil, Batalik, Drass, Siachen Base Camp

Objectives:

- To allow Indian citizens to visit battle zones of historical significance from the **1962 Sino-Indian War**, **1971 Indo-Pak War**, and the **1999 Kargil Conflict**.
- Encourage national pride and understanding of the **challenges faced by Indian armed forces in extreme conditions**.
- Promote tourism-led economic activity in remote, underdeveloped border regions.

Safety Protocols:

- **Coordination with Armed Forces** is mandatory.

- Due to the **high-altitude terrain**, visitors are required to follow **acclimatization guidelines and movement restrictions**.

3. Bharat Ranbhoomi Darshan App and Website

- **Launched on:** 15th January 2025 (Army Day) by the Defence Minister.
- **Purpose:** Digital platform to promote battlefield tourism and military heritage education.
- **Key Features:**
 - Provides **location-specific information** on battles and key events.
 - Lays out **travel procedures**, permits, and security instructions.
 - Offers **interactive multimedia content** related to Indian military history.

4. Significance:

Strategic and Security Dimensions:

- Civilian presence in **border villages and friction points** bolsters India's **territorial claims**, particularly in contested zones.
- Counters **Chinese salami-slicing tactics** by establishing greater civilian-military synergy.

Civic-Military Integration

- Promotes **nationalistic sentiment** and deepens public respect for defence forces.
- **De-mystifies border conflict zones** and builds historical consciousness among youth.

Tourism and Economic Impact:

- Generates **eco-tourism and local employment** in remote regions.
- Encourages development of border villages under the **Vibrant Villages Programme**.

Model UPSC Mains Questions:

GS Paper III – Internal Security / Role of Forces

Q Critically examine the Battlefield Tourism Initiative launched by the Government of India. How does it enhance strategic border management and public-military engagement?

Global Intelligence and Security Chiefs' Conference 2025

[GS Paper II – International Relations](#) | [GS Paper III – Internal Security](#)

Why in News?

India recently hosted the **4th Global Intelligence and Security Chiefs' Conference** in New Delhi under the leadership of National Security Advisor

(NSA) **Ajit Doval**, reflecting its growing strategic stature in global intelligence cooperation.

Background and Context:

- In the wake of **complex global security challenges** such as cyber threats, terrorism, transnational crime, and geopolitical instability, countries are increasingly relying on multilateral intelligence cooperation.
- The conference is **modeled on global strategic dialogues** like the **Munich Security Conference (Germany)** and **Shangri-La Dialogue (Singapore)**.
- It reflects India's emergence as a **security dialogue hub in the Indo-Pacific and beyond**, in alignment with its vision of being a "net security provider."

About the Conference

Feature	Details
Organizers	Research & Analysis Wing (R&AW) + National Security Council Secretariat (NSCS)
First Edition	April 2022
Current Edition (2025)	4th edition
Participants	~28 participants from 20 countries, including Five Eyes (U.S., U.K., Canada, Australia, New Zealand), Russia, and others
Timing	Scheduled just before the Raisina Dialogue , India's premier geopolitical conference
Format	Closed-door discussions and strategic briefings among global intelligence chiefs and security advisors

Significance:

1. India's Role as a Strategic Convergence Point

- Positions India as a **neutral convenor** in a polarized world, enabling engagement across **U.S.-led blocs** and **non-aligned powers** such as **Russia**.
- Reinforces India's ambition of shaping a **multipolar world order** with New Delhi as a key node.

2. Enhancing Intelligence Cooperation

- Facilitates sharing of best practices in **counterterrorism**, **cybersecurity**, **strategic surveillance**, and **disinformation management**.
- Strengthens **back-channel coordination** and **multilateral intelligence fusion** in sensitive areas like the Indo-Pacific.

3. Complementing India's Security Diplomacy

- Integrates India's national security objectives with its **foreign policy outreach**, especially in alignment with Raisina Dialogue and QUAD engagements.
- Enhances India's credibility as a **security partner** in the Global South and among advanced intelligence alliances.

Challenges Ahead:

- **Trust Deficits:** Navigating intelligence sharing with adversarial states or states with conflicting security agendas.
- **Cyber Espionage Risks:** Ensuring that intelligence partnerships do not create **vulnerabilities to surveillance or data leaks**.
- **Geopolitical Volatility:** Balancing participation from both U.S. allies and countries like Russia and Iran, amid global tensions.

Model UPSC Mains Questions:

GS Paper II – International Institutions and Relations

Q Discuss the strategic importance of India hosting multilateral security dialogues such as the Global Intelligence and Security Chiefs' Conference. How does this reflect India's changing role in global geopolitics?

Vibrant Villages Programme (VVP-II)

GS Paper II – Welfare Schemes | GS Paper III – Internal Security & Border Management

Why in News?

The Union Cabinet approved **Phase-II** of the **Vibrant Villages Programme (VVP-II)** with a financial outlay of **₹6,839 crore**, focusing on holistic development of remote border villages till FY 2028-29.

Background and Evolution:

- **India's border villages**, particularly along the **India-China** Line of Actual Control (LAC), face challenges like remoteness, harsh geography, poor infrastructure, and declining population due to migration.
- In response to **security concerns and developmental deficits**, the Government launched **VVP-I** in 2023 covering **villages along the India-China border** in Arunachal Pradesh, Himachal Pradesh, Uttarakhand, Sikkim, and Ladakh.
- **VVP-II** builds on this framework by expanding coverage across **17 states and UTs**, including border villages in **Rajasthan, Jammu & Kashmir, Ladakh, West Bengal**, and others.

About the Vibrant Villages Programme-II

Feature	Details
Phase	VVP-II
Funding Pattern	100% Centrally funded (unlike VVP-I, which was Centrally Sponsored)
Time Period	Up to FY 2028–29
States/UTs Covered	17 states/UTs including border areas of Arunachal Pradesh, J&K, Ladakh, Uttarakhand, Rajasthan, Sikkim, West Bengal, etc.
Core Objective	Integrated development of border villages to improve quality of life and national security
Key Approach	Development + Strategic Surveillance — making villagers active contributors in border management

Major Components of VVP-II

- Infrastructure Development**
 - All-weather roads, housing, electricity, water supply, communication networks.
- Livelihood and Skill Development**
 - Promotion of **self-help groups (SHGs)** and **cooperatives** to encourage **sustainable livelihoods**.
- Tourism & Cultural Integration**
 - Eco-tourism, homestay promotion, showcasing **local traditions and heritage**.
- Education and Digital Connectivity**
 - Smart classrooms, digital literacy, online education access.
- Social Integration and Outreach**
 - Cultural exchanges, awareness campaigns, integration with the rest of India.

Strategic Importance

- Acts as a **countermeasure to Chinese model villages** ("Xiaokang Villages") built near the LAC.
- Enhances **grassroots-level intelligence gathering** as villagers become the "eyes and ears" of security forces.
- Helps in **population retention** in sensitive and often sparsely inhabited regions.

- Aligns with India's **Act East Policy** and internal security strategy to **fortify border management**.

Challenges

- **Topographical barriers** (snowfall, landslides) slow down infrastructure rollout.
- **Lack of local capacities** and skilled manpower.
- **Security risks** in disturbed border zones (e.g., Arunachal, J&K).
- Need for **continuous monitoring** to prevent misuse or underutilization of funds.

Model UPSC Mains Questions:

GS Paper II – Governance/Development

Q Q1. Discuss the significance of the Vibrant Villages Programme in addressing development deficits and national security challenges in India's border regions.

Defence Exercises in News (2024–25)

GS Paper II – Bilateral/Multilateral Relations | GS Paper III – Defence & Security Cooperation

Context:

India has actively engaged in several bilateral and multilateral military exercises in 2024–25 to enhance defence preparedness, interoperability, regional cooperation, and strategic deterrence across multiple domains—land, air, sea, and cyber.

Categorized Defence Exercises:

Tri-Service and Multidomain Exercises:

Exercise	Participants	Highlights
TROPEX	Indian Army, Navy, Air Force, Coast Guard	Biennial Theatre-Level exercise in Indian Ocean Region to assess operational readiness.
Prachand Prahar	Indian Armed Forces	High-altitude, integrated multi-domain warfare exercise in Arunachal Pradesh.
Tiger Triumph	India, US	Tri-service Humanitarian Assistance and Disaster Relief (HADR) exercise.

Multilateral Maritime/Naval Exercises:

Exercise	Participants	Purpose
La Perouse	India, France, Australia, US, UK, etc.	Maritime situational awareness; held in Southeast Asia's strategic straits.
Marine Security Belt 2025	Iran, Russia, China	Naval drill in Gulf of Oman; showcases evolving Eurasian naval partnerships.
MAHASAGAR	11 IOR nations	Indian Ocean Region security dialogue; boosts maritime cooperation.

Bilateral Exercises – Strategic & Regional Focus:

Exercise	Partner Country	Domain	Key Focus
Surya Kiran	Nepal	Army	Annual infantry-level tactical operations.
SLINEX	Sri Lanka	Navy	Maritime interoperability and anti-submarine warfare.
Agni Warrior	Singapore	Army	Artillery and mechanized warfare drills.
Harimau Shakti	Malaysia	Army	Counter-terrorism and jungle warfare.
VINBAX 2024	Vietnam	Army + Air Force	First-ever bi-service military drill with Vietnam.
Garud Shakti	Indonesia	Special Forces	Urban combat, counter-insurgency.
INDRA	Russia	Navy	Enhancing operational coordination.
Varuna 2025	France	Navy	23rd edition; naval power projection.
Desert Knight	France, UAE	Air Forces	Trilateral air combat and interoperability.
SIMBEX 2024	Singapore	Navy	31st edition of bilateral maritime engagement.

Specialized & Niche Exercises:

Exercise	Participants	Focus Area
CINBAX	India, Cambodia	Tabletop exercise on Counter-Terrorism, HADR, and Cybersecurity.
SAREX-24	Indian Coast Guard	Search and rescue preparedness.
CYCLONE-III	Egypt	Special Forces ops in urban/counter-terror settings.

Exhibition-cum-Exercise:

Event	Details
Aero India 2025	Asia's largest airshow in Bengaluru with the theme "Runway to a Billion Opportunities". Serves as a defence diplomacy and aerospace innovation platform.

Strategic Significance of Defence Exercises:

- Enhances Interoperability**
 - Standardizing communication protocols and joint drills across forces.
- Strengthens Defence Diplomacy**
 - Deepens military-to-military ties with ASEAN, IOR nations, QUAD members, and Western allies.
- Counterbalance to China's Military Expansion**
 - Especially relevant in Indian Ocean and Indo-Pacific strategic exercises like La Perouse, MAHASAGAR, and Varuna.
- Showcases Indigenous Capability**
 - Platforms like Aero India boost India's image as an arms exporter and technology innovator.
- Addresses Non-Traditional Security Threats**
 - Joint responses to HADR, cyberwarfare, and counter-terrorism build multi-domain capabilities.

Challenges:

- Resource allocation and coordination in tri-service exercises.
- Logistical complexity in high-altitude/remote-area drills.
- Balancing strategic autonomy amid growing multilateral alignments.

Model UPSC Mains Questions

GS Paper II – International Relations

Q Defence exercises are not only military drills but also diplomatic instruments. Discuss with reference to India's evolving multilateral engagements.

Directed Energy Weapons (DEWs)

GS Paper III – Defence Technology | Internal Security | Science & Technology

Context:

India has increased its investment in Directed Energy Weapons to modernize its defence arsenal and enhance indigenous capabilities under the Aatmanirbhar Bharat initiative.

What Are DEWs?

- **Directed Energy Weapons (DEWs)** are systems that **emit focused energy**—such as lasers or microwaves—at the **speed of light** to **disable or destroy enemy assets** without traditional projectiles.
- They represent a **disruptive leap in modern warfare**, expanding the frontiers of **electronic and electromagnetic warfare**.

How Do DEWs Work?

Mechanism	Working Principle
Laser-based (HEL)	High-energy laser beams melt, burn, or vaporize targets.
Microwave-based (HPM)	Emit microwave bursts to damage or disable electronic components.
Millimeter Waves	Cause localized heating; used in non-lethal crowd control.
Particle Beams	Accelerated particles penetrate and destabilize target materials.

Types of Directed Energy Weapons:

Type	Description	Use-Case
High Energy Lasers (HEL)	Up to 1 MW power; precise targeting of drones, missiles	Anti-drone systems, missile interception
High Power Microwaves (HPM)	Wide-area targeting of electronics	Disabling enemy communication, radar

Millimeter Wave Weapons	Used for area denial; non-lethal	Riot control, border crowd management
Particle Beam Weapons	Under research; extreme energy particles	Strategic high-energy defence applications

Strategic Significance for India:

1. Boost to Indigenous Capability

- DEW projects led by DRDO (e.g., Durga II laser system) support self-reliance in advanced weapons tech.

2. Cost-Effective Defence

- Once developed, DEWs offer low per-shot cost compared to missiles.

3. Precision and Speed

- Damage occurs instantly at the speed of light with minimal collateral damage.

4. Countering Emerging Threats

- DEWs are crucial against **swarms of drones, hypersonic threats, and electronic warfare systems.**

5. Dual Use Potential

- Applications in **space-based systems, homeland security, and satellite defence.**

Challenges in DEW Development:

- **Power Generation and Storage:** Portable, high-capacity power systems are required.
- **Atmospheric Interference:** Weather, dust, and humidity affect laser efficiency.
- **Cooling and Thermal Management:** Continuous operation heats up components.
- **Ethical and Legal Ambiguity:** Especially for non-lethal crowd control and space-based deployment.

Relevant Examples:

- **India:** DRDO's DURGA-II project; laser-based anti-drone systems tested.
- **US:** HELIOS (Navy), Active Denial System (non-lethal crowd control).
- **China:** Silent Hunter laser system, space-based DEW developments.

Model UPSC Mains Questions:**GS Paper III – Science & Tech / Internal Security****Q What are Directed Energy Weapons (DEWs)? Examine their potential in reshaping India's future warfare strategy.****Indian Cyber Crime Coordination Centre (I4C) – Foundation Day****Initiatives****GS Paper III – Internal Security | Cybersecurity | Governance****Context:**

On the occasion of its Foundation Day, the Indian Cyber Crime Coordination Centre (I4C) launched key initiatives to strengthen India's cybercrime response and enhance inter-agency cooperation.

What is I4C?

- Established in 2020 under the Ministry of Home Affairs (MHA).
- Serves as a pan-India coordination platform to tackle cybercrime threats.
- Located in New Delhi, it acts as the nodal agency for cybercrime prevention, investigation, and capacity building.

Functions of I4C:

Function	Description
Coordination	Central authority coordinating law enforcement agencies (LEAs), financial intermediaries, telecom and IT providers.
Capacity Building	Identifies research needs, develops indigenous forensic tools, and facilitates training.
International Cooperation	Implements Mutual Legal Assistance Treaties (MLATs) and fosters cross-border collaboration.
Policy Advisory	Recommends amendments to cyber laws to match emerging technologies.
Counter-Extremism	Prevents misuse of cyberspace by extremist and terrorist groups.

Key Initiatives Launched on Foundation Day:

Initiative	Description
Cyber Fraud Mitigation Centre (CFMC)	Based in New Delhi, includes banks, fintech firms, telecom providers, IT intermediaries, and LEAs. Facilitates real-time responses to cyber financial crimes. Embodies cooperative federalism in cyber law enforcement.

Samanvay Platform (Joint Cybercrime Investigation Facilitation System)	A web-based platform for crime mapping, data sharing, and analytics. Enhances coordination among law enforcement agencies.
Cyber Commandos Program	Aims to train 5,000 cyber commandos across states, Union Territories, and central police organizations. Focuses on rapid-response cyber capabilities.

Relevance:

- India is witnessing an increase in phishing scams, ransomware attacks, and digital financial frauds.
- There is a pressing need for a robust, real-time, and integrated cybercrime response mechanism.
- These initiatives are vital for safeguarding the digital economy under the Digital India framework.

Challenges:

- Fragmentation among central and state agencies can hinder timely action.
- Shortage of skilled cybercrime experts and forensic analysts.
- Jurisdictional issues in dealing with transnational cybercriminals.
- Rapid technological changes demand constant upgrading of investigative tools.

Model UPSC Mains Questions:

- Q Discuss the role of the Indian Cyber Crime Coordination Centre (I4C) in tackling cyber threats in India. How do recent initiatives like the Cyber Fraud Mitigation Centre and Cyber Commandos enhance India's digital security infrastructure?
- Q In the context of rising cyber threats, examine the need for a comprehensive and integrated cybercrime response mechanism in India. What steps has the government taken in this regard?

NON-KINETIC WARFARE

GS Paper III – Internal Security | Cybersecurity | Defence Strategy

Context:

The Parliamentary Standing Committee on Defence (SCOD) has prioritized India's preparedness for hybrid warfare, including a key focus on **non-kinetic methods of conflict** in its list of 17 strategic subjects for deliberation.

What is Hybrid Warfare?

Hybrid warfare is a multidimensional strategy that combines **conventional (kinetic)** military operations with **non-kinetic, unconventional tactics**. It aims to exploit the enemy's vulnerabilities through a mix of **cyber operations, misinformation, economic disruption, and psychological manipulation**.

Understanding Non-Kinetic Warfare:

Non-kinetic warfare refers to **methods of conflict that do not involve direct physical force or traditional military combat**. These are strategically employed to undermine the **enemy's decision-making, infrastructure, morale, and economy**, without firing a single bullet.

Key Characteristics of Non-Kinetic Warfare:

- **Non-violent Tactics:** Relies on disruption, not destruction.
- **Indirect Impact:** Targets psychological, economic, and technological vulnerabilities.
- **Often Involves Non-State Actors:** Includes hackers, media outlets, and economic entities.
- **Deniability:** Offers the attacker plausible deniability due to the covert nature of attacks.

Major Tools and Tactics:

Method	Description
Cyberattacks	Penetration of networks to steal, disrupt or destroy data and infrastructure.
Electronic Warfare	Use of electromagnetic spectrum to jam or intercept communication systems.
Information Warfare	Spread of disinformation and propaganda to manipulate public perception.
Psychological Ops	Strategies to influence or demoralize enemy leadership or population.
Economic Sanctions	Targeting financial systems, supply chains, and critical industries.

Global Example:

- **Russia-Ukraine Conflict:** Russia has used large-scale **cyberattacks, propaganda, and electronic warfare** against Ukraine's infrastructure alongside conventional attacks. This is a textbook case of hybrid and non-kinetic warfare.

About the Standing Committee on Defence (SCOD):

- A parliamentary oversight body under **Rule 331C** of Lok Sabha Rules.
- Comprises **31 members**: 21 from Lok Sabha, 10 from Rajya Sabha.
- Chairperson is appointed by the Speaker from Lok Sabha members.

Functions of SCOD:

- Scrutinizes **Demands for Grants** for the Ministry of Defence.
- Reviews **Bills, Annual Reports**, and **long-term defence policies**.
- Assesses readiness and performance of India's defence apparatus.

Relevance for India:

- **Emerging Threats**: India faces growing non-kinetic threats from both state and non-state actors, including **cross-border cyber intrusions**, **disinformation campaigns**, and **economic coercion**.
- **Strategic Planning Needed**: The inclusion of hybrid warfare preparedness by SCOD signals India's recognition of the evolving nature of war and the need for multidimensional defence.

Model UPSC Mains Questions:

- Q What is non-kinetic warfare? How is it different from traditional warfare? Critically analyze India's preparedness in dealing with non-kinetic threats. (GS Paper III – 15 marks)
- Q "Modern warfare is increasingly being fought in the cognitive and cyber domains rather than just physical battlefields." Discuss in the context of India's defence strategy.