A Robust Defence-Industrial Base for India

Mains: *GS III – Defense*

Why in News?

India's security landscape is undergoing a profound transformation, primarily due to the rapid military modernisation of China and the growing asymmetry between the two countries, especially in terms of technological capabilities and industrial capacity, poses a significant strategic challenge.

What is China's military challenge and India's strategic compulsion?

- **China's military capability** – It is backed by its vast industrial ecosystem, presents a formidable challenge to India.
- Its ability to produce advanced military technologies at scale, including missiles, drones, and cyber capabilities, has significantly enhanced its war-fighting potential.
- **Compulsion for India** – For India, the consequences of inaction are severe:
  - A widening capability gap vis-à-vis China.
  - Reduced deterrence credibility.
  - Increased vulnerability in a potential protracted conflict.
- Thus, India has no option but to pursue a robust and coherent industrial strategy that aligns with its long-term security objectives.

What are the strategic approaches to bridging the capability gap?

- **The Bold Approach –** This approach involves investing in cutting-edge, next-generation military technologies with the aim of leapfrogging existing capabilities.
- **Advantages:**
  - Potential to significantly narrow the capability gap.
  - Opportunity to build future-ready armed forces.
- **Risks:**
  - High uncertainty in technological bets.
  - Implementation failures could create acute vulnerabilities.
  - India's current industrial capacity may not support large-scale production.
  - Thus, while transformative, this approach carries significant risks.
- **The Conservative Approach –** This strategy focuses on integrating emerging technologies into existing military systems to enhance their effectiveness.
- **Key Features:**
  - Digitisation of the battlespace.
  - Improvement in cyber, space, and electronic warfare capabilities.

    - Streamlining of operational processes such as kill chains.
- **Limitations:**
    - Does not fundamentally alter the balance of power.
    - More suitable for short-duration conflicts rather than prolonged wars.
- **The Middle Path –** A more balanced and pragmatic approach lies in combining legacy systems with investments in critical enabling capabilities.
- **Core Elements:**
    - Development of Command and Control (C2) systems.
    - Strengthening Intelligence, Surveillance, and Reconnaissance (ISR).
    - Enhancing deep-strike, close-battle, and logistics capabilities.
    - This approach facilitates a gradual transition towards multi-domain operations (MDO), even though the concept remains complex and difficult to operationalise.
    - Historically, successful military transformations have required alignment between doctrine, technology, industrial capacity, and organisational structures. India must follow a similar trajectory.

What are the systemic challenges in india's defence preparedness?

- **Weak Defence-Industrial Base –** India's primary limitation lies not in technological knowledge but in its inability to produce military systems at scale and speed.
- **Key Issues:**
    - Disconnect between military requirements and industrial output.
    - Over-reliance on public sector undertakings.
    - Limited role of private industry.
- **Priority Areas for Investment:**
    - Missiles and munitions.
    - Drone technologies.
    - ISR and C2 networks.
    - Modernisation of legacy platforms.
    - Without expanding its defence-industrial base in partnership with private players, India will continue to face structural constraints.
- **Inefficient Procurement Processes –** India's defence procurement system often acts as a bottleneck rather than an enabler.
- **Challenges:**
    - Procedural delays and bureaucratic inefficiencies.
    - Lack of long-term budgetary commitments.
    - Inflexibility in adapting to evolving military requirements.
- **Required Reforms:**
    - Simplification of procurement procedures.
    - Ensuring budgetary stability.
    - Providing long-term contracts for specialised systems.
    - Strengthening civil-military coordination to ensure informed decision-making.
    - India must not only spend more on defence but also spend more efficiently by prioritising key deterrent capabilities.

What are the importance of enabling layers in multi-domain deterrence?

- **C4ISR dominance –** Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems form the backbone of modern military operations.
- The ability to "see" the battlefield determines operational success.
- India must invest in affordable and expendable ISR platforms.
- Cyber and electronic warfare capabilities are essential to disrupt adversary systems.
- A layered C4ISR architecture that enhances India's capabilities while degrading those of the adversary is crucial.
- **Integrated strike capabilities –** Effective deterrence requires the ability to strike deep into enemy territory.
- Integration of missiles, aircraft, and drones.
- Capability to disrupt enemy logistics and command structures.
- **Close-battle capabilities –** Frontline combat effectiveness remains essential.
- Coordination of tanks, artillery, and infantry combat vehicles.
- Ensuring battlefield dominance in high-intensity conflicts.
- **Logistics and infrastructure –** Sustaining military operations over a prolonged period requires a robust logistics network.
- Integration of supply chains and infrastructure.
- Efficient management of rear-area support systems.
- **Nuclear deterrence –** Given China's nuclear capabilities, India's nuclear deterrent remains a critical pillar.
- Acts as a counterbalance to conventional asymmetry.
- Requires careful calibration to maintain strategic stability.
- **Industrial prioritisation and strategic investments –** India must prioritise specific capabilities through targeted investments.
- China's large missile inventory and its capacity for rapid production pose a serious threat. In contrast, India faces limitations in both inventory and surge capacity. This asymmetry could prove decisive in a prolonged conflict.
- **Key Imperatives:**
    - Expansion of missile production capabilities.
    - Development of scalable drone ecosystems.
    - Enhancement of industrial surge capacity during wartime.
    - Failure to address these gaps could embolden adversaries and weaken deterrence.

What should be done?

- **Coherent Strategy** – To build a credible multi-domain deterrence framework, India must adopt a holistic approach:
    - Shift focus from service-specific acquisitions to integrated capability development.
    - Encourage private sector participation in defence manufacturing.
    - Remove bureaucratic red tape and streamline regulatory processes.
    - Ensure long-term policy stability and financial commitment.
    - Promote doctrinal convergence alongside structural reforms such as theatre

commands.
    - Importantly, national security institutions must work together to develop a shared understanding of deterrence objectives and the means to achieve them.

What lies ahead?

- India’s quest for credible multi-domain deterrence hinges on the strength of its defence-industrial base and its ability to build critical enabling layers.
- While there is no single solution, a calibrated and incremental approach that aligns technology, doctrine, and industrial capacity can significantly enhance India’s strategic posture. However, the window for meaningful reform is narrowing.
- Timely and decisive action is essential to bridge the capability gap and ensure long-term national security.
- In this context, India must develop a credible multi-domain deterrence framework anchored in a strong defence-industrial base.
- This requires making difficult policy choices regarding procurement, indigenous production, and technological investments, particularly in an era where technological evolution is outpacing doctrinal clarity.

Reference

[The Hindu| China’s Military and India’s Compulsion]

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