



MODERNISING THE ARMED FORCES

CONTEXT:

- PM said that India is working hard to enhance its capabilities in the defence-manufacturing sector at a fast pace.
- There were hundreds of ordnance factories before independence with large-scale weapons export from the country in both world wars but this system was not strengthened.
- PM Modi urged the private sector to come forward and take up both designing and manufacturing of defence equipment.

DEFENCE BUDGET HIGHLIGHTS:

- A total amount of Rs 4.78 lakh crore has been earmarked for the defence ministry in the 2021-22 budget, with a nearly-19-per cent increase in capital outlay.
- **Defence forms the Strategic Sector** and it is planned to have bare minimum presence of the public sector enterprises and the remaining shall be privatised/merged/subsidiarized/closed.
- **Customs duty on raw materials and inputs used by aviation sector components or parts for manufacturing by Public Sector Units shall see the reduction of duty from 2.5% to zero.**
- Budget proposes **100 new Sainik Schools**.
- The **Negative list** was in any case simply the list which was on the anvil for indigenization by Defence Forces for the last decade or so.
- **Capital allocation for DRDO has been increased to Rs 11,375.50 crore.**

NEED FOR MODERNISATION:

- Modernization of armed forces is a complex process; it involves all the possible changes in the material capacity to meet the strategic objective.
- Being a **responsible power in the multi-polar world, Indian Ocean, south Asian region, will be second-largest economy by 2050**, there is a assigned role for India.
- For this, India has to formulate certain policy and contemplate on the military means.
- A strong navy is instrument of **safe and secure line of communication and energy corridor**.
- Guaranteed security in India's maritime domain gave **assurance to its neighbours**.
- **Rising manpower cost and changing nature of modern warfare** necessitates modernisation.
- The **defence budget of Indian armed forces has increased by the factor of 2 from 2009-10 to 2018-19, but the pension budget for the same period of time has increased by a factor of 15.**
- Highly effective weapon not only **improve the capability of the force but multiple the morale of the soldiers to a towering height**.
- **Recent military clashes between India and China has made the government take steps to secure the sovereignty of India and maintain peace and tranquillity at the borders.**

ISSUES IN INDIA'S DEFENCE MODERNISATION:

- The Indian defence industry suffers from major policy, structural, and cultural challenges that beset a military-industrial complex that continues to struggle in terms of delivering modern defence hardware.
- Military Modernization can occur in following areas -
 1. **Improvement in combat capabilities** - raising, sustaining and using effective armed forces is the central task of any state and its defence establishment.



2. **Improvement of procedures, structures and systems** – how a defence establishment works, rather than what it possesses.
3. **Structure of higher defence** – how different parts of the military leadership relate to one another and how that body of command in turn relates to elected civilian leaders.

India's National Security Concerns And Defence Preparedness

- Variety of threat have arisen like **territorial, environmental, natural disaster, migration, drug trafficking, radicalization, terrorism, piracy, threat to cyber, nuclear and energy security.**
- Issues such as the unresolved territorial disputes with China and Pakistan, the insurgency in J&K and the North-Eastern states, the growing menace of left-wing extremism and the rising threat of urban terrorism has further exacerbated India's security environment.
- India might face a two-front war in the future.
- India is one of the largest arms importers in the world.
- India's land forces lack sophisticated weapons and armoury, the navy's submarine fleet has dwindled down to 40% of the minimum requirements and the fighter squadrons are at the level of 60 percent of the mandatory need.
- India has the fourth most powerful military power in the world. India with the second largest armed forces and with the third-largest defence budget in the world aims to achieve self-reliance in defence production.

Self-Reliance And Enduring Challenges

- India's inability to meet its own defence needs through indigenous production (The two flagship programs Main Battle Tank Arjun and Light Combat Aircraft Tejas are examples where the Indian defence research organisations have gone through several production delays and cost-overruns.) is drawing wider concerns.
- The targets that have been set over the years have not been achieved, and that raises questions about the ability of India's defence industry.

Decision-Making and National Security Strategy

- The decision-making in India in national security and strategic matters have been however projected to be slow and complex because of the hierarchical structure leading to delays.
- It is observed that the national security strategy of India suffers from flaws such as the absence of a National Security Doctrine and the absence of long-term defence planning.
- Indian defence preparedness is facing challenges such as poor civil-military relations, the failure in modernisation on a long-term basis and sub-optimal inter-service prioritisation etc.
- There is a lack of the greater political will that has severely affected decision-making in terms of acquiring weapons on time as per the needs of the Armed Forces
- Unfriendly defence industrial procurement system has resulted in few co-development and co-production ventures with foreign firms.

R&D

- Under-utilisation of human resources has negatively affected India's defence R&D base.
- Issue with DRDO: There is a dichotomy between the time-consuming quest for technological self-reliance and the desire to import based on immediate operational exigencies.
- Disconnect in the interface between R&D, production agencies and users remains unresolved.



Military capacity

- Low teeth-tail ratio, unfulfilled vacancies, etc. deters the credible military capacity
- The present Sahayak system erodes the dignity and prestige of jawans.

Decreasing budgetary allocations

- Defence Budget is 1.57 per cent of GDP compared to the lowest ever 1.49 in the 1950s.
- Capital expenditure on defence is 30 per cent while in UK it is 65-70 %
- Defence spending is highest in Saudi Arabia (10 %) Russia (5.3 %) the US (3.3 %) the UK (2%).
- With revenue invariably forming a large part of the army's budget, there is little left for capital expenditure, thus putting severe constraints on its modernisation ability.
- Further, the distribution among the three services is not necessarily in proportion to their size.
- Annual defence budgets remain unutilised and continue to lapse back to the Ministry of Finance at the end of the financial year.
- The lack of a conducive financial framework for the local industry to do business in the defence sector has also negatively impacted private participation in the defence sector.

War Equipment

- Army has stated on record that 68% of its war fighting equipment is obsolete.

FDI related

- Issues related to land acquisition, labour laws, regulatory cholesterol, the conflict between the Ministry of Defence and the Department for Promotion of Industry and Internal Trade regarding computation methodology of FDI.

STEPS TAKEN EARLIER:

- After independence, the Higher Defence Organization (HDO) handed down by Britishers remained almost completely unchanged until India-China war in 1962.
- First Defence Plan (1964-69) instituted to assess defence requirements.
- A Planning Cell was established in 1965 in the Ministry of Defence.
- The Second Defence Plan (1969-74) was instituted on a 'roll-on' basis.
- In 1974, an Apex Group under the Union Minister for Planning suggested, long-term defence plan is more effective and economically viable than fluctuating allocations.
- Till 1990, security issues were being handled by the Cabinet Committee on Political Affairs
- Formation of Cabinet Committee on Security (CCS) in the mid-1990s.



VARIOUS COMMITTEE RECOMMENDATIONS:

Recommendations of Kargil Review Committee: development of India's nuclear deterrence, management of national security, Intelligence reforms, Border management, increase Defence budget, Use of air power, Counter-insurgency operations, Defence research and development (R&D) and even media relations

Naresh Chandra Committee Recommendations

- Appointment of a permanent Chairman of the present COSC Chief of Staff Committee
- For operational requirement – appointment of CDS and simultaneously creating Integrated Theatre commands for joint warfare in future conflicts.
- Creation of three new tri-service commands: Special Operations Command, Aerospace Command and Cyber Command

Shekatkar Committee Recommendations

- Roll-on defence budget.
- Increase the defence budget to 2.5-3% of the GDP.
- There should be more focus on the tooth-to-tail ratio
- Optimization of various corps, engineering services and non-combat support in the army
- Appointment of the Chief of Defence Staff
- Devising an integrated War approach by Indian Army, Navy, and Airforce.
- Three integrated commands instead of existing 17 separate commands
- The Tri-Service intelligence should be made.

RECENT STEPS TAKEN:

Policy Related

- **Defence Reforms Under Atma-Nirbhar Abhiyan:**
 - Raising the sectoral cap of FDI (automatic approval) from the existing 49% to 74%.
 - A negative list for the import of defence equipment in India.
 - A separate capital budget for indigenous weapons procurement.
 - Corporatisation of the Ordnance Factory Board, and Reforming defence procurement.
- **Defence Procurement Policy 2016**
 - Indigenously Designed Developed and Manufactured (most preferred category).
 - Acquisition schemes are broadly classified as, 'Buy', 'Buy and Make', and 'Make'. 'Buy' is further categorised as 'Buy (Indian indigenously designed, developed and manufactured – IDDM)', 'Buy (Indian)', and 'Buy (Global)'.



- **Draft Defence Production Policy 2018**
- Defence Acquisition Council (DAC) **simplified 'Make II' procedure.**
- Government has established a **Defence Planning Committee**
- Three new formations under Defence Ministry namely **Defence Cyber Agency, Defence Space Agency and a Special Operations Division have been proposed.**
- Ministry of Defence proposed **Draft Defence Production and Export Policy 2020** with an aim to double India's defence production in five years.
 - Procurement Reforms: Project Management Unit and a Technology Assessment Cell.
 - Support to MSMEs/Start-ups for setting up of an indigenization portal and creation of a Defence Investor Cell in Department of Defence Production.
 - Investment Promotion and Ease of Doing Business
 - Innovation and R&D - DRDO would set up missions in select areas to develop futuristic and critical systems/platforms/materials.
 - Reforms in DPSUs and Ordnance Factories by increasing Corporatization of ordnance factories and projecting DPSUs as System Integrators in the Defence Ecosystem.
 - Improving Quality Assurance and Testing Infrastructure through Defence Testing Infrastructure Scheme
 - Export Promotion: Export Promotion Cell and creation of an Open General Export License (OGEL) regime.
- **Naval Innovation and Indigenisation Organisation**
- **Defence Acquisition Procedure, 2020**
 - aligned with the vision of 'Aatmanirbhar Bharat' and 'Make in India'.
 - Come into effect from October 1, 2020 and will supersede the 2016 policy.
 - Reduce dependence on imports
 - Boost overall economy: Government aims for a turnover of ₹1.75 lakh crore in defense manufacturing by 2025.
 - Improve capabilities of the Armed Forces: indigenization and technology infusion to enhance future capabilities of the Armed Forces.
 - Defined role for Private sector
 - Timely acquisition through optimum utilization of budgetary resources.
 - Complex and unique decision making: supplier constraints, technological complexity, foreign suppliers, high cost, foreign exchange implications and geopolitical ramifications would be better addressed through a designated policy.
 - Streamlining and simplifying process: DPP favors swift decision making, provides for suitable timelines and delegates powers to the appropriate authorities.
 - Offset policy revised: removed the clause for offsets for inter-government agreement, government-to-government defence deals and single-vendor contracts.
 - Notify a List of Weapons/Platforms for Ban on Import
 - For Indigenisation of Imported Spares, New Category of Buy (Global - Manufacture in India)
 - Request For Information: will explore willingness of the prospective foreign vendors to progressively undertake manufacture and setup an indigenous ecosystem.
 - Reservation in Categories for Indian Vendors: The categories of Buy (Indian-IDDM), Make I, Make II, Production Agency in Design & Development, Ordnance Factory Board/DPSU and SP model will be exclusively reserved for Indian Vendors.
 - Setting up of project management unit (PMU), Simplification of Trial Procedures, Leasing.
- **Strategic Partnership Model (SPM):** participation of private Indian firms along with foreign OEM in 'Make in India' and play the role of a System Integrator by building an extensive eco-system comprising development partners, specialized vendors and suppliers.
- Post of **Chief of Defence Staff** created.
- India may restructure its military organization by creating **theatre commands.**
- India and US **Basic Exchange and Cooperation Agreement** deal in 2020.



Acquisitions, deals etc

- In 2019, the government finalized to spend \$130 billion in 5-7 years to modernize military.
- The plan includes the acquisition of a range of weapon includes warship, missile, drone, fighter jet, surveillance equipment, rifle and creating architecture for artificial intelligence.

Modernization of Indian army

- The army has already begun the process to acquire **7 lakh rifles, 44,000 LMGs 44,600 carbine.**
- **Procurement of assault rifles from US firm Sig Sauer .**
- A joint collaboration with Russia to make **AK 203 Kalashnikov rifle in Amethi.**
- Another key development is in **Bulletproof jacket developed by Major Anoop Mishra**, which will be manufactured by the private sector.
- India has inducted M777 155 mm howitzer from US and DRDO developed Pinaka Multiple rocket launcher.
- The Government also granted special financial powers that come with a ceiling of \$71.42 million to rapidly buy weapons.

Modernization of Indian Navy

- At present the Indian navy has around 130 vessels only.
- India's procurement of naval aircraft P-8I Neptune anti-submarine aircraft from the USA, leasing submarine INS Chakra from Russia, a joint venture of Barack-8 missile with Israel, planning of equipping Talwar, Shivalik class frigate and Kolkata class destroyer with Brahmos cruise missile will enhance the capability to Indian Navy many folds.

Modernization of Indian Air Force

- Indian air force which has the sanctioned strength of 42 squadrons is currently operating only 33 squadrons, however, out of these 50% are obsolete aircraft of the '70s and 80's era.
- India is buying **36 Dassault Rafael from France.**
- Deals with Russia includes **procurement of MiG-29 fighter jets, Su-30MKI aircraft along with upgradation of existing MiG-29 jets, S-400 air defence systems**
- **Apache attack helicopters and Chinook heavy lift helicopters from the U.S.** among others.
- **Upgradation: The Jaguar, Mirage-2000.**
- **Focus on indigenization: 83 Light Combat Aircraft (LCA) Mk-1A and Mk-2.**
- Indigenous **fifth generation advanced medium combat aircraft** is also under development.

WAY FORWARD

- Formulation of **comprehensive NSS**, inclusive of internal security.
- Establish a **permanent National Security Commission** - mandated by an act of parliament - to oversee the development of military and non-military capacities for national security.
- In hybrid warfare context, **more commands** need to be established.
- Government must accord the **highest priority to the implementation of the recommendations of the Naresh Chandra Committee.**



- Enhance defence budget to 3.0 per cent of the GDP for defence modernisation.
- Priorities long-pending defence procurement plans, such as C4I2SR, artillery modernisation, acquisition of modern fighter aircraft and aircraft carriers and submarines.
- Use of **artificial Intelligence** to combat modern warfare.
- **Optimizing military performance in joint operations**
- **Resolve imbalances created by the Fifth, Sixth and Seventh Pay Commissions that have led to a civil-military divide** including the ex-servicemen's demand for OROP.

Army

- The **critical capabilities that are needed to be enhanced are:** battlefield transparency, management systems, night-fighting capability, enhanced firepower, including terminally guided munitions, integrated manoeuvre capability to include self-propelled artillery, quick reaction surface-to-air missiles, the latest assault engineer equipment, tactical control systems, integral combat aviation support, and network centrality.

Navy

- India should look to augment its naval power by **acquiring capabilities for maritime domain awareness in the area of responsibility, including space-based surveillance, maritime reconnaissance, AEW&C, and UAVs.**
- The Indian Navy should be equipped with modern capabilities in fields of **tactical aviation, anti-submarine warfare (ASW), anti-air/anti-missile, land-attack, mine counter-measures, and electronic warfare.**
- It is equally important to make sure that Indian Navy is **integrated by the networking of ships, submarines, and airborne platforms via satellites.**

Air Force

- The most crucial component that has to be implemented for better integration of the services of the Armed Forces is a **robust and an efficient Command, Control, Computers, Communication, Intelligence, Surveillance, and Reconnaissance (C4ISR) system.**

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