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ORIGINAL RESEARCH PAPER

INDIGENISATION IN INDIAN DEFENCE SECTOR: OPPORTUNITIES AND CHALLENGES

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Vikram Singh

Research Scholar, Dept. of Defence and Strategic Studies, Maharshi Dayanand University, Rohtak, Haryana.

INTRODUCTION

The Defence Sector in India is identified as an important area with an ocean of opportunities for self-reliance. With largescale modernisation requirements of the Indian Armed Forces, India's vision for Atma Nirbhar Bharat has provided further impetus to realise the goal of indigenisation of Defence Sector. Defence production for the Indian Armed Forces under the 'Make in India' initiative provides state-ofthe-art equipment, which matches the world's best in many cases. It exceeds the specifications of the corresponding world platforms. This is amply demonstrated by other nations seeking many such weapons and equipment. According to a study released by the Stockholm International Peace Research Institute (SIPRI), India ranks 4th among 12 Indo-Pacific nations in self-reliant arms production capabilities. But the concern is, India is also ranked as the 2nd largest importer of arms for its armed forces. in 2016-20.

Self-sufficiency in defence will be the single-most-important fundamental of strategic independence. The indigenous industry would assume significance in the days to come, not only to meet the requirement of Bharat but also to export. Since its independence, India has pursued self-reliance, yet efforts have resulted in dismal outcomes. India built up its domestic defence production facilities with the help of countries like the former USSR and the British in the 1960s and 1970s, primarily for the assemblage under licence.

The call for Aatmanirbhar Bharat has provided further impetus to realise the goal of self-reliance. Atmanirbhar Bharat is the vision of the Hon'ble Prime Minister Shri Narendra Modi. On12 May 2020, the special economic and comprehensive package of INR 20 lakh crores, roughly equivalent to 10% of India's GDP, was made available to make India self-reliant and meet the challenges thrown by COVID-19. Aatma Nirbhar Bharat's five pillars are Economy, Infrastructure, System, Vibrant Demography and Demand. When India speaks of becoming self-sustaining, it doesn't promote a self-centred system. Instead, India is concerned about the happiness, cooperation and peace of the world community-Vasudhaiva Kutumbakam.

Importance Of Indigenisation In Defence Sector

With indigenous weapons and platforms, a new dimension is added to their capabilities. They have an advantage over the adversary since indigenously developed niche capabilities can remain unknown to the enemy- something that is not possible with imported off-the-shelf equipment. Such capabilities have been achieved due to proactive initiatives taken by all three services in the last two years. The latest addition to the indigenisation efforts was the aircraft carrier commissioned last week. Designed by the Indian Navy, it was manufactured by Cochin Shipyard, catapulting India into the league of a small group of nations who have the capability to design and build aircraft carriers.

The rapid success achieved in development of military equipment is also in part to the credit of public-private partnership (PPP). Nagpur-based Economic Explosives (EEL) serves as a prime example. EEL's Dr Manjit Singh, Director R&D told the Financial Express Online that the company has created Pinaka Multi Barrel Rocket Launcher System in collaboration with DRDO; state-of-the art Multi-Mode Hand Grenades with a reliability of 99.82; HE/I ammunition for AK 630 gun, the main CRAA gun of the Indian Navy.

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A country like India with its immense potential and strategic location requires to be self-reliant, hence it is important to pursue the idea of indigenisation for-

- Self-defence: The presence of hostile neighbours like China and Pakistan makes it improbable for India to boost its self-defence and preparedness.
- Strategic advantage: Self-reliance will make India's geopolitical stance strategically stronger as a net security provider.
- Technological advancement: Advancement in the defence technology sector will automatically boost other industries hence catapulting the economy further ahead.
- Economic drain: India spends around 3% of GDP on defence and 60% of that is spent on imports. This leads to an immense economic drain.
- Employment: Defence manufacturing will need the support of numerous other industries which generate employment opportunities.

Opportunities In Indigenization/Self Reliance Campaign

The defence sector was identified as an important area with many opportunities for self-reliance because it is one of the critical sectors of the Indian economy. It has the potential for tremendous growth because of the large, talented pool of skill sets in human resources and large-scale modernisation requirements of the Indian Armed Forces. The defence sector would further strengthen the economy by generating employment opportunities and saving the exchequer by reducing the import burden. The size of the Defence Industry, including the Aerospace and Naval Shipbuilding Industry, was estimated at 85,000 Cr (2020-21). While the contribution of the Public Sector is estimated to be 68,000 crores, the share of the Private Sector has steadily grown to more than 17,000 crores in recent years.

Initiatives To Boost Indigenous Production

The government has initiated various policy actions to boost indigenous design, development and manufacture of defence equipment in the country and make a sustainable defence industrial ecosystem.

- One of the steps is to obtain capital goods from the indigenous market through the revised Defence Acquisition Procedure (DAP)-2020.
- Announcement of two Positive Indigenisation Lists of 209 items of goods and services and one Positive Indigenisation List of a total of 2851 Defence Public Sector Undertakings (DPSUs). Import of these items has been restricted.
- Simplification of the Industrial licensing process with a more extended validity period.
- Increasing of Foreign Direct Investment (FDI) policy allowing 74% FDI under automatic route and 100% through approval of the govt.
- Launching Innovations for Defence Excellence (iDEX) scheme involving start-ups & Micro, Small and Medium Enterprises (MSMEs).
- Execution of Public Procurement (Preference to Make in India) Order 2017.
- Launch of an indigenisation portal like SRIJAN to promote

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Make in India by Indian Industry together with MSMEs.

- Restructurings of offset policy with thrust on attracting investment and Transfer of Technology for Defence manufacturing by assigning higher multipliers.
- Creating dedicated two Defence Industrial Corridors, one in UP and the other in Tamil Nadu.
- Restructuring of Ordnance Factory Board into seven new Defence Companies and issuing of the action plan by the MoD aiming to ensure that contracts for all Capital Acquisition cases are finalised within two years of AoN.

To further advance and strengthen the abilities of our Indian Armed Forces, the capital outlay for the defence sector in the annual budget of 2022-23 was increased by 12.82% from the previous year. To reduce import dependence and modernise our Forces with our home-grown technology, the Government has gradually increased the domestic industry's capital procurement budget, and for the year 2022-23, it is 68%. This would undoubtedly open various opportunities for the domestic sector. Moreover, modernisation requirements and the design and production ecosystem are interwoven.

Further, R&D and technological development are fundamental to Defence's self-reliance. For realising the target of turnover of Rs. 1,75,000 Crore together with an export of Rs.35,000 Crore in the Defence sector by 2025 would not be possible without a thrust on innovation and R&D. The concept of Aatmanirbharta in Defence should not be limited only to production. It should also encompass the dominion of evolving home-grown capabilities in prevailing and new technologies and making design leadership among industry, start-ups and academia.

Security Imperative

- Indigenization in defence is critical to national security also. It keeps intact the technological expertise and encourages spin-off technologies and innovation that often stem from it.
- Indigenization is needed in order to avert the threats associated with the frequent ceasefire violations like that of the Uri, Pathankot and Pulwama attacks.
- India is surrounded by porous borders and hostile neighbours need to be self-sufficient and self-reliant in defence production.

Challenges In Indian Defence Sector

- High Dependence on Imports: The defence sector in India relies heavily on imports, and changing geopolitical circumstances cause it to be delayed. For instance, amid the Russia-Ukraine war, India is awaiting the delivery of the S-400 Air Defence Systems under a deal signed in 2018.
- In addition, several new deals are in line including 12 Sukhoi-30MKI aircraft and 21 MiG-29 fighter jets for the Indian Air Force.
- Narrow Private Participation: Private sector participation in the defence sector is constrained by the lack of a conducive financial framework that means our defence production is unable to benefit from modern design, innovation, and product development.
- Lack of Critical Technology: Lack of design capability, inadequate R&D investment, inability to manufacture major subsystems and components hamper indigenous manufacturing. Also, the relationship between R&D institutions, production agencies (public or private) and end-users is extremely fragile.
- Lack of Nexus between Stakeholders: India's defence manufacturing capability is hindered by overlapping jurisdictions between the Ministry of Defence and the Ministry of Industrial Promotion.

Major Achievements Under Self-reliant Campaign In Defence Sector

Hindustan Aeronautics Limited (HAL) Light Combat
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- Aircraft (LCA)-Tejas programme received a major boost with clearance from the Cabinet Committee on Security (CCS) on 13th January 2021 for procurement of 'improved' Tejas fighters and trainers from HAL. This will enhance the capabilities of domestic defence production sector. The total contract value of the LCA MK1A contract received by HAL from MoD is Rs 36468.63 crore.
- Prime Minister dedicated the Arjun Main Battle Tank (MK-IA) with world-class capabilities to the Indian Army on 14th February 2021 in a function at the Jawaharlal Nehru Indoor Stadium in Chennai.
- Mazagon Dock Shipbuilders Limited (MDL)'s Submarine 'Karanj' was commissioned on 10th March 2021.
- INS Visakhapatnam (Destroyer) of MDL was delivered on 28th Oct 2021 and Commissioned into Navy on 21st November 2021 by the Defence Minister.
- INS Vela (Submarine) of MDL was delivered on 09th November 2021 and commissioned into Indian Navy on 25th November 2021.
- The Prime Minister handed over 'SCG PS Zoroaster', a Fast Patrol Vessel (FPV) built by Garden Reach Shipbuilders and Engineers Limited (GRSE), to Seychelles Coast Guard on 8th April 2021. The handing over ceremony was conducted in virtual mode.
- BEML successfully commissioned & handed over largest indigenous 190 Ton electric drive Dump Truck to NCL, Singrauli on May 11,2021.
- In a big boost to its combat prowess, the Indian Air Force inducted the first batch of indigenously developed Light Combat Helicopters, named Prachand on 3 Oct 2022, that are capable of firing a range of missiles and other weapons.
- Prime Minister Narendra Modi commissioned India's first indigenously designed and built aircraft carrier INS Vikrant on 2 Sep in Kochi, putting India into a select league of countries with domestic capability to build such large warships.

CONCLUSION

A strong and well-equipped military renders a country immunity to any external and internal risk. It works as a defence mechanism and mirrors the country's military ability and capacity to defend itself against any eventuality. Therefore, equipping the military with the latest technology and modernising the existing weapons and surveillance systems inventory is crucial. India needs to build a robust military force armed with technologically advanced defence equipment to strengthen its security and intelligence and secure its territorial integrity.

India is an aspiring superpower. To achieve its ordained place among the elite militaries of the world requires modernising the Indian Armed Forces. Its immediate neighbourhood's continuous threat also propels the desire to modernise. The persistent clashes over unsettled boundary disputes with China and Pakistan, terrorism in Jammu and Kashmir, insurgency in the North-Eastern states, the uncontrolled menace of left-wing extremism, and the rising challenges from urban terrorism have further complicated India's security environment. To fight a modern-day war, it must have modern-day weapons.

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