

Strengthening Defence Autonomy through Private Sector Participation: The Indian Perspective

Mr. Vikas Kumar Pal¹, Dr. Vijay Kumar²

¹Research Scholar, Defence and Strategic Studies, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur

²Assistant Professor, Defence and Strategic Studies, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur

Abstract

India's pursuit of defence autonomy is a strategic priority in light of changing geopolitical dynamics, technological advancements, and the goal of reducing reliance on imported military equipment from other nation. According to SIPRI report 2026, despite significant progress, India remains among the world's second largest arms importers between 2021-25, and world 5th largest military spender which highlighting the importance of expanding domestic defence production. Recent policy measures under the Atmanirbhar Bharat framework aim to transform the country's defence industrial landscape by encouraging greater private sector participation, fostering innovation, liberalizing foreign direct investment (FDI), and strengthening public-private partnerships. This paper explores the role of private enterprises in advancing India's defence autonomy through an analysis of reforms in defence procurement, indigenous manufacturing, research and development, defence start-ups, MSMEs. It also analyses the role of private sector involvement in defence production & export by which improved technological capabilities, enhanced production efficiency, boosted competitiveness, and diversified India's defence industrial base. The paper also highlights ongoing challenges such as limited access to advanced technologies, financing hurdles, regulatory obstacles, and reliance on imported critical components. It concludes that the major private actors of defence production and their significance in the defence production aimed at establishing a resilient, innovative, and self-reliant defence manufacturing ecosystem in India.

Keywords: Atmanirbhar Bharat, Strategic Autonomy, Defence Autonomy, Defence Manufacturing Ecosystem, Foreign Direct Investment (FDI)

Introduction

India's defence production sector has experienced a significant transformation over recent years, shifting from a landscape predominantly controlled by state-owned enterprises to a dynamic and expanding private industry. This evolving environment is fostering innovation, enhancing capability development, and boosting exports, marking a pivotal shift in the country's strategic and industrial priorities. The change aligns closely with India's broader economic reforms and its ambitious goal of achieving self-reliance in defence manufacturing. The government has set an ambitious target of reaching Rs 3 lakh crore in defence

production by 2029, underscoring its commitment to reducing dependence on imports and fostering a robust domestic industry.

The private sector's journey from 2001 has been largely peripheral component suppliers to becoming core innovators and key exporters signals one of India's most successful industrial revolutions in India's defence manufacturing history. The private sector, including start-ups and micro, small, and medium enterprises (MSMEs) such as Tata Advanced Systems Limited (TASL), Reliance Naval and Engineering Limited (RNAVAL), Mahindra Aerospace, Bharat Forge Limited (BFL), L&T India – Defense and Aerospace, Adani Aero Defense Systems & Technologies Ltd and total 834 defence industrial licenses to private entities (as of March 2026) which plays a pivotal role in this ecosystem by designing, developing, and manufacturing cutting-edge technologies such as aerospace systems, missile technology, unmanned aerial vehicles (UAVs), electronic warfare equipment, cybersecurity solutions, and artificial intelligence (AI)-enabled military tools. This shift has fundamentally reshaped the nation's defence ecosystem, encouraging a more competitive and technologically advanced industry.

Initiatives such as the Atmanirbhar Bharat program underscore the nation's commitment to self-reliance, emphasizing the development of indigenous manufacturing capacities. The Defence Acquisition Procedure (DAP) 2020 has been instrumental in streamlining procurement processes and encouraging domestic industry participation. The formulation of Positive Indigenisation Lists aims to identify and prioritize critical technologies for local development, reducing dependence on foreign suppliers. Additionally, increasing foreign direct investment (FDI) limits has opened new avenues for technology inflow and collaboration, while initiatives like the Innovation for Defence Excellence (iDEX) and the establishment of Defence Industrial Corridors have created a nurturing environment for private sector engagement. These Initiatives which helps India to strengthens Strategic & Defence Autonomy, make buyer to builder in Defence manufacturing and reduce import dependency on other countries through Private sector participation.

Public Sector Monopoly since Independence (1947- 2000)

Historically, after gaining independence in 1947, India's defence production was largely a government monopoly, governed by policies such as the 1956 Industrial Policy Resolution. This approach resulted in inefficiencies, stagnation, and an over-reliance on foreign imports—accounting for nearly 70% of military needs by the late 1990s.

The sector primarily consisted of Defence Public Sector Undertakings (DPSUs), Ordnance Factories, and Defence Research and Development Organisation (DRDO) laboratories. While these institutions laid the foundational groundwork for indigenous manufacturing, they often suffered from bureaucratic inefficiencies, slow response times, and limited innovation. The recent reforms aim to address these issues by encouraging private sector participation, fostering a more agile, innovative, and competitive defence industry capable of meeting India's strategic needs.

The Dawn of Participation: Evolution of India's Private Defence Sector (2001–2014)

The lessons learned from the 1999 Kargil conflict exposed critical weaknesses in India's defence procurement and military preparedness, prompting a series of institutional reforms. Recognizing the need for a transformative approach, the government implemented significant reforms beginning in May 2001. When the Government of India permitted 100 percent participation by the private sector in defence manufacturing under a regulated licensing framework. Concurrently, a foreign direct investment (FDI)

cap of 26% was approved, signalling a strategic shift towards integrating private industry as a vital partner in national security endeavours. These measures aimed to harness the innovative potential and efficiency of private enterprises, fostering a more competitive and resilient defense industrial base.

Further efforts to streamline and promote domestic defense manufacturing were undertaken through the introduction of the Defence Procurement Procedure (DPP) by the Ministry of Defence in 2002. The DPP aimed to enhance transparency in procurement processes and incentivize local manufacturing. Over the next decade, the DPP was revised multiple times—in 2005, 2006, 2008, 2011, and 2013—to expand opportunities for private firms and introducing the "Make" and "Buy and Make (Indian)" categories while integrating defence offsets and shipbuilding procedures. The Defence Production Policy (DPrP) of 2011 further reinforced the role of the private sector in achieving self-reliance, emphasizing research and development (R&D), participation of Micro, Small, and Medium Enterprises (MSMEs), and fostering a competitive industrial ecosystem. By May 2012, the government had granted 181 Industrial Licences and Letters of Intent to private firms for defence production. Even though private companies still faced many challenges, like rules that made it hard to get advanced technology and competition from large government companies, these changes helped set the stage for more private sector growth after 2014.

Transformation of private sector: Negligible to Strong Partnership (2014- present)

By the technological advancement, Liberalization in FDI, Public-Private Partnership, Make in India initiative, liberalization in licencing and government policy support since 2014 India's private sector has increasingly become a vital force in advancing domestic defense production by engaging in the development of sophisticated military technologies through partnerships with the Government joint venture, DRDO, DPSUs, and the Armed Forces. Private enterprises are actively involved in the creation of missile systems, AI-enhanced anti-drone technologies, unmanned aerial vehicles (UAVs), electronic warfare systems, radar systems, aerospace structures, and defense electronics. For instance, Bharat Forge has collaborated with DRDO to produce the Advanced Towed Artillery Gun System (ATAGS), while Tata Advanced Systems Limited (TASL) manufactures aerospace structures, missile launchers, and aircraft components for both domestic and international markets. The Tata Advanced Systems Limited (TASL) and Airbus C295 manufacturing deal is a ₹21,000+ crore agreement signed in September 2021 to supply 56 tactical transport aircraft to the Indian Air Force (IAF). It marks the first time a private Indian company is manufacturing military aircraft from scratch in the country. Larsen & Toubro (L&T) has made significant contributions to the development of missile launch systems, naval platforms, electronics & radar, armoured and land system such as K9 Vajra-T howitzers and strategic defense infrastructure. Likewise, Adani Defence & Aerospace has developed drone, UAV, counter-drone systems, small arms, ammunition, and advanced surveillance technologies. Adani Defence & Aerospace has significantly strengthened India's indigenous drone manufacturing capabilities through strategic collaboration with Israel's Elbit Systems. The company manufactures the Drishti-10 Starliner, an Indian version of the Hermes-900 MALE UAV, at its Hyderabad facility under the Make in India initiative. Adani Defence also co-develops the SkyStriker loitering munition (kamikaze drone) with Elbit Systems, which has enhanced the Indian Armed Forces' precision-strike capabilities. In addition, the company has developed advanced counter-drone systems in collaboration with DRDO, integrating radar, electro-optical sensors, electronic jammers, and laser-based neutralization technologies. Supported by iDEX, start-ups like NewSpace Research & Technologies have created AI-enabled swarm drones for surveillance and combat missions, and ideaForge has established itself as a leading producer of UAVs utilized by the Indian Armed Forces.

These instances underscore the essential role played by the private sector in fostering defense innovation, bolstering defence technology, indigenous manufacturing, and defence exports, thereby accelerating India's journey towards defence autonomy and technological self-reliance.

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Accelerating Defence Autonomy: Through technological advancement

Since 2014, India has embarked on a strategic transformation of its defense policy, placing a strong emphasis on fostering greater involvement of the private sector to attain greater self-reliance in defense capabilities. Initiatives such as 'Make in India,' the Defense Procurement Procedure (DPP) 2016, Positive Indigenisation Lists, Liberalization in FDI, Atmanirbhar Bharat mission (2020), Defence Acquisition Procedure (2020) and Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) have played pivotal roles in promoting indigenous manufacturing, encouraging technological innovation, export control framework and reducing reliance on imported defense equipment. Such efforts underscore

India's commitment to developing a robust, self-sufficient defense infrastructure capable of supporting its strategic objectives.

Make in India: The Make in India initiative, launched in September 2014, is a strategic program designed to boost domestic manufacturing across various sectors, with a particular focus on defense. Its primary objectives include encouraging investments, fostering indigenous innovation, and creating a conducive environment for manufacturing growth. By strengthening India's defense industry and increasing participation from the private sector, the initiative aims to promote self-reliance and technological advancement. Additionally, Make in India aspires to enhance the country's global export competitiveness, positioning India as a key player in international markets and contributing to economic development.

Liberalized FDI Policy: Foreign Direct Investment (FDI) in the defense sector which was 26% in 2001 had increase to 49% in August 2014 under the composite cap. Recognizing the importance of strengthening its defense capabilities, the government implemented major reforms in September 2020, increasing the FDI cap to 74% under the automatic route and permitting up to 100% FDI through the government route. These strategic policy adjustments are designed to attract more foreign investment, enhance domestic manufacturing, generate employment opportunities, and foster self-reliance within the defense industry. Such initiatives underscore India's commitment to building a robust, self-sufficient defense ecosystem aligned with its national security objectives.

Defence Procurement Policy (DPP) -2016: The DPP-2016 seeks to streamline various procurement procedures, encourage the development of indigenous defence manufacturing capabilities, and increase the involvement of Indian industries in the 'Make in India' initiative. Under this policy, several important measures were implemented, such as increasing procurement efficiency and emphasizing ease of doing business to facilitate private sector entry. There was also discussion of providing significant incentives to the private sector. Additionally, attention was given to transparency, and the licensing process was simplified, addressing a major obstacle that previously hindered private players.

Atmanirbhar Bharat Abhiyan : In May 2020, Prime Minister Mr. Narendra Modi graciously launched the Self-reliant India (Atmanirbhar Bharat Abhiyan) mission to encourage the promotion of Indian goods within the global supply chain markets and to support the country's goal of achieving self-reliance. As part of the Atmanirbhar Bharat Abhiyan (self-reliant India) initiative, the government introduced policies aimed at fostering self-reliance in defense manufacturing. For instance, the government thoughtfully increased the FDI limit to 74% in defense manufacturing, implemented an 'import embargo' on 101 military items, and introduced the Defence Production and Export Promotion Policy 2020. Under the Atmanirbhar Bharat Initiative, four positive indigenization lists of 411 products have been promulgated by Department of Military Affairs and Ministry of Defence to be manufactured domestically for the defence sector, instead of being sourced via imports.

Defence Acquisition Procedure- 2020: The Defence Acquisition Procedure 2020, launched on October 1, 2020, by India's Ministry of Defence, represents a strategic step towards strengthening the nation's defence framework. It gives preference to categories such as Buy (Indian-IDDMM), Buy (Indian), and Buy and Make (Indian), thereby encouraging the domestic design, development, and manufacture of defence equipment. The procedure encourages active participation from the private sector, aiming to boost innovation and streamline procurement processes.

Srijan Defence: Launched on August 14, 2020, the SRIJAN portal serves as a strategic initiative to bolster the "Make in India" campaign by empowering private sector industries to produce defense equipment that

was previously imported. The platform provides detailed specifications from Defense Public Sector Undertakings (DPSUs) and armed forces, fostering innovation and indigenous design. Its primary goal is to promote local manufacturing, thereby decreasing dependence on foreign suppliers, reducing procurement costs, and enhancing self-reliant defense capabilities. This initiative signifies a significant step toward achieving greater self-sufficiency and technological advancement within the nation's defense sector. More than 34,000 items are available for public view and 10,000 items have been indigenized till January 2024.

Innovations for Defence Excellence (iDEX) initiative: The iDEX scheme, initiated in 2018 by the Ministry of Defence, serves as a strategic platform to encourage innovation within the defence and aerospace sectors. It actively involves entrepreneurs and startups in the development of cutting-edge solutions, hereby promoting technological advancement. By fostering collaboration among government agencies, industry leaders, and academia, the scheme aims to modernize and strengthen the capabilities of the Indian Military, ensuring it remains resilient and future-ready. The Scheme for iDEX was approved with a budgetary outlay of ₹498.78 crore for the period 2021–22 to 2025–26. By March 2026, iDEX had engaged 676 startups, MSMEs, and innovators, while 551 design and development contracts had been signed.

TDF Scheme: The Technology Development Fund (TDF), overseen by the Defence Research and Development Organisation (DRDO), plays a crucial role in fostering innovation within Indian industries, Micro, Small, and Medium Enterprises (MSMEs), startups, and research institutions. By providing grants of up to 90%, amounting to ₹50 Crore, the TDF aims to accelerate the development of indigenous defense and dual-use technologies. This initiative aligns with the national objectives of promoting self-reliance, advancing the Make in India campaign, and strengthening the Aatmanirbhar Bharat vision for a resilient and self-sufficient India.

SCOMET: Special Chemicals, Organisms, Materials, Equipment, and Technologies (SCOMET) represent India's comprehensive export control framework designed to oversee the transfer of sensitive items. The Directorate General of Foreign Trade (DGFT) manages the SCOMET list, this system ensures strict regulation of dual-use commodities, military-grade equipment, and cutting-edge technologies, thereby safeguarding national security interests while promoting non-proliferation objectives. The export of SCOMET items is subject to restrictions and is only allowed with the appropriate authorization.

Absorption and Technology Transfer: In 2024, the Defence Research and Development Organisation (DRDO) demonstrated significant progress by signing over 2,000 technology transfer agreements and issuing more than 200 production licenses, thereby substantially enhancing India's defense self-reliance. Over the preceding five years, the collaboration expanded to include 130 private companies as development or production partners, reflecting a strong shift towards public-private partnerships. By March 2026, a total of 834 licenses had been granted to private firms, underscoring the government's commitment to fostering innovation, encouraging indigenous manufacturing, and strengthening the nation's defense capabilities through increased private sector participation.

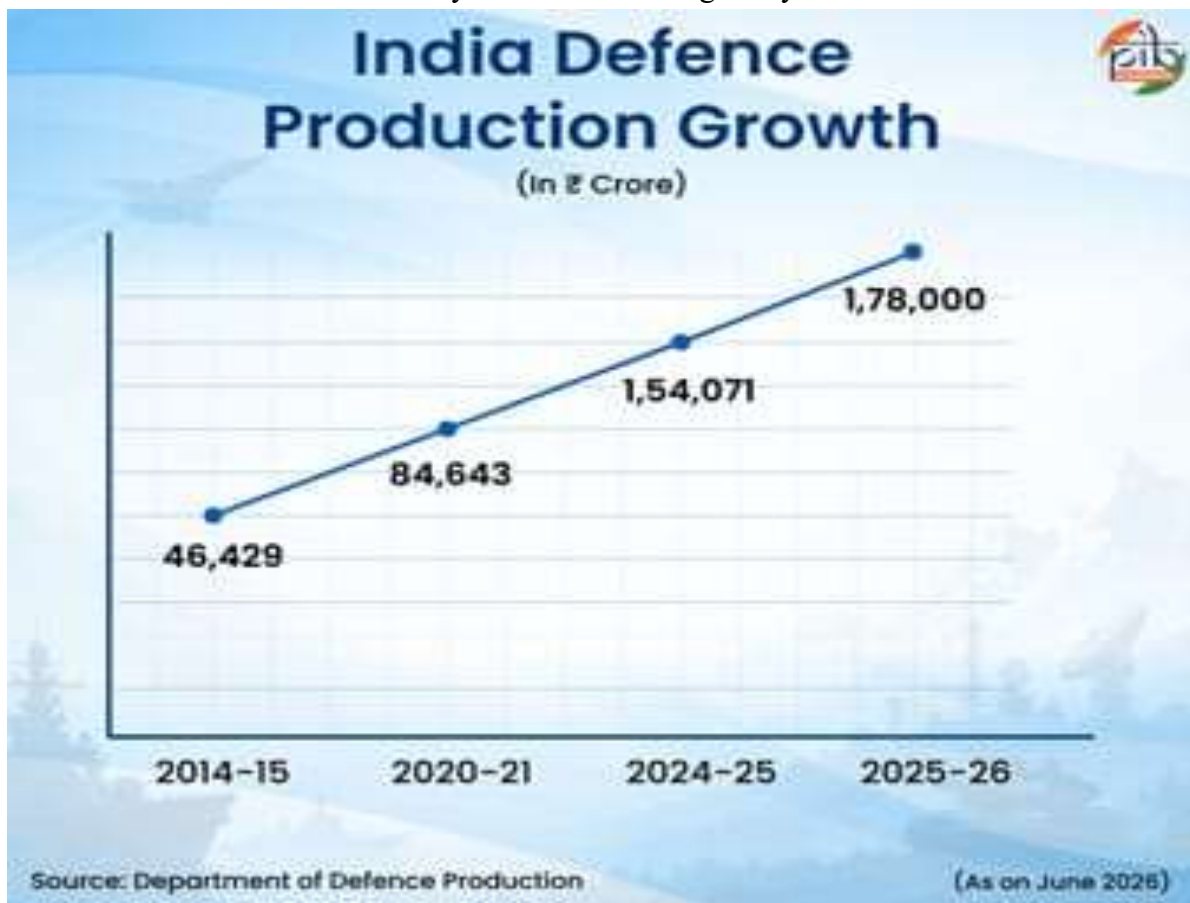
The Development cum Production Partner (DePP) Model: This model is a way for DRDO to work closely with Indian industry on developing and producing defense technologies. Basically, DRDO teams up with capable partners from both public and private sectors and shares the necessary technology for production. They have a big network of over 2,200 industries that can make different defense components and equipment. This model has really boosted local defense manufacturing. So far, by March 2026, 134 companies have joined forces with DRDO as DePPs or Production Agencies. They've signed 2,180

technology transfer agreements and made over 2,780 Intellectual Property Rights (IPRs) available for Indian industry to use.

Defence Industrial Corridor: The government has established two Defence Industrial Corridors (DICs) in the country, one in Uttar Pradesh called the Uttar Pradesh Defence Industrial Corridor (UPDIC) and the other in Tamil Nadu called the Tamil Nadu Defence Industrial Corridor (TNDIC), with the goal of attracting US\$ 1.31 billion (Rs. 10,000 crore) in investment in each.

Role of Private Sector in Defence production & Export

India's defence production has experienced remarkable growth over the past twelve years, marking a significant transformation in the country's military manufacturing landscape. In the fiscal year 2014-15 total defence production stood at approximately ₹46,429 crore which should increase 70.3% over fiscal year 2019–20, the total defence production stood at approximately ₹79,071 crore. By the fiscal year 2024–25, this figure had more than tripled, reaching an all-time high of ₹1,54,071 crore. Moreover, the defence production in FY 2025–26 stands at ₹1,78,000 crore, this shows a 15.6% growth over the previous fiscal year output indicating government's sustained momentum to focused on defence autonomy and manufacturing ecosystem.



The private sector has played an increasingly vital role in this expansion. Its share in defence production in fiscal year 2014-15 is minimal or negligible has rose 21.5 % in fiscal year 2020–21 to nearly 24% in FY 2025–26, reflecting a growing confidence and capacity within private enterprises. Meanwhile, Defence Public Sector Undertakings (DPSUs) continued to be major contributors, accounting for around 76% of the total defence manufacturing in FY 2025-26. This shift underscores the evolving landscape where

private companies are becoming more prominent players, driven by technological advancements and increasing manufacturing capabilities.

In addition to production growth, defence exports and private sector participation have seen a dramatic rise. India's Defence exports in FY 2013–14 was ₹686 crore increased rapidly ₹1,522 crore in FY 2016–17, to ₹4,682 crore in FY 2017–18, ₹10,746 crore in FY 2018–19, ₹15,918 crore in FY 2022–23, ₹21,083 crore in FY 2023–24, ₹23,622 crore in FY 2024–25, and reached a record ₹38,424 crore in FY 2025–26. India has witnessed an extraordinary growth of over 5500% in its defence export over the past twelve years.

DEFENCE EXPORTS FROM FY 2016–17 TO FY 2025–26					
Year	Export Authorisations to Private Companies (₹ Crore)	SCOMET Issued by DGFT (₹ Crore)	Contract Value and Another Export by DPSU (₹ Crore)	Total Export (₹ Crore)	Private Sector Share (% of Total Export)
2016–17	194.35	0	1,327.51	1,521.86	12.78%
2017–18	3,163.16	0	1,519.20	4,682.36	67.58%
2018–19	9,812.91	0	932.86	10,745.77	91.31%
2019–20	8,007.81	203.00	904.74	9,115.55	90.57%
2020–21	7,271.25	178.94	984.64	8,434.83	86.20%
2021–22	5,965.03	6.70	6,842.79	12,814.52	46.55%
2022–23	9,050.84	351.28	6,516.04	15,918.16	56.89%
2023–24	13,119.00	2,090.44	5,873.91	21,083.35	62.19%
2024–25	13,968.38	1,264.29	8,389.33	23,622.00	59.16%
2025–26*	17,353.00	0	21,071.00	38,424.00	45.16%

*Note: Total export for FY 2025–26 is ₹38,424 crore. DPSUs accounted for 54.84% (₹21,071 crore), while the private sector contributed 45.16% (₹17,353 crore).

Source: Ministry of Defence, Government of India

The private sector's contribution to these exports has grown significantly, in fiscal year 2013-14 which was negligible or minimal has increased 12.78% of exports in FY 2016–17, 67.58% in FY 2017–18, 91.31% in FY 2018–19, 90.57% in FY 2019–20, 86.20% in FY 2020–21, 46.55% in FY 2021–22, 56.89% in FY 2022–23, 62.19% in FY 2023–24, 59.16% in FY 2024–25, and 45.16% (₹17,353 crore) in FY 2025–26, while DPSUs contributed 54.84% (₹21,071 crore). Additionally, India has significantly increased its defense exports, supplying military equipment to more than 80 countries and engaging around 145 firms in the process. The government has set an ambitious target of achieving ₹50,000 crore in defense exports by the year 2029. This move is expected to enhance India's global standing, foster international confidence, and boost economic growth within the defense sector. Overall, these developments demonstrate a robust push towards indigenous production, technological innovation, and enhanced competitiveness on the international stage, positioning India as a formidable force in defence manufacturing.

Major private actors and their role in defence production

Tata advanced systems limited: Tata Advanced Systems Limited is one of the country's leading private players for aerospace and defence solutions in India with established capabilities and demonstrated deliveries in the following areas in missile systems and sub-systems, radar systems and sub-systems,

command & control systems, aerospace & aero-structures, unmanned aerial systems, optronic systems and homeland security solutions

Major project

- With Airbus to manufacture C295 transport aircraft in India
- With Dassault Aviation to build Rafale jet fuselages.
- 87 Medium Altitude Long Endurance (MALE) drones for the Indian armed forces.
- Airbus H125 helicopter
- With Boeing joint ventures to produce fuselages for AH-64 Apache Helicopters
- Lockheed Martin (NYSE: LMT) and Tata Advanced Systems signed a landmark agreement affirming the companies intent to join hands to produce the F-21 Block 70 in India.

L&T India – Defense and Aerospace: L&T Defence is India's leading private sector company for the development and supply of Defence Equipment and Systems, with over 30 years of experience in the field. L&T manufactures and supplies custom designed & engineered critical equipment and systems for the defence sector. L&T has long experience of working with Defence Research and Development Organization (DRDO) for realization of multiple developmental programmes and is a trusted supplier to the Indian Armed Forces. Product portfolio of L&T includes naval platforms, missile launch systems, anti-submarine warfare systems, propulsion & naval engineering systems, platform management systems, artillery platforms, weapon delivery systems, bridging solutions, combat engineering systems, upgrade solutions for armoured platform and guns, combat engineering equipment, aerospace solutions, airborne assemblies and systems, avionics, radar systems, communication systems, unmanned systems and NBC Systems.

Adani Aero Defense Systems & Technologies Ltd: Adani Defence & Aerospace is part of Adani Enterprises Limited and helps India make its own high-tech weapons and aircraft. They work on small guns, bullets, flying drones that don't have pilots, systems to stop enemy drones, missiles, and airplane services. They partnered with an Israeli company called Elbit Systems and gave the Indian Army its first Drishti 10 Starliner drone. They also tested new short-range missile systems with the DRDO, a government defense group. Recently, they started building a big new project in Shivpuri, Madhya Pradesh, costing ₹2,500 crores, to create the biggest private missile factory in South Asia.

Reliance Naval and Engineering Limited: Reliance Naval and Engineering Limited (RNaval) also known as Pipavav Defense and Offshore Engineering Company Limited RNaval is the first private sector company in India to obtain the license and contract to build warships. India's largest dry dock (662m × 65m) and a state-of-the-art modular fabrication facility, our strategically located shipyard offers seamless multi-modal connectivity across sea, air, rail, and road, placing us at the intersection of global trade corridors.

Kalyani Group – Bharat Forge: Bharat Forge, a prominent entity within the Kalyani Group, has established itself as a key player in advancing India's defense manufacturing capabilities. Through its dedicated subsidiary, Kalyani Strategic Systems Limited, the company specializes in the production of artillery, armored vehicles, and ammunition, with a strong emphasis on fostering indigenous self-reliance and technological innovation. The group has strategically formed joint ventures with leading international firms such as Elbit Systems of Israel, focusing on gun systems and mine-protected vehicles, as well as an agreement with SAAB of Sweden to deliver advanced air defense solutions. Recently, Bharat Forge secured significant defense contracts, including a Rs 1,661.9 crore order for 255,128 Close Quarters Battle (CQB) carbines, and a Rs 425 crore contract for marine gas turbines from the Indian Ministry of Defence.

These achievements underscore the group's commitment to strengthening India's defense infrastructure and enhancing its strategic self-sufficiency.

Alpha Design Technologies Pvt Ltd: Alpha Design Technologies Pvt Ltd capitalizes on Indian government policies to advance private sector involvement in defense manufacturing. The company provides a diverse range of innovative products, including cutting-edge opto-electronics, sophisticated electronic warfare systems, and secure military communication solutions. Additionally, they specialize in aerospace assemblies, advanced simulators, satellite manufacturing, radar systems, and smart city infrastructure. By aligning with government initiatives, Alpha Design aims to strengthen India's defense capabilities and foster technological growth in various high-tech sectors, contributing to national security and economic development.

Hinduja Group – Ashok Leyland Defense: Ashok Leyland supplies a large number of vehicles for various applications to the Indian Air Force, Indian Navy and para-military forces like Troop Carriers, re-fuellers, vehicles for gun mounting, fire-fighting, UAV support and recovery vehicles, flat-bed trucks and buses.

Mahindra Aerospace: Mahindra Aerospace leads the Mahindra Group's foray into Aerospace manufacturing. It operates two business verticals, focusing on utility aircraft and aero structures production respectively.

Challenges to the Private Sector in Defence Manufacturing and Exports

Although India has introduced major policy changes for private sector engaged in defense manufacturing still encounters a range of significant challenges that impact its participation in defence sector, manufacturing & production, limiting equipment export, growth and innovation potential.

- **Complex Procurement Process:** The acquisition cycle involves numerous approval stages and prolonged timelines, leading to delayed contract finalization. This deters private investment and inflates project expenses.
- **Restricted Access to Advanced Technologies:** Most private firms rely heavily on foreign Original Equipment Manufacturers (OEMs) for critical technologies. Barriers to technology transfer and tight intellectual property controls hinder domestic innovation and development.
- **Financial Limitations:** Defence manufacturing demands substantial capital, extended development periods, and heavy R&D spending. MSMEs and emerging ventures often find it difficult to obtain sufficient funding or maintain operations over long project cycles.
- **Weak System Integration Capabilities:** While private sector companies have demonstrated strength in producing components and sub-systems, they often lack the capacity for platform-specific integration, which is essential for developing comprehensive defense systems. This gap underscores the need for enhanced capabilities in system integration and holistic development.
- **Export and Market Entry Barriers:** Despite rising export figures, companies struggle with SCOMET licensing procedures, maintaining international quality standards, securing export finance, and competing against well-established global defence suppliers.
- **Risk Management:** The domestic market for specialized defense products remains relatively limited, compelling firms to pursue export opportunities to sustain growth. However, high project risks, coupled with stringent penalties for non-compliance, deter private investment.

Conclusion

India's journey toward achieving defence autonomy has increasingly become dependent on the active participation of the private sector. Since 2014 role of private firm increase rapidly due to comprehensive government initiatives and reforms—such as Make in India, Atmanirbhar Bharat, the Strategic Partnership Model, Defence Acquisition Procedure (DAP) 2020, the Indian Defence Exchange (iDEX), and the Technology Development Fund (TDF), liberalization in FDI policy, easy licencing, SCOMET, defence industrial corridor and changing warfare dynamics have significantly transformed the landscape of India's defence industry. These reforms have shifted the role of private firms from being mere component suppliers to becoming strategic partners involved in the entire ecosystem of designing, developing, manufacturing, and exporting advanced defence systems.

The private sector's contributions have been particularly evident in the realm of exports and production, which reached an unprecedented ₹38,424 crore in the fiscal year 2025–26, with private firms accounting for approximately 45.16% of this export volume and 24 % shares on defence production. This growth not only highlights the increasing capability of Indian private industry but also plays a crucial role in reducing dependence on foreign suppliers, thereby strengthening India's strategic autonomy.

This is possible through several prominent Indian companies, including TASL, L&T, Bharat Forge, Adani Defence, Kalyani, ideaForge, Paras Defence, and Solar Industries, have emerged as key players capable of producing sophisticated platforms. Through their collaborations with the Defence Research and Development Organisation (DRDO), the armed forces, and foreign original equipment manufacturers (OEMs), these companies have facilitated technology transfer, fostered indigenous innovation, and enhanced the self-reliance of India's defence sector. Furthermore, this expanding industrial base is instrumental in creating skilled employment opportunities and bolstering the entire defence industrial ecosystem. Looking ahead, sustained collaboration among the government, DRDO, Defence Public Sector Undertakings (DPSUs), private industry players, academia, and startups remain essential. Such partnerships are vital to ensuring India's continued technological leadership, fostering innovation, and achieving enduring defence & strategic autonomy.

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