

## **Rise in the Defence Infrastructure and Defence Development of India**

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### **ABSTRACT**

*After independence, India faces many problems in each sector and one of them is defence. Through time and patience, we developed and evolved, and realised our loopholes. Currently Indian military ranks four out of 145 in the annual global firepower index after the USA, Russia, and China (2023 Military Strength Ranking, n.d.). To maintain, improve and upgrade the military, India's spending on defence infrastructure is increasing year after year. The defence ministry gets one of the biggest parts of India's funds. There is various in-house production as well as joint ventures with foreign defence companies.*

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### **I. HOW MILITARY SPENDING AFFECTS THE ECONOMY**

According to Stockholm International Peace Research Institute, the five biggest spenders in 2019 were Saudi Arabia, India, United States, Russia, and China and together they made around 60% of global military expenditure. The spending with any government investment has an impact on the GDP of the nations that made them build stronger. Due to the limited supply of capital putting more money into one category of spending equals less money for another. This fact becomes more urgent when we consider that government spending exceeds government budget revenue. This results in a form of deficit. It would impact the growth of the economy as, if government start spending on a single activity, it would increase their debt to develop other activities and could also increase the taxes paid by the people. Somehow, if government choose to spend their revenue in a way that could produce or improve its defences. to increase the growth of the economy and maintain peace the government took various steps (Beattie, 2021).



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## II. GOVERNMENT INITIATIVES

- 1) For boosting and developing economies government approved five projects in 2022-2023 under make-1.
- 2) To ensure the non-intrusive, the government targets to modernise the QA procedure.
- 3) For domestic industry, the government would keep 68% of the capital procurement budget.
- 4) The government would streamline the industrial licencing process along with a longer authentication period.
- 5) SRIJAN portal would be launched which is an indigenisation portal to help and support indigenisation by Indian entities.
- 6) In Uttar Pradesh and Tamil Nadu two defence corridors each one would be launched (Aatmanirbharta in Defence, 2022).

## III. WHY DOES INDIA NEED SUCH HIGH MILITARY POWER?

After independence, Indian political leaders were in favour to reduce military funds and strength. During the war with China Sino-Indian war in 1962 India realised the necessity and weakness of the Indian forces. It realised its mistakes and blunders in “forward policy” India is a peaceful nation, and no one will attack us as we have no enemies. After the 1947-1948 and 1965 Indo-Pak war, the 1971 Bangladesh liberation war and the Kargil war we realised the deficiency of adequate weapons, and defence infrastructure like roads naval bases, air force airports, various organisations, and technology. Soldiers were using old and inefficient weapons, and lack of some essential equipment to perform operations in the fields (Indian Defence Review (IDR), n.d.). It was not like we are falling behind as such but not sufficient for such a big nation that had to compete with nations like China, USA, France, England etc. (Kapoor, 2017).

One more lesson we learned was that we made many enemies directly and indirectly during the process. Big and developed nations didn't want India to become a threat and competition to them. Pakistan in the rage of revenge and hate of defeat in war and Bangladesh's independence started operations like terrorism in various parts of India especially Kashmir, the parliament attack, and 26/11 also funded and supported events like insurgency in Punjab which poses threat to its internal security. A nation faces threats both from outside and inside.

Its operation to bleed India with thousand cuts to make India always get busy in its internal conflicts and stop its progress-developments, hurt the unity and integrity of our beloved country. To counter such events, we need a big change which came in each passing year with the Ministry of the defence establishment and change of thinking. Earlier we didn't think we had to face such wars and hate from neighbours after facing the consequences of our negligence and inability to strategic decisions and policies a specialised organisation was formed.

After independence, the ministry of defence was formed under cabinet minister and each service army, navy and air force with a head called the chief of army staff, chief of naval staff and chief of air staff in 1955. Its function is efficient implementation and execution of governments scheme and policies regarding the

defence and security of the nation in defence departments. There are major four departments (Ministry of Defence, n.d.).

Department of Defence deals in all three services and inter-service organisations and staff related to it., defence budget formation, policies, activities and defence foreign matters. Departments of defence production deal with weapons, equipment, and spare parts, storing and controlling the manufacture of products, Ordnance factory board. Department of defence research and Development mostly known as DRDO make, designs and do scientific analysis and experiments on weapons and required equipment. The last department deals with the pension and well-being of retired or ex-service soldiers or staff (Parihar, 2022; Sethi, 2013).

There are many departments which work with the defence ministry like intelligence agencies for information and espionage IB and RAW, the national security council, the nuclear command authority strategic nuclear command cabinet committee on security national security advisory board border road organisation national cyber security strategy board (Defence Training Centres, 2012).

Before the freedom, the Britishers used the Indian army as a tool to win the wars for them so they only targeted our physical strength and numbers. They have never been given good weapons and professional training, leadership quality education, officers' positions, or strategy decisions but were just made to follow orders and fight for them like a loyal slave. In fear, we would hamper their mission to empty Indian resources and the economy. But we thrived and raised one the most powerful military personnel with qualified educations, pro in their fields and bravery in the heart: the valiant warriors of India. India spends and raised the standards with high educational qualifications, skilled training, rich diet, mental ability and toughness. To become a soldier he/she had to clear all parameters from mind, soul and body. The Indian military is one of the biggest employers in the world with 2.9 million personnel and spends more than 30% of its defence budget on salaries and more than 20% on pensions of defence personnel (Sharma, 2022). To train soldiers and aspiring youngsters, the defence ministry builds various academies and schools. For example, Rashtriya Indian Military College in 1992 to train students to prepare for recruit training in the Indian armed forces; Sanik schools in 1961 by V.K Krishna Menon and other military schools in Shimla, Ajmer, Bangalore etc.; integrated national institutes like the National Defence College New Delhi, College of Defence Management, Military institute of Technology Pune etc., Armed Force Medical College specialised for military doctors; then soldiers training academies and centres for each service Army, Navy and Air Force (85 for the army, 31 in the navy and 21 in the air force); 5 training centres for DRDO (PendulumEdu, 2021). We have specialised units for each task like the border security force to protest and guard Indian territory, CISF ensuring the safety of government infrastructure, and Indian coastal guard securing maritime security and so on from railway protection to natural disaster response force (Security Forces and Agencies in India, n.d.).

The number of soldiers doesn't matter if we don't have adequate weapons and equipment. A nation either can build them by itself or can buy or import them from others who are experts in making, designing, manufacturing and production. Before independence India bought from British. In India in 1787 a gunpowder factory was established in ishapore and a gun carriage agency in Calcutta in 1801. And in 1802



it started manufacturing. After that 18 more were made before the independence. They produced ammunition, guns, spare parts and armour vehicles. In 1948 it came under the defence ministry (The Indian Ordnance Factories, n.d.).

In the last two decades, there have been major changes in the economy related to defence: import and export of military supplies, rise in the defence manufacturing, economic policies of defence. In 2023-24 ministry of defence has been allocated the 5,93,537 crore budget (Press Information Bureau, n.d.). As compared to the previous year's budget (2022-23) 5.25 lakh crore, it is seen there is a 13% increase this year. Out of 5,93,537 crore, revenue expenditure consists of 2.7 lakh crore 47%. Revenue expenditure means the expense incurred by the company or in this case defence ministry through the course of the production of its goods and services (salaries, ammunition, fuel, operating cost, transportation, training, research and development etc). Capital allocation is 1.62 lakh crore 28%. Through capital allocation, we acquire weapons and military tech (Behera, 2022). In 2022-23 army was allocated 32K crore, the navy 47.5K crore and the air force 55.5K crore. But in 2023-24 army is allocated 37K crore, the navy is 52.8K crore (maximum increase according to the previous year), and the air force is 57K crore (highest among other services) (Sidhu, 2017), pension 24% (1.38 lakh crore), investment 0.5% (3100 crores) and defence civil 3.8% (27,601 crores). Noticeable elements border road organisation (BRO) has increased by 43% (5000 crores) in 2023-24 which was 3,500 crores in 2022-23. 9% increase in DRDO amounting to 23,264 crores has also occurred. An increase in the non-salary/operational allocation of 27,570 crores, has increased the total amount to 90,000 crores which was 62,431 crores in the previous year. India's defence allocation is 2% and below its GDP which is higher than the previous year's 2.4% and above 3% is considered good. India's defence budget was continuously increasing in the last consecutive years from 2,28,172 crores in 2014 to more than 5 lakh crores after 2022.

Boarder road organisation is one of the major players this year as Chinese activities have increased near the border. That's why there is a massive increase in their budget (Financial Express, 2023; Singh, 2023).

Currently the focus is on boosting manufacturing in India and pushing towards indigenisation, atmanirbhatia. India was always an importer of weapons (The Times of India, 2021). About 80% of Indian weapons are of Russian origin. Even now we spent 35000 crores on the S-400 air defence missile system. India is a defence customer of Russia, Israel, USA, France, UK and Germany etc. Major weapons imported by India are boeing-P81, rafale fighter jets, S-400 defence systems, aircraft and warships engines and MH 60R helicopters. We were also the largest importer of weapons in 2017-21, 11% of total global arms (Waje, 2023; Dutta, 2022). This puts a burden on our economy (Bommakanti & Patil, 2022).

#### **IV. BOOSTING IN EXPORTS OF INDIA AND MANUFACTURING MADE IN INDIA**

This decade there are various changes in defence-related matters. This year and the previous year India set aside more than 60% of the military capital budget for buying locally produced defence products (India's Defence Exports, 2022; Karthikeyan, 2022). This year SIPRI recorded a decrease of 21%-33% in defence imports between 2017-2022: fall of 49% in imports from Russia, 18% from France

and 39% from Israel (Pandit, 2021). Our weapons exports in 2014-15 were 1941 crores which increased to 11,607 crores in 2021-22, and our goal is to achieve 35,000 crores by 2025 with help of India's defence public sector undertaking (Mehrotra & Mehrotra, 2020). Under the defence production and export promotion policy, we have planned projects to make next-generation fighter jets, hypersonic glide vehicles, lightweight tanks, anti-jamming systems, 127mm naval guns, self-healing minefields etc. indigenously (8 significant developments in India's defence preparedness, 2015; Defence Manufacturing Industry in India, n.d.). We cancelled nine defence imports of 46,695 crores to promote made-in-India products. We calculated that our expense on imports from foreign has decreased to 36%-46%, which reduced the burden on our budget in 2018-22 to help in the allocation of money in needed areas. We locally made weapons, warships, fighter jets Tejas, nuclear submarines INS Arihant and Vikrant, missiles Akash and Brahmos, and laser-guided ATMG which are one of the best weapons in the world (Raghurandan, 2020; Jha, 2023).

India supplies weapons to 75 countries mainly to USA, Philippines, Egypt, Poland, and Spain, countries in south-east Asia, the middle east and Africa and is recorded as the 23<sup>rd</sup> largest exporter among 25 top exporters (India exports these defence equipment and systems to the world 'already', 2022). This is an exponential increase according to previous years. We exported 155.5 million dollars in artillery to friendly nations for a good relationship and an economic boost. In 2020, 40-million-dollar Swathi weapon location system and Pinaka rocket system were sold to Armenia developed by DRDO. 12 high-speed boats were sold to Vietnam on 100 million dollars in credit, and advance light helicopters were sold to Mauritius police force by Hindustan Aeronautics Limited.

## **V. THE STEP TOWARDS SELF-RELIANCE IS THE EMERGENCE OF THE PRIVATE AND PUBLIC SECTORS IN DEFENCE MANUFACTURING**

Jindal Defence has collaborated with Brazil Taurus Arms to make small arms. They made a joint venture agreement in 2022. Hissar and Haryana are the places where they set up plants with an initial investment of 5 million dollars for the starting (land and construction). Their main products are 9mm pistols, 5.56×45mm carbine, and 7.62×39mm replacement of AK platform guns for the CAPF and Indian armed forces (Mattoo, 2022). Joint manufacturing of AK203 rifles in December 2021 between the Indian Ordnance Factory board and Kalashnikov concern and Roseboron export this venture called Indo-Russia Rifles Private Limited and they are producing these rifles in Amethi Uttar Pradesh. The project was to make 6,01,475 7.63×39mm to replace INSAS 5.56×45mm rifles (Philip, 2023). French firm Safran and Hindustan aeronautics make helicopter engines (Correspondent, 2022). A Swedish defence products company SAAB will manufacture Carl-Gustaf M4 weapon system first time outside Sweden in India in 2024. They will produce this weapons system for the army and foreign countries (Jhoshal, 2022). TATA and Airbus to produce C295 military planes in India (Sharma S. , 2022). Co-production of arms by Indian construction company Puni Llyod and Israel Weapons in 2017, was the first joint venture between foreign and Indian defence companies. In Malanpur a small arms factory was established named PLR systems, and then they had a joint venture with Adani and SK group (Lyer, 2017). Their main products are Galil sniper rifles, X95 assault rifles, Tavor assault rifles, and Negev light machine guns. A joint venture between India Kalyani Strategic Systems Limited and Israel Elbil Systems to manufacture sky strike drones was also undertaken (Israel's IAI



inks defence pact with Kalyani Group, 2018). Well, the manufacturing and the process with international defence organisations and companies are not as smooth because they are ready to set up manufacturing plants and partnerships but don't want to transfer the technology. Private sector is not trusted well by the government and want more comfort from the government. But still, the first step towards self-reliance is a complete success. There are also Indian private sector players in defence production like TATA advance system limited, Reliance naval and engineering limited, Mahindra, L&T India defence and aerospace and Ashok Leyland defence (R., 2023; India Defence Industry, n.d.). This will provide employment, increased GDP, less dependency on foreign supplies, infrastructure, advanced military power and most important progress towards development (List of LOI-IL.pdf, n.d.).

## VI. REFERENCES

- Beattie, A. (2021, August 30). *How Military Spending Affects the Economy*. Retrieved from Government and Policy: <https://www.investopedia.com/articles/investing/072115/how-military-spending-affects-economy.asp>
- Behera, L. K. (2022, February 23). *Bigger, Not Necessarily Better: India's Defence Budget 2022-23*. Retrieved from Observer Research Foundation : <https://www.orfonline.org/research/bigger-not-necessarily-better/>
- Bommakanti, K., & Patil, S. (2022, May 17). *Explained: India's arms imports from Russia* . Retrieved from Observer Research Foundation: <https://www.orfonline.org/expert-speak/indias-arms-imports-from-russia/>
- Correspondent, H. (2022, July 9). *HAL, France's Safran ink deal to develop helicopter engines*. Retrieved from Hindustan Times: <https://www.hindustantimes.com/india-news/hal-france-s-safran-ink-deal-to-develop-helicopter-engines-101657302022673.html>
- Defence Manufacturing Industry in India*. (n.d.). Retrieved from India Brand Equity Foundation : <https://www.ibef.org/industry/defence-manufacturing>
- Defence Training Centres*. (2012, March 19). Retrieved from Press Information Bureau: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=81173>
- Dutta, S. (2022, April 26). *15 countries with biggest defence budgets. Where does India rank?* . Retrieved from Hindustan Times: <https://www.hindustantimes.com/india-news/15-countries-with-biggest-defence-budgets-where-does-india-rank-101650979583727.html>
- Financial Express*. (2023, February 6). Retrieved from Border Infrastructure: The only silver lining in the defence budget FY2024: <https://www.financialexpress.com/defence/border-infrastructure-the-only-silver-lining-in-the-defence-budget-fy2024/2972513/>
- India exports these defence equipment and systems to the world 'already'*. (2022, October 19). Retrieved from <https://www.cnbctv18.com/india/india-exports-these-defence-equipment-and-systems-to-the-world-already-14980691.htm>

- India's Defence Exports.* (2022, July 9). Retrieved from Drusti IAS : <https://www.drishtiiias.com/daily-updates/daily-news-analysis/india-s-defence-exports>
- Indian Defence Review(IDR).* (n.d.). Retrieved from Indian Defence Review: <http://www.indiandefencereview.com/news/critical-deficiencies-in-the-indian-army/>
- Israel's IAI inks defence pact with Kalyani Group.* (2018, July 12). Retrieved from The Economic Times: <https://economictimes.indiatimes.com/news/defence/israels-iai-inks-defence-pact-with-kalyani-group/articleshow/59479813.cms?from=mdr>
- Jha, M. K. (2023, January 6). *India's top military projects to look out for in 2023.* Retrieved from The Financial Express: <https://www.financialexpress.com/defence/indias-top-military-projects-to-look-out-for-in-2023/2938487/>
- Jhoshal, D. (2022, September 27). *Defence manufacturer Saab to set up new facility in India, make weapons system.* Retrieved from Reuters: <https://www.reuters.com/business/aerospace-defense/defence-manufacturer-saab-produce-carl-gustaf-m4-weapons-system-india-2022-09-27/>
- Kapoor, V. (2017). *A Brief History of Indian Army – Post Independence.* Retrieved from SP's Land Forces: <https://www.spslandforces.com/story/?id=480&h=A-Brief-History-of-Indian-Army-andndash;-Post-Independence>
- Karthikeyan, S. (2022, April 26). *What are the key defence projects under 'Make In India' scheme.* Retrieved from The Hindu: <https://www.thehindu.com/news/national/make-in-india-defence-manufacturing-push-projects-need-explained/article65348645.ece>
- List of LOI-IL.pdf.* (n.d.). Retrieved from Ministry of Defence: <https://mod.gov.in/dod/sites/default/files/List%20of%20LOI-IL.pdf>
- Lyer, S. (2017, May 5). *Make In India: Punj Lloyd, Israel's IWI Set Up First Defence Manufacturing JV Unit In Malanpur, Madhya Pradesh.* Retrieved from India.com: <https://www.india.com/business/make-in-india-punj-lloyd-israels-iwi-set-up-first-defence-manufacturing-jv-unit-in-malanpur-madhya-pradesh-2101847/>
- Mattoo, S. (2022, October 18). *Jindal Defence Partners Brazil's Taurus Arms to Make Small Arms.* Retrieved from Live Mint: <https://www.livemint.com/companies/news/jindal-defence-partners-brazil-s-taurus-arms-s-a-to-boost-arms-indigenisation-11666008491683.html>
- Mehrotra, C. M., & Mehrotra, V. (2020, April 13). *Evolution of Indian Defence and Security Industry in These Recent Years.* Retrieved from The Diplomatist: <https://diplomatist.com/2020/04/13/evolution-of-indian-defence-and-security-industry-in-these-recent-years/>
- Pandit, R. (2021, May 16). *India's weapon imports fell by 33% in last five years but re ..* Retrieved from Times of India: <https://timesofindia.indiatimes.com/india/indias-weapon-imports-fell-by-33-in-last-five-years-but-remains-worlds-second-largest-arms-importer/articleshow/81516403.cms>



- Parihar, M. J. (2022, August 15). *Emergence of Indian Armed Forces since 1947*. Retrieved from The Daily Guardian: <https://thedailyguardian.com/emergence-of-indian-armed-forces-since-1947/>
- PendulumEdu. (2021, January 28). *List of Indian Army Defence Training Institutes*. Retrieved from Defence Training Institutions of India: Indian Army, Indian Navy and Indian Air Force Institutes: <https://pendulumedu.com/general-awareness/defence-training-institutions-of-india>
- Philip, S. A. (2023, January 17). *India & Russia begin joint manufacturing of AK 203 rifles in UP, might export them too*. Retrieved from The Print: <https://theprint.in/defence/india-russia-begin-joint-manufacturing-of-ak-203-rifles-in-up-might-export-them-too/1319147/>
- Press Information Bureau. (n.d.). Retrieved from Defence gets Rs 5.94 lakh crore in Budget 2023-24, a jump of 13% over previous year: <https://pib.gov.in/PressReleasePage.aspx?PRID=1895472>
- R., R. (2023, March 5). *Top 7 Defense Manufacturing Companies in India*. Retrieved from IndianCompanies.in: <https://indiancompanies.in/top-7-defense-manufacturing-companies-in-india/>
- Raghurandan, D. (2020, July 10). *Post Independence India Made Major Strides in Defence Manufacturing, Mr. Modi*. Retrieved from News Click: <https://www.newsclick.in/Post-Independence-India-Defence-Manufacturing-Achievements-Downplayed-by-Modi>
- Security Forces and Agencies in India*. (n.d.). Retrieved from Byju's: <https://byjus.com/free-ias-prep/internal-security-forces-in-india-and-mandate/>
- Sethi, M. (2013). India's Security in a Turbulent World by Jasjit Singh. *Indian Foreign Affairs Journal*, 8(3), 337-339. Retrieved from <https://www.jstor.org/stable/45341899>
- Sharma, A. (2022). *With 2.9 Million personnel, India's Defence Ministry is world's biggest employer*. News on Air.
- Sharma, S. (2022, October 31). *Airbus and TATA consortium to produce C-295 military aircraft in India*. Retrieved from Air Force Technology: <https://www.airforce-technology.com/news/airbus-tata-produce-c295-india/>
- Sidhu, W. (2017, February 13). *Bookings*. Retrieved from Demand for Grants 2021-22 Analysis: Defence: Sidhu, W. (2018, August 10). *A disrupter's guide to India's defence budget*. Brookings. <https://www.brookings.edu/opinions/a-disrupters-guide-to-indias-defence-budget/>
- Singh, R. (2023, February 1). *India sets aside ₹5.94 lakh cr for defence spending, up 13% from last year*. Retrieved from Garner Ted Armstrong Evangelistic Association : <https://www.hindustantimes.com/india-news/india-sets-aside-rs-5-94-lakh-cr-for-defence-spending-up-13-from-last-year-101675267159291.html>
- The Indian Ordnance Factories*. (n.d.). Retrieved from Directorate of Ordnance: <https://ddpdoo.gov.in/pages/history>



*The Times of India*. (2021, January 30). Retrieved from India's defence spending in 7 charts: <https://timesofindia.indiatimes.com/india/indias-defence-spending-in-7-charts/articleshow/80600625.cms>

Waje, H. (2023, February 7). *In 2022-23, defence expenditure was 14.08% of expenses: Govt* . Retrieved from Rediff News: <https://www.rediff.com/news/report/in-2022-23-defence-expenditure-was-1408-of-expenses-govt/20230206.htm>

