Rise Of Indian Defense Industry

Javed zafar
Karabuk University, javedzafar@karabuk.edu.tr

Abstract

India, historically one of the world's largest arms importers, is currently undergoing a strategic transformation towards defense self-sufficiency through the Make in India and Atmanirbhar Bharat initiatives. This study aims to analyze the evolution of the Indian defense industry from dependence on imports, primarily from Russia, to diversifying with international partners such as the United States, Israel, and France, while simultaneously strengthening domestic production capabilities. The method used is a descriptive qualitative study with secondary data analysis from official government reports, the SIPRI database, and academic publications. The results show that India's military modernization is driven by geopolitical factors such as rivalry with China, tensions with Pakistan, and the need to secure strategic interests in the Indo-Pacific. Import diversification provides access to advanced technology, while the indigenization policy through the positive indigenization list restricts imports of various arms categories, encouraging the growth of the local industry. Furthermore, India has significantly increased defense exports, from USD 110 million in 2013–2014 to USD 2.63 billion in 2023–2024, with key markets in Southeast Asia, the Middle East, Africa, and the West. Future prospects show India has the potential to become a major global arms exporter, focusing on warships, fighter aircraft, missile systems, and radars, although technological challenges and international competition remain significant. This transformation reflects India's shift from being a mere consumer to a key player in the global arms trade.

*Keywords: India, defense industry, arms exports, defense self-reliance, Make in India*Abstrak

Abstrak

India, yang secara historis menjadi salah satu importir senjata terbesar di dunia, kini berada dalam fase transformasi strategis menuju kemandirian pertahanan melalui inisiatif *Make in India* dan *Atmanirbhar Bharat*. Penelitian ini bertujuan menganalisis evolusi industri pertahanan India dari ketergantungan pada impor, terutama dari Rusia, menuju diversifikasi mitra internasional seperti Amerika Serikat, Israel, dan Prancis, sekaligus memperkuat kemampuan produksi domestik. Metode yang digunakan adalah studi kualitatif deskriptif dengan analisis data sekunder dari laporan resmi pemerintah, database SIPRI, dan publikasi akademik. Hasil penelitian menunjukkan bahwa modernisasi militer India didorong oleh faktor geopolitik seperti rivalitas dengan China, ketegangan dengan Pakistan, dan kebutuhan untuk mengamankan kepentingan strategis di Indo-Pasifik. Diversifikasi impor memberikan akses pada teknologi canggih, sementara kebijakan indigenisasi melalui *positive indigenization list* membatasi impor berbagai kategori senjata, mendorong pertumbuhan industri lokal. Selain itu, India berhasil meningkatkan ekspor pertahanan secara signifikan, dari USD 110 juta pada 2013–2014 menjadi USD 2,63 miliar pada 2023–2024, dengan pasar utama di Asia Tenggara, Timur Tengah, Afrika, dan negara-negara Barat. Prospek ke depan menunjukkan India berpotensi menjadi eksportir senjata utama global dengan fokus pada kapal perang, pesawat tempur, sistem rudal, dan radar, meski tantangan teknologi dan persaingan

internasional tetap signifikan. Transformasi ini mencerminkan pergeseran India dari sekadar konsumen menjadi aktor kunci dalam perdagangan senjata global.

Kata kunci: India, industri pertahanan, ekspor senjata, kemandirian pertahanan, *Make in India*

INTRODUCTION

India's journey as an independent nation began in 1947, coinciding with the onset of the Cold War, a period marked by intense geopolitical rivalry between the United States and the Soviet Union. During this era, India adopted a unique foreign policy stance by becoming a founding member and leader of the Non-Aligned Movement (NAM), which sought to maintain neutrality and avoid alignment with either of the two superpower blocs. However, despite its non-aligned posture, India's geopolitical realities and security needs often led it to lean toward the Soviet Union. This inclination was driven by shared ideological principles, mutual strategic interests, and the USSR's willingness to support India during critical moments, such as the 1971 war with Pakistan, which culminated in the creation of Bangladesh.

India is situated in one of the most populous regions in the world, home to the most populous country, itself. As the fifth-largest economy globally, India is poised to become the third-largest in the near future, following the United States and China, according to many experts. However, politically and strategically, South Asia remains a volatile reg**ion**, with India having fought several wars with its immediate neighbors, Pakistan and China. Current trends in global geopolitics suggest that the situation in the region is unlikely to stabilize in the near future.

India maintains the second-largest military in the world**,** after China, according to data on active military personnel (Baidya, Satyaki. 2025). As challenges continue to grow, the need for modernization and defense upgrades is more pressing than ever. To meet these demands, India is ranked fourth globally in defense spending, highlighting its commitment to strengthening its military capabilities. In recent years, India has been increasing its defense budget by approximately 10% annually, reflecting its proactive stance on maintaining security and readiness in an increasingly complex strategic environment (Arthur, Gordon, 2025). This significant investment in defense is crucial to ensuring India's preparedness against both regional and global challenges.

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List:Top 10 Countries with the Highest Military Expenditures

Rank	Country	Spending (in USD, billion)	Spending as a share of GDP (in %)
1	United States of America (USA)	$916b	3.4%
2	China	$296b	1.7%

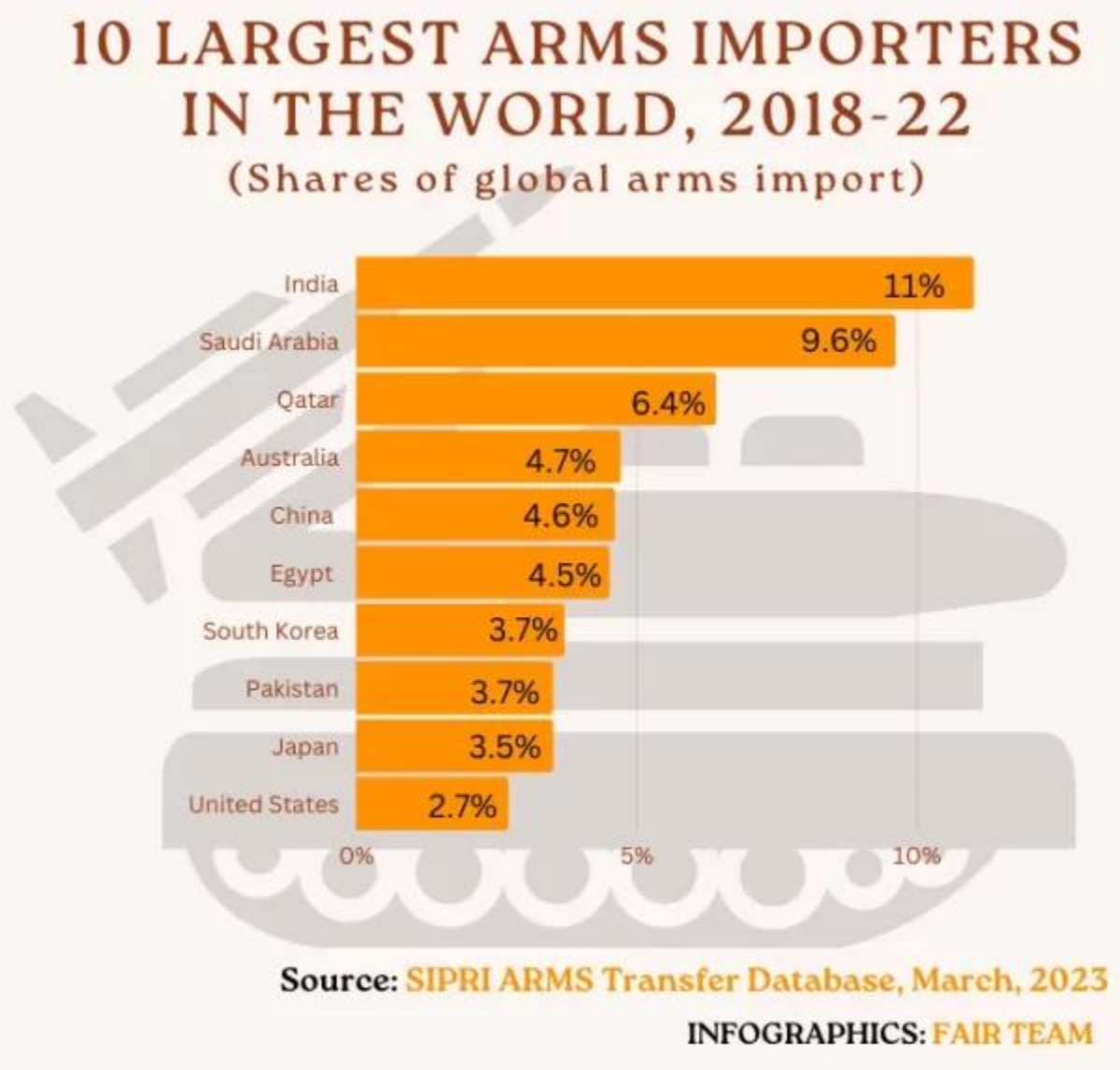
3	Russia	$109b	5.9%
4	India	$83.6b	2.4%
5	Saudi Arabia	$75.8b	7.1%
6	United Kingdom (UK)	$74.9b	2.3%
7	Germany	$66.8b	1.5%
8	Ukraine	$64.8b	37%
9	France	$61.3b	2.1%
10	Japan	$50.2b	1.2%

Source: *SIPRI Military Expenditure Database, Apr. 2024- https://www.sipri.org/sites/default/files/2024-04/2404_fs_milex_2023.pdf*

INDIA: IMPORTER TO SELF-RELIANCE

Historically, India has been one of the world's largest importers of weapons, a necessity stemming from its complex security environment, including tensions with Pakistan and China, as well as its ambition to modernize its armed forces. During the Cold War, the Soviet Union emerged as India's primary arms supplier, accounting for nearly 70-80% of India's defense equipment at its peak (Sharma. Ashok, 2022). This relationship was not only based on strategic alignment but also on economic considerations. The USSR offered favorable financial terms, including rupee-ruble trade agreements that allowed India to bypass the need for hard currency, making defense imports more accessible. Additionally, the Soviet Union was willing to transfer technology and license production, enabling India to develop its domestic defense industry.

Figure: largest weapon importers in the world



Source: https://fairbd.net/largest-arms-importers/

Even during the Cold War, India's reliance on the Soviet Union was not absolute. In times of crisis, such as the 1962 Indo-China War, India also turned to the United States for military assistance (Ganguly, S. 1972). However, this was an exception rather than the norm, as the U.S. was primarily aligned with Pakistan during much of the Cold War. The Soviet Union remained India's most reliable and consistent defense partner, supplying critical platforms such as MiG fighter jets, T-72 and T-90 tanks, and Kilo-class submarines (Fahad Khan. M.T ,2055).

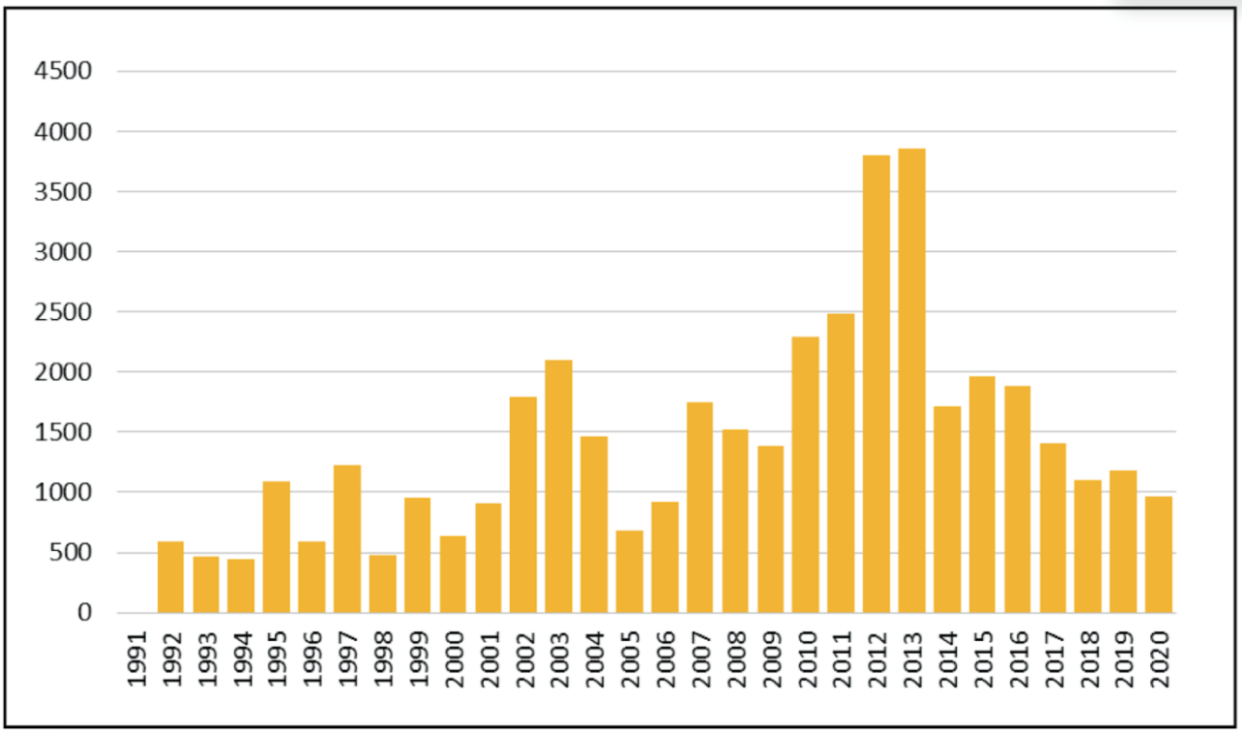
After the Cold War, Russia inherited the Soviet Union's role as India's primary arms supplier. According to data from the Stockholm International Peace Research Institute (SIPRI), between 2000 and 2020, Russia accounted for approximately 66.5% of India's total arms imports (Kaushik.K,

2022). Key acquisitions during this period included the Sukhoi Su-30MKI fighter jets, the S-400 Triumf air defense systems, and the INS Vikramaditya aircraft carrier (DRDO, 2024). These purchases underscored the enduring nature of the India-Russia defense relationship, which was further strengthened by joint ventures like the BrahMos supersonic cruise missile program.

However, in the post-Cold War era, India began to diversify its defense imports, seeking to reduce its dependence on Russia and explore new partnerships with Western nations. This shift was driven by several factors, including delays in Russian deliveries, concerns about the reliability of Russian equipment, and the desire to access advanced Western technology. The United States emerged as a key partner in this diversification effort, with India signing major defense deals for platforms such as the C-17 Globemaster III transport aircraft, Apache attack helicopters, and P-8I Poseidon maritime patrol aircraft (CSR Report , 2024).

As a result, of diversification policy while the US sold about $17 billion to India in arms sales between 2000 and 2018, while Delhi has signed $15 billion in new arms contracts with Moscow between 2018 and 2021(Jaffrelot.C & Sud.A ,2022).

Figure : Trend Indicator Value of Arms Exports from Russia to India, 1991-2020 (in millions of $)



Source: Adoted from SIPRI- https://www.institutmontaigne.org/en/expressions/indian-military-dependence-russia

The changing geopolitical landscape, particularly the rise of China and its growing assertiveness in the Indo-Pacific region, further accelerated India's tilt toward the United States. The deterioration of India-China relations, highlighted by the 2020 Galwan Valley clash**,** underscored the need for India to strengthen its strategic and defense partnerships with like-minded nations. The U.S., with its advanced military technology and shared interest in countering Chinese influence, became a natural ally for India.

In addition to the U.S., India has also deepened its defense ties with other Western nations, such as France and Israel, as well as regional partners like Japan and Australia. These partnerships have not only provided India with access to cutting-edge technology but have also facilitated joint development projects and technology transfers, aligning with India's "Make in India" initiative to boost domestic defense production.

Despite this diversification, Russia remains a significant player in India's defense ecosystem, particularly in areas where it holds a technological edge, such as advanced missile systems and nuclear submarines. The enduring nature of the India-Russia relationship is a testament to the deep historical ties and mutual strategic interests that bind the two nations.

Fig:-Largest suppliers of India Weapons

Source: Source: Adoted from SIPRI- https://www.institutmontaigne.org/en/expressions/indian-military-dependence-russia.

Since 2008, defense trade has become a key pillar of the U.S.-India security partnership, with bilateral military exercises across all service branches now conducted routinely. The U.S. Congress designated India as a "Major Defense Partner" in 2016, granting it special defense trade and security cooperation privileges, facilitating closer military collaboration (US Department of State, 2025).

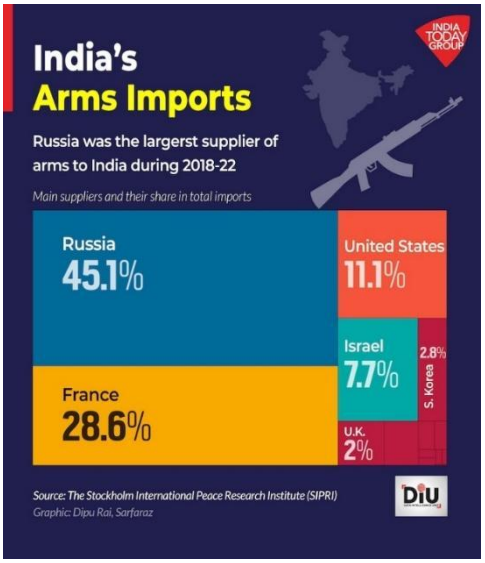
As U.S.-India defense relations continue to expand, the Biden administration has introduced new initiatives focusing on technology sharing and defense coproduction. Given the strategic importance of this partnership, Congress may consider

adjusting U.S. laws and regulations to accommodate future arms sales and joint military technology programs with India, many of which require congressional approval. The 118th Congress has introduced legislation to further enhance India's eligibility for U.S. arms sales (Congress, 2023). The U.S. government is actively encouraging India to diversify its defense procurement and reduce reliance on Russian-made military equipment. Before 2008, U.S.-India defense trade was minimal, with India purchasing a limited number of naval helicopters and counter-battery radars in the early 2000s. In 2007, under the U.S. Excess Defense Articles (EDA) program, India acquired the amphibious transport dock ship USS Trenton, now commissioned as INS Jalashwa (everycrsreport, 2023). Since 2008, India has acquired over $20 billion worth of U.S. military hardware, sourced through both Foreign Military Sales (FMS) and Direct Commercial Sales (DCS) channel (CSR Report , 2023).

US is not emerging weapon supplier to India but also emerging strategic partner as well. Both countries are engenged in bilateral and multilateral defense cooperations. India is double partner of US led QUAD security structure in Indo pacifc and Arabian sea.

Israel has emerged as one of India's key defense partners over the past two decades, providing advanced military technology, weapons systems, and intelligence-sharing capabilities. This strategic partnership has grown significantly since the establishment of full diplomatic relations in 1992, and Israel is now one of India's top three arms suppliers, alongside Russia and the United States. The collaboration spans a wide range of defense sectors, including missiles, drones, radar systems, and surveillance technology, making Israel a critical player in India's defense modernization efforts. Israel has become a significant supplier of military equipment to India in recent years. According to the Stockholm International Peace Research Institute (SIPRI), during the period 2015-2019, India's arms imports from Israel increased by 175% (Essa.A,2022).This surge positioned Israel as India's third-largest arms supplier, following Russia and France. In terms of financial figures, India has imported military hardware worth $2.9 billion from Israel over the last decade, including radars, surveillance and combat drones, and missiles. This substantial trade underscores the deepening defense ties between the two (Kuo.M.A,2024). Since 2017 indian Israel relations are strategic in status (Mınıstry of Extranal Affairs, India, 2023). Israel's shares is increasing in indian weaon import , according to 2023 data Israel's share in 7.7% in total indian weapon import (Rai.D 2023).

Figure: Top Weapon suppliers to India



Source:https://www.indiatoday.in/india/story/india-continues-to-be-worlds-largest-arms-importer-sipri-report-2346600-2023-03-14

France has emerged as a significant and reliable defense partner for India, playing a pivotal role in India's efforts to modernize its armed forces and diversify its defense imports. Over the past decade, France has become one of India's top weapons suppliers, second only to Russia (The Economic Times, Feb 10, 2025). According to data from the Stockholm International Peace Research Institute (SIPRI), France accounted for 33% of India's total arms imports between 2017 and 2021, making it the second-largest supplier during this period (Pieter D. Wezeman, Alexandra Kuimova And Siemon T. Wezeman, 2022). This growing partnership is characterized by high-profile defense deals, joint ventures, and advanced technology transfers, reflecting the deepening strategic ties between the two nations. France provides India with cutting-edge military technology, including fighter jets, submarines, missile systems, and advanced avion (India Today, Feb 11, 2025).

Both nations are actively working on joint ventures and defense technology collaborations, aimed at boosting India's self-reliance in defense production under the "Make in India" initiative. Despite significant progress, India still faces key challenges in developing indigenous weapon systems, particularly in areas such as jet fighter engines and submarine propulsion systems.

One of the most pressing challenges is the development of an indigenous fighter jet engine for India's fifth-generation fighter aircraft program (AMCA). In a significant breakthrough, France's aerospace giant Safran has entered discussions with India under a new Memorandum of Understanding (MoU) to co-develop a state-of-the-art jet engine. France has reportedly agreed to provide 100% technology transfer, covering the entire process of design, development, certification, and production—a major step towards India's defense self-sufficiency (The Econmic Times, Jan 26, 2024).

İNDIGINIZATION PROCESS OF DEFENSE PRODUCTİON

Despite the success of initiatives like "Make in India", India continues to face significant challenges in developing certain critical defense technologies. One of the most prominent hurdles is the development of a indigenous jet fighter engine, which remains a complex and technologically demanding endeavor. While India has made progress in areas like missile technology and naval systems, achieving self-reliance in jet engine production requires advanced metallurgy, precision engineering, and extensive testing capabilities. The collaboration with France on jet engine development is a step toward addressing this gap. Historically, Russia has been India's largest defense supplier, accounting for a significant share of its arms imports. However, geopolitical shifts, including Russia's invasion of Ukraine and subsequent international sanctions, have raised concerns about the reliability of Russian defense supplies. France's emergence as a key supplier offers India an opportunity to reduce its dependence on Russia while maintaining access to cutting-edge military technology.

Although India remains one of the world's largest arms importers, it is making serious efforts to reduce its reliance on foreign weapon systems and achieve self-sufficiency in defense production. To accomplish this, India is adopting a multi-pronged approach, including initiatives like

the Make in India program, fostering the growth of the domestic defense industry, and engaging in collaborations and technology transfer agreements with global manufacturers.

In addition to industrial efforts, India is also implementing legal measures to support and strengthen its indigenous defense sector. The government has introduced several laws and policies restricting the import of various weapon systems and critical components, ensuring greater opportunities for domestic production. Since 2020, India has released multiple Positive Indigenization Lists, progressively banning the import of specific defense equipment to encourage local manufacturing and enhance national defense capabilities.

In first list August 2020, the Indian Ministry of Defense announced a ban on the import of 101 defense items, including artillery guns, assault rifles, corvettes, sonar systems, transport aircraft, and radars. The list was to be implemented progressively between 2020 and 2024.This announcement was part of the Atmanirbhar Bharat (Self-Reliant India) initiative, which aimed to boost indigenous defense production and reduce reliance on foreign suppliers (**Press Information Bureau PIB,** 09 AUG 2020).

In May 2021, the Indian government released a second list of 108 defense items that would be subject to an import ban. This list included more complex systems such as next-generation corvettes, airborne early warning systems, and tank engines. The timeline for the ban on these items was set between December 2021 and December 2025 (The New Indian Express, 01 Jun 2021).

İn third list on April 2022, the Ministry of Defense announced a third list of 101 defense items to be indigenized. This list included advanced systems like naval utility helicopters, artillery guns, and anti-tank guided missiles. The ban on these items was scheduled to be implemented between 2022 and 2027 (Press Information Bureau PIB, 07 APR 2022).

Fourth list was announced on October 2023, the Indian government released a fourth list of 928 defense items that would be subject to an import ban. This list included a wide range of components, subsystems, and materials used in defense manufacturing. The announcement emphasized the need to indigenize even smaller components to achieve complete self-reliance in defense production (Press Information Bureau PIB, 14 MAY 2023).

Fifth lsit was announced in July 2024 The list comprises 346 defense items, including highly complex systems, sensors, weapons, and ammunition (Shukla. A, 2024).

INDİA AS EXPORTER

India is simultaneously focusing on indigenization and reducing arms imports while significantly increasing its defense exports. In a remarkably short period, India has emerged as an important player in the global arms market.

In 2013-14, India's defense exports were valued at a mere $110 million, but by 2023-24, they surged to approximately $2.63 billion—an astonishing growth trajectory (Philip, S.A, 2024). The most striking aspect of this development is that France and the United States have become the top importers of Indian weapons. The U.S. alone accounts for 50% of India's total defense exports, highlighting a major shift in global defense trade patterns (Business Line, June 26, 2024).

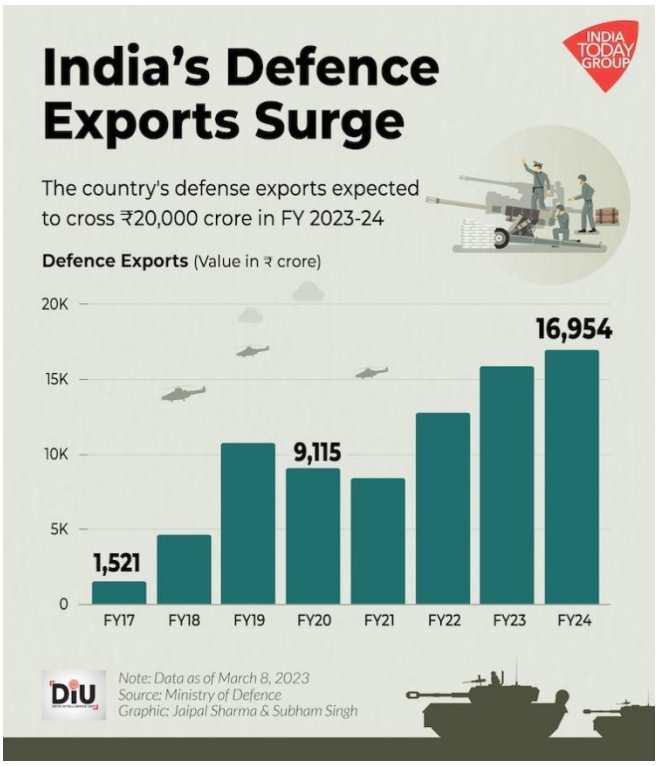
In the Caucasus region, Armenia has emerged as a significant buyer of Indian defense systems, reflecting India's expanding footprint in new markets. With an ambitious target of $5 billion in defense exports by 2025, India is actively strengthening its position as a key supplier in the international arms trade. As of now, India exports defense equipment to 85 countries, showcasing its growing credibility in the global defense industry (Siddiqui. H,2025).

Table: Top 10 destination of Indian Weapon export

India's Defense Exports to Top 10 Countries (Value in US$ Million)		
Country/Region	**FY 2023-24**	**FY 2024-25 (Apr-Nov)**
Philippines	2.11	94.40
Slovenia	16.54	46.07
US	53.10	42.48
Romania	0.46	28.30
Israel	122.97	27.48
Armenia	0.85	16.83
Turkey	5.65	13.46
Egypt	0.07	10.28
Spain	6.05	8
Czech Republic	10.83	7.68

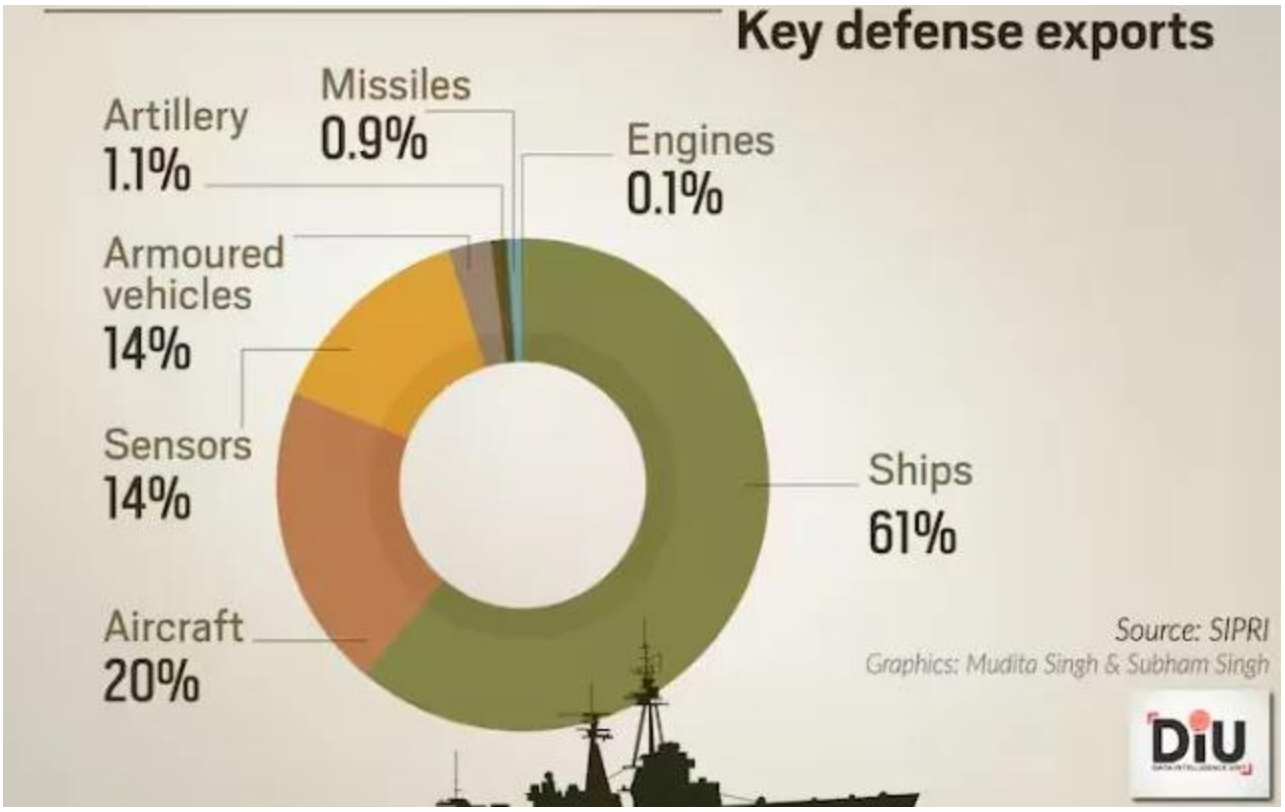
Source: Department of Commerce, Government of India-https://www.india-briefing.com/news/indias-defense-manufacturing-sector-policy-support-top-exports-key-firms-35946.html/

Although the United States and France are currently India's largest defense customers, historically, other nations dominated the import landscape. According to the Stockholm International Peace Research Institute (SIPRI), between 2000 and 2023, Myanmar was the largest importer of Indian weapons, accounting for 31% of India's total exports, followed by Sri Lanka at 19% (NEXTIAS, 2024)



Source:https://www.indiatoday.in/diu/story/india-defence-sector-exports-drdo-military-diu-2514353-2024-03-13

India's defense exports cover a diverse range of products, from ammunition, small arms, sniper rifles, and bulletproof jackets to high-tech military hardware like lightweight torpedoes, drones, and fast-attack vessels. Additionally, India's private defense sector has played a crucial role in this transformation. Bengaluru-based Indo-MIM, a leader in metal injection molding (MIM) technology, has become the country's top private defense exporter, supplying precision-engineered components to over 50 countries (Philip S. Alex, 2024).



Source:https://www.nextias.com/ca/current-affairs/31-12-2024/india-defense-exports

With its Make in India initiative and expanding global partnerships, India is steadily positioning itself as a major defense exporter, reducing its dependency on foreign imports while contributing significantly to the international arms market.

KEY DEFENSE EXPORTS OF INDİA

Ships built for the Indian Navy and Coast Guard make up 61% of India's total defense exports highlights the significant role of naval platforms in India's defense export portfolio (Indian Defense Research Wing, 2024). This trend reflects India's growing expertise in shipbuilding, its focus on indigenous defense manufacturing under initiatives like "Make in India," and the global demand for cost-effective yet capable maritime security solutions. India has emerged as a key player in exporting ships and maritime systems to friendly nations, particularly in Southeast Asia, Africa, and the Middle East (The Observatory of Economic Complexity, NA). These exports include offshore patrol vessels (OPVs) designed for coastal surveillance and anti-piracy operations, fast attack craft (FAC) for littoral warfare, interceptor boats for securing territorial waters, and coast guard cutters for multi-purpose missions like search-and-rescue and disaster relief. Such platforms cater to countries seeking affordable yet reliable solutions for their naval and coast guard requirements. India's export of ships is a significant component of its defense and commercial trade, with major destinations including several key global markets. Singapore leads as the top importer, accounting for 31% of India's total ship exports, valued at $1.34 billion. Following closely is the United Arab Emirates (UAE)

with a 24% share worth $1.05 billion**.** Indonesia ranks third, receiving 14.1% **of** Indian ship exports, amounting to $612 million. Other notable importers include Sri Lanka (8.83%, $382 million), Oman (6.92%, $299 million), Egypt (3.96%, $171 million**),** the United States (2.53%, $109 million), Qatar (1.74%, $75 million), Norway (1.55%, $67 million), and Saudi Arabia (1.14%, $49 million**).** These figures highlight India's growing shipbuilding industry and its expanding global footprint in the maritime sector (Trend Economy, 2024). Key export destinations include Mauritius, where India supplied patrol vessels like the CGS Barracuda to enhance maritime security; Seychelles, which received interceptor boats and infrastructure support to secure its Exclusive Economic Zone (EEZ); Sri Lanka, bolstered by offshore patrol vessels to combat smuggling; and Vietnam, where high-speed patrol boats were provided to counter Chinese assertiveness in the South China Sea. Other nations like Myanmar, Bangladesh, and Oman have also shown interest in India's naval platforms. This success is driven by India's robust shipbuilding industry, including public-sector entities like Garden Reach Shipbuilders & Engineers (GRSE) and Mazagon Dock Shipbuilders Limited (MDL), as well as private players like Larsen & Toubro (L&T) and Pipavav Shipyard (Singh.A & Joshi.M, 2020). The emphasis on indigenization ensures cost-effective platforms tailored to importing nations' needs. Strategically, these exports align with India's broader goals of strengthening maritime partnerships, countering China's influence, and boosting its economy through defense trade. Naval platforms export , far surpassing other categories like small arms or electronic systems. However, challenges remain, including competition from established shipbuilders like South Korea and Turkey, concerns over technological limitations, and the need to diversify markets beyond traditional partners in Africa and Southeast Asia. Despite these hurdles, opportunities abound as more countries seek affordable maritime security solutions amid rising piracy, illegal fishing, and territorial disputes, positioning India as a vital player in global defense exports.

Aircraft account for 20% of India's total defense exports" highlights the significant role of aerospace systems in India's defense export portfolio (Singh.S, 2024). This figure reflects the growing prominence of Indian-made aircraft, drones, and related technologies in the global defense market. India's defense exports in the aerospace sector include a variety of platforms tailored to meet the operational needs of importing nations. These include unmanned aerial vehicles (UAVs) like the Rustom series and smaller surveillance drones, which are increasingly sought after for border security, reconnaissance, and counter-terrorism operations. Trainer aircraft such as the HJT-36 Sitara and earlier variants have been exported to modernize air force training programs, while the indigenously developed Light Combat Aircraft (LCA) Tejas has attracted interest from countries seeking lightweight, cost-effective combat jets. Additionally, India has explored exporting helicopters like the Dhruv and light utility helicopters (LUH), along with missile systems such as the Akash surface-to-air missile and avionics technology. These diverse offerings cater to a wide range of defense requirements, from combat operations to surveillance and training. Key markets for India's aircraft exports include Southeast Asia (e.g., Vietnam, Indonesia, Malaysia), Africa (e.g., Mauritius, Seychelles, Nigeria), the Middle East (e.g., Oman), and South Asia (e.g., Sri Lanka, Bangladesh) (Sharma.R,2025). India's focus on "Act East" and "Neighborhood First"

policies has helped expand its footprint in these regions. The growth of aircraft in India's defense exports is driven by advancements in indigenous manufacturing under initiatives like "Make in India" and Atmanirbhar Bharat. Public sector entities like Hindustan Aeronautics Limited (HAL) and the Defence Research and Development Organisation (DRDO) play a pivotal role, while private firms like Tata Advanced Systems, Mahindra Defence, and Larsen & Toubro contribute through joint ventures and partnerships with foreign companies (Shah.A & Singh.R K, 2014). This emphasis on self-reliance ensures that exported aircraft are cost-effective and aligned with global standards. Aircraft exports also advance India's strategic objectives by strengthening defense diplomacy, countering China's influence, boosting economic growth, and enhancing global recognition. However, challenges remain, including competition from established aerospace giants like the U.S., Russia, France, and China, as well as technological gaps and the need for better marketing and after-sales support. Despite these hurdles, opportunities abound as more countries seek affordable yet capable aircraft amid rising defense budgets and security threats. For instance, the global demand for UAVs is skyrocketing, and lightweight fighter jets like the Tejas could appeal to nations unable to afford expensive fifth-generation aircraft. By addressing these challenges and leveraging its strengths, India can further solidify its position in the global defense export landscape.

India has been actively expanding its defense exports, with missile systems playing a pivotal role in this growth. The country's focus on promoting indigenous defense manufacturing has resulted in significant international contracts and growing global interest in its missile technology. One of the key highlights is the BrahMos Supersonic Cruise Missile. In 2022, India secured a $375 million contract to supply the Philippines with three BrahMos anti-ship coastal missile batteries, with the first batch delivered in April 2024 (Peri .D, 2024). Negotiations are also underway for a potential $700 million deal with Vietnam, reflecting a significant advancement in defense cooperation between the two countries (Kumar.A,2025). Additionally, discussions are ongoing with Indonesia for the purchase of BrahMos missiles, estimated between $200 million and $350 million (Patel.S,2025). Another major export is the Akash Surface-to-Air Missile System. In 2022, Armenia enhanced its air defense capabilities by purchasing this system from India. Furthermore,(IDSA, 2025). India is expected to finalize a deal exceeding $200 million to supply the Philippines with short-range Akash missile systemsvery soon (Patel.S,2025. These developments highlight India's commitment to strengthening its defense export portfolio, in line with the "Make in India" and "Atmanirbhar Bharat" (Self-Reliant India) initiatives. The successful export of these missile systems not only bolsters India's strategic partnerships but also reinforces its status as a key player in the global defense market.

The growth of India's radar exports is driven by advancements in indigenous manufacturing. Bharat Electronics Limited (BEL) is the primary manufacturer, producing battlefield surveillance radars, coastal surveillance systems, and air defense radars (cdn.prod, NA). The Defence Research and Development Organisation (DRDO) develops cutting-edge technologies, such as AESA radars and UAV-mounted sensors (DRDO,2025). Private sector contributions from companies like Larsen & Toubro (L&T) and Tata Advanced Systems complement public sector efforts, while joint ventures with foreign companies like Israel's

Rafael and Russia's Rosoboronexport have enabled technology transfer and enhanced product quality (Defenseindistry, NA).

India exports a wide range of radar systems tailored to meet the operational needs of importing nations, reflecting its growing expertise in defense manufacturing. Coastal surveillance radars , designed for monitoring maritime borders and securing Exclusive Economic Zones (EEZs), are critical for combating illegal fishing, piracy, and smuggling. These systems have been supplied to countries like Mauritius, Seychelles, and Sri Lanka (interactiv aljazeera 2020). Battlefield surveillance radars , used for detecting enemy movements on land, particularly in desert and mountainous terrains, have been imported by African and Southeast Asian nations for internal security and border defense. Air defense radars , including medium-range and long-range systems for tracking aerial threats like fighter jets, helicopters, and drones, have attracted interest from Vietnam and Oman to bolster their air defense capabilities. Naval radars , installed on ships and offshore platforms for navigation, target acquisition, and coastal surveillance, have been exported to Indonesia and Malaysia for their maritime forces (Das.H,2022). Additionally, electronic warfare systems , such as signal intelligence (SIGINT) equipment and jamming systems, are in demand in the Middle East and Africa.

India's radar systems have found buyers across several regions, driven by the need for affordable yet reliable defense solutions. In Southeast Asia , Vietnam want to procure Indian radar systems to counter Chinese assertiveness in the South China Sea, with coastal surveillance and air defense radars being particularly sought after. Indonesia uses Indian radar systems for maritime surveillance and disaster management (indracompany, 2012),. In Africa , Mauritius has received coastal surveillance radars to enhance its EEZ monitoring capabilities, and Seychelles has procured radar systems as part of India's efforts to secure the Indian Ocean Region (IOR) (Usmani.F, 2024). Nigeria is emerging one of the largest impoprter of Indian defense equipment inclding radar systems (Sharma.R, 2023). In the Middle East , Oman has acquired Indian radar systems to strengthen defense cooperation, while other Gulf states have shown interest in electronic warfare systems and battlefield surveillance radars. In South Asia , Sri Lanka uses Indian radar systems for maritime surveillance (Sharma.G & Finaud.M ,2020) . Bangladesh and India has signed MoUs to instal Indian radar enhance coastal security (Business Standard, Oct 05 2019) however after regime change in Bangladesh create the doubt about the execution of deal .

CONCLUSION

Historically, India has been the largest importer of weapons in the world, relying heavily on foreign suppliers like Russia, the United States, Israel, and France to meet its defense needs. However, in recent years, India has strategically shifted its focus toward reducing dependency on imports by promoting indigenous defense manufacturing under initiatives like "Make in India" and Atmanirbhar Bharat (Self-Reliant India) . This shift has not only bolstered domestic capabilities but also positioned India as an emerging exporter of military hardware in the global market. Currently, India exports defense equipment to 85 countries, offering a wide range of products such as helicopters, naval vessels, missiles, armored vehicles, radar systems, and sensors. These exports cater to diverse defense requirements, including maritime security, air defense, battlefield reconnaissance, and counter-insurgency operations. The key importers of Indian weapons are primarily

from regions like Southeast Asia, Africa, the Middle East, and neighboring South Asian countries, reflecting India's strategic focus on strengthening ties with these regions. Among the exported items, naval ships, aircraft, radar systems, and armored vehicles have gained significant traction. Over the last decade, India's defense exports have grown remarkably, increasing 31-fold, showcasing the country's rapid progress in becoming a reliable defense partner on the global stage. This transformation underscores India's commitment to achieving self-reliance in defense production while contributing to global security through affordable and technologically advanced solutions.

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