

INDIA-RUSSIA DEFENCE TIES: A STRATEGIC PILLAR IN A CHANGING WORLD

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Abstract

The India- Russia relations is a time-tested relationship based on mutual trust, mutual respect, respect for mutual sensitivities, and one that is marked by strategic alignment. It gained momentum with the 1971 Indo-Soviet Treaty of Peace, Friendship and Cooperation and has since led to major acquisitions like Su-30, Su-30MKI fighters, T-90 tanks, INS Vikramaditya, and S-400 air defence systems. This paper will explain about collaborative projects, such as the BrahMos missile and the licensed production of various platforms, which have enhanced India's defence self-reliance. It will also discuss about the challenges in their relationship like U.S. CAATSA sanctions, delivery delays, and Russia's growing ties with China and Pakistan. It also proposes a set of recommendations to overcome those challenges and make the relationship stronger.

Keywords

Strategic Alignment, CAATSA, China, Pakistan, S-400, Su-30

1. Introduction

India and Russia have a time-tested and multi-faceted relationship based on mutual trust, mutual respect, and strategic alignment. This bilateral partnership has stood the test of time for more than seven decades amid changing global power equations. The relationship between New Delhi and Moscow was first forged during the Cold War, when the Soviet Union became a crucial partner for India, providing it with economic, military, and diplomatic support. This convergence was formalized in 1971 with the signing of the Indo-Soviet Treaty of Peace, Friendship and Cooperation, a landmark agreement that laid the ground for the Soviet military backing provided to India during the Bangladesh Liberation War. Even after the disintegration of the Soviet Union in 1991, the relationship persisted and grew, becoming a “special and privileged

strategic partnership.”

Defence cooperation has historically been the foundation of India-Russia relations. The Soviet Union, and later Russia, provided much of India's military hardware, from fighter jets to tanks to submarines. Collaboration ranges from joint ventures, such as the BrahMos supersonic cruise missile, and leasing of nuclear-powered submarines. Russia's readiness to transfer sophisticated technologies has greatly enhanced India's defence capabilities. While India's arms imports are rapidly diversifying, with the United States, France, and Israel, among others, ingratiating themselves with New Delhi in varying degrees, Russia continues to be India's largest and most trusted partner in defence.

Another key pillar of the relationship is energy cooperation. Russia has long been a stable supplier

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of oil, natural gas and nuclear technology to India. This energy partnership has strengthened further in recent years, particularly after the 2022 Ukraine crisis and the ensuing Western sanctions against Russia. Russia has emerged as a topmost supplier of crude oil to India, defying Western sanctions on Russian oil and its oil tanker companies. (Verma & Kaushik, 2024) India has asserted its strategic autonomy by refusing to bow down under pressure from Western countries. While this is not the first nuclear reactor built in India with assistance from a foreign country, the collaboration in nuclear energy exemplified by the Kudankulam Nuclear Power Plant underscores how much both countries have mutually benefited from this partnership.

In addition to defence and energy, India and Russia collaborate on several global and regional issues. Both countries oppose the hegemony of a single superpower and share a vision of a multi-polar world. The BRICS, the Shanghai Cooperation Organization (SCO), and the Russia-India-China (RIC) trilateral group represent multilateral forums where both countries have tried to solve global issues and ensure economic and political stability. BRICS and SCO are two key non-Western multilateral platforms where India and Russia cooperate closely (Kapoor, 2024). Regardless of the divergence created by Russia's closer relations with China and India's courting of the United States, the relationship between both countries has remained stable and cooperative.

Having discussed the multifaceted relationship between India and Russia, this paper will focus primarily on the defence and security relationship. India has longstanding and wide-ranging cooperation with Russia in the field of defence. The cooperation is based on the direction of the India-Russia Inter-Governmental Commission on Military Technical Cooperation (IRIGC-M&MTC) mechanism headed by the defence ministers of both countries. Aircraft, tanks, submarines, and missiles have been supplied to India by Russia over the years. This relationship was characterized by generous financial terms, joint development programs, and technology transfers which made a significant contribution to India's defence capabilities (Indian Embassy- Moscow, n.d.).

India and Russia engage in bilateral and multilateral military drills among the three services. The last time the bilateral exercise INDRA was held in 2021. They also engage in multilateral exercises such as Vostok 2022 which was held in September 2022 in Russia. The bilateral projects are the S-400, T-90 tanks (licensed production), Su-30 MKI, MiG-29 and Kamov helicopters, INS Vikramaditya (formerly Admiral Gorshkov), Ak-203 rifles produced in India and BrahMos missiles. India-Russia military-technical cooperation has moved from a buyer-seller model to development, and co-production of advanced defence technology and systems. Now let's look at the major defence purchases and joint research and development, and joint production program in detail (Indian Embassy- Moscow, n.d.).

2. Key Defence Purchases

Air Force's Procurement:

1. Sukhoi Su-30MKI Fighters: is a two-seater, twinjet multirole air superiority fighter developed by Russian aircraft manufacturer Sukhoi and built under licence by India's Hindustan Aeronautics Limited for the Indian Air Force. A variant of the Sukhoi Su-30, it is a heavy, all-weather, long-range fighter. India has procured over 270 Su-30MKI multirole fighters, which form the backbone of the Indian Air Force. These aircraft are assembled in India under license by Hindustan Aeronautics Limited. Recently, India has signed Rs, 13500 crore deal with Hindustan Aeronautics Limited (HAL) for 12 indigenous Su-30MKI fighter jets. The new Su-30MKIs, featuring 62.6% indigenous content, will be produced at Hindustan Aeronautics Limited's Nasik division, with key components supplied by Indian defence industry partners. The Cabinet Committee on Security on September 2, 2024 approved the proposal for the procurement of 240 aero-engines for Su-30MKI aircraft of the Indian Air Force (IAF) under the 'Buy (Indian)' category from Hindustan Aeronautics Limited (HAL) at a cost of over ₹26,000 crore (India Today, 2024).

2. MiG Series Fighters: Since its introduction in 1963, the MiG series fighter planes have functioned

as the workhorse of the Indian Air Force. India uses the MiG-21, MiG-23, MiG-25, MiG-27, and MiG-29. While the MiG-29 is known for its air superiority with increased mobility and radar capabilities, the MiG-21, also referred to as the "Sword of India," is a flexible multi-role aircraft. MiG 27 is renowned for its ground assault missions. These jets, have sophisticated avionics, and armament systems, and can reach supersonic speeds (up to Mach 2.3), thus, they are essential for protecting India's skies.

3. IL-76 and IL-78 Aircraft: India operates Ilyushin IL-76 strategic air-lifters and IL-78 aerial refuelling tankers, which play an important role in long-range operations and force projection. They are manufactured by the Ilyushin Design Bureau in Russia. Inducted into the IAF in 1985, the IL-76 is a multipurpose heavy-lift transport aircraft that can transport 45 tons of cargo over long distances. With its four turbofan engines, it can travel 4,000 kilometres at a cruising speed of 750 km/h. The IAF's strategic reach is greatly increased by the IL-78, a version of the IL-76 that functions as an aerial refuelling tanker. Both aircraft are well known for their dependability and tough design.

4. S-400 Triumf Missile Defence System: One of the most significant recent acquisitions is the S-400 air defence system. India signed a \$5.5 billion deal with Russia in 2018 for five S-400 regiments, one of the most advanced air defence systems in the world (The Economic Times, n.d.). To strengthen national security, the Indian Armed Forces deployed the S-400 Triumf, a cutting-edge air defence missile system created by Russia, in 2021. The S-400 has great precision and diversity in its ability to counter a variety of aerial threats, including as drones, planes, and ballistic or cruise missiles. It can use a variety of missile types for varying threats and engage targets up to 400 kilometres away and 30 kilometres above the ground.

Army's Procurement:

1. T-90 and T-72 Tanks: The T-90 "Bhishma" main battle tanks and the older T-72 models form the majority of India's armoured forces. India has over 1,200 T-90 tanks, many of which are

manufactured domestically under license. The mainstay of India's armoured forces are the Russian-made T-90 and T-72 tanks. With a 125 mm smoothbore gun, a range of up to 400 km, and a top speed of 60 km/h, the T-72 is a dependable and sturdy main combat tank that was introduced into the Indian Army in the late 1970s. Updated versions, such as the T-72 Ajeya, improve its capabilities. The T-90, which debuted in 2001, is a more sophisticated main battle tank with better mobility, protection, and firepower. Advanced fire control systems, thermal imaging, explosive reactive armour, and a 125 mm gun are included.

2. Igla-S Man-Portable Air Defence Systems: India recently signed a deal for Igla-S MANPADS to strengthen its short-range air defence capabilities. The Indian Armed Forces employ the Igla, a man-portable air defence system (MANPADS) created by Russia, for short-range air defense. It targets helicopters and low-flying aircraft and is shoulder-fired and lightweight. The Igla can lock onto the heat signatures of adversary aircraft thanks to its infrared homing seeker. It is quite good at hitting fast-moving targets because of its 5.2 km range and 3.5 km ceiling. The Igla offers India a dependable, mobile frontline defence against aerial threats because it is small and simple to use.

Navy's Procurement:

1. INS Vikramaditya: The acquisition of the INS Vikramaditya, a modified Kiev-class aircraft carrier, marked a significant milestone in India-Russia naval cooperation. This carrier enhances India's power projection capabilities in the Indian Ocean. The Indian Navy's flagship aircraft carrier, INS Vikramaditya, was purchased from Russia and put into service in 2013. Originally constructed as the Soviet-era Admiral Gorshkov, it underwent an extensive modernization to meet Indian requirements. Capable of moving over 44,000 tons, the steam-turbine-powered carrier can reach speeds of up to 30 knots and is home to a fleet of MiG-29K fighter jets and a variety of helicopters, including the Kamov Ka-31 and HAL Dhruv. Outfitted with cutting-edge radar, electronic warfare systems, and defensive

weapons, INS Vikramaditya functions as a floating airbase, thus positioning India as a maritime power in the Indian Ocean.

2. Kilo-class Submarines: The Kilo-class submarines, also known as the Sindhughosh class in the Indian Navy, are diesel-electric attack submarines acquired from Russia starting in the 1980s. These submarines are optimized for anti-ship and anti-submarine warfare, as well as reconnaissance and patrol missions, and have a displacement of approximately 3,000 tons, a submerged speed of 20 knots, and a diving depth of up to 300 meters. They are armed with 533 mm torpedoes.

3. BrahMos Missile System: The BrahMos supersonic cruise missile, developed jointly by India and Russia, is a standout example of successful collaboration. It is deployed on Indian Navy ships and is being adapted for submarine and aircraft platforms. India and Russia collaborated to develop the BrahMos, a supersonic cruise missile renowned for its quickness, accuracy, and adaptability. It is one of the world's fastest cruise missiles, with a top speed of Mach 3, and is named after the Brahmaputra and Moskva rivers. BrahMos can be launched from land, air, sea, or submarines and has a range of up to 290 kilometres (Brahmos Aerospace, n.d.). Its 200–300-kilogram warhead makes it extremely efficient against targets on land and at sea. Its precise accuracy and sophisticated guidance technologies greatly improve India's attack capability and make it one of the most lethal forms of missile system.

4. Talwar-Class Frigates: The Talwar-class guided-missile frigates are among the most advanced vessels in the Indian Navy. Russia has delivered six such frigates, and additional units are being constructed. The Talwar-class frigates, developed in collaboration with Russia, are advanced stealth warships in the Indian Navy. Designed for multi-role capabilities, these frigates are optimized for anti-air, anti-surface, and anti-submarine warfare. Displacing around 4,000 tons, they are equipped with advanced stealth features to reduce radar, infrared, and acoustic signatures. The Talwar-class frigates are armed with BrahMos or Klub cruise missiles, a 100 mm main gun, Shtil-1 air (Naval Technology, 2024).

5. Nuclear Submarines: India leased the Akula-class nuclear-powered submarine, INS Chakra, from Russia, which played a crucial role in developing India's indigenous nuclear submarine program. Negotiations for leasing another Akula-class submarine are ongoing. India has leased nuclear-powered submarines from Russia, considerably increasing its undersea combat capability. The first was the Charlie-class submarine, INS Chakra (previously K-43), which was leased in 1988. In 2012, India acquired INS Chakra II, an Akula-class submarine with increased stealth, speed, and endurance. Nuclear reactors power these submarines, allowing them to operate underwater for lengthy periods of time without surfacing. They are armed with torpedoes and cruise missiles and can engage surface ships and submarines at great range. Russian nuclear submarines have played a critical role in training Indian crews and strengthening India's strategic deterrent and maritime security in the Indian Ocean.

3. Joint Initiatives and Technology Transfers

India and Russia have engaged in numerous joint ventures and technology transfer agreements to enhance India's defence self-reliance. Key initiatives include:

1. BrahMos Aerospace: The BrahMos missile program is a flagship example of the India-Russia collaboration. BRAHMOS is a universal long-range supersonic cruise missile system that can be launched from land, sea, and air. BRAHMOS has been jointly developed by DRDO, India, and NPOM, Russia (DRDO, n.d.). It is one of the fastest and most versatile missile systems in the world with no known Ballistic Missile Defence system proven to be capable of interrupting it.

2. Licensed Production: India has produced a range of Russian-origin military equipment under license, including Su-30MKI fighters, T-90 tanks, and BMP-2 vehicles. These arrangements have bolstered India's defence manufacturing capabilities.

3. FGFA Program: India and Russia collaborated on the Fifth Generation Fighter Aircraft (FGFA) program, although India later withdrew due to

concerns over cost and technology sharing (The Diplomat, 2018). Nevertheless, the initiative underscores the depth of their partnership.

4. **Missile Systems:** In addition to BrahMos, India and Russia have cooperated on missile systems such as the Akash and Pinaka, which incorporate Russian technology.

5. **Nuclear Submarine Technology:** The lease of Russian nuclear submarines has provided India with critical knowledge and experience in operating and maintaining such platforms, contributing to the development of its indigenous nuclear submarine program.

6. **Military Exercises:** The two nations conduct regular joint military exercises, such as INDRA, which involve all three services. These drills enhance interoperability and foster mutual understanding.

4. Challenges in the Relationship

Despite the depth of their defence partnership, several challenges have emerged in recent years:

1. **U.S. Sanctions:** The Countering America's Adversaries Through Sanctions Act (CAATSA) poses a significant hurdle to India's defence purchases from Russia, especially after the S-400 deal. While the U.S. has shown some leniency, the risk of sanctions remains a concern. India has historically maintained a strong strategic partnership with Russia, but U.S. sanctions, especially those targeting Russian defence exports, may limit India's access to vital defence systems like the S-400 missile defence system or the procurement of military hardware and technology. However, India's pursuit of an independent foreign policy and its need to diversify defence partnerships may lead it to seek alternative solutions, such as deepening cooperation with Russia in areas like energy, space, and nuclear technology. U.S. sanctions on Russia could complicate relations between India and Russia, especially since India depends on Russia for defence equipment, energy, and technological cooperation. Despite the U.S. sanctions, India is likely to continue strengthening its ties with Russia, ensuring that its strategic interests, particularly in defence and security, are not

undermined.

2. **Diversification of Suppliers:** India has increasingly diversified its defence procurement to include the U.S., France, and Israel, reducing its dependence on Russia. This shift is driven by India's desire for advanced technologies and geopolitical considerations. To improve its security capabilities and lessen its reliance on any one nation, India is diversifying its defence supply. The United States, France, Israel, and home-grown manufacturers are among the international suppliers the nation is increasingly relying on. Advanced systems like the French Rafale fighter jets, Israeli drones and air defence systems, and an increasing emphasis on indigenization through initiatives like the "Make in India" campaign are some of the major acquisitions. To increase self-reliance and strengthen its strategic military posture, India is also looking at defence cooperation with nations like South Korea and Japan and increasing its own defence industry.

3. **Delayed Deliveries:** Several Russian defence projects for India have faced delays, impacting operational readiness. For instance, delays in the delivery of the S-400 systems and other platforms have strained ties. To improve its security capabilities and lessen its reliance on any one nation, India is diversifying its defence supply. The United States, France, Israel, and home-grown manufacturers are among the international suppliers the nation is increasingly relying on. Advanced systems like the French Rafale fighter jets, Israeli drones and air defence systems, and an increasing emphasis on indigenization through initiatives like the "Make in India" campaign are some of the major acquisitions. To increase self-reliance and strengthen its strategic military posture, India is also looking at defence cooperation with nations like South Korea and Japan and increasing its own defence industry.

4. **Geopolitical Shifts:** Russia's growing proximity to China and Pakistan, coupled with India's closer ties to the U.S., has introduced complexities in the bilateral relationship. As India fortifies its alliances in the Indo-Pacific region and grows more aligned with Western powers like the U.S., the continuing geopolitical shift is quietly impacting India-Russia relations. India is under pressure from

Western nations because of Russia's actions in Ukraine, even though it cherishes its long-standing relations with Russia, especially in the areas of energy and military. India is compelled by the changing global environment to balance its strategic goals, with an increasing emphasis on diversifying its defence and economic alliances. Despite these obstacles, India is nonetheless dedicated to preserving its ties with Russia, looking for collaboration in fields like energy, defence, and regional security while carefully navigating changes in the world.

5. Way Forward

To ensure the continued strength of their defence partnership, India and Russia need to address challenges and explore new avenues for cooperation. Key steps include:

1. **Enhanced Technology Transfers:** Russia should offer more advanced technologies to India, enabling greater self-reliance in defence manufacturing. Joint development of cutting-edge platforms like UAVs, hypersonic missiles, and cyber defence systems could be explored. The Ukraine crisis has shown the world about the effectiveness of the Unmanned Aerial Vehicles in the battlefield. Cooperation in this field will definitely yield dividends for both the countries.

2. **Focus on Maintenance and Upgrades:** Maintenance, Repair and Overhaul (MRO) facilities should be established in India for the previously bought platforms and the planned procurements in the future. It is a known fact that MRO facilities play a very important role in the preparedness of the armed forces, especially during the crisis times. Indigenisation of the MRO facilities will ensure timely maintenance, upgrades, and lifecycle support for existing Russian-origin platforms. This includes addressing spare parts shortages and improving supply chain efficiency.

3. **Diversification within the Partnership:** The relationship should not be confined to the defence and energy sectors. Efforts should be undertaken to expand collaboration to include emerging domains such as space, artificial intelligence, and quantum technologies can broaden the relationship. In the

services sector, Russia could use the expertise of Indian professionals.

4. **Balancing Geopolitical Realities:** Both nations must navigate their respective strategic interests carefully. India should engage Russia diplomatically to address concerns over its ties with China and Pakistan, while Russia should respect India's sensitivities. Though it is time-tested wisdom that in International Relations, the national interest of the country is the foremost objective to be pursued, acknowledging the sensitivities of other countries and careful manoeuvring will pave the way for a long-lasting relationship.

5. **Strengthening Joint Ventures:** Expanding successful models like BrahMos Aerospace to other sectors can yield mutual benefits. For instance, collaborating on advanced fighter jets or air defence systems could enhance trust and capabilities. The sharing of each other's expertise will greatly improve the chances of scientific breakthroughs.

6. **Resilience to External Pressures:** Both nations must work together to mitigate the impact of external pressures, such as U.S. sanctions. A robust mechanism to insulate their defence ties from geopolitical disruptions is essential. No country should be allowed to have a veto on who our friends or partners should be. The strategic autonomy should be pursued as far as possible.

7. **People-to-People Engagement:** Both countries' people-to-people ties are not as strong as their government-to-government and business-to-business ties. There is a well-established lacuna in knowing each other's culture. Strengthening cultural and educational exchanges, including military-to-military interactions, can foster deeper mutual understanding and goodwill.

6. Conclusion

The India-Russia defence and security relationship has stood the test of time, contributing significantly to India's strategic capabilities and regional stability. While challenges exist, the partnership's historical depth and mutual benefits provide a strong foundation for future collaboration. In the future, the defence cooperation between Russia and

India must adjust to changing international conditions while adhering to its core values. The relationship can continue to be strong and advantageous for both parties if problems are promptly addressed and new opportunities for cooperation are pursued. A recalibrated India-Russia defence relationship aligned with the vision of a Viksit Bharat by the year 2047 can serve as a cornerstone for regional and global stability. This alliance will remain a pillar of India's strategic autonomy and international security in an increasingly complicated world.

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