

INDIA ISRAEL DEFENCE COOPERATION

1. The first recorded history of arrival of Jews in India dates approximately 2500 years ago (Cochin Jews). Several groups came later in 16th and 17th century and settled at Madras (Chennai), Bombay (Mumbai) and in the Northeast at Mizoram and Manipur. There is no recorded instances of hostility, prejudice by the local population against the Jewish community. Jews have played a stellar role in growth of India. Majority of the Indian Jews have migrated to Israel now leaving a small community of 5000 Jews in the Maharashtra. Apart from excellent people to people contact and mutual fondness, Indians have natural respect and awe of Israeli values of efficiency which despite nation's small size had successfully faced the challenges to their existential survival when surrounded by hostile neighbourhood. However, there has been public reticence from the India government side to publically acknowledge this probably because of Muslim sensitivity and the Palestinian cause. But, Indians appreciate Israel's predicament being surrounded with hostile neighbours who continue to challenge its existence.

2. PM Modi July 2017 visit of Israel has presented a new government outlook which many strategists have called as a significant change in India's foreign policy. The visit also hinted at the growing closeness in relations between India and Israel. A study carried out by Israel foreign Ministry in 2009 showed that compared to other nation's greatest level of sympathy for Israel is found in India and United States. In that, 58% of the Indian showed sympathy for the Jewish state of Israel. The United States came in second, with 56% of American respondents sympathizing with Israel.¹

3. PM Modi also visited Haifa the port city of Israel to pay homage to the fallen soldier of the Indian cavalry comprising Jodhpur, Mysore and Hyderabad lancers who displayed a courageous saga of courage and sacrifice in capturing the port city of Haifa on 23 Sep 1918 which was once the stronghold of the Ottoman Empire and took 700 hundred prisoners with heavy weapons. Their bravery is symbolized in Teen Murti memorial raised in South Avenue in 1924 and 23 September is celebrated now as "Haifa day" to commemorate the saga of courage by the Indian soldiers. This year, 23 Sep had a great significance as it happened to be centenary of the event. Similar sacrifices have been made by Indian soldiers in the battlefield of Palestine and their sacrifices

¹<https://www.ynetnews.com/articles/0,7340,L-3696887,00.html>

are immortalized in the cemetery of Haifa, Jerusalem, Ramleh and Khayat in modern day Israel².

Key Reasons for Growing India Israel Ties.

4. The main area of growth in India-Israel ties is in the realm of security and defence. Apart from the fact that Israel always came forward to provide ammunition and military equipment to India when most needed during wars, the modernization programme of Indian armed forces since year 2000 has given impetus to this Indo-Israel relationship. Since then, defence deals with Israel have grown exponentially. Today, India is the number one export target of the Israel defence industry. Nearly 41 % of Israel defence exports are to India hence, India's defence import sustains Israel, defence industry. Seen from India's perspective, we have been able to broaden our defence equipment import basket and not remained dependent on one source. The bilateral trade between two countries amounted to \$4.13 billion during 2016 and expected to maintain an upward trajectory with growing closeness between the nations.

Geo Politics of India and Israel Relations.

5. Keeping India's wider strategic interests in perspective, successive Indian governments since the early 1990s have walked a nuanced line between expressing genuine concern for the Palestinian cause and expanding its commercial and defense ties with Israel. India's abstention from a UN vote in 2015 condemning Israel over Gaza war marked a significant shift in India's stance to the Israel-Palestine issue. India's Foreign Affairs Ministry however, maintained that there was no change in India's "long-standing position on support to the Palestinian cause", explaining that the resolution's reference to the International Criminal Court (ICC) was the reason it abstained as India has not signed the Rome Statute, which established the ICC.³

6. Our relations in past were affected with binary of our relations with Middle East where our large population has found jobs and also to conform to the anti-Israel sentiments of the local muslim constituency which traditionally has been against India developing close relations with Israel due to our support Palestine cause.

² India -Israel defence Engagement : land Forces cooperation by Alokdev

³<http://www.aljazeera.com/indepth/features/2015/07/israel-india-gaza-150709005707545.html>

7. India and Israel have several commonalities in that both are thriving democracies, both have adversarial neighbours and both face terrorism which is aided and abetted by neighboring states. While India has accepted Pakistan as a new country after partition but, Muslim countries in the Middle East have not reconciled to Israel which was carved out after partition of Palestine. India officially recognized Israel on 17 Sep 1950. This was followed with establishment an Immigration office by the Jewish agency in Bombay to co-ordinate the immigration of Indian Jews who would want to migrate to Israel. This immigration office later was converted to Trade office and then to consulate. Embassies were opened in 1992 when India granted full recognition to Israel.

8. Now maturity in relations and realism has replaced the sentiments and India and Israel have sought to build strong relationship with each other. The change however, has been gradual. Over the years, the Indian government has toned down its reactions to Israel's treatment of Palestinians. India has also begun denouncing Palestinian suicide bombings and other terrorist acts in Israel, something that was seen earlier as rather justified in light of the Israeli policies against the Palestinians. India is also no longer initiating anti-Israel resolutions at the United Nations and has made serious attempts to moderate the Non-Aligned Movement's (NAM) anti-Israel resolutions. This re-evaluation has been based on a realization that India's largely pro-Arab stance in the Middle East has not been adequately reciprocated and rewarded by the Arab world.

9. Yet another reason for this change is that India has received no worthwhile backing from Arab countries in the resolution of problems it faces in its neighborhood, especially Kashmir. There have been no serious attempts by the Arab world to put pressure on Pakistan to reign in the cross-border insurgency in Kashmir. On the contrary, Arab nations grouping, the Organization of Islamic Cooperation (OIC) has supported Islamabad and jihadi groups on Kashmir issue repeatedly.

10. Our shared concerns about terrorism besides, the commercial interests such as Israel's quest for markets for its defence equipment and India's desire to diversify its defense suppliers to get access to better technology, and co-develop and co-produce equipment are the key reasons for seeking close bonding of our relations in the recent times. Further, Israeli help at crucial times in the past during our wars and hard times faced on imposition of sanctions by US and its allies after the 1998 nuclear test has been the main reasons for seeing Israel as a reliable partner.

11. On the face of it, India and Israel look unequal partners. India with an area of 2.97 sq. km ranks 8th in the world. In comparison, Israel is a tiny state with an area of 8522 sq. km ranked 7th in the world on the basis of the total area. It has minuscule population of mere 7.71 million of the size of Indian state of Himachal Pradesh compared to India's mammoth population of 1.22 billion which is more than 158 times larger than Israel but, its track record is impressive by any standards. It is a technology giant apart from defence industry which is a mainstay of its exports and has also made significant progress in other areas particularly in field of agriculture and water conservation. Between 2012 and 2016, it exported to India nearly 41 per cent of its defence equipment products. For India, Israel is India's third-largest source of arms, with a 7.2 per cent share of defence imports between 2012 and 2016, next to the US (14 per cent) and Russia (68 per cent).

12. Israel's per capita GDP is 22 times more than India at \$37,262/- against India's \$1,723/- despite the fact that the Israeli's population comprises of expatriates.⁴ Like India, it is surrounded with countries with confrontational attitude which have frequently vowed for Israel's annihilation. This has steeled Israel resolve to exist, despite the adversity. **Secondly**, it is due their capacity to innovate. **Thirdly**, due to substantial American support. Thus apart from defence, the Israelis have shown great progress in several other fields such as industry, agriculture, science and technology and water management. PM Modi's during his visit of Israel, thus also focused on seeking Israel know how for India in these areas too.

Perceived Change in India's Foreign policy.

13. The tectonic shift in India's Israel policy has faced its own share of criticism. There is a fear that by de-hyphenating the Palestine and Israel relations, India has ignored the losses which India could suffer. For example, as on Dec 2016, 9 million Indian expatriates who live in the Arab states contribute more than half (56 percent) of the total remittance inflow of \$38 received by India.⁵

14. Even in terms of trade, India's volume of trade with Arab countries stands at \$121 billion, which includes \$50 billion in exports and imports of \$71 billion.⁶ That constitutes around 18.25 percent of India's total

⁴IMF World Economic Outlook Database 2017.

⁵2015 estimates of the World Bank.

⁶The Ministry of Commerce release for the financial year 2016-17.

trade while India's trade with Israel, at \$5 billion, accounts for less than one percent of total trade. Similarly, the bilateral investment volume with Arab countries is much higher than Israel. In general, critics express a fear of an adverse impact from the new relationship. However, such fallout from the perceived change in foreign policy has been officially discounted. To allay any such perception, Indian Ambassador Pavankapoorin arecent interview to a newspaper, stressed that there is no shift in India policy on Israel and Palestine, as India's continues to support its traditional position on two-state solution to the Palestinian issue. Hence, the perceived change in the policy is not going to impact our relations with Israel and the Arab world.⁷

15. Another reason to put at the rest any skepticism on back lash from the Arab states that even Arab states are re-evaluating their relationship with Israel in view of the geostrategic changes and emergence of Iran as major player during the Syrian and/ISIS war. It has been recently revealed that since the beginning of 2014, representatives from Israel and Saudi Arabia had five secret meetings to discuss their common foe, Iran. Though Saudi Arabia still does not recognize Israel's right to exist and Israel is yet to accept, a Saudi initiated peace offer to create Palestine state; this has not prevented the two from working together to meet the strategic threat of Iran. Similarly, Jordan has been able to keep their traditional ties with Palestine intact while building relationship with Israel. There is no reason for India not to take a similar route. In all probability, an open and transparent relationship with Israel might not have much impact with Arab partners, especially as now the Qatar rift dominates regional politics.⁸

INDIA AND ISRAEL'S MILITARY COLLABORATION

16. In the early 1990s, Israel did not really figure on India's list of defense suppliers. However, between 2005 and 2014, [it accounted for 7 percent](#) of military equipment deliveries, the third highest after Russia and the United States.

Historical Perspective.

17. Israel has provided crucial help when India needed the most during crises or when other sources have not been available. Why did Israel

⁷<https://thewire.in/169571/india-israel-palestine-pavan-kapoor/>

⁸<http://thediplomat.com/2017/06/indias-middle-east-balancing-act/>

help India? The answer lies in India, historical benevolent treatment of Jew community all along, who unfortunately faced discrimination in almost every country before second world war and even after where they took refuge including reportedly even in democratic America and Europe before second world war. Following the second world and American civil war movement, anti-Jewish sentiments waned in America. Thereafter, this contributed significantly in American cultural, scientific, and intellectual life.⁹

18. Israel like India is a democracy. It has willingly helped India probably with a hope India would be vocal and more open in support of Israel. However, India's acceptance of Israel has been gradual, culminating recently with first ever Indian PM's, visit of Jul 2017. Even though India did not recognize Israel till 1950 and even voted in the United Nation against Israel creation in 1948, Israel helped India at the time of the crisis. Despite this, Israel provided military assistance to India in its wars in 1962, 1965, 1971 and even in 1999 Kargil conflict. Israel was also one of the first few countries which recognized Bangladesh following India's victory in its 1971 war against Pakistan.

19. **India China war of 1962.** History stands by this fact, that Israel acceded to Indian PM Jawahar Lal Nehru's request for aid in 1962 and supplied mortars and small arms for the Indian army. These were delivered by an Israeli's ship flying Israeli flag ignoring India's request to maintain anonymity.¹⁰⁻¹¹

20. **India Pakistan War 1965.** In 1965, India faced armed boycott from US and Soviet Union, Israel again came forward and delivered similar weaponry.

21. **India Pakistan War 1971.** Though India did not have the diplomatic ties with Israel, Indira Gandhi asked the then Israeli prime minister, Golda Meir, for weapons to help fight Pakistan. Meir agreed, diverting weapons ordered by Iran to India. To avoid any controversy, the arms were shipped to Liechtenstein and then taken by air to India along with a team of Israeli instructors. The weapons were used by Indian soldiers and the MuktiBahini to liberate Bangladesh. In return for arms, Israeli PM, Golda Meir expected India would agree for diplomatic ties. She accordingly sent a note addressed to PM Indira Gandhi with a request

⁹<http://nationalhumanitiescenter.org/tserve/twenty/tkeyinfo/jewishexpb.htm>

¹⁰ A strategic essay, "India - Israel Engagement : A land Forces cooperation" By AlokDev

¹¹<http://www.hindustantimes.com/world-news/israel-likely-to-become-india-s-largest-arms-supplier/story-tZQFenVzYWzaQFnPqbznqM.html>

for the same but, Mrs. Gandhi declined to accede. The diplomatic ties eventually were established much later in 1992 when Shri PV Narasimha Rao was the Indian PM.¹²

22. Israeli Plan to Strike on Pakistan's Nuclear Reactor. After 1971 defeat, India's peaceful nuclear explosion (Smiling Buddha) of 1974, developing its own nuclear bomb became an obsession with Pakistan. By 1983, Pakistan atomic energy commission (PAEC), led by Munir Ahmad Khan, carried out its first sub critical testing of a working nuclear device¹³ and it was clear that Pakistan shortly would develop a nuclear bomb. Pakistan even tried to assume the leadership of the Muslim nations hyping it as an **Islamic Bomb**. In 1981, Israel had destroyed Iraqi Osirak nuclear reactor, it offered to carry out a similar aerial strike to destroy the Kahuta reactor and Pakistan's embryonic nuclear weapons programme. India had only to allow Israel's fighter-bombers to use the Jamnagar air base for refuelling. Indira Gandhi reportedly agreed to the attack in March 1984 however, America got the wind of it and warned Pakistan of possibility such an attack, which in turn warned India that it would bomb the Trombay reactor in retaliation.¹⁴ India accordingly aborted the mission. To scotch any rumour on this account in the Western media, India and Pakistan later verbally agreed upon in 1985 on Non-Attack of Nuclear Facilities. The agreement was formally signed in 1988 and ratified in 1991.¹⁵

23. Soviet Collapse in 1991. Israelis are well versed with Russian weapons, having captured so many when they defeated various Arab armies. When needed by India's, Israel stepped in after the Soviet collapse to provide avionics to India's MiG 21 bis fleet. Russia objected but, lacked the technology and delivery skills of the Israelis. With this began a continuing tradition of India mating Russian platforms to Israeli sensors/electronics.

24. 1992. After Soviet Union collapse, as part of a larger Indian push to move closer to the Western camp, former Prime Minister PV Narasimha Rao established full diplomatic ties with Israel. The main motive was to find an alternative source of arms for India at a time when

¹²<http://www.hindustantimes.com/india/israel-helped-india-in-1971-war-reveals-book/story-amCGMddJKr7fplQkyPG1UM.html>

¹³ "Pakistan became a nuclear state in 1983" The news International, Karachi

¹⁴ Oct 15 declassified top secret documents confirmed that US ambassador delivered CIA analysis and letter from President Ronald Reagan to President Zia-ul-Haq about Indian Nuclear attack on Kahuta reactor (indianexpress.com/article/explained/in-fact-did-india-plan-a-covert-military-attack-on-a-pakistani-nuclear-reactor/)

¹⁵ Ibid

its Soviet arsenal was immobilised by a lack of spares and the US continued to impose sanctions on India.

25. **1996.** In 1996, then Israeli Prime Minister Shimon Peres called in the then Indian ambassador and outlined the nuclear doctrine of Israel. Both recognised remarkable similarities in their respective nuclear strategies. Israel provided its technology to stabilise its warheads, a problem that had afflicted small nuclear arsenals. Co-operation has expanded since then.

26. **1999.** During the Kargil war, the lack of targeting equipment made it difficult for India to hit Pakistani targets in the mountains and post-Pokhran II sanctions, made it impossible to get such equipment from elsewhere, Israelis technicians were flown in to install Litening targeting pods on the Indian Air Force's Mirage jets.. The pods helped India convert its 1000 dumb bombs into laser-guided munitions which were used to target the intruders positions at Kargil heights .

27. Kargilwar had exposed loopholes in the Indian defence preparedness in that, Israel played a very significant role in correcting these. A new beginning was made in year 2000 with visit of Israel by then India's home minister LK Advani and External affairs minister Mr. Jaswant Singh. These were followed with series of ministerial level visits which ushered a beginning of Indo- Israel relationship.

Mutual Defence Exercises.

28. Israel defence forces have earned its name being highly professional and clinical in their approach during war fighting. Indian forces likewise is seen all over the world as very professional force. Co-operation between them can give a force multiplier effect by learning skills from each other. As in the past, the defence co-operation should not remain confined to the buyer and seller of weapon relationship in defence. In fact, over time it has to transform to closer collaboration in many other fields. Till now, two nations have not taken part in a joint military drill but, have discreetly exchanged small teams of experts for cross training, including for special operations.

29. **Army.** According to a report in a local daily (Daily Pioneer), the armies of India and Israel will participate in the first-ever joint exercise since diplomatic relations was established between the two countries in

1992. The elite Special Forces of the two countries are likely to take part in a joint exercise after the Joint Working Group (JWG) on Defence Co-operation from the two sides finalizes the dates and venue. The JWG has officers from Ministries of Defense, External Affairs and Indian Army and their counterparts from Israel. Joint exercises between the militaries of the two countries will send a signal that India and Israel are taking their strategic and Defence ties to a new level.¹⁶

30. **Air Force.** India Air force flies Mig-29, Su-30, Jaguar, Mirage, Mig-27 and Mig-21 Variants whereas, Israel maintains F-16, F-15 and also some Mirage-III. The adversaries of both nations maintain similar aircraft but, we have not carried out bilateral air exercises as yet.

31. With India stepping up its ties with Israel, the Indian Air Force (IAF) will take part in the in the two-week exercise Blue Flag exercise to be held during November this year in Israel. This will be the largest multinational exercise in Israel where the US, Italy, France, Germany, Greece, and Poland will take part. The biennial exercise began in 2013 and continued in 2015 with the participation of the US, Greece and Poland. This year, close to 100 fighter aircraft of eight air forces are expected to conduct advanced sorties involving air-to-air battles, air-to-ground attacks with high-level maneuvering. Apart from fighter jets, nearly 35 countries are expected to attend as observers to the Blue Flag exercise¹⁷. While details are yet to be worked out, the Indian Air force participation is already confirmed and details on which assets or how many personnel will take part are not yet available.¹⁸

32. The Indian Air Force has gained valuable expertise in the past during multi nation drills in the US, having participated in the Red Fair forces lag series of exercises.¹⁹ Similar benefits will accrue by participation in Air exercise with highly professional Israeli air force and European who will also participate in the exercise.

33. **Navy.** This year (2017), three Indian naval ships, destroyer (INS Mumbai) , frigate (INS Trishul) and tanker (INS Aditya), made a goodwill visit at the Haifa port in May 2017 to mark 25 years of full diplomatic relations between the two countries.²⁰ Prior to this visit, INS Trikand, a frontline warship of the Indian Navy called at port Haifa from 19 to 22

¹⁶<http://www.israeldefense.co.il/en/content/report-india-and-israel-hold-joint-military-exercise>

¹⁷<https://sputniknews.com/military/201707271055914931-india-shalom-israel-exercise/>

¹⁸<http://economictimes.indiatimes.com/news/defence/in-a-first-iaf-heads-to-israel-for-drills/articleshow/57782373.cms>

¹⁹<http://economictimes.indiatimes.com/news/defence/in-a-first-iaf-heads-to-israel-for-drills/articleshow/57782373.cms>

Aug 15.²¹Earlier in year 2012 too, a task force of the Indian Navy comprising four ships, INS Mumbai, INS Trishul, INS Gomati and INS Adityahadpaid a goodwill visit to Haifa Port from 30 July 2012 to August 2, 2012.²²Navies of India and Israel have not carried out joint exercise as yet but, have on several occasions interacted for bolstering the national ties. During the port visits, in addition to professional interactions, various sports and social engagements are planned to further enhance co-operation and understanding between the two navies. The bonds developed through such events strengthen the established mechanisms for maritime cooperation.

Why Israel's Military Technologically hasAdvanced?

34. After creation of Israel in 1949, Israel desperately needed trading partners. Unlike its Arab adversaries, Israel did not have natural resources (oil or minerals)to fund its economy. Defence equipment is the mainstay of its exports .Today, Israel is a high-tech superpower and one of the world's top weapons exporters with approximately \$6.5 billion in annual arms sales. The largest share \$2.6 billion of Israeli exports went to the Asia pacific region followed by \$1.7 billion to Europe, \$1.265billion to North America, \$550 million to Latin America and \$275 million to Africa.²³In Asia pacific region, the Indian share is the largest with an average of \$1 billion for last five years. In the defence industry growth story, Israeli defence industry went through different phases. In the first phase, Israeli industry was involved in manufacture of small arms and ammunition. In the second phase, they started to produce weapons under license. In the third phase after 1960 onwards, Israel started to modify and weapon systems produced under license develop entirely new weapon systems.²⁴

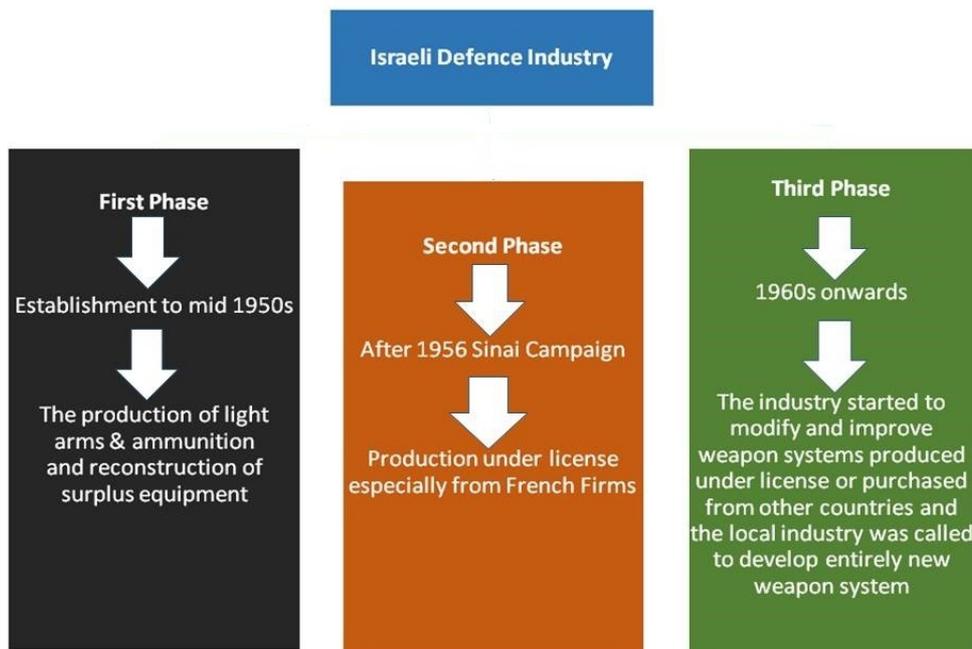
²⁰<http://economictimes.indiatimes.com/news/defence/5-reasons-why-israel-matters-to-india/articleshow/59438739.cms>

²¹ <https://www.indiannavy.nic.in/node/1364>

²²http://www.indembassy.co.il/events.php?event_id=18

²³<http://www.jpost.com/Israel-News/Politics-And-Diplomacy/Military-exports-rise-to-65-billion-485574>

²⁴<http://issp.in/tag/defence-rd/>



35. The reason for Israel becoming an export super power in defence is due to a number of factors which are unique to Israel. **First**, despite its small size, Israel spends about 4.2 percent of its GDP on research and development. Of this amount, about 30 percent goes to R&D of products of a military nature. By comparison, only 2 percent of German R&D and 17 percent of the US R&D is for the military. In India, the R&D expenditure in the industry is minuscule 0.9% of GDP. Paradoxically, except for some exceptions, the industry commits its capital for R&D mainly because the Government has announced tax incentives for R&D and not due to the industry's desire to innovation and research. In the technology sphere, defence R&D ensures that a nation remains at the frontiers of technology, enabling it to achieve a comparative advantage over its rivals.

36. Another major contribution is the culture of innovation and creativity in Israel. Israelis are more willing to take risks than other nations. This mindset develops with compulsory military service of Israelis during which they are tasked, at a young age, to carry out missions often with deadly consequences.

37. Lastly, Israel has been in a perpetual state of conflict since its inception, fighting a war almost every decade. This reality, of having your back against the wall, sharpens the mind. It forces Israelis to be creative and come up with innovative ways and weapons to survive.

38. It is very apparent from above, that the Israeli efforts in R&D have given the country and its firms a technological and competitive advantage. Majority of the military products and equipment that are exported, especially sensors, missiles and aircraft, have received sizeable inputs from R&D efforts.²⁵

39. In comparison, we in India still continue to make weapons under license. As compared to Israel, India's expenditure on R&D in the industry is relatively low at 0.9 %. We have defence R&D activity is primarily driven by Government establishments like Defence Research & Development Organization (DRDO) labs, Hindustan Aeronautics Limited (HAL) and Bharat Electronics Limited (BEL).

40. The R&D record of Defence PSU's is abysmally low. The DRDO must be driven by commercial considerations. Like most design labs, their measure of achievements should be the number of Intellectual Properties they can create and sell to various companies DPSUs and private companies – Indian and foreign.²⁶ The foreign OEMs apart from other reasons have concern on protection of Intellectual property rights in India and are thus reluctant to transfer technology. India in the list of 45 nations on IPR protection ranks with bottom three along with Pakistan at 43 rank in the Global intellectual property index 2017.²⁷ Despite increased legal protection, copyright infringement is still rampant in India due to lax administration and enforcement practices.

41. Private domestic investment in defence R&D is very low, primarily for three reasons: **First**, the private domestic industry is at a nascent stage; **Second**, till recently, it was not allowed to participate in defence production and **finally**, the policy and procedure were not supportive to follow this approach.²⁸

42. Even though the policies have now been liberalized (Defence Procurement Procedure-2016 and recently announced policy of Strategic partnership). These steps are yet to give any quantifiable results at this nascent stage.²⁹ The Government has proposed phasing out of tax

²⁵<http://isssp.in/tag/defence-rd/>

²⁶<http://www.dailymail.co.uk/indiahome/indianews/article-2918993/For-sake-India-s-security-defence-R-D-capabilities-need-major-shake-up.html>

²⁷<https://qz.com/906776/india-sucks-at-protecting-intellectual-property-according-to-the-us-chamber-of-commerces-2017-ip-index/>

²⁸<http://www.firstpost.com/business/unlocking-defence-rd-in-india-do-we-have-the-skill-2715650.html>

²⁹<http://www.firstpost.com/business/unlocking-defence-rd-in-india-do-we-have-the-skill-2715650.html>

incentives for R&D from next year. Not only should these incentives remain, the Government must strengthen them.

43. Despite own low domestic R&D, India could become an attractive destination for foreign defence companies for R&D due to its inherent advantages of a large number of highly qualified low cost engineers and scientists.³⁰ It is hoped that private players will take advantage of policy of the **Strategic Partnership** with foreign OEMs and develop defence equipment in support of “**Make in India**” initiative of the Government of India.

Major India-Israel Defence Deals.

44. The Key Areas of co-operation between India and Israel are in Submarine-launched cruise missiles, micro-satellite systems for surveillance, laser-guided systems and precision-guided munitions, anti-ballistic missile systems, up-gradation of all Soviet-origin aircraft, artillery, tanks, etc and various radars³¹

45. India's defence deals increased year after year with Israel **primarily**, as Israel willingly gave cutting edge technology which otherwise was just not available from any other source. **Second**, Turkey, which was one of the country's major buyers in the Middle East, has fallen out with Israel due to political differences. This had begun to hurt Israel. This gap was somewhat met by India's arms purchases. Within Asia India has become a key market for Israel.³²

46. **Third**, after experiencing hard times in spare support from Russia after soviet collapse, Israel turned out to be reliable source of weapon. **Fourth**, Israel, unlike others, is liberal when it comes to technology transfer.³³

47. **Fifth**, Many Israeli engineers had earlier worked in the Soviet military industry; so India could turn to Israeli firms for retrofitting ageing Soviet weapons.

³⁰<http://nypost.com/2017/01/29/why-israel-has-the-most-technologically-advanced-military-on-earth/>

³¹<http://economictimes.indiatimes.com/news/economy/foreign-trade/10-bn-business-how-israel-became-indias-most-important-partner-in-arms-bazaar/articleshow/16507523.cms>

³²<http://www.jpost.com/Israel-News/Politics-And-Diplomacy/Military-exports-rise-to-65-billion-485574>

³³ ibid

1996

48. India bought an air combat manoeuvring system from Israel which was installed at the Jamnagar air base.

49. Same year, a \$10-million deal was made to provide two DvoraMK-2 patrol boats for the Indian Navy .

50. Israeli firm Elta won a multi-million-dollar contract to upgrade the avionics on India's MiG-21 fighters and well assell laser guided bombs.

51. India purchased 32 IAI Searcher Unmanned Aerial Systems (UAVs), Electronic Support Measure sensors and an Air CombatManoeuvringInstrumentation simulator system from Israel.³⁴

1997

52. In 1997, Israel's President EzerWeizan who was the firstJewish head of the state visited India. He negotiated the first weapons deal (Barak-1) between the two nations. Barak-1 is a vertically-launched surface to missile from and has the ability to intercept anti-shipping missile such as Harpoon. The purchase of the Barak-1 missiles from Israel by India was a tactical necessity since Pakistan had purchased Lockheed P-3 Orion maritime surveillance aircraft and27 Harpoon sea skimming anti-shipping missiles from the United States.

2000-2003

53. India purchased threePhalcon AWACS fitted with IAI radar equipment mounted on Russian IL-76 transport aircraft, in 2003 at cost of \$1 billion.

2005

³⁴<http://economictimes.indiatimes.com/news/economy/foreign-trade/10-bn-business-how-israel-became-indias-most-important-partner-in-arms-bazaar/articleshow/16507523.cms>

54. India purchased 50 Israeli drones for \$220 million in 2005.

2007

55. Israel Aerospace Industry Ltd signed a US\$2.5 billion deal with India in 2007 to develop an anti-aircraft system and missiles for the country, in the biggest defence contract in the history of Israel at the time. Indian Navy is already using the ordinary Barak-1 missile, which was manufactured by Rafael and the IAI, but whose abilities to counter advanced threats are limited. The new missile is launched vertically and has an independent radar system.³⁵It would provide additional long-range air and missile defence systems (LRSAM) for the first locally produced indigenously built aircraft carrier INS Vikrant.³⁶

56. The Indian Navy took delivery of the first domestically assembled long-range surface-to-air missile system (LRSAM) on 27 August 17 in Hyderabad. The balance would be produced at the production line set up by IAI in collaboration with Indian Missile maker Bharat Dyanamics.³⁷

2008

57. Rafael was awarded a \$325-million contract to supply IAF with Spyder missile systems armed with Python and Derby missiles.³⁸

58. On 10 November 2008, Indian military officials (IAF Vice Chief Air Marshal N A K Browne, Army Deputy Chief (Planning and Systems) M S Dadwal, Navy Assistant Chief (Policy and Plans) Rear Admiral Girish Luthra and DRDO Chief Controller Prahlada) among others visited Israel to discuss joint weapons development projects, additional sales of Israeli equipment to the Indian military and anti-terrorism strategies. The new round of talks was seen as a significant expansion in the Indian-Israeli strategic partnership. The robust defence engagement between the two countries, spurred India to buy military hardware and software from Israel worth around \$8 billion since the 1999 Kargil conflict.³⁹

³⁵<https://www.ynetnews.com/articles/0,7340,L-3425400,00.html>

³⁶<http://indianexpress.com/article/india/narendra-modi-israel-visit-benjamin-netanyahu-mrsam-missiles-deal-4734693/>

³⁷<https://thediplomat.com/2017/09/indias-navy-receives-first-locally-produced-long-range-surface-to-air-missile/>

³⁸<http://economictimes.indiatimes.com/news/economy/foreign-trade/10-bn-business-how-israel-became-indias-most-important-partner-in-arms-bazaar/articleshow/16507523.cms>

³⁹http://timesofindia.indiatimes.com/India/New_heights_India_Israel_step_up_defence_ties/rssarticleshow/3690525.cms

2009

59. Israel delivered Phalcon Airborne Warning and Control Systems, equipped on Russian-built Ilyushin Il-76s, to India .⁴⁰

2010

60. The two countries signed a \$1.4-billion contract for the development and procurement of Barak 8 medium-range surface-to-air missiles for Indian Air Force.⁴¹

2011

61. In March 2011, it was reported that India would buy 8356 Israeli Spike anti tank missiles, 321 launchers, 15 training simulators and peripheral equipment, for \$1 billion, from Israel's Rafael Advanced Defence System .

2015

62. In September 2015, the Indian government approved the air force's request to purchase 10 Heron TP drones from Israel Aerospace Industries (IAI). The deal is estimated at \$400 million. The Herons will give the air force deep-strike capability and could open another option of covert cross-border strikes. A delegation from state-owned IAI has been holding talks with the Indian defence ministry to determine the possibility of local manufacture of the Heron TP as part of the "Make-in-India" programme.⁴²

2016

63. In September 2016, the Indian government approved the purchase of two more Phalcon AWACS.

2017

⁴⁰<http://economictimes.indiatimes.com/news/economy/foreign-trade/10-bn-business-how-israel-became-indias-most-important-partner-in-arms-bazaar/articleshow/16507523.cms>

⁴¹ ibid

⁴²<http://in.reuters.com/article/india-israel-drones/india-turns-to-israel-for-armed-drones-as-pakistan-china-build-fleets-idINKCN0RL2EC20150921>

64. In April this year, India had inked nearly \$2.5 billion missile defence contract with Israel for supplying 40 units(Barak-8) advanced medium-range surface-to-air missile systems (MRSAM) for use by Indian army. The system is under joint development of Israel Aerospace Industries and the Defence Research and Development Organisation, India's primary state military research and development agency. The Barak-8 will vastly improve India's ground based air defence capability to defend its airspace from intrusions by the China or Pakistan when in the future it is paired with the longer range Russian-made S-400 advanced air defence systems. The system can shoot down enemy aircraft, drones, surveillance aircraft and AWACS planes at the strike range between 50 km to 70 km in the sky and will help the country in filling gaps in air defense. Delivery of the first unit for deployment in the field is expected in 2023.⁴³ India signed another contract worth more than \$1.6 billion on 06 Aug 2017 with IAI for additional Batak-8 missiles for the under construction indigenous air craft carrier INS Vikrant. Indian navy has already decided to equip all its navalships with Barak-8 missiles.⁴⁴

Israeli Weapons/Platforms Attracting Attention.

65. India is keen on acquiring low-intensity warfare systems such as Iron Dome and David's Sling from Israel.

66. **Iron Dome**, an anti-rocket warfare system made by Rafael Advanced Defense Systems, has successfully intercepted and destroyed short-range rockets and artillery shells fired from distances of 4 to 70 km. Deployed two years ago in Israel, this 90kg mobile system has so far intercepted 93 rockets. Iron Dome has been highly effective in fighting terrorist group Hamas on Israel's Gaza border. Similarly, **David's Sling** has been highly potent in intercepting medium range air threats.

Implications of Defense Relationship with Israel on Other Defense Suppliers.

67. It is important to note that even without formal diplomatic relations, Indo-Israeli military ties existed during the Cold War. These ties have certainly increased in volume since the 1990s. Now India's new alignment with Israel also sends a message to US and Russia that we

⁴³<https://www.timesofisrael.com/indias-modi-approves-nis-9-4-billion-missile-deal-with-israel/>

⁴⁴www.globalsecurity.org/military/world/india/LR-sam.htm

are no longer dependent on their defense industry and we will pursue our interests.

Defence Exhibitions.

68. In 2015, in Aero India exhibition, more than 15 Israeli companies participated in the exhibition lead by Israeli Defense Minister Moshe Ya'alon. In the next Aero India exhibition, (June 2016) a record 35 companies set up stalls and showcased their defence equipment which has already tried and tested. In June this year, more than 55 Indian defense firms had participated at the ISDEF exhibition in Tel Aviv. This was the highest participation ever by Indian firms at this exhibition.⁴⁵ Such interaction will open opportunities for deeper co-operation and collaboration. Changes in the geopolitics presents many export opportunities for the defense industry of India and Israel.

Internal Security Co-operation.

69. India's has great deal of experience in tackling internal security threats which covers diverse categories, including non-conventional war, low-intensity conflict, proxy war, insurgency, and non-combat operations. Israel too faces similar challenges despite the fact that the roots and nature of the terrorism they face are different for both India and Israel. But in both cases, the terrorism directed against both countries is sponsored by their neighbors. Israel has developed remarkable technological and operational capabilities and uses first-rate surveillance equipment to fight its terror related challenges.

70. India keen to take advantage of Israeli expertise in the field of infiltration prevention, as both the eastern and western borders of India are highly infiltration-prone. Israeli equipment can also be very useful in bringing down border problems with China, where India often falls short. Similarly, Israel can share its expertise with India on how to keep common dangers such as al-Qaeda and ISIS at bay by adopting special counter-terrorism and forensics techniques. Terrorist attacks have occurred in India with alarming regularity. Government is steadily expanding the scope and dimension of its counterterrorism and intelligence-sharing cooperation with Israel. Though there would remain

⁴⁵ ibid

some limitations, as India and Israel are not directly fighting the same adversary.⁴⁶

Israel's Push to Make In India Initiative

71. India's current requirements on defence are catered largely by imports. It spends about 31.1% of its total defence budget on capital acquisitions and about 60% of its defence requirements are met through imports. The opening of the defence sector for private sector participation will help foreign original equipment manufacturers to enter into strategic partnerships with Indian companies and leverage the domestic markets as well as aim at global markets. Besides, helping in building domestic capabilities, this will also bolster exports in the long term.

72. Apart from US, French and UK, Israel's defence manufacturers are also interested to jointly manufacture defence products with India. In that Israel Aerospace Industries (Israel) and Rafael Advanced Defense Systems Ltd are the lead players.⁴⁷

73. Israel defence Industry compared to other weapon majors is more liberal in transfer in technology. Israel has got a very strong industrial base. It also has very strong technical cooperation with the US. Many defence equipment is jointly developed by American and Israeli and they offer cutting edge technology. DRDO is engaged with Israel defence industry in co-development of defence products. DRDO's major collaborations with Israeli companies fall in the areas of missiles, electronic warfare systems and main battle tanks.⁴⁸ Currently, DRDO is engaged in several co-development pacts with Israel companies such as Elisra, IAI, Elbit and others.⁴⁹

Joint Ventures.

74. **Spike Anti-Tank Missile.** Israel's Rafael Defense Systems Ltd has formed a joint venture with Kalyani Group to produce anti-tank guided

⁴⁶<https://besacenter.org/perspectives-papers/india-israel-security-cooperation/>

⁴⁷<http://www.makeinindia.com/sector/defence-manufacturing>

⁴⁸<http://economictimes.indiatimes.com/news/economy/foreign-trade/10-bn-business-how-israel-became-indias-most-important-partner-in-arms-bazaar/articleshow/16507523.cms>

⁴⁹<http://economictimes.indiatimes.com/news/economy/foreign-trade/10-bn-business-how-israel-became-indias-most-important-partner-in-arms-bazaar/articleshow/16507523.cms>

missiles(Spike Missile)for the Indian armed forces that are also likely to be exported to South-East Asian countries.

75. The Spike missiles are supplied by Israel to 20 countries, including NATO members. There is also a potential for its export to South-East Asian countries like Myanmar, Vietnam, Philippines, Indonesia. These are the potential exports markets for us. Kalyani Group has recently announced a second joint venture factory with an Israeli company is setting up an artillery guns manufacturing facility in Pune.⁵⁰

76. **Small Arms Manufacturing.**In May 2017, Punj Lloyd and Israel Weapon Industries announced a joint partnership for production of small arms in India both for internal use and exports. The plant will manufacture weapons like X95 assault rifle, Galil sniper, Tavor assault rifle, Negev light machine gun and the Ace assault rifle, which is similar to the Tavor but, less advanced. The Joint venture aims to supply carbine, assault rifle, sniper rifle and light machine guns for the Armed forces, paramilitary forces and the state police.

77. Indian Army is looking for a mainstay weapon that can replace the INSAS. And may adopt Tavor as replacement .⁵¹

78. **Air Defence Missile(BARAK-8).**Israel Aerospace Industries successfully tested a jointly developed Indian-Israeli Barak-8 Air and Naval air defence missile system on 10 Nov 2014. This is an important milestone in the co-operation between India and Israel. The missile are be produced in bulk by defence PSU Bharat Dynamics Ltd (BDL) The Air Force and Navy both are going to use this missile for defence of the ship and air bases. With an over 70-km interception range against enemy aircraft, drones and missiles, the naval MR-SAM has already been fitted on the three new Kolkata-class destroyers. But each MR-SAM system is now projected to cost around Rs 1,200 crore for the 12 under-construction warships in Indian shipyards, including aircraft carrier INS Vikrant, four guided-missile destroyers and seven stealth frigates. Another nine squadrons Barak-8 are required for the air force.

79. Indian firm Reliance Defence and Israeli firm Rafael Advanced Defense Systems signed a co-operative agreement worth \$10 billion at Defexpo India on 30 march 2016 to jointly produce air-to-air missiles,

⁵⁰<http://www.livemint.com/Companies/KwKBK7BcmK8DSJ4KqpO3rL/Israels-Rafael-Defence-Kalyani-Group-to-manufacture-missil.html>

⁵¹<http://economictimes.indiatimes.com/news/defence/india-opens-small-arms-manufacturing-unit-in-mp-in-a-joint-venture-with-israel/articleshow/58516436.cms>

various missiles defence systems and surveillance balloons for the Indian military .

80. Adani Enterprises Ltd and Israel's Elbit Systems India Ltd agreed to forge a joint venture company, [AdaniElbit Advanced Systems India Ltd](#) (AEASIL), to manufacture unmanned aerial vehicles (UAVs) in India. These ventures would not only lessen the burden of manufacturing on the state-owned industries but, also help in creating jobs in the private sectors, and will be helpful in the indigenization programs at later stages.

81. As a latest development, the Cabinet Committee on Security (CCS), has approved DRDO-IAI joint-development program for medium range surface-to-air missile (MR-SAM) system (50-70 km range) at a whopping cost of US \$2.5 billion for the Indian Army. The delivery of 200 missiles for five regiments, with 40 units each, would begin from 2023. This system will be manufactured in India with 80 per cent contents manufactured in the country. This breakthrough came after the Aero India 2017 exhibition where Israel's defence firms participated in large numbers.

82. A joint-venture agreement and Memorandum of Understanding (MoU) between IAI and India's Kalyani Strategic Systems Ltd. (KSSL), Taneja Aerospace & Aviation Ltd. (TAAL) and Dynamic Technologies Ltd (DTL) for production of air defence systems, mini UAVs and aircraft-related items, have been signed recently. In all likelihood, the volume of India-Israel defence trade presently estimated at US \$1.0–1.5 billion annually will definitely see an increase with these agreements signed.

83. Make in India initiative will endow the nation with Strategic autonomy as well as uplift the economic well-being of the nation. During the Prime Minister Modi's visit of Israel in June this year, a large number of Indian defence firms accompanied PM Modi where they signed twelve strategic agreements ranging from Air defence radars, anti-ship missiles and long endurance UAV's under technology transfer deals worth \$4.2 billion.

84. India and Israel also agreed during the PM Modi's visit to create an India Israel innovation initiative fund (I4F) modeled after US-Israel BIRD foundation.

Future of Defence Relationship.

85. The Indo-Israeli partnership seems sustainable. However, the critics point out that Israel is the new Soviet Union. It is a valuable partner to India and willing to share technology that is difficult even impossible to obtain from others but, but should not be exclusive for the following reasons:-

- (a) Israel may not have the best technology, for some missions, Thus, may not be an ideal partner for transfer of technology
- (b) India's traditional ties with Iran and Arab countries could prove to be a hurdle. Iran is a sworn enemy of Israel.⁵²

Building Strategic Partnership.

86. Strategic partnership connotes wider engagement between states at all levels. Our system of governance and commonality of needs and co-operation manufacturing in defence industry must broaden our co-operation at the strategic level. The perceptible change is reflected in our self-confident assertion of Indian interests. De-hyphenation of India relations with Israel and India and Palestine signifies a distinct break from the unnecessary and counterproductive diffidence of the past. Existing security cooperation between the two nations is maturing to a "strategic partnership."

87. During recent visit by PM Modi, a large number of Indian defense firms had accompanied Modi where they signed 12 strategic agreements ranging from air defense systems, radars, anti-ship missiles to medium-altitude long endurance UAVs in India under technology transfer deals worth \$4.3 billion during the first formal meeting of India-Israel CEOs forum in Tel Aviv.⁵³

88. Apart from defense, Israel will offer advanced technology and knowhow in areas other than defence such as in agriculture, water conservation. Likewise, India and Israel [signed seven agreements](#) in the fields of water, agriculture, and space, including a \$40 million joint fund for research and development in innovation.

Intelligence Sharing.

⁵²http://economictimes.indiatimes.com/articleshow/16507523.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

⁵³<https://sputniknews.com/military/201707271055914931-india-shalom-israel-exercise/>

89. India and Israel agencies namely Research and Analysis Wing (RAW) and Mossad are also known to share intelligence. Media reports suggest that these agencies identified the military relationship between Pakistan and China and North Korea and had even forewarned the authorities about Pakistan's clandestine effort to acquire nuclear weapons.⁵⁴The new defence relationship between India and Israel bothers our adversaries to no end. Close co-ordination between the intelligence agencies of both countries is useful to both nations due to emerging terror threat with the global dimensions.

Collaboration in science and Tecnology.

90. In 1993, during the visit to India of then [Israeli Foreign Minister Shimon Peres](#), India and Israel signed an agreement on science and technology, which allowed for direct scientific co-operation between both governments. Specific areas of cooperation included [information technology](#), [biotechnology](#), [lasers](#), and [electro-optics](#). A joint committee to monitor collaboration between the two nations was established. Since, 1993, several interactions between the scientific community continue to take place and is way forward to strengthen the strategic partnership.

(a) In 1994, a \$3 million joint science and technology fund was set up to facilitate [R&D](#) collaboration between both countries.

(b) In 1996, Indian scientists attended a seminar on [advanced materials](#) in Israel.

(c) In 1997, Israeli scientists attended a seminar on biotechnology in [Delhi](#).

(d) In 1998, India and Israel had 22 ongoing joint research projects. A joint symposium on the [human genome](#) was held in [Jerusalem](#), where six Indian scientists took part.

(e) In November 1999, India and Israel agreed on four proposals for joint research projects in the field of human genome research.

(f) In 2000, even more joint projects related to human genome research were agreed on, and a status seminar on this field was held in India.

⁵⁴<http://www.rediff.com/news/2003/sep/08spec.htm>

(g) In early 1999, more than 20 Israeli scientists participated in a physics symposium on Condensed Matter in Delhi.

(h) In 2001, a similar symposium was held in Jerusalem, with 18 Indian scientists attending.

(j) In 2012, Israel stated its intent to increase technological and economic cooperation with the Indian state of Bihar, in the fields of agriculture, water management, solar energy, and medical insurance.

(k) In 2014, Israel made plans to open two agricultural Centers of Excellence in Bihar, focusing on increasing productivity of vegetable and mango crops⁵⁵.

91. Israel has offered to help the India government with a project to clean the Ganga. An Israeli delegation visited India in August 2015 and met with officials of the Union Ministry of Water Resources, River Development and Ganga Rejuvenation. Israeli Ambassador to India Daniel Carmon also called on Union Urban Development and Parliamentary Affairs Minister M. Venkaiah Naidu to offer Israel's expertise in water management to battle water scarcity. OhadHorsandi, spokesperson of the Israeli Embassy in New Delhi stated that Israel was keen to help in India meet its water needs for agriculture and drinking, and was pushing for more government-to-government agreements.⁵⁶

Space Collaboration.

92. During PM Modi,s recent visit of Israel, the Israel Space Agency and Indian Space research organization signed an agreement to foster partnership in the development of the electric propulsion system for the small satellites and creating systems to accurately measure the extreme conditions in the outers space.

93. Israel has strength in Satellite designing.In 2009, after the Mumbai attack to bolster our surveillance capability India launched a spy satellite RISAT 2 equipped with synthetic radar with increased surveillance capability in all types of atmospheric conditions for civil and defence use. Manufactured by Israel Aerospace Industry.Whereas, India has established itself as reliable with relatively cheap space launches .Israel

⁵⁵<http://www.thehindu.com/news/national/other-states/israel-to-open-centres-on-agrihorticulture-in-bihar/article6145409.ece>

⁵⁶<http://www.thehindu.com/news/national/israel-offers-to-help-clean-ganga/article7440855.ece>

frequently used Indian launch capability to launch its satellites. Both therefore, can exploit their strength for advantage.

Conclusion.

94. Prime Minister Narendra Modi has pledged \$250 billion to modernize India's aging military equipment. This is considered vital as India faces serious geopolitical threats from its nuclear-armed rival Pakistan and China's particularly in the light of the Doklam standoff. Chinese assertiveness is visible in South China Sea and now also on the Sino Indian borders where Chinese troops routinely carry out illegal insertions. India's domestic defence sector is not capable of meeting New Delhi's growing requirements. Israeli cooperation as source of Hi-tech weapons and development of our indigenous defence industry is vital.

95. Since the 1950s, the Indian leadership has continuously maintained that we want focus "Make in India" theme. Shift of our focus to more on private Indian companies for defence procurement, could lead to success. Replacing imports with domestically produced weapons will take time. Our requirements are imminent. In that, Israel can play a very useful role in joint ventures both for use our own security need and for export. But caution should be the buzz word as headlong dependence on Israel could lead to paralysis in Indian defence R&D which must rather get boost from India Israel engagement.

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