Nishith Desai Associates
LEGAL AND TAX COUNSELING WORLDWIDE

MUMBAI SILICON VALLEY BANGALORE SINGAPORE MUMBAI BKC NEW DELHI MUNICH NEW YORK

Redefining Frontiers

The Indian Defence Industry

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1. History

Since independence, the goal of self-reliance has propelled India to nurture and expand its defence industrial base. In 1947, majority of the defence infrastructure and equipment in India was inherited from her erstwhile colonial ruler, Britain. During the 1950s, India focused on its capability to indigenously produce equipment with little technical know-how, leaving the advanced equipment requirements to be addressed through imports. In 1956, the revised Industrial Policy Resolution reserved the arms and ammunition industry with the public sector. In 1958, the ordnance factories set up under the British rule became the core group of industries that formed the Defence Research and Development Organization (DRDO).[1]

The impetus for India's defence industry arrived when the country faced drastic reverses in its conflict with China in 1962. This prompted India to increase her defence expenditure from 1.5% of the nation's gross domestic product (GDP) to 2.3%.[2] Following India's war with Pakistan in 1965, an embargo imposed by the United States of America upon the export of arms to India heralded an era of defence ties with the Soviet Union.

Within the next 15 years, a lion's share of India's defence equipment was supplied by the Soviet Union. The country received advanced weaponry and even commenced manufacturing of equipment, albeit by way of license. The Mig-21 fighter aircraft, manufactured by Hindustan Aeronautics Limited in Bangalore, stood as a stark symbol of this arrangement.[3] Although the nation received advanced weapons, manufacturing via the license-route from States and foreign companies led to stagnation in India's domestic capabilities in terms of research, development and production.

In the 1980s, India began a renewed effort to galvanize its domestic defence industry by investing largely into DRDO and development of indigenous missile systems such as *'Prithvi'*, *'Akash'* and *'Nag'*. India also began the development of its flagship aeronautical project, the Light Combat Aircraft during this period. In 1998, India entered into an agreement with the Soviet Union to develop a supersonic cruise missile system, the *'Brahmos'*, through a joint venture.

Towards the onset of the 21st century, India opened its doors to liberalization and progressive economic reforms. The era of State-run enterprises and centrally planned economy took a back-seat and paved the way for arrival of the private sector. The private sector was given complete access to the defence industry. Introduction of the 'Make' type of procurement in the Defence Procurement Policy 2006 allowed the industry to develop and produce advanced defence equipment, with government commitment to provide 80% of the development costs.[4] FDI of 26% was also permitted in the defence sector. However, the government continued its reliance on import of advanced weaponry, with new fighter aircraft such as the Sukhoi 30 MKI being inducted into the Air force, submarines and missile destroyers being purchased for the navy and howitzers such as the BOFORS system being purchased for the army. In an attempt to boost domestic procurement, the government changed the order of preference in procurement under the Defence Procurement Policy of 2013-making it a preferred choice to develop, design or manufacture defence equipment indigenously.

1. Laxman K. Behera, 'Indian Defence Industry: The Journey to Make in India', 2016
2. G. Balachandran and Shruti Pandalai, 'India's Defence Budget: Trends beyond numbers', IDSA Comment 2013
3. Ian Anthony, 'The Arms Trade and Medium Powers: Case Studies of India and Pakistan 1947-90', Harvester Wheatsheaf, New York, 1992, p.58
4. Laxman K. Behera, 'DPP 2016: An analytical overview'; April 12, 2016

India has steadily walked towards its objective of self-reliance by becoming one of the few nations to possess and develop advanced weaponry such as Inter-Continental Ballistic Missiles, Aircraft Carriers and Nuclear Submarines. However, it has continued a long standing policy of working hand-in-hand and deriving support from the technologically advanced nations for its defence capabilities.

2. Industry Overview

The global defence industry provides an interesting picture for the year 2016 and a dynamic projection for 2017-2018. The five largest global suppliers - the United States of America (USA), Russia, China, France and Germany accounted for 74 per cent of the volume of global exports between 2011 and 2015.[5] The USA and Russia have been the largest defence suppliers since 1950. The USA has also remained the largest defence spending nation, representing 34 percent of the total global military spend of USD 1760 billion in 2015. However, defence budgets in the USA witnessed a five year decline from 2011 to 2015, falling from USD 691 billion to USD 560 billion. In 2017, this has risen to USD 589 billion, albeit being significantly lower than majority of its earlier budget allocations.[6] At the regional level, the flow of arms to Europe decreased by 41% between 2006–10 and 2011–15. However, most interestingly, the flow of arms to the Middle East grew by 61 per cent, while that in Asia increased by 26%. During 2011 to 2015, states in Asia received 48 per cent of all imports of major weapons in 2011–15. Of the five largest recipients of major weapons, three were located in Asia - being India, China and Australia.[7]

I. India's Defence Industrial Base

With its mighty defence industrial base, staggering defence budget, continual deals with global defence giants and surge of policy reforms, is the Indian defence industry worthy of capturing global attention? The answer is crystal clearly positive. Despite a gloomy global economic environment, the Indian economy continues to a bright spot, with the initial estimates of the Gross Domestic Product (GDP) showing a growth of over seven per cent per annum for three consecutive years between 2014-15 and 2016-17. The growth momentum is likely to be sustained at around 6.75-7.5 per cent in 2017-18, as projected by the latest Economic Survey. Besides the GDP growth, the economy has also witnessed other robust macro-economic indices pertaining to inflation, fiscal consolidation, current account deficit, rupee-dollar exchange rate, foreign exchange reserves and foreign investment inflows.[8]

On the defence front, India has a mighty defence industrial base with 41 Ordnance Factories (OFs) [9] and 9 Defence Public Sector Undertakings (DPSUs),[10] collectively forming the public sector component; and more than 100 private companies. The Defence Research & Development Organization (DRDO), India's premier defence research organization, has over 50 laboratories under its aegis.[11] India has the third largest armed forces in the world. Significantly, during 2011 to 2016, India has remained the world's largest importer of major weapons, with 14% share in the global import of arms.[12] The rise in the defence budget of India over the past two decades has been remarkable. From the year 2000 to 2010, India's defence budget allocation nearly tripled from INR 58,587 Crores to INR 141,781 Crores.[13] In 2015, the defence budget allocation rose to INR 222,370 Crores. India was recognized as the seventh largest military spending nations, after U.S.A., China, Russia, Saudi Arabia, France and UK in 2015. In 2016, India moved up to the fourth largest military spending nations in the world.[14] Under the 2017-2018 budget, a sum of INR 274,114 Crores has been provided for defence expenditure.

5. Stockholm International Peace Research Institute (SIPRI) Yearbook 2016
6. Deloitte, '2017 Global Aerospace and Defence Sector Outlook : Growth Prospects remain upbeat'
7. SIPRI Yearbook 2016
8. IDSA Issue Brief, Laxman K Behera, 'India's Defence Budget 2017-18: An Analysis'
9. Available at http://ofbindia.gov.in/index.php?wh=ourunits#F
10. Available at http://ddpmod.gov.in/defence-public-sector-undertakings
11. IDSA, Policy Brief, Lakshman K Behera, 'Make in India for Defence: a roadmap'; 5 February 2015
12. SIPRI Yearbook 2016
13. IDSA Issue Brief, Laxman K Behera, 'India's Defence Budget 2017-18: An Analysis'
14. Deloitte, '2017 Global Aerospace and Defence Sector Outlook : Growth Prospects remain upbeat'

II. International involvement in India

Various global defence companies have increased their investments into India. There have been various joint-venture announcements in the sector in the last two years. Major A&D companies such as, Airbus, Boeing, Lockheed Martin, and Safran already have a footprint in the Indian market, with some of them planning further investments.[15] For instance, Airbus announced a joint-venture with Mahindra Defence Systems last year to manufacture helicopters for the Indian military.[16] Similarly, Boeing entered into a joint-venture with Tata Advanced Systems in December 2015, wherein they will manufacture fuselages of *Apache* Helicopters in India.[17] As the sector opens up further, there will be an increase in global defence companies entering the Indian market. India signed 15 contracts worth USD 10.5 billion with foreign vendors in 2016 (up to October 2016) including contracts for 145 M777 lightweight Howitzers.[18] One of the largest defence contracts in history is the Medium Range Multi-Role Combat Aircraft deal with the French manufacturer *Dassault* for 36 *Rafale* fighter jets.[19] Multiple projects have been fast-tracked. For instance, the first of six Scorpene dieselelectric attack submarines was undocked in December 2015 and is undergoing sea trials.[20] Similarly, the first squadron of the indigenously produced LCA *Tejas* was inducted into the Indian Air Force in July 2016.[21] In the last 2 years, India has signed defence cooperation agreements and MoUs with over 20 countries, entered the Missile Technology Control regime, and strengthened bilateral relationships with major suppliers. For instance, India signed a military logistics agreement with the United States and was recognized as a 'major defence partner,' which will enable license-free access to a wide range of dual-use technologies. India is also in the process of jointly developing a fifth-generation stealth combat aircraft with Russia under the PAK-FA program, with HAL working in tandem with *Sukhoi*.[22]

15. Deloitte, '2017 Global Aerospace and Defence Sector Outlook : Growth Prospects remain upbeat'
16. The Economic Times, "Airbus Helicopters signs contract with Mahindra to make parts of Panther helicopters", 13 July 2016
17. Boeing, "Boeing, TATA Joint Venture Establishes Aerospace Facility in Hyderabad", 18 June 2016
18. India Defence News, "India Signed 15 Defense Contracts Worth $10.5 Billion This Year", November, 2016
19. http://www.financialexpress.com/india-news/rafael-fighter-jet-deal-to-create-thousands-of-jobs-india-inc-to-get-3-bn-euros-worth-biz/412366/, October 10, 2016
20. The Indian Express, "INS Kalvari sea trials begin today: All you need to know about the attack submarine", December 2015
21. The Economic Times, "First squadron of LCA Tejas inducted into Indian Air Force: 8 things to know", July, 2016

III. Defence Procurement Procedure 2016

Until 2014, dearth of focus and funding for research and development (R&D) in the public sector, coupled with absence of an enabling eco-system for flourishing of foreign direct investment (FDI) and the private sector, prevented India from building its defence capabilities. However, the years since 2014 have witnessed a tectonic shift in the defence plateau. The industry has witnessed a powerful influx of progressive reforms. Policy initiatives have been adopted to ensure efficacious procurement, ease of business and lower entry barriers. On March 28, 2016, the Defence Procurement Procedure 2016 (DPP 2016) was introduced with substantial amendment to DPP 2013, to provide for efficient and expedited procurement of defence technology and equipment, large incentives to the private sector - promising transparency and probity to the process. It aims to promote the 'Make in India' initiative by fostering growth of the domestic defence industry, and introduces the Buy (Indian-IDDM) and Buy and Make (Indian) categories of procurement. For government funded projects, government funding commitment has increased from 80% to 90% for prototype development, with 20% of the total developmental

22. **http://www.globalsecurity.org/military/world/india/mca.htm**, November 6, 2016

cost being payable in advance. Clarifications have been issued to strengthen implementation of offsets obligations through an amended offset policy which addressed key industry concerns such as inclusion of services as a method of discharging offsets and updating Indian Offset Partner to enable complete discharge of obligations.

IV. Licensing Policy

The requirement to obtain Industrial License (IL) for production of defence equipment, coupled with an arduous licensing process, was a significant roadblock to entry of private companies in the defence sector. Through a series of notifications issued between June 26, 2014 and September 22, 2015, the government has confined the requirement of licenses to a notified list of defence equipment, which it released in the public domain.[23] The validity of an IL has been raised from 3 to 15 years, extendable to 18 years considering the long gestation period of defence contracts. The application process has been automated and simplified.

V. Foreign Direct Investment

In last two years, Government has brought major FDI policy reforms in a number of sectors including Defence. These measures have resulted in increased FDI inflows at US$ 55.46 billion in 2015-16, as against US$ 36.04 billion during 2013-14. This is the highest ever FDI inflow for a particular financial year. India has been rated as Number 1 FDI Investment Destination by several International Agencies.[24] However, it was felt that India has potential to attract far more foreign investment which can be achieved by further liberalizing and simplifying the FDI regime. Accordingly, Union Government radically liberalized the FDI regime on June 20, 2016. In the defence sector, FDI cap has risen from 26% to 49% under the automatic route,[25] and beyond 49% through government approval route wherever it is likely to result in access to modern technology or for other reasons to be recorded.[26] FDI limit for defence sector has also been made applicable to manufacturing of small arms and ammunition covered under Arms Act 1959. This is one of the most significant policy initiatives by the Government in the defence sector. Earlier, there was a condition to bring in "state-of-the-art technology" for foreign companies in order to hold greater than 49.0 percent stake in local ventures. However, the government modified this condition to "modern technology or any other reason that may be recorded", relaxing the entry barriers to open up the sector to greater foreign participation and making it more attractive for global defence companies to enter and operate in India. Further, the Foreign Investment Promotion Board (FIPB) has been abolished, reducing a leg of the approval process. As per the Standard Operating Procedure released on June 29, 2017, FDI proposals will now be directed by the DIPP to the concerned competent authority (the Department of Defence Production) while security clearance will be sought in parallel from the Ministry of Home Affairs. Post the relaxation of FDI regulation, the Indian defence sector is likely to record an increase in alliances and partnerships, as well as a rise in foreign companies setting up manufacturing facilities in India.[27]

VI. Level Playing Field

Another long standing demand of the private sector has been one for a level playing field between the public and private sectors. Defence Public Sector Undertakings have, until now, been granted an exemption from the payment of customs and excise duties on products supplied to the defence forces.

23. Available on www.dipp.nic.in
24. Press Information Bureau, Government of India, Cabinet, "Major impetus to job creation and infrastructure: Radical changes in FDI policy regime; Most sectors on automatic route for FDI," 20 June 2016, Available on http://pib.nic.in/newsite/PrintRelease.aspx?relid=146338
25. DIPP (FC-I Section), Press Note No. 5 (2016 Series), para 5.2.6
26. Press Information Bureau, Government of India, Cabinet, "Cabinet approves simplification and liberalization of the Foreign Direct Investment Policy, 2016 in various sectors"; August 31, 2016
27. Deloitte, '2017 Global Aerospace and Defence Sector Outlook : Growth Prospects remain upbeat'

These exemptions have been withdrawn on April 30, 2015 with the aim of attracting the interest of foreign players in the market. [28]

VII. Transfer of Technology

With respect to transfer of technology (ToT), DPP 2016 attempts to foster growth of domestic defence industry. However, model clauses that could serve as guidance to foreign and domestic players for incorporation in ToT arrangements are yet to find their way in DPP 2016. Currently, a vacuum of specific guidelines on underlying Intellectual Property Rights (IPR) and the type of intellectual property licenses to be granted under such arrangements, often results in grant of restrictive licenses by foreign investors to Indian companies. This hinders capability of the domestic defence industry to develop technology equivalent to foreign players. However, being a contractual issue, it can be addressed by negotiating less restrictive Intellectual Property licenses in such arrangements.

VIII. Exports

The government has also shifted gears to steer its indigenous defence industry into exports. A Standard Operating Procedure has been released to elucidate the process and documentation required for grant of export license clearance. 66 per cent of the items have been delisted from defence export clearances.[29] Creation of an export strategy and granting online No Objection Certificates to defence exporters are steps taken in this direction.

IX. Private Sector

Perhaps the greatest progress can be found in the private sector from its journey in 2001 till date. The sector has seen many encouraging trends. Large defence projects are witnessing increasing private sector involvement. In the first development contract of its kind, the development of Battlefield Management System (BMS) was awarded to two consortiums, one comprising of leading private companies being Tata and L&T.[30] The joint bid submitted by the two private players Tata and Airbus for the 'Avro Replacement Program' was approved in May 2015.[31] In another first of its kind contract, the government has permitted DRDO to transfer the relevant technology to private firms as seen in the Licensing Agreement for Transfer of Technology signed by L&T for the Unmanned Ariel Vehicle *Lakshya*.[32] India's indigenously developed Light Combat Aircraft will be inducted into the air force in large numbers with over 220 aircrafts expected over the next decade.[33] The developments in the naval realm have also been promising with the development of an indigenous aircraft carrier, the *INS Vikrant*, due for completion in 2018; and the development of *Scorpene* class submarines at the Mazagaon Docks.[34]

The strength of the private sector is long recognized in defence. However, the most awaited policy in this arena is the Strategic-Partnership model, introduced in DPP 2016, has been recently notified. Industry experts have recognized that if the strengths of private industry are to be harnessed then they must be done under well-defined models depending upon the strategic needs, quality criticality and cost competitiveness. Where vendor base is large and competition is feasible, the competitive bidding process must be followed. However, there are cases where certain platforms are of strategic importance. For these, the 'Strategic Partnership model' has been introduced for fostering Government-Private sector partnership in designated segments of the defence sector on a long term basis. Such capacity will be created over and above the capacity and infrastructure that exists in Public Sector

28. PIB, 'Big push to private participation in defence manufacturing: Government provides level playing field with Defence PSUs'; June 1, 2015
29. http://ddpmod.gov.in/defenceexports/revised-standard-operating-procedure-sop-export-military-stores
30. http://www.business-standard.com/article/economy-policy/tata-bel-consortia-get-rs-40k-crore-battlefield-management-system-115022601469_1.html, February 26, 2015
31. http://www.defencenews.com/story/defence/air-space/support/2015/05/15/india-hal-monopoly-transport-helicopter-tata-airbus-putin-modi/27359629/, May 15, 2015
32. http://indianexpress.com/article/india/india-others/in-a-first-dr-do-transfers-technology-to-private-player/,July 19, 2015
33. http://www.globalsecurity.org/military/world/india/air-force-equipment-fighter.htm
34. http://www.dailymail.co.uk/indiahome/indianews/article-3027893/India-s-Scorpene-submarine-INS-Kalvari-launched-sea-trials.html, 7 April 2015

units. Strategic Partners from the private sector would be identified to become partners with the MoD in their deliberations under Government to Government negotiations with foreign OEMs for collaboration in production in certain segments.[35]

X. Concerns

From a bird's eye view, the defence industry is widening its scope and promising effective results. For defence contractors, increased defence budgets represent an opportunity to place more equipment and military weapons systems with the country. Key defence products which are likely to experience increased interest from buyers, include armored ground vehicles, ground attack munitions, light air support aircraft, intelligence, surveillance and reconnaissance electronic sensors, cyber protections, maritime patrol ships and aircraft, as well as provision for equipment maintenance and sustainment, as the military operations tempo continues to increase.[36] With global defence spending experiencing a slowdown in the last few years, global defence firms have increased focus on seeking growth opportunities in markets such as India and the Middle East. Moreover, the share of military expenditure from the Asia and Oceania region rose from 20.1 percent in 2010 to 25.6 percent in 2015, whereas, USA' contribution to the global military spending declined from 47.8 percent in 2010 to 39.1 percent in 2015. Hence, global defence companies dependent on the US and Europe are increasing their focus on regions such as India.[37]

Although major breakthrough has been made in respect of procurement, foreign investment and private sector reforms, certain concerns remain to be addressed. R&D continues to suffer from low investment, concrete plans, timelines for execution and better incentives. The public sector beckons strengthening. DPSUs and OFs face greater challenges with increased competition from the private sector, in terms of productivity, resources and capacity utilization. These need to be strengthened in parallel. Corporatization of Ordnance Factories remains in the pipeline and calls for immediate implementation. In the private sector, proposal has been made to identify strategic partners.[38] The procedure for such identification needs to be streamlined.

Armed with greater budget, improved and expeditious procedures, channelized focus to acquire and make best in class equipment, and an executive will to integrate the domestic industry with its global counterpart, the Indian defence industry has placed itself on a trajectory of growth and challenge-driven production. The reforms provide the much-sought impetus for employment and promise welcome changes in the field of procurement, investment, ease of doing business and public-private sector intersection. Akin to every industry, the success of the defence industry will largely depend on its continued efforts to maintain a conducive eco-system for all stakeholders and a robust framework for effective implementation of the reforms.

35. Dhirendra Singh Committee Report, 2015
36. Deloitte, '2017 Global Aerospace and Defence Sector Outlook : Growth Prospects remain upbeat'
37. Deloitte, '2017 Global Aerospace and Defence Sector Outlook : Growth Prospects remain upbeat'
38. DPP 2016, Chapter VI

3. Industry Breakthroughs

(published on Ministry of defence website in July 2016)[39]

Encouraging Government measures

- The Defence Procurement Procedure 2016, introduced the category of Buy (Indian – IDDM) for the acquisition of indigenously designed, developed and manufactured equipment.
- The Buy (Indian - IDDM) category has been afforded the highest priority among the forms of acquisition.
- Procurement of equipment with enhanced performance metrics
- Funding of private sector design and development projects with a special focus on the Medium and Small Manufacturing Enterprises (MSME) Sector.

Upcoming Defence Acquisitions

- 110 contracts signed with a total value of INR 1, 13, 995 crores.
- 101 Acceptances of Necessity (AoNs) worth INR 2, 39, 000 crores issued.
- Letters of Intent for the acquisition of Mine Counter Measure Vessels worth INR 32, 640 crores issued.

Major Capital Procurements in recent times

- Navy Frigates worth INR 48,000 crores
- Apache Attack Helicopters worth INR 13,970 crores
- Chinook Helicopters worth 8,000 crores
- Barak Surface to Air Missiles worth INR 875 crores
- Poseidon Eight India (P8I) Long Range Maritime Patrol Aircraft, with an operational aircraft delivered and 4 in advanced stages of production

Defence Acquisitions under progress

- 36 Rafale Multi-Role Combat Aircraft from the French manufacturer Dassault.
- Indigenous Manufacture of Kamov- Ka 226, Twin Engine Helicopters
- 145 Ultra-Light Howitzers

Enhanced Defence Production Measures

- The process of granting Industrial Licenses (ILs) has become more liberalized and Transaparent, leading to a sharp increase in the number of ILs issued. The number rose from 19 in 2013-14 to 75 in 2015-16.
- Strong focus on self-reliance, with all naval vessels including submarines on order, being constructed in India and a drop in expenditure on capital procurement from foreign vendors from INR 35,082 crores in 2013-14 to INR 22,422 crores in 2015-16.
- The Streamlining of the defence exports process has led to a significant rise in the value of defence exports from INR 1,050 crores in 2013-14 to INR 2,014 crores in 2015-16
- There has also been a rise in the production value of DPSUs and OFBs from INR 43,746 crores to INR 51, 351 crores.

39. Available at www.mod.nic.in

- The new Offset Policy has led to 100% of the offset obligations being claimed by Foreign Vendors in 2014 and 2015, a significant increase from 63% from 2008-13
- The DRDO has reached advanced stages of completion in key projects such as the Long Range Surface to Air Missile (LRSAM), the Astra Beyond Visual Range Missile (BVRM), Airborne Early Warning and Control System (AEW&CS) and the Rustom-II Unmanned Ariel Vehicle.
- The HAL Tejas, Advanced Light Combat Aircraft has been inducted into the Indian Air force.
- The indigenously developed warships INS Kochi and INS Kolkata have been commissioned with the INS Kalvari Attack Submarine undergoing sea-trials.
- The indigenously developed Akash Surface to Air Missile Defence System has become fully operational.

Diplomatic Overtures in the realm of Defence Co-operation

- India has recently signed Defence Cooperation Agreements and Memorandums of Understanding with over 20 countries such as Japan, Singapore, UAE, Oman, Canada, Kenya etc. to encourage defence exports
- India strengthened its strategic partnerships with USA, Russia and EU nations to facilitate transfer-of technology for cutting-edge defence equipment.
- With the entering into of White Shipping Agreements and setting up Coastal Surveillance Systems in friendly island nations, India has taken the lead in the global effort to combat piracy in the Indian Ocean Region
- India has conducted major joint exercises with armed forces of foreign nations.

Indigenous Defence Production

- Successful test launch of Agni-V – an intercontinental surface-to-surface nuclear capable ballistic missile developed by DRDO, with long range strike capability of 5500 to 5800 km.

4. Legal and Regulatory Framework

Policy	MINISTRY OF DEFENCE	All defence and security related matters
Legislations and Procedures	INDUSTRIES (DEVELOPMENT AND REGULATION) ACT, 1951	Governs industrial licensing for manufacture of defence items
	DEFENCE PROCUREMENT PROCEDURE, 2016	Governs procedure for capital acquisitions in the defence sector
	FOREIGN DIRECT INVESTMENT POLICY & REGULATIONS UNDER FOREIGN EXCHANGE MANAGEMENT ACT,1999 (FEMA)	Governs policy on foreign direct investment and regulations on foreign exchange
	OTHER ACTS Indian Army Act, 1950; Indian Air Force Act, 1950; Indian Navy Act, 1957	Statutory provisions and supplementary rules concerning government, regulation, administration, enrolment and discipline of the Army, Air Force and Navy.
Regulators and Agencies	DEPARTMENT OF INDUSTRIAL POLICY AND PROMOTION, MINISTRY OF COMMERCE & INDUSTRY (DIPP)	Formulation and implementation of industrial policy, including the relevant FDI policies from time to time.
	DEPARTMENT OF DEFENCE PRODUCTION, MINISTRY OF DEFENCE	The primary agency dealing with the production of defence equipment in India.
	DEFENCE ACQUISITION COUNCIL, MINISTRY OF DEFENCE	Responsible for the purchases to be made for the Indian defence forces.
	DEFENCE OFFSETS MANAGEMENT WING, MINISTRY OF DEFENCE	Review the post contract status of all the offset agreements entered into by IOPs.

I. Ministry of Defence (MOD)

MoD, headed by the Defence Minister, provides policy framework on all defence and security related matters. This is implemented by the Services Headquarters i.e. Army, Navy and Air force (SHQ), Inter-Services Organizations, Production Establishments and Research and Development Organizations. The MoD comprises of four departments.

The Department of Defence, headed by the Defence Secretary, deals with the SHQs, Integrated Defence Staff (**"IDS"**) and various Inter-Service Organizations. It is responsible for the Defence Budget, defence policy, matters relating to Parliament, establishment, defence co-operation with foreign countries and co-ordination of all defence related activities. The Department of Defence Production, headed by Secretary, (Defence Production), deals with matters pertaining to defence production, indigenization of imported stores, equipment and spares, planning and control of departmental production units of the Ordnance Factory Board and Defence Public Sector Undertakings (**"DPSUs"**).

The Department of Defence Research and Development is headed by Scientific Adviser to the Defence Minister. Its function is to advise the Government on scientific aspects of military equipment, logistics and the formulation of research, design and development plans for equipment required by the SHQs. The Department

of Ex-Servicemen Welfare deals with all resettlement, welfare and pension matters of Ex-Servicemen. [40]

II. Industries (Development And Regulation) Act, 1951 (IDR ACT)

Manufacturing in the defence industry requires industrial license (**"IL"**) as per the Industries (Development and Regulation) Act, 1951 (**"IDRA"**).[41] This is to be read in conjunction with Notification No.S.O.477 (E), entry No. 13 of Schedule II dated July 25, 1991 which provides a list of compulsory licensing items finalized by Department of Defence Production, MoD. Until 2001, defence manufacturing was confined to the public sector. In 2001, it was opened to 100% private sector participation. Consequently, the list of items was amended vide Notification No. S.O.11(E) on January 3, 2002 to include 'arms and ammunition and allied items of defence equipment; parts and accessories thereof' (as opposed to 'Arms and ammunition, parts and accessories thereof'). Since 2014, several clarifications have been issued in this regard for ease of business.

A. List of Defence Items

Vide Press Note 3 of 2014, the Government has provided a consolidated list of items requiring IL. Items not included in the list do not require an IL. Further, (a) dual use items having military as well as civilian application, other than those listed, and (b) items, parts, components, castings, forgings and test equipment, which are not part of the list; would not require IL from defence angle.[42] This will reduce entry barriers for the industry, particularly small & medium segment[43] and promise growth of supply chain in the sector.[44] However, with the recent notification of the Ministry of Home Affairs (**"MHA"**) on May 19, 2017, the list of defence items under Press Note 3 of 2014 will also have to read with the schedule in Notification S.O. 1636(A)

B. Procedure to apply for IL

Until the notification issued by Ministry of Home Affairs on May 19, 2017, the procedure to obtain IL was as provided below:

List of Items	Any Indian entity registered under the relevant Indian laws and interested in defence manufacturing would need to (A) peruse the aforesaid list of items for the purpose of industrial licensing. If the item intended to be manufactured is listed, the interested entity is required to obtain an IL.
Single window	The application procedure has been simplified since January 20, 2014 to provide single window, transparent and integrated electronic services to investors, industries and business.
Online application	The entity must fill an online application on the eBiz portal on the DIPP website.

40. www.mod.nic.in
41. Sr. No. 37, Schedule I, "Defence Industry: Arms and ammunition"
42. http://dipp.nic.in/English/acts_rules/Press_Notes/pn3_2014.pdf
43. Press Information Bureau, Government of India, Ministry of Defence: Industrial Licenses to Defence Sector, July 24, 2015
44. ASSOCHAM India: Make in India: Achieving self-reliance in defence production, 2016

Internal processes	On receipt of the application, the DIPP shares the same with the Ministry of Defence (MoD), where a Standing Committee on private Sector Participation in Defence Production examines the same and sends its comments to the DIPP. The IL application is also sent by the DIPP to Ministry of Home Affairs (MHA) and the State Governments concerned for comments.
DIPP Licensing Committee	Upon receipt of the comments, the proposals are discussed in the DIPP Licensing Committee. Licensing Committee takes into account security clearance from the Ministry of Home Affairs and views of the Ministry of Defence.
Decision	A decision is taken to grant or reject IL in consultation with the stakeholders.
Security Guidelines	The license holders are required to follow security guidelines under the Security Manual for Licensed Defence Industries, based on the respective item categorization. The companies are also subjected to external security audit by Intelligence Agencies once in two years and cyber security audit by CERTIN empanelled auditors once every year.
Reporting obligations	Upon commencement of production, the licensee is required to report commencement as per the conditions of the IL. The licensee has to furnish progress of manufacture on bi-annual basis on half-yearly return form as per the condition of license (Available on www.ddpmod.gov.in)

C. Notification S.O. 1636 (E) of MHA

Through a recent Notification S.O. 1636 (E) dated 19.05.2017 of Ministry of Home Affairs (MHA Notification), the power to issue licenses for the manufacture in respect of defence items included in the Schedule of the MHA Notification have been delegated to the Secretary, DIPP. Consequently, power to grant manufacturing license in respect of the category of arms and ammunition and defence items as per columns (2) and (3) of Schedule to the said Notification has been delegated to Secretary, DIPP.

Under the abovementioned MHA notification, the powers and functions delegated to Secretary, DIPP are the ones that are exercisable by the MHA under the following provisions of the MHA-administered Arms Act, 1959: sub-section (1) of section 5 (dealing with licenses for manufacture, sale, etc. of arms and ammunition), clauses (b) and (c); section 7 (dealing with prohibition of acquisition or possession, or of manufacture or sale, of prohibited arms or prohibited ammunition); and, Chapter III (containing provisions relating to licenses).

The delegated powers are to be exercised in respect of the category of arms and ammunition and defence items specified in the schedule that forms a part of the notification. However, the items mentioned in this schedule overlap with those notified through Press Note 3 of 2014.

While majority of the items stand common, various items listed under the category of arms and ammunition and allied items such as electronic equipment, armoured or protective equipment, specialized equipment for military training etc. have not been included in the MHA Notification.

This has created confusion, particularly also with respect to licensing of dual use items and assembly of parts and components. It has been recognized that the items notified through Press Note 3 of 2014 were merely to provide clarity on the list of defence items requiring industrial license under the provisions of the IDRA, with license applications administered by DIPP and forwarded to the MOD for its rightful consideration. However, the MHA has wrested control over licensing applications from the MOD in the defence industry despite the fact that it is (a) not in-charge of the defence industry, (b) not responsible for external defence, and (c) not connected with industrial development.

Pursuant to the MHA Notification dated May 19, 2017, Press Information Bureau released a note on May 26, 2017, directing all the interested Entrepreneurs/ Industries/Companies to apply in Form A-6 of Arms Rules 2016 in 15 copies along with details and enclosures as mentioned in the Arms Rules 2016 to the Senior Development Officer (Industrial License), DIPP.[45]

45. http://pib.nic.in/newsite/PrintRelease.aspx?relid=162173

Considerable criticism has been levelled against this move of the MHA. Industry experts believe that only because some arms and ammunition happen to be common in the MHA-administered Arms Act, 1959 and DIPP-administered Industrial (Development and Regulation) Act, 1951, there is no reason to disturb the status quo i.e. to continue with MoD dealing with defence items.[46] The industry hopes that the aforesaid move will be retracted and the original position will be re-instated.

D. Validity of IL

Vide Press Note 10 of 2015 Series, the validity of existing and future ILs for defence sector has been revised from 7 years (extendable to 10 years) to 15 years, extendable up to 18 years, considering the long gestation period of defence contracts.[47] If the IL has already expired, a fresh application is required to be made.

E. Additional clarifications[48]

Vide Press Note 9 of 2014 Series, the annual capacity for defence items in the Industrial License has been deregulated. This would however entail submission of half yearly production return to Department of Industrial Policy and Promotion and Department of Defence Production, MoD in the prescribed format.

The licensee shall be allowed to sell Defence items to Government entities under the control of Ministry of Home Affairs, State Governments, Public Sector Undertakings and other valid Defence Licensed Companies without prior approval of the Department of Defence Production. However, for sale to any other entity, the Licensee shall take prior permission from the Department of Defence Production, MoD.

An Indian offset partner (IOP), as will be detailed in chapter on *Offsets*, is also required to comply with the licensing requirements as applicable. Possession of IL is not a pre-requisite for becoming an IOP; it is mandatory only for items covered in the list.

The Maintenance, Repair and Overhaul (**"MRO"**) activities in Defence sector will be treated as services and would not be subject to IL requirements unless it involves manufacturing of any components/ sub-assemblies which are licensable. The product would remain the property of the same customer after MRO operation.

Seeking license is also a mandatory requirement under Clause 5.2.6, FDI Policy 2016, for the defence sector. This has been detailed in Chapter 5, *FDI in Defence*.

The aforesaid steps have been taken to foster ease of business and streamline the process to encourage defence manufacturing and private sector participation. In the period between January 2001 to June 2016, 342 licenses have been issued for manufacture of items in defence industry.[49]

III. Defence Procurement Procedure, 2016

The Defence Procurement Procedure (**"DPP"**) is a set of guidelines approved by the Defence Acquisition Council (**"DAC"**) that govern capital procurements in terms of defence equipment, manufacturing capabilities and technology. It provides framework and criteria for allotment of defence contracts. The first DPP was formulated in 1992 but came into effect only in 2002. Since then, it has been revised in 2005, 2006, 2008, 2009, 2011, 2013 and 2016.

46. http://www.spsmai.com/experts-speak/?id=369&q=Empowering-DIPP-or-weakening-defence
47. http://dipp.nic.in/English/acts_rules/Press_Notes/pn10_2015.pdf
48. http://dipp.nic.in/English/Investor/Investers_Gudlines/FAQ_GrantIndustrialLicence.pdf
49. http://dipp.nic.in/English/policy/dil_June2016.pdf

DPP 2016 was introduced in April 2016 with a host of changes. Its key focus lies on procuring advanced weapons and equipment at competitive prices. It identifies manpower and engineering capabilities as India's strengths in the defence industry, and fortifies the need to identify strategic partners in order to create a self-reliant defence industry.

DPP is applicable to all capital acquisitions undertaken by the MoD. The Defence Research and Development Organization (DRDO), Ordinance Factory Board (OFB) and Defence Public Sector Undertakings (DPSUs) forming the country's core defence industry in the public sector may follow their own procurement policies.[50] DPP 2016 is applicable to all Acceptance of Necessity (detailed later in this chapter) granted after April 1, 2016 except where otherwise provided by the Defence Minister. Request for Proposals (**"RFP"**) issued up to April 1, 2016 are processed under DPP 2013. If a Service Head Quarter desires to apply DPP 2016 to a case, it would require specific approval of the DAC.

A. Factors Considered During Acquisition

Capital acquisitions under the DPP are considered in light of three key factors:-

- Whether the capital being acquired is being bought in its fully operational state or is being manufactured in India;
- Whether the vendor is an Indian vendor; and
- Whether there is any 'Indigenous Content' in the capital being acquired.

While the first factor requires prima facie examination, the second and third require deeper scrutiny.

i. 'Indian Vendor'

This includes an entity incorporated or registered under the Companies Act, a partnership, proprietorship or another ownership model including societies etc.[51]

An Indian Vendor whose products require an IL must, in addition to the regulations applicable upon the defence industry, comply with licensing requirements issued by the DIPP.

ii. 'Indigenous Content' (IC)

IC is the amount of the total cost of acquisition of the equipment/item which arises within India. To compute IC, following costs are excluded from the total cost of the acquisition:-

a. direct cost of all imports into India;

b. direct and indirect cost of all services obtained from foreign entities;

c. all royalties/licensing fees/technical fees and other fees of such nature paid out of India;

d. taxes, duties, octroi and statutory levies in India.[52]

In particular, the exclusion of royalties/licensing fees/technical fees ensures that in the event crucial Intellectual Property is not transferred but licensed to India, the fee payable on such license will not be regarded as a cost arising in India. This exclusion provides a financial incentive for transfer of technology to domestic manufacturers.

The IC requirement extends to (a) basic cost of equipment; (b) cost of the recommended list of spare parts; (c) cost of special maintenance tools; and (d) cost of special test equipment. The IC is to be computed finally by the main contractor. In the event of sub-contracting or contracts entered into with business partners or suppliers, the definition and reporting requirements of IC must mandatorily be included in all contracts, agreements and MoUs, until the lowest level of the production or assembly chain. Each delivery made by the main contractor shall be accompanied with the following:-

- Certificate of fulfilment of IC requirement - by the CFO

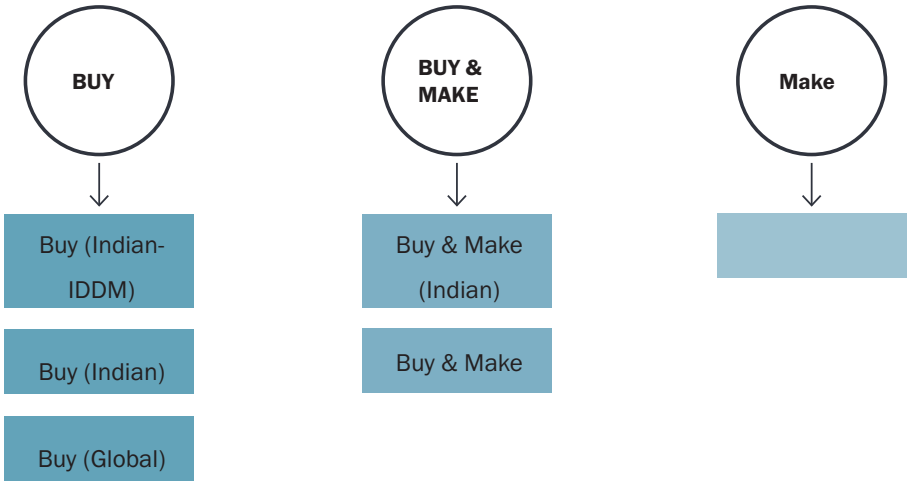
50. DPP 2016, Chapter 1, Para 2
51. DPP 2016, Chapter 1, Para 12
52. DPP 2016, Chapter I, Para 13 and Chapter I, Appendix A.

- Certificate of fulfilment of IC requirement - by the Company Auditor
- Indigenization plan to meet IC requirement

After completion of audit of the IC, if ordered, the Performance-cum-warranty Bank Guarantee will be released by the MoD. In the event of failure to meet the IC requirement, the MoD will withhold a percentage of payment of each stage where the IC requirement is not met, till the same is met on cumulative basis by the next stage of delivery. Continued failure may result in forfeiture of payments or blacklisting of the vendor for the purposes of future procurements, depending on the nature of the failure. [53]

B.Types Of Capital Acquisitions

Under the DPP 2016, capital acquisitions are classified into five categories. The defining attributes for these categories are found in DPP 2016, Chapter II, Appendix A



i. "BUY" Categories

The Buy category involves outright purchase of equipment from an Indian vendor or a foreign vendor. It is divided into three sub-categories, as follows:

a. Buy (Indian IDDM)[54]

This acquisition involves procurement from an Indian Vendor, fulfilling either of the following conditions:-

a. Provide products which are designed, developed and manufactured in India - with minimum 40% IC (verification of the vendor's claims as to indigenous nature of design and development of the product is done by a committee of scientists from DRDO and representatives from the SHQs); or

b. Provide products which are not designed or developed but manufactured in India - with minimum 60% IC.

To fall under this category, the equipment/system/platform is required to be manufactured by Indian vendor and could already be in service, either through in house R&D or transfer of technology. Alternately, the equipment might not be in service, but may be available in another sector or can be produced with existing capabilities to design, develop and manufacture the products.

53. DPP 2016, Chapter I, Compliance Requirements pertaining to IC requirements under Appendix XXX

54. DPP 2016, Chapter 1, Para 6

b. Buy (Indian)[55]

Buy (Indian) acquisition involves procurement from an Indian Vendor - with minimum of 40% IC. The equipment is required to be produced by Indian industry and could already be in service. There is no necessity for in house R&D or transfer of technology. Alternately, the equipment might not be in service, but may be available in another sector or can be produced with existing capabilities to manufacture, test and integrate in India with 40% IC.[56]

c. Buy (Global)[57]

This type of acquisition involves outright purchase of equipment from foreign or Indian vendors. When the equipment involved is not of long term or strategic importance, this acquisition can be entered into on single or multiple vendor basis. Alternately, when the equipment is of strategic or long term importance, single or all foreign vendors belonging to the same country can provide equipment under this category through Government to Government arrangement; or foreign vendors from different countries can do so on competitive bidding basis. The foreign vendor is required to fulfil its "offset" obligations under this category. This will be detailed in Chapter ___ on *Offsets*.

ii. "BUY & MAKE" Categories

The Buy and Make category involves procurement in two stages: (i) initial procurement of equipment in fully formed (FF) state in requisite quantities; and/or (ii) transfer of technology (**"ToT"**) in a phased manner as per specified range, depth and scope for indigenous production. This involves following sub-categories:

a. Buy and Make (Indian)[58]

Under such an acquisition, the equipment / upgrade is available with a foreign Original Equipment Manufacturer (**"OEM"**). The Indian vendor engages in a tie-up with the foreign OEM for initial sale of equipment from the foreign vendor in FF state.[59] The next phase involves transfer of critical technology by the foreign OEM to the Indian vendor in a manner which can be absorbed by the Indian industry. The Indian industry can then make and deliver the equipment in India with 50% IC.

b. Buy and Make [60]

This is done exclusively with a foreign vendor who shall supply an initial number of products in an FF state (again, this step is not mandatory). This is followed by transfer of critical technology to an Indian Production Agency (**"PA"**) identified by the foreign OEM. The Indian PA will then effectuate indigenous production. There may be an IC requirement on the manufacturing portion of the acquisition.[61] The authority that issues the Acceptance of Necessity (**"AoN"**) shall specify the ratio of kits that are to be supplied in the following states (a) FF; (b) Completely Knocked Down (**"CKD"**); (c) Semi Knocked Down (**"SKD"**); or (d) Indigenous Manufacture.[62] The foreign vendor is required to fulfil its "offset" obligations under this category.

iii. "MAKE" Category[63]

The Make category involves acquisition of products that are designed, developed and manufactured by an Indian vendor, with or without a foreign partner. There is no IC requirement. This category will be utilized most to build defence capabilities over a period of time and is proposed to be pursued in isolation or

55. DPP 2016, Chapter 1, Para 7
56. This differs from the Buy (Indian IDDM) category where manufacture through in house R&D or transfer of technology is essential. In the Buy (Indian) category, manufacturing could be done without in-house R&D or transfer of technology and also includes integrating various defence items, albeit with 40% IC.
57. DPP 2016, Chapter 1, Para 10
58. DPP 2016, Chapter 1, Para 8
59. However, this step is not mandatory.
60. DPP 2016, Chapter 1, Para 9
61. Unlike Buy and Make (Indian), there is no fixed IC requirement in this category.
62. A knocked-down kit is a disassembled product. The extent determines whether the kit is CKD or SKD, while an Indigenous Manufacture kit allows the nation to manufacture the product domestically.
63. DPP 2016, Chapter 1, Para 11

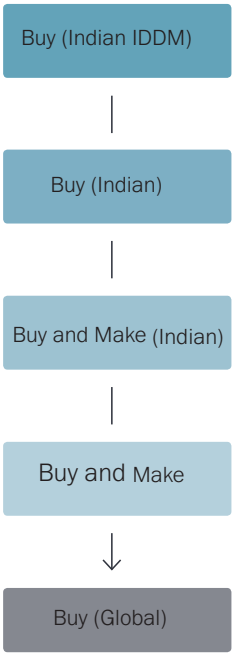
alongside the other categories.

Summary

Types of acquisitions under the DPP 2016

C. Buying Priority[64]

The DPP provides the following order of preference for acquisition:



D. Procedure for Capital Acquisitions Under DPP 2016 [65]

i. Request for information (RFI)

The RFI, published on MoD and SHQ websites, seeks to obtain information on specific procurement schemes. It indicates capabilities sought in equipment (operational requirements), quantity required, delivery periods etc. The RFI aims to receive comprehensive response and inputs from vendors to formulate service quality requirements; scope, depth and range of technology identified by the DRDO; materials required for manufacturing equipment; cost estimate; and to generate inputs for formalizing the Request for Proposal (**"RFP"**). Extensive interactions are planned after uploading the RFI and before granting time to vendors to respond to the RFI.

ii. Services qualitative requirements (SQRs)

SQRs are drafted by the SHQs. They provide fundamental user requirements in an equipment. SHQs are classified into: (a) Essential parameters (A) – which form part of equipment available in the market and constitute core of the SQRs; (b) Essential parameters (B) – which can be developed by vendors by using available technologies; and (c) Enhanced Performance Parameters – which enhance the capability of equipment vis-à-vis essential parameters. SQRs are broadly constructed and often specify technical requirements. In addition to the RFI, information is sought from internet, defence journals and previous contracts to formulate SQRs. A compliance table is created and forwarded to various agencies for approval. Once finalized, the SQRs are published on the MoD website. Interested Vendors may respond to the listed proposals. The MoD maintains a database of the vendors.

iii. Acceptance of necessity (AON)

The SHQ submits a Statement of Case (along-with draft Request for Proposal, as detailed below) to the Department of Defence Production, DRDO, MoD (Finance) and other agencies. The SoC is then finalized and placed before the Services Capital Acquisition Categorisation Committee (**"SCAPCC"**) and Services Capital Acquisition Categorisation Higher Committee (**"SCAPHC"**) which submits its recommendations to the AoN authority. Cases involving estimated cost upto INR 150 crores are sent to SCAPHC for grant of AoN. Cases with estimated costs between 150 – 300 Crores are sent to Defence Procurement Board for approval. Those beyond 300 crores are forwarded to the DAC. In order to ensure that the according process is completed in a time bound manner, each case is processed by DRDO/DDP/MoD/MoD within four weeks of its receipt, so that the proposals are considered by the Categorization Committee within 4 to 6 weeks.

64. DPP 2016, Chapter 1, Para 4
65. Chapter 2, DPP 2016

iv. Request for proposal / Solicitation of offers (RFP)

Draft RFP is circulated along with the SoC to the Acquisition Manager, Financial Manager, Technical Manager and other stakeholders. Based on comments received, the SoC and the draft RFP will be amended accordingly. Collegiate vetting of RFP will be done after the accord of AoN. After finalization of SQRs and accord of AON to such equipment or defence item, sources of procurement are ascertained and potential providers / manufacturers are shortlisted by the SHQ. The RFP is then issued to solicit technical and commercial bids together under a 'Single Stage - Two Bid System' in two separate sealed envelopes. The RFP is a self-contained document that enables vendors to make their offer.[66] Certain specific details regarding the process of solicitation of offers have been covered in the policy which include provisions on unsolicited bids and changes to the name of the vendor.

v. Evaluation of technical offers by technical evaluation committee (TEC)

A TEC evaluates technical bids received in response to RFPs. It submits a TEC report to the Director General (Acquisition) for scrutiny and acceptance. Issues raised, if any, by the Technical Manager in the TEC Report are addressed with the SHQs.

vi. Field evaluation Trial (FET)

Once TEC report is accepted, vendors are required to provide their equipment for field evaluation Trial (**"FET"**) based on the method provided in the RFP. SHQ forms the Trial Team. Vendors are debriefed after every stage of trial; compliance of equipment with RFP parameters is communicated to vendors orally and confirmed in writing within a week. A detailed Field Evaluation Report is then sent to SHQ.

vii. Staff evaluation

Staff Evaluation involves analysis of Field Evaluation results. It shortlists the equipment suitable for acquisition and forwards a recommendation report to the Technical Managers, who in turn submit the report to the Director General (Acquisition) with recommendations for acceptance or otherwise.

viii. Oversight by Technical Oversight Committee (TOC)

The Acquisition Wing constitutes a TOC (comprising of three members from a standing panel of specialists) for all acquisition proposals exceeding INR 300 crore and for any other case recommended by the Defence Secretary/DPB/DAC. TOC is tasked to assess if the trials, trial evaluations, compliance to QRs and selection of vendors was done in accordance with the prescribed procedures.

ix. Commercial negotiations by Contract Negotiation Committee (CNC)

Post acceptance of the staff evaluation report, a CNC is constituted. Sealed commercial offers are opened by the CNC at a fixed date upon informing the vendors. The process includes a 'Compliance Statement' incorporating commercial terms offered in the RFP, along with statement on deviations in delivery schedules, performance-cum-warranty/ guarantee provisions, acceptance criteria, etc. The CNC prepares a Comparative Statement of Tenders (CST) to evaluate technically acceptable offers and determine the lowest acceptable offer.

x. Approval of the Competent Financial Authority (CFA)

The CNC makes a recommendation report on selection of vendor. This is processed by the Director/ Acquisition Manager/SHQ. The DPP 2016 covers situations where lowest tenderer is unable to supply the entire quantity, where

66. A standardised RFP document is attached as **Chapter I ,Schedule I**

contracts signed earlier are reviewed and renewed, or validity of the commercial offer expires before acceptance of Staff Evaluation Report.

xi. Award of contract / Supply order

Upon acceptance of an offer and selection of a vendor / vendors, a contract is entered into between the Acquisition manager / Director (Procurement) in the Acquisition Wing or an officer authorized at the SHQ, and the selected vendor(s). The Standard Contract Document at Chapter VI of the DPP is yet to be notified. Standard Form Contract under DPP 2013 is currently applicable.

xii. Integrity Pact

In case of procurement contracts exceeding INR 20 Crores, an Integrity pact is signed between the bidders and the government department. The Pre-Contract Integrity Pact document is annexed as Annexure I to Appendix M of Schedule I and detailed in Chapter 11, *Dispute Resolution.*

xiii. Contract administration and post-contract management

Contract administration and management is conducted by SHQ, while post-contract monitoring is done by Acquisition Wing.

xiv. Turnkey Projects

Turnkey Projects are projects involving large facilities that are set up for maintenance, overhauling, development, information technology, communications etc. Such facilities are often characterized by the presence of cutting edge technology and technical capabilities. They may be set up under the DPP on a 'turnkey' basis i.e. a complete operational facility is handed over to the MoD at the end of the project.

Table 1: Procedural Timeline [67]

Sr No.	Stage of Procurement	Time-line as per DPP (in weeks)	Cumulative Time-line (in weeks)
1	Acceptance of Necessity		0
2	Issue of RFP	8	8
3	Pre-Bid Meeting	6	14
4	Dispatch of Pre-Bid Reply	3	17
5	Receipt of Responses	3	20
6	Completion of TEC Report	10	30
7	Acceptance of TEC Report	4	34
8	Completion of Technical Offset Evaluation Committee Report	4-8 (concurrent activity)	34
9	Acceptance of Technical Offset Evaluation Committee Report	4 (concurrent activity)	34
10	Completion of Field Evaluation (Trials)	16-24	50-58
11	Completion of Staff Evaluation	4	54-62
12	Acceptance of Staff/Trials Evaluation Reports	4	58-66
13	Acceptance of TOC report (If applicable)	0-4	58-70
14	i. Finalization of CNC Report ii. Finalization of Offset Contract	i. Multivendor – 6 ii. Single Vendor – 18-26	i. Multivendor – 64-76 ii. Single Vendor – 76-96

67. Annexure I, Appendix C, Chapter 2, DPP 2016

15	Obtaining approval from CFA-MoD, MoF and CCS	4-16	Multivendor – 68-92 Single Vendor – 80-112
16	Signing of Main Contract and Offset Contract	2	Multivendor – 70-94 Single Vendor – 82-114

Table 2: AoNs Approved in the respective categories: 2012-15 [68]

Year	Buy (Ind) and Buy & Make (Ind) Value	Buy (Ind) and Buy & Make (Ind) %	Buy(Global) Value	Buy (Global) %	Other Categories (INR crores)	Total (INR crores)
2012-13	19074	31.44	27114	44.7	14464	60652
2013-14	23736	85.96	371	1.34	3504	27611
2014-15	111070	94.26	6760	5.73	0	117830

IV. Regulatory Agencies

The regulators and governing bodies that govern various aspects of the process of defence procurement are:-

A. Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce & Industry

The DIPP was set up with an intention to regulate and administer the industrial sector. Given its rapidly growing functionality and efficiency, it not only regulates the industrial sector but also facilitates technology and investment flow by way of its policy decisions. The specific functions of the DIPP include formulation and implementation of industrial policy and strategies for industrial development in conformity with the development needs and national objectives; formulation of FDI Policy and promotion, approval and facilitation of FDI, amongst others. Until now, the application for approval of FDI was required to be made to the Foreign Investment Promotion Board (**"FIPB"**). However, pursuant to the budget declared in 2016, a proposal has been made to phase out the FIPB, thereby removing one leg of approval while granting complete authority to the respective ministries to deal with the applications.

B. Department of Defence Production, Ministry of Defence

Department of Defence Production is the primary agency dealing with production of defence equipment in India, indigenization of imported stores, equipment and spares, planning and control of departmental production units of the Ordnance Factory Board and the DPSUs.

C. Defence Acquisition Council (DAC)

The DAC, headed by the Defence Minister, is a special decision making body according 'in principal' approval for each Capital Acquisition program. It functions through three boards viz. Defence Procurement Board, Defence Production Board and Defence Research and Development Board. The

68. 'Make in India: the way ahead for indigenous defence production in India', 6th Y.B. Chavan Memorial Lecture delivered by A.K. Gupta, Secretary (Defence Production), MoD, at IDSA on December 7, 2015

Defence Procurement Board is assisted by a Defence Acquisition Wing and has 4 divisions functioning within its control. The new structures facilitate expeditious decision-making in an integrated manner on acquisitions for the three SHQs, while imparting a higher degree of transparency and cost effectiveness to the process of acquisition.

D.Defence Offsets Management Wing (DOMW)

The DOMW is a dedicated agency created to streamline the offset policy. It reviews post-contract status of offset agreements entered into by IOPs. The primary objective of DOMW is to foster development of internationally competitive enterprises, augment capacity for research, design & development related to defence products and services, and encourage the development of synergetic sectors such as aerospace and internal security.

5. Foreign Direct Investment

The defence industry in any country is highly technology driven and capital intensive.[69] Given India's requirements for defence equipment, the sector has attracted FDI from leading companies out of US, UK, Europe and Middle East. In terms of background, the Foreign Direct Investment (**"FDI"**) Policy in the Indian defence sector was first allowed vide Press Note 4 of 2001. The Defence industry opened its doors to 100% participation by the private sector, and permissible FDI upto 26%, subject to compliance with licensing requirements and stringent conditions. In 2014, the FDI Policy was relaxed to allow FDI beyond 26% on a case-to-case basis, when the same was likely to result in access to "modern" and "state-of-the-art" technology in India subject to certain conditions.

However, vide consolidated FDI Policy of 2016, the FDI Policy in defence was radically liberalized to permit FDI upto 49% under the automatic route i.e. without approval; and beyond 49% under Government route on case to case basis (approved by the FIPB), where FDI is likely to result in access to modern and state-of-art technology.

Through Press Note 5 of 2016, the requirement of having access to 'state-of-art' technology has been deleted, while modern technology and other reasons for grant of proposals have been introduced. The DIPP offers little clarity on terms 'modern' and 'other reasons'. Yet, 'modern' technology appears to be capable of simpler determination and being less restrictive than 'state-of-art'.[70] 'Other reasons to be recorded' could range from creation of large number of jobs to setting up new manufacturing facilities in a backward region.[71] The Government has widened the field for FDI beyond 49% through the Government route, making the policy for investment in defence sector broader and more pragmatic.[72]

With respect to manufacturing of small arms and ammunitions covered under Arms Act 1959, OFs were key sources so far. However, inadequate capacity of OFs has caused shortfalls in critical ammunition required by Indian army, coupled with gaps in the war wastage reserves of ammunition and other ordnance stores. Opening FDI in this area will plug these gaps and accelerate production.

Until March 2017, each FDI proposal would be considered by the FIPB based on the security clearance of MHA and comments of Ministry of Defence. However, the FIPB has been abolished in early 2017, thereby removing a leg in the approval process. It has been recognized by the Government of India that the new regime for foreign investment needs to be simpler in execution and expeditious in disposal. As per the Standard Operating Procedure released on June 29, 2017, FDI proposals will now be directed by the DIPP to the concerned competent authority In the case of defence, the new Competent Authority for processing of FDI proposals has been identified as the Joint Secretary, Department of Defence Production, MOD. Security clearance will be sought in parallel from the Ministry of Home Affairs.

The new procedure for processing FDI proposals is outlined below:[73]

69. In May 2010, the DIPP acknowledged that FDI through foreign companies and setting up of production facilities in India was an important modality for development of this sector, and stated that *"manufacturing within the country, through foreign capital, with full transfer of state-of-the-art technology (which has now been deleted to retain only modern technology) will be a better option than importing equipment from abroad"*. Discussion paper available on http://dipp.nic.in/English/Discuss_paper/DiscussionPapers_17May2010.pdf

70. After release of the press note, the government has interpreted the term 'modern' in one instance. India's first 100% FDI proposal, made by DCNS (a French naval manufacturing company), was rejected on the grounds that the Air Independent Propulsion (which would enable submarines to remain underwater for longer), is not a new technology as DCNS is already developing it in India in collaboration with DRDO. Available on http://www.thehindubusinessline.com/economy/policy/dcns-proposal-for-100-fdi-in-defence-project-rejected/article9072577.ece

71. http://www.indiastrategic.in/FDI_Reforms_in_the_Defence_Sector_A_Fresh_Round.htm

72. http://www.indiastrategic.in/FDI_Reforms_in_the_Defence_Sector_A_Fresh_Round.htm

73. Standard Operating Procedure for processing of FDI proposals, released on June 29, 2017

Online filing	FDI Proposals to be filed online on the revamped FIPB portal, rechristened as Foreign Investment Facilitation Portal, in the format as available on the portal alongwith uploading documents as per the list at Annexure-1.
DDP	DIPP will e-transfer the proposal to the Department of Defence Production (DPP, Competent Authority) within 2 days
RBI, MHA & Other Departments	■ Once the proposal is received, same shall be circulated online within 2 days by DIPP to Reserve Bank of India for comments from FEMA perspective. ■ Proposals would additionally be referred to Ministry of Home Affairs for comments. ■ Further, all proposals would be forwarded to Ministry of External Affairs (MEA) and Department of Revenue (DoR) for information. MEA and DoR may give their comments within the stipulated time period, wherever necessary. ■ All comments will be given directly to the Department of Defence Production.
DDP Comments	The Department of Defence Production shall upload its comments on the portal within 4 weeks from the online receipt of the proposal. In case comments are not received within the stipulated time, it would be presumed that there are no comments to offer
MHA Comments	Comments by MHA would be provided to the Department of Defence Production within 6 weeks from the online receipt of such proposals. Delays from MHA shall be intimated to DoD.
Processing	Once the proposal is complete in all respects, which should not be later than six weeks/eight weeks from security clearance point of view, from the receipt of the proposal, the Department of Defence Production shall process the proposal for decision within the next two weeks and convey the same to the applicant.
Approval / Rejection	Approval/rejection letters will be sent online by the Department of Defence Production to the applicant, consulted Ministries/Departments and DIPP
Rejection	In respect of proposals where the Competent Authority proposes to reject the proposals or in cases where conditions for approval are stipulated in addition to the conditions laid down in the FDI policy or sectoral laws/ regulations, concurrence of DIPP shall compulsorily be sought by the Competent Authority within 8 weeks/10 weeks (in cases where comments of Ministry of Home Affairs have been sought from security clearance point of view) from the receipt of the proposal

The new FDI policy, along with the revamped DPP of 2016, allows the Indian industry to work closely in collaboration with global companies with immense technological capabilities. The Indian government would be solely responsible for negotiating and concluding procurement contracts, which would also include mandatory indigenous content as well (this will be discussed in greater detail, in a latter chapter). Moreover, the increased FDI caps would also ensure smooth functioning of the offset policy, which would in itself act as additional incentive for foreign OEMs to set up shop in India.

It is touted that the aforesaid initiatives targeted at private sector participation will greatly help foreign original equipment manufacturers [OEMs] to strategically collaborate with Indian companies, in order to take advantage of the current economic climate.[74] More specifically, such opportunities would cover both, equipment procurement, as well as those that come with vertically integrated supply chain. Given the sharp focus of the Indian government in bolstering homeland security as well, it is clear that there is great potential in the Indian defence industry, for years to come. Developed markets are willing to spend more in technological innovation.[75] Consequently, it is extremely likely and evident now that foreign companies specializing in provision of complex equipment and machinery

74. Defense Manufacturing – Make In India initiative, available at http://www.makeinindia.com/sector/defensemanufacturing

75. Financial Times, 'India moves into top five global defense spenders', December 12, 2016, available at https://www.ft.com/content/8404e57a-bfa1-11e6-9bca-2b93a6856354

to defence forces around the world will consider India as a viable market for investment. This will ensure that India's defence forces have access to the latest technology and equipment, while attempting to offer commercially viable, profitable arrangements to foreign investors.

The impact of this Policy on the domestic defence industry can be significant. In order to provide an impetus to the 'make' category of production, it is essential to have inflow of foreign technology. However, DPP 2016 provides that companies with exposure to FDI beyond 49% will not be considered for projects in the 'Make' category. Further, Strategic Partners to be identified from the private sector in India by the Government for high-value projects are prohibited from having FDI beyond 49%.[76] Thus, the inflow arising out of foreign entities holding a controlling stake needs to align with the interests of the domestic defence industry.

Following are details of joint ventures and foreign investment proposals approved in the defence sector:

Approved JVs Post-Increase of FDI cap (August 2014- March 2015) [77]

Indian Company	JV Company	Proposed Foreign Investment	Investment Inflow (INR crores)
Hats Off Helicopter Training Pvt Ltd	CAE Inc Canada	Post-facto approval for the issue of 5,84,205 equity shares of Rs 10/- each to CAE Inc. Canada	37.82
Ideaforge Technology Pvt. Ltd.	NRI Investment	0.1704	
PunjLloyd Ltd.	FII and NRI Investment	Foreign Shareholder NRI IPO Allottees Repatriable Investment 22.79% + NRI 2.52% + FII 7.68% + Addition of Activities	
QuEST Global Manufacturing Pvt. Ltd.	Aequs Manufacturing Investment (p) Ltd. Mauritius	FDI 49% from existing 17.29%	40.0
Fokker Elmo Sasmos Interconnection	Fokker Elmo BV, Netherlands	FDI 49%	6.0
Star Wire Ltd.	Aubert & Duval, France	FDI 5%	12.28
Total			**96.1**

Foreign Investment Proposals Approved in the Defence Sector (as of July 2015) [78]

DPSUs

Sl. No.	Name of Jv/Implementing Company
1	Multirole Transport Aircraft Ltd.
2	HAL-Edgewood Technologies Limited
3	HALBIT Avionics Private Limited
4	Multirole Transport Aircraft Ltd
Private Sector	
1	Alpha-ITL Electro Optics Private Limited
2	HBLElta Avionics Systems Private Limited
3	BF Systems Limited
4	Alpha Electronica Defence Systems Pvt Ltd

76. IDSA Comment, 'Making FDI count in defence'
77. Rajya Sabha, http://rajysabha.nic.in/ (as on March, 2015)
78. Foreign Investment Proposals approved in defense sector (as on March 2016), available at http://www.makeinindiadefence.com/Annexure-II(FDI&JVlist).pdf

5	Armet Armored Vehicles (India) Ltd
6	Samtel Thales Avionics Pvt Ltd
7	Astra Microwave Products Ltd
8	Mahindra Defence Systems ltd
9	Taneja Aerospace and Aviation Ltd.
10	Vyoneesh Technologies Pvt. Ltd.
11	ICOMM Tele Ltd.
12	Lakshmi Machine Works
13	Tata Aerostructure Ltd.
14	Larsen and Toubro Ltd
15	ABG Shipyard Ltd
16	Jubiliant Aeronautics Pvt Ltd
17	Maini Precision Products Pvt Ltd.
18	Park Controls and Communications Ltd
19	Rossell Aviation Pvt Ltd
20	Indian Rotorcraft Ltd
21	M/s Mahindra Defence Systems Ltd.
22	Tata Aerospace Systems Ltd.
23	Larsen and Toubro Ltd.
24	Space Era Materials and Processes Pvt Ltd
25	Track Systems India Pvt Ltd.
26	Amertec Systems Pvt Ltd
27	Hical Technologies Pvt Ltd.
28	BF Elbit Advanced Systems Pvt Ltd
29	SasMos Het Technologies Limited
30	Quest Global Manufacturing Private Limited
31	Ideaforge Technology Pvt. Ltd.
32	Quantum Simulators Pvt. Ltd.

The FDI policy, along with the new DPP 2016 and the relaxation of industrial licensing requirements, offers a great deal of assurance that the inflow of investment/technology would be commercially lucrative. There are several reasons to invest in the Indian defence sector, considering its extensive modernization plans, increased focus on homeland security, improved protection of intellectual property, removal of requirement of single largest Indian ownership of 51% as well as removal of the requirement of lock-in period of three years on equity transfer.[79]

79. Defense Manufacturing – Make In India initiative, available at http://www.makeinindia.com/sector/defensemanufacturing

6. Public Sector

Defence production in India has long been dominated by state-run entities such as the Ordnance Factories (**"OFs"**), Defence Public Sector Undertakings (**"DPSUs"**) and the Defence Research and Development Organization (**"DRDO"**). The size, vast resources and experience of public sector defence production entities constantly places them under a scanner of high expectation for maximum output and delivery.

I. Ordnance Factories

The OFs form a giant industrial setup which functions under the Department of Defence Production (**"DDP"**). Headquartered at Kolkata, the Indian Ordnance Factories is a conglomerate of 41 Factories, 9 Training Institutes, 3 Regional Marketing Centres and 4 Regional Controller of Safety. The 41 OFs operate to manufacture a wide list of products including civilian arms & ammunition, weapons, ammunition, explosives, propellants & chemicals, military vehicles, armoured vehicles, optical devices, parachutes, support equipment, troop comfort & general stores, material, components & SPMs. The Indian Armed Forces are the prime buyers of the OFs. Apart from supplying armaments to the Armed Forces, OFs also meet the requirement of Central Paramilitary Forces and State Police Forces in respect of arms, ammunition, clothing, bullet proof vehicles and mine protected vehicles etc.[80]

The OFs are managed by the DDP as the highest decision making body. The objectives set by the DDP are carried out by the Ordnance Factory Board (**"OFB"**) which lays out policies to be followed by the various OFs. The OFB also lays out the budget allocated to the OFs.

Due to lack of sufficient R&D, skilled manpower and efficient management, the OFs have been unable to cater to the ever-growing demands of the Armed Forces. Further, the OFs are now faced with additional burdens with the entry of private sector in the realm of defence production.[81] The measures taken to provide level-playing field to private sector by withdrawing excise and custom duty exemption granted to the public sector is expected to add INR 1000 crore to the OF bills.[82]

Various attempts have been made by the government to resolve the structural and institutional challenges that have led to the inadequate performance of the OFs and its inability to effectively supply the armed forces with the required amount of ammunition and arms. In 2004, the Kelkar Committee has recommended corporatization of OFs under the leadership of one corporate entity to increase the level of accountability and management into the OFs. It specified that corporatization did not have to entail privatization and that a corporate structure would increase the efficiency of the OFs.[83] This is an awaited action yet to see the light of the day.

II. Defence Public Sector Undertakings (DPSUs)

Government-owned corporations are termed as Public Sector Undertakings (**"PSUs"**) in India. In a PSU majority (51% or more) of the paid up share capital is held by central government or by any state government or partly by the central governments and partly by one or more state governments. In the defence sector, nine Central Public Sector Undertakings run under the administrative control of the Department of Defence Production, MoD.

80. www.ofbindia.gov.in

81. For instance, the government has awarded a large tender for manufacture of howitzer guns to Larsen & Toubro. This was originally within the expertise of the OFs.

82. http://timesofindia.indiatimes.com/city/nagpur/Central-excise-tax-dropped-like-a-bomb-on-ordnance-factories/articleshow/47349525.cms, May 2015

83. A committee was set up by the Government under the chairmanship of Dr. Vijay L Kelkar in April 2004 to examine the current procedures and recommend changes in the acquisition process.

These DPSUs are not departmentally run like the OFs. They are corporate entities run by Board of Directors and follow broad guidelines set by the DDP, Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises.

The 9 DPSUs are as follows:[84]

i. Hindustan Aeronautics Limited (**"HAL"**)

ii. Bharat Electronics Limited (**"BEL"**)

iii. BEML

iv. Bharat Dynamics Limited (**"BDL"**)

v. Mishra Dattu Nigam Limited (**"MIDHANI"**)

vi. Goa Shipyard Limited **("GSL")**

vii. Garden Reach Shipyard and Engineers Limited (**"GRSE"**)

(viii) Mazagon Dock Limited (**"MDL"**)

(ix) Hindustan Shipyard Limited (**"HSL"**)

HAL is the flagship DPSU that accounts for over 50% of their collective production. BEL and HAL have been accorded the status of 'Navratna' companies, i.e. state-owned entities listed on stock exchanges, having an average turnover of INR 25,000 Crores and average net profit of INR 5000 Crores .[85] HAL has produced 15 aircrafts with its own research and design, and 14 under license from foreign companies. BEL is currently in the process of setting up a Missile Systems Integration Complex in Andhra Pradesh and has been jointly selected with Rolta India (a private company) to design the Battlefield Management System (**"BMS"**) for the Indian Army. This is worth an estimated INR 50,000 Crores.[86]

BEML produces coaches and assembly of space parts with a dedicated product segment for Defence Equipment, such as trucks, engines and earth movers. BDL, created out of the DRDO, is a producer of many of India's indigenously developed missile systems. The Inter-Continental Ballistic Missile Systems such as the *Prithvi* and the *Agni* have been produced by BDL for the Indian Army.[87] GSL, GRSE, MDL and HSL have been involved for decades in the design, development and production of many of the vessels in India's fleet, including Destroyers, missile boats and submarines. MDL has recently undertaken the project of developing cutting-edge Scorpene-class conventional submarines and four missile destroyers.[88]

The DPSUs have always enjoyed the status of preferred supplier of India's defence equipment and products. One of the routes has been through nomination - a method of allocating defence contracts without a tender process. This has successfully insulated the DPSUs from competition from the private sector. However, the MoD has now reduced this practice significantly through the route of open tenders, allowing level playing field of competition.

Despite their significant position in the defence industry, the DPSUs also suffer from stagnation in terms of R&D. The funds allocated for R&D to DPSUs are far below global standards. High expenditures in foreign exchange due to indirect imports through DPSUs (as opposed to by the MoD), also curtail the growth of DPSUs. Entry of private sector has affected DPSUs in as much the practice of nomination of DPSUs through the single tender route by the government has reduced significantly (if not abolished) to offer equal opportunity to the competitors in the public and private sector.

84. Available at http://ddpmod.gov.in/defence-public-sector-undertakings

85. List of Maharatna, Navratna and Miniratna CPSEs, available at http://www.dpe.nic.in/publications/list_of_maharatna_navratna-and_miniratna

86. http://www.business-standard.com/content/b2b-manufacturing-industry/bel-rolta-consortium-to-drive-rs-50-000-cr-battle-field-management-system-project-115022700860_1.html

87. Annual Report 2007-08, Ministry of Defence, para 80-81

88. 6th Report, Demands for Grants 2015-16, Standing Committee on Defence, Lok Sabha Secratariat, para 50

Increased focus on R&D stands as a perennial solution to building the public sector enterprises in defence. One of the most significant suggestions to improve the quality and standing of DPSUs is complete privatization and listing of DPSUs on the stock exchange to infuse funds and garner resources.[89]

III. The Defence Research and Development Organization (DRDO)

The DRDO was formed in 1958 when the Defence Science Organization merged with the Technical Development Establishments of the Indian army. The DRDO started with a corpus of 10 research institutions. Currently, it has over 52 research laboratories and establishments.[90]

DRDO is headed by a senior scientist who holds the rank of Director General, DRDO, in addition to being the Secretary, Department of Defence Research under the MoD. DRDO has evolved over the years since its inception from performing a primarily inspection function to focusing on full-scale projects involving design, development and production. It has created products ranging from Unmanned Ariel Vehicles and combat vehicles to electronic warfare systems. DRDO also acts as a fountain of research developments that it transfers, based on their security sensitivity to the industry. 500 technologies have been transferred to the private sector.

DRDO has been involved in a number of marquee projects and has been India's pioneering research facility in the defence research space. One of the parameters used to measure the performance of DRDO is the level of IC in the equipment developed by it. With the exception of few projects such as the Arjun Main Battle Tank and the Airborne Early Warning and Control systems, the balance of projects undertaken by DRDO have an IC of over 70%.[91]

The DRDO is responsible for placing India as one of the four countries in the world to have Multi-Level Deterrence i.e. the ability to deliver a nuclear payload through a missile, airborne, land-based or submarine launched delivery system.[92] India's missile systems are among the most advanced in the world. Its Light Combat Aircraft is among a handful of such cutting edge fighter aircraft of its class.

Whilst having an admirable track record, DRDO also faces structural challenges. Paucity of funds and lack of highly skilled scientific and technical personnel adversely affect R&D. This has prompted establishment of various training institutes and academic institutions in the country. The DRDO's annual budget is around $1.8 Billion[93] as compared to $67.5 billion allocated for Defence R&D by the United States of America. [94] Lack of an R&D Plan on a National Level that integrates the research needs of the country and spans areas of defence research, commercial research, information technology, space research etc. has been sorely felt and has even been highlighted in the 2013 report by the Economic Advisory Council to the Prime Minister.[95]

89. http://www.archive.india.gov.in/spotlight/spotlight_archive.php?id=78
90. http://www.drdo.gov.in/drdo/English/index.jsp?pg=homebody.jsp
91. Standing Committee on Defence (2012-13), Demands for Grants 2013-14, 15th Lok Sabha, Lok Sabha Secretariat, para 74
92. *Engineering Watch*, March 2013, Interview of Mr. V.K. Saraswat, chief of DRDO in 2013
93. Standing Committee on Defence (2015-16), Demands for Grants 2015-16, Report No. 9, para 20
94. US Department of Defence, National Defence Budget Estimates for FY 2014, para 8
95. Report by the Economic Advisory Council to the Prime Minister

7. Private Sector

India's private sector is not only one of the most vibrant entrants in the defence industrial complex, but has significantly changed the face of the industry. The sensitive and strategic nature of the industry, its direct impact on national security and foreign policy interests of the nation were oft-cited to thwart the entry of private sector in defence. However, the remarkable performance of the private sector in the decade following liberalization in 1991 and the relative lackluster performance of the public sector - led the Indian defence industry to open its gates to 100% private sector participation in 2001.[96] Today, the private sector is an integral part of the defence industry.

In its relatively short history, the private sector has made some significant progress with a number of marquee deals being awarded and executed by it. Until the year 2001, it enjoyed a limited role as a supplier of raw materials, semi-finished products, parts, components and limited services to India's DPSUs. However, as of October 2015, 182 companies in the private sector have cumulatively bagged 307 ILs for manufacturing a range of defence items.[97] 31 out of 34 joint ventures in the defence industry are led by private sector companies. The defence related revenue generation of the Indian private sector, as of August 2014, including revenue generation from overseas contracts, was around USD 2 billion.[98] Notable players in India's private defence sector are the Tata group, the Mahindra group, Bharat Forge of the Kalyani group and L&T. The Aditya Birla group is also contemplating entry into the defence industry. Airbus, BAE India Systems, Lockheed Martin, Boeing, Israel Aerospace Industries, Raytheon and Dassault are notable foreign companies.

I. Few Private Sector Breakthroughs

Following is a snapshot of breakthroughs in the private defence sector in India. The domestic automobile industry led by a group of private players viz. Tata Motors, L&T and Ashok Leyland, was awarded contracts for the supply of approximately 1600 Heavy Mobility Vehicles for over INR 1200 Crores.[99] Pipavav Defence and Offshore Engineering Company won an order for manufacture of Naval Offshore Patrol Vessels, whilst competing against GSL, a DPSU with prior experience in manufacture of such vessels.[100]

THE TATA GROUP [101]

- Tata Advanced Systems has a joint venture with Boeing in India to co-produce aerostructures and pursue integrated systems development opportunities, and produce Apache fuselages and accelerate momentum for "Make in India". The JV will initially create a manufacturing centre of excellence to produce aerostructures for the AH-64 Apache helicopter and to compete for additional manufacturing work packages across Boeing platforms, both commercial and defence. Boeing and Tata Advanced Systems intend to grow the JV partnership in the future, with a focus on opportunities to collaborate on development and selling of integrated systems.

96. IDSA Publications, Lakshman K Behera, 'The Private Sector', July 2016
97. 'Make in India: The way ahead for indigenous defence production in India', 6th Y.B Chavan Memorial Lecture; Mr A.K Gupta, Secretary (Defence Production) Ministry of Defence
98. http://www.businesstoday.in/current/economy-politics/indian-defence-investment-on-pm-narendra-modi-pledge/story/209442.html, August, 2014
99. Tata Motors website, available at http://www.tatamotors.com/press/tata-motors-awarded-contract-for-1239-nos-of-its-indigenously-developed-6-x-6-high-mobility-multi-axle-vehicles-from-the-indian-army/
100. Pipavav Defence and Offshore Engineering Company Limited, Annual Report 2010-11, p.2
101. Available at www.tataadvancedsystems.com

- Airbus has also offered to build the C295W military transport aircraft in India along with Tata Advanced Systems.Tata Advanced Systems Ltd (**"TASL"**) had announced empanelment of TASL by Indian Navy for the ongoing & future requirements of naval combat management system in 2014. The empanelment process lasted 18 months of rigorous evaluation process conducted by a high level Indian Navy team. For Naval Combat Management Systems (**"CMS"**), TASL has partnered with Terma A/S, Denmark under a transfer of technology agreement. The companies have jointly established a CMS Development Centre in Delhi to work closely with the Indian Navy and support the modernization process of Indian Navy. As a leader in the aerostructures industry in India, TASL has successfully undertaken complex global transition programs for Lockheed Martin and Sikorsky Aircraft Corporation and has partnership with RUAG Aviation for the Do 228-212 NG structures.

- The Tata group won a contract for the Indian Air Force's Modernization of Air Field Infrastructure (**"MAFI"**) project for the modernization of 30 of its airbases.[102] A marquee procurement order for the Indian Army, the Integrated Electronic Warfare Systems for Mountainous Terrain (**"IEWS-MT"**), for the development of an electronic system that coordinated ground forces with their regional command centers through an advanced communication system, was awarded to the Tata Group for approximately INR 920 Crores. The Tata group competed with Elta of Israel, demonstrating the ability of the domestic private defence industry to cater to advanced technology requirements of the Indian Armed Forces.[103]

- On February 22, 2017, the MoD signed a contract with Nova Integrated Systems (**"NISL"**), a subsidiary of Tata Advanced Systems (TASL) to execute Indian Navy's surface surveillance radar (**"SSR"**) project. The SSR programme is the first procurement by MoD under the 'Buy and Make (Indian)' category of the Defence Procurement Procedure (DPP). The project involves delivery, installation and commissioning of the radar systems on Indian Navy vessels, as well as delivery of simulators, establishing depot level facilities, and integrated logistics support with deliveries spread over 10 years. The proposed radar is based on the latest solid state technology and also suited for coastal surveillance applications.

THE MAHINDRA GROUP [104]

- Airbus Helicopters has awarded a contract to Mahindra Aerostructures to make airframe parts for the AS565 MBe Panther. These parts will be produced at the Mahindra facility in Bengaluru. They will be shipped directly to the Airbus Helicopter production line in Marignane, France where they will be integrated with the rest of the airframe assembly and will form a critical part of the Panthers sold worldwide. The contract positions Mahindra Aerostructures as the first Indian company to receive a direct manufacturing contract from Airbus Helicopters as a Tier 1 supplier. Mahindra Aerostructures will gradually emerge as the global single source supplier to Airbus Helicopters for these parts. This work package is the first amongst a series of work packages which would embed Mahindra Group firmly in the Airbus Helicopters' global supply chain and bind the two companies in a long-term 'Make in India' partnership.[105]

102. Defence Now, 'Tata Power wins prestigious contract for modernisation of IAF airbases', April 11, 2011, available at http://www.defencenow.com/news/138/tata-power-wins-prestigious-contractfor-modernization-of-iaf-airbases.html

103. Available at http://www.tata.com/company/releasesinside/tata-power-strategic-engineering-division-pinaka-multi-rocket-launcher-system

104. Available at www.mahindra.com

105. http://www.airbusgroup.com/int/en/news-media/press-releases/Airbus-Group/Financial_Communication/2016/07/Make-in-India-boost-Airbus-Helicopters.html

- Annual procurement of Airbus Group from India exceeds USD 500 million from over 45 suppliers in 2015. It is supports more than 6000 local jobs. Due to this supply chain, every Airbus commercial aircraft produced today is partly 'Made in India'. The Group has set its sights on exceeding US$2 billion in cumulative sourcing, covering both civil and defence, in the five years up to 2020. Around 80% of the Group's nearly 500 direct employees in India are engineers. In addition, the Group operates two dedicated design centers with partners and collaborates closely with institutions such as the IITs, IIMs and the Tata Institute of Fundamental Research (**"TIFR"**).

- In March 2014, Mahindra Defence Naval Systems (**"MDNS"**) inaugurated its new underwater systems and naval applications manufacturing facility in Chakan, near Pune. MDNS is a wholly owned subsidiary of Mahindra Defence Systems, which is part of the USD 16.7 billion Mahindra Group. This new facility enhanced their advanced manufacturing expertise in the area of naval defence systems.

- In July 2016, Boeing Co. and Mahindra Defence Systems formally opened a center to provide C-17 training services to the Indian Air Force. Once fully operational, the new center will be capable of conducting local and multi-site simulations for added realism and more robust training. The training facility, which is located at the Flight Simulation Technique Centre in Gurgaon, will be a full-service location offering instruction to aircrews that operate the 10 C-17 airlifters that Boeing delivered to India in 2014.

- In Feb, 2017, Mahindra Aerostructures, a Mahindra Group company, signed an agreement with Segnere SAS of France to collaborate on airframe manufacturing. Mahindra Aerostructure is a unit of Mahindra Aerospace Pvt. Ltd Its facility near Bengaluru makes and exports parts and sub-assemblies. Segnere operates three production facilities in France and a subsidiary in Tunisia. It specializes in hard metal parts and assemblies for aircraft. The partnership will help Mahindra expand capabilities to produce hard-metal parts (titanium, inconel and aerospace steels) and collaborate on other technologies, Mahindra said in a statement.

RELIANCE DEFENCE [106]

- In October, 2016, Reliance Aerospace announced a joint venture with Dassault to help construct and maintain 36 Rafale fighter jets, which France agreed to sell to India in September, 2016.[107] In February 2017, Dassault Reliance Aerospace Limited (**"DRAL"**), a joint venture (**"JV"**) between Reliance Infrastructure Limited (**"RInfra"**)-promoted Reliance Aerostructure Limited (**"RAL"**) and Dassault Aviation, was incorporated.

- In April 2017, Reliance Defence tied up with South Korean defence firm LIG Nex1 for smart sensors and ammunition. The company, which is a part of Anil Dhirubhai Ambani Group (**"ADAG"**), has partnered with the Korean defence company for radars and missiles. The two companies will explore opportunities in the identified range of defence products required by the Indian Armed Forces and work on Air Defence and Surveillance Radar that can be manufactured in India as a potential area of co-operation. They will also work on performance enhancement for various systems or platforms in the portfolio of LIG Nex1, to meet the specific requirements of the Indian Armed Forces.[108]

106. Available at www.reliancedefence.co
107. https://www.ft.com/content/fb84251c-8954-11e6-8cb7-e7ada1d123b1
108. http://www.thehindubusinessline.com/companies/reliance-defence-teams-up-with-south-korean-co-lig-nex1/article9643273.ece

BHARAT FORGE [109]

- Kalyani Strategic Systems Ltd entered into a joint venture with Saab Group for manufacturing of surface-to-air missile (**"SRSAM"**) system and very short-range air defence (**"VSHORAD"**) air defence programmes.
- In Feb 2017, Kalyani Group, the owners of Bharat Forge, finalized a joint venture partnership with Rafael Advanced Systems. The initiative will enable the development and production of high end technology systems within the country. This will include a wide range of technologies and systems, like Missile Technology, Remote Weapon Systems and Advanced Armour Solutions. The proposed JV will produce Spike Anti-Tank Guided Missiles (**"ATGM"**).
- Kalyani Strategic Systems (**"KSSL"**), the defence arm of Kalyani Group and Israel Aerospace Industries (IAI) signed a memorandum of understanding to incorporate a joint venture company in India, at the Aero-India exhibition in Bangalore. As part of the MOU, IAI and KSSL are aiming to expand their presence in Indian defence market and to build, market and manufacture specific air defence systems and ground to ground & ground to sea munitions.

LARSEN & TOUBRO (L&T) [110]

- L&T won the tender in a global bid for manufacture of guns, which originally fell within the expertise of the OFs. L&T in partnership with the South Korean firm, Samsung Techwinwon, was awarded a contract for over a billion dollars for the supply of 100 howitzer artillery pieces to the Indian Army. L&T competed with Russia's Rosoboronexport during the tender process.[111]
- In Feb 2017, L&T and the UK-based MBDA, one of the leading global players in missile systems, set up a joint venture (JV) to develop and supply missiles and missile systems to meet the growing potential requirements of the Indian armed forces. MBDA is jointly held by Airbus Group (37.5 percent), BAE Systems (37.5 percent), and Leonardo (25 percent). The Joint Venture Company, named 'L&T MBDA Missile Systems Ltd', will operate from a dedicated work centre, which will include pyrotechnical integration and final checkout facilities. It is expected to be incorporated in the first half of 2017 after necessary approvals.

WIPRO LIMITED [112]

- Wipro has designed, developed, integrated and maintained solutions for the INDIAN DEFENCE FORCES, DPSUs, DRDO and ISRO for several decades. It is today engaged by several Global A&D companies for providing Manufacturing, Engineering and IT solutions to support Indian as well as Global Aerospace and Defence Programs.
- Wipro established an A&D green field plant in Bangalore's Aerospace SEZ and supplies parts/ components for Hydraulic actuation to leading European and US air framers/tier1&2 clients. Wipro now addresses several western Commercial and Defence programs and is moving up the value chain. It today offers Advanced Manufacturing Solutions through 3D printing of parts (prototype and serial production) for several Aero, Space and Defence applications.

109. Available at www.bharatforge.com
110. Available at www.larsentoubro.com
111. Defence News, 'Domestic firm shares $1B Indian gun tender with Korean partner', 17 October 2015, available at http://www.defencenews.com/story/defence/land/weapons/2015/10/17/domestic-firm-shares-1b-indian-gun-tender-korean-partner-samsung-techwin-larsen–toubro/73983584/
112. Available at http://www.wipro.com/services/product-engineering/capabilities/testing-compliance-assurance/solution-tarang-lab/

- Wipro along with its foreign technology partners has begun addressing the Control Systems and Avionics LRU's related systems and sub-system requirements for Indian and foreign platform integrators/ manufacturers, besides providing traditional engineering services to its clients.
- While being a Valued IT Partner for 'Digitization' and Business solutions, its Business Process Outsourcing services address customers' integrated logistics support, MRO - operations support and technical publications need. Wipro's Product Qualification and Compliance Lab (TARANG) is a 'one-of-its-kind' test facility equipped to perform mechanical, environmental, EMI/EMC and reliability testing to do pre-qualification, qualification & Safety of Flight (**"SOF"**) tests on LRU's, as well as ruggedizing for avionics and defence requirements.

Other breakthroughs [113]

- Lumax Auto Technologies Ltd and SIPAL S.P.A. have entered into a joint venture which is expected to become operational in fiscal 2017 and will be a full service provider for all types of Integrated Logistic Support Engineering having a strong knowledge and experience in Technical Publishing, Product/Manufacturing engineering, Process engineering, design and manufacture of tooling, design of systems of production lines related to the Aerospace, Defence & Automotive sectors.
- Punj Lloyd Ltd and Israel Weapon Industries have entered into a joint venture for manufacturing of guns and their components.
- The joint venture between Bharat Electronics Ltd and Thales would be engaged in manufacturing of new technology radars.
- In addition to its domestic success, the private sector has accounted for 60% of India's arms exports which were approved by the Government.[114] The net defence exports by the private sector has seen a significant jump from 500-600 crores until March 2015 to 2000 Crores by March 2016.[115] This is attributed to delisting of several products under the aerospace category from defence export laws which no longer require government clearances. India's domestic defence firms have also made acquisitions of foreign firms to create and augment their capabilities, with the Mahindra Group's acquisition of majority stakes in the Australian defence aviation companies, Aerostaff Australia and Gippsland Aeronautics and Bharat Forge's acquisition of a gun manufacturing plant from the Swiss company Ruag.[116]
- Aircraft engine maker Rolls-Royce Holdings Plc on Thursday opened a new defence service delivery centre (**"SDC"**) in Bengaluru, the first outside the US and UK, to provide localized engineering support and solutions and reduce turnaround time for the Indian Air Force, Indian Navy and state-owned Hindustan Aeronautics Ltd (**"HAL"**).[117]

113. ASSOCHAM, 'Make in India: Achieving self-reliance in defence production', available at http://www.pwc.in/assets/pdfs/publications/2016/make-in-india-achieving-self-reliance-in-defence-production.pdf

114. Business Today, 'Indian firms invest in defence on Prime Minister Narendra Modi's 'buy India' pledge' [supra]

115. Economic Times, 'Private Sector drives Indian defence exports', March 29, 2016, available at http://economictimes.indiatimes.com/news/defence/private-sector-drives-indian-defence-exports/articleshow/51592878.cms

116. 'Mahindra soars into the aerospace segment, acquires majority stake in two Australian companies', available at http://www.mfe.ag/typo3/index.php?id=118&L=0&L=0

117. https://www.ibef.org/news/rollsroyce-opens-defence-service-delivery-centre-in-india

II. Scope of the Private Sector

The scope of the private sector in defence is immense and ever-growing. The future prospects of the sector appear promising, predominantly due to the following factors:

a. Annual rise in the defence budget of India.

b. Clarity on items requiring ILs, single window for application to obtain ILs and streamlined procedures

c. Large capital expenditure projection. The government has estimated that around 31% of its defence budget for the year 2016-2017 is to be spent on capital acquisitions of defence equipment. [118]

d. Large imports

e. Delisting of several items from export clearances

f. New thrust to Buy and Make, and Make, categories of procurement in DPP

g. Increased scope for transfer of technology

h. Increased FDI cap in automatic route and governmental route subject to certain conditions

i. Level playing field with the public sector - removal of exemptions granted to public sector companies and undertakings for payment of customs and excise duties

j. Strengthening of offset obligations of foreign vendors. The government has estimated a net amount of contractual offset obligation of around $4.5 Billion over the next 5-6 years. [119]

III. The way forward

The private defence industry in India has obtained its long standing demand for a level playing field in the sector. However, in its nascent stages and given the fierce global competition, it faces several institutional and structural challenges, including lack of a nurturing financial atmosphere, R&D and highly skilled specialized workers. The following measures have been widely discussed amongst industry experts to strengthen the private sector in defence:

i. Payment Terms:

Private sector in India is paid by the Defence Accounts Department of MoD, while foreign companies are paid through irrevocable Letter of Credit system. This payment method should be extended to the private sector in India to reduce delays and bring in greater certainty.

ii. Grant of 'Infrastructure' Status:

Grant of "Infrastructure" status to the defence industry under the Harmonised Master List of Infrastructure Sub-Sectors. This will entail financial incentives and tax benefits for the defence sector. Ship-building and ship-repair have already been included in the Master List. Raising external commercial borrowing is not permitted to the sector.

iii. Tax Benefits

Section 80IA of the Income Tax Act, 1961 permits an infrastructure developer to deduct 100% of its profit/gain from computing total income and claim the benefit for any ten consecutive years out of fifteen years commencing from the year of operation of the facility. Granting infrastructure status to the industry will provide the aforesaid tax benefit to the industry.

Under Section 35 of the Income Tax Act, 200% weighted tax deduction is permitted for the industry's contribution to national research laboratories/universities or its own in-house R&D investment. However, this tax benefit is restricted to four heads of expenditure: plant and machinery; materials and consumables; utilities and services; and human resource. As

118. Statistics found at http://www.makeinindia.com/sector/defence-manufacturing.

119. p114, Dhirendra Singh Committee Report

noted by the Joint Committee of Industry and Government (**"JCIG"**), set up by the Department of Science and Technology (**"DST"**) to suggest policy measures to stimulate R&D investment by the private sector, these heads of expenditure do not include the entire R&D value chain, which includes R&D in the laboratory, pilot production, test beds, design and development, standardization, field trials and pre-commercial trial production.120 Thus, the tax exemption granted under the Income Tax Act with respect to R&D expenditure be broadened to include defence research and the entire value chain should be factored for the purpose of providing incentives to industry.

Other tax incentives and price preferences should be provided by private firms in order to offset the large costs incurred by the companies. As a notable example, South Korea infused capital into its private defence industry through imposition of a tax for a period of 15 years and routed its proceeds as investments into the defence industry.[121]

iv. Granting 'Deemed Export' status in certain cases

"Deemed Exports" refers to those transactions in which the goods supplied do not leave the country and the payment for such supplies is received either in Indian rupees or in free foreign exchange. The main objective of this concept is to substitute imports. The benefits of holding a 'deemed export' status is (a) Advance licence for duty free import of input materials, (b) duty drawback of taxes paid on inputs and (c) Exemption from terminal excise duty where supplies are made against International Competitive Bidding; in other cases , refund of terminal excise duty.[122]

Under the Buy (Global) procurement category, an Indian company can compete with the foreign company. In the event the Indian company wins the competitive bid, it would be deemed to be import substitution (since the item would have otherwise been imported from the foreign company). In such cases, the items manufactured and provided by the Indian company should be accorded 'deemed export' status.

The offset policy under DPP 2016 (dealt with in detail in Chapter --- on Offsets) was introduced to provide avenues to foreign companies to engage with an Indian Offset partner with a view to strengthen to the Indian defence industry. One of the avenues is to purchase from the local industry for own use or for integration in India, where the IOP can be used. Presently, it is not cost-effective for the foreign company to carry out integration in India. Rather it prefers to import the product and re-export to India after integration. In the process, the Indian partner loses out in developing or harnessing a key capability of system integration, which is the basic objective of the offset policy. This could be easily avoided by granting deemed export status to the sales of the Indian partner.

v. IC requirements should be made flexible and case-specific in Buy and Make (Indian) procurement contracts where it might be difficult for the Indian partner to meet the 50% IC requirement.

vi. Nominations should be stopped: The MoD has often nominated public sector units for large value projects, thereby depriving private sector participation in such contracts. In 2015, the MoD nominated HSL and GSL for two large value projects,[123] in exclusion of the private sector. Tis deprives the private sector of a level-playing field.

120. Department of Science and Technology, Government of India, 'White Paper on Stimulation of Investment of Private Sector into Research and Development of India', May, 2013.

121. Routledge, London, Yong-Sook Lee and Ann Markusen, 'The South Korean defence industry in the post- Cold War era', in Ann Markusen, *From Defence to Development?*', 2003, page 229

122. http://dgftcom.nic.in/exim/2000/policy/chap-08.htm

123. INR 9000 Crore contract to manufacture Fleet Support Vessels, and INR 32,600 Crore contract to manufacture 12 Mine Counter Measure Vessels through transfer of technology, respectively.

vii. The establishment of skill development institutes and dedicated educational and technical institutions that will create skilled workforce to address a predicted shortfall of around 1.5 million workers with specialized skills who will be needed in the near future by the domestic defence industry.

viii. Measures must be taken by the government to attract FDI in the industry and promote the formation of Joint Ventures between Indian and foreign companies. This will increase the R&D and technical capabilities of the domestic industry. The current issue with the FDI flow in this sector has been that much of it has been directed at changing shareholding patterns rather than an investment of capital into the industry.

In the event that the above recommendations are executed along with a constant monitoring and enacting of policies to address issues faced by the industry, the government may be able to seize the opportunity to develop India's private defence sector into a globally competitive force.

8. Offsets

In the defence industry, the foreign manufacturer of the defence equipment offsets the nation's costs of acquiring defence equipment by various avenues, including purchasing or agreeing to purchase products from domestic vendors, making an investment in the defence sector or by transfer of technology, amongst others. Offsets policy essentially means benefits that a buyer gets from the seller in the form of technology that leads to building capability or capacity locally. The purpose of an offset obligation is to ensure that a part of government spending on the capital acquisition of defence products are repatriated into the country and if possible, specifically to its defence sector.

The policy on offsets was first introduced as part of Defence Procurement Procedure in 2005 and has undergone various changes since. The objective of an offset clause in defence contracts is to use capital acquisitions to:[124]

a. Develop globally competitive Indian enterprises;

b. Increase India's R&D capacity;

c. Develop synergistic sectors (e.g. Civil Aviation)

Under DPP 2016, offsets are applicable to acquisitions under the Buy (Global) and the Buy and Make categories where the estimated cost of acquisition is INR 2000 Crores or more as on the date of grant of AoN. The offset requirements upon these types of capital acquisitions are:[125]

a. 30% of the cost of acquisition in the Buy(Global) category; and

b. 30% of the foreign exchange component in acquisitions of the Buy and Make category.

The DPP exempts the following from offset obligations[126] :-

a. Procurements under the 'Fast Track Procedure'.

b. Procurements under an 'option clause' where the original contract does not contain an offset obligation.

As on July 2016, 25 offset contracts worth $4.87 billion have been signed so far and are expected to be executed by 2022. US companies have the maximum share in the value of offsets among foreign vendors. The biggest offset contribution worth INR 4,500 crore (approximately $1.09 billion) is being made by the U.S. company (Boeing) for purchase of 10 C-17 Globe-master Aircraft by India in late 2016, in what is the highest single value military contract entered into by India with the United States through the foreign military sales route.[127] Under the clause, the U.S. company would have to source 30 per cent value of the order from India.[128] 44 more contracts with potential offsets worth $15 billion would be executed in a phased manner up to 2028. This implies that, although India is attempting to build its domestic defence industry, the offset policy will continue to play a key role in contracts under the process of execution for the next 15 years.[129]

124. DPP 2016

125. Para 28, Chapter 2, DPP 2016

126. Para 2.5, Appendix D, Chapter 2, DPP 2016.

127. The U.S. Department of Defense's **Foreign Military Sales** (**FMS**) program facilitates sales of U.S. arms, defense equipment, defense services, and military training to foreign governments. The purchaser does not deal directly with the defense contractor; instead, the Defense Security Cooperation Agency serves as an intermediary, usually handling procurement, logistics and delivery and often providing product support, training, and infrastructure construction (such as hangars, runways, utilities, etc.). The Defense Contract Management Agency often accepts FMS equipment on behalf of the US government.

128. http://www.thehindu.com/sci-tech/technology/india-to-buy-10-c17-heavylift-transport-aircraft-for-iaf/article2082458.ece

129. Dhirendra Singh Committee Report, para 4.18.02 and 4.18.03

I. Discharge of an offset obligation

The main vendor of the equipment is primarily responsible for discharge of offset obligations, although sub-contractors may be allowed to discharge the same in proportion of value of the contract. In order to discharge its offset obligation, the vendor would have to follow the procedure mentioned below:

A. Identify avenue for discharge of offset obligations

As per the Defence Offset Guidelines at Annexure D, Chapter II of DPP, the offset obligation may be discharged by any or a combination of the following actions:-

i. Direct purchase or execution of export orders for eligible products manufactured / eligible services rendered [130] by Indian enterprises (public/ private).

ii. FDI in joint ventures with Indian vendors for manufacture of eligible products or provision of eligible services, subject to compliance with DIPP guidelines/licensing requirements.

iii. Transfer of Technology (**"ToT"**) to Indian enterprises for manufacture/maintenance of eligible products and provision of eligible services; through joint ventures or non-equity routes of collaboration such as co-development, co-production or licensed production. However, the ToT must be without license fee and must allow for domestic production, sale and export.

iv. Investment in kind in Indian enterprises for providing equipment for manufacture/maintenance of products or provision of services (excluding ToT, infrastructure and second-hand equipment).

v. Provision of equipment / ToT to government institutions, such as the DRDO, engaged in manufacture/maintenance of eligible products and provision of services. This category specifically includes increasing the capacity of the institution for R&D, Training, education etc.

vi. High Technology acquisition by the DRDO, in a specified list of technology areas.[131]

B. Identify Indian Offset Partner [132]

The main vendor is required, and has a free choice, to identify an Indian enterprise / institution / establishment which engages in the manufacture of eligible products and/or eligible services, including the DRDO, as an 'Indian Offset Partner'. The IOP is bound by DIPP guidelines and industrial regulations. Agreements between OEM/vendor/tier-1 sub-vendor and IOP is subject to Indian law.

C. Submission & Evaluation of Offset Proposal

Where applicable, the RFP will contain an offset condition. The interested vendor is required to submit a written undertaking, along with its technical bid, to the effect that it will meet the offset obligations detailed in the RFP.[133] Within 12 weeks of submission of its technical and commercial proposals, the vendor is required to submit its technical and commercial offset proposals, in separate envelopes, to the Technical Manager, Acquisition Wing. The technical offset proposal is evaluated by the Technical Offset Evaluation Committee to ensure compliance with offset guidelines. It may advise the vendor to make changes or provide additional information. The TOEC submits its report within 4-8 weeks to the SHQs who finally seek approval of DG, Acquisition. In proposals that involve a ToT to the DRDO, a Technology Acquisition Committee (**"TAC"**) is

130. Annexure VI to Appendix D, Chapter 2, DPP 2016

131. Annexure VIII to Appendix D

132. Para 4, Appendix D, Chapter 2, DPP 2016

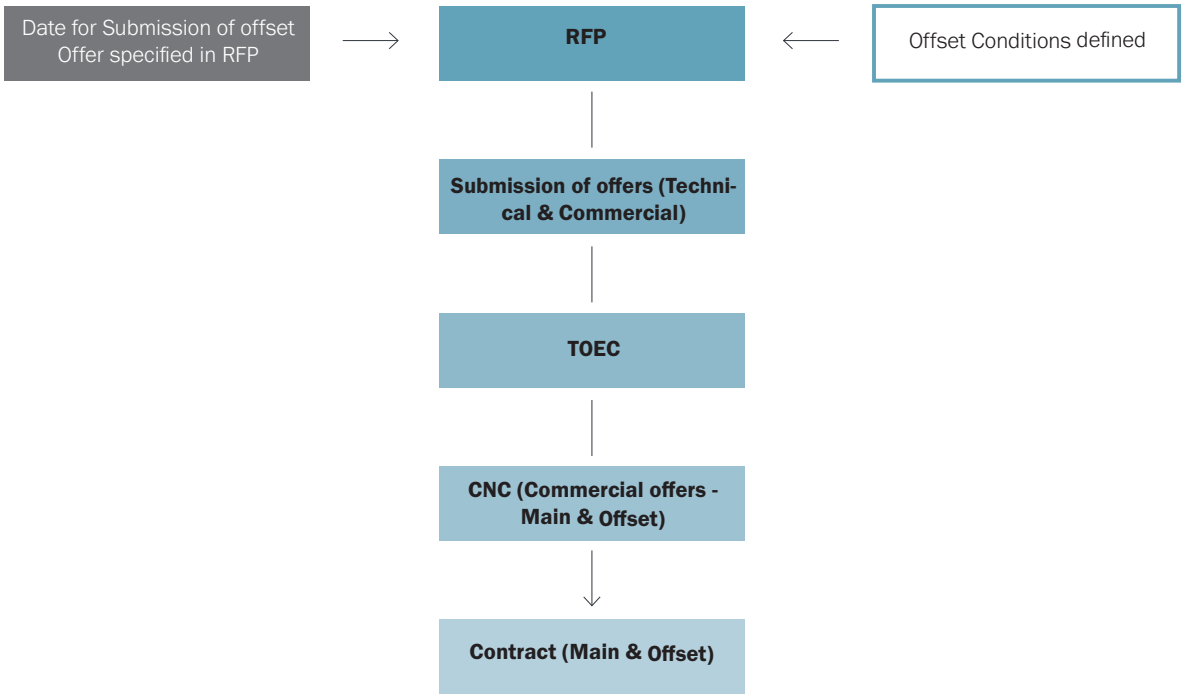
133. DPP 2016, Chapter 2, Annexure I to Appendix D

constituted by the DRDO with the approval of the scientific advisor to the Minister of Defence.

The commercial offset proposal, which contains commercial details such as total value of the offset commitment components, phasing IOPs etc., are opened after the TOEC report has been accepted, along with the main commercial offer. The CNC evaluates the commercial offset proposal of the L-1 vendor.

Once the main contract is approved by the CFA, the offset contract is signed by the Acquisition Manager and approved by the Defence Minister.[134]

Fig. Flow chart of Offsets[135]



II. Important Aspects of Offset Contracts

1. 70% of the offset obligation must be discharged through one or more of the methods of discharge set out above as (i)-(iv). When the offset obligation is discharged under (iv), 40% of the product/service must be bought back in order to constitute a complete discharge of the offset obligation.[136]

2. The offset obligations must be discharged within two years beyond the period in the main procurement contract. If the discharge is expected to take longer than this period, the vendor is required to submit a performance bond of the amount of undischarged offset obligations to the Defence Offset Management Wing (**"DOMW"**), 6 months before expiry of the main Performance-cum-Warranty Bond.

The DPP provides special procedure for Inter-Governmental Agreements forming the basis of a main procurement contract.[137]

3. The DPP provides offset credits for vendors depending on the nature of offset. An offset credit is essentially a monetary depiction of a portion of an offset obligation that has been discharged. The DPP permits the discharge of upto 50% of the offset obligations through banked offset credits. The banking of offset

134. DPP 2016, Chapter 2, Annexure IV, Appendix D

135. Available on http://iesaonline.org/downloads/IESA-New-Delhi-PKBhattacharya.pdf

136. DPP 2016, Chapter 2, Para 5.5, Appendix D

137. DPP 2016, Chapter 2, Para 5.4, Appendix D

credits are covered by prescribed guidelines.[138] When the discharge of the obligation involves a ToT, the offset credit is 10% of the value of buy-back during the period of the offset contract.[139]

4. For Buy (global) type acquisitions, Indian vendors, including JVs with an Indian entity will not be obligated to provide an offset if there is a 30% IC in the project. In the event that the IC is less than 30%, the offset obligation shall extend to the difference in the IC percentages.[140]

5. The DPP also provides various multipliers for discharge of offset obligations as follows:[141]

   a. Offsets towards Micro, Small and Medium Enterprises : multiplier of 1.5

   b. Towards ToT to the DRDO : multiplier of up to 3

   Where:

   a. Multiplier of 2 when the armed forces are allowed use of the technology without restriction on production numbers

   b. Multiplier of 2.5 when both civil and military applications are allowed in India but only for usage without restrictions on production numbers

   c. Multiplier of 3 when the technology is transferred with no restrictions at all.

6. A vendor's offset obligations may be re-phased on justifiable grounds by the JS (DOMW) with the approval of the Secretary of Defence Production.[142] The DOMW may recommend a change in any component of the offset obligation or a change in the IOP, to ensure the fulfillment of the obligations. The DOMW shall report every June to the DAC, the details of offset contracts entered into that year and the status of implementation of ongoing offset contracts.

7. Vendor may request change in IOP or in the offset component, without changing the overall value of the offset obligation, to the DOMW.[143]

III. Penalties and Clarifications[144]

The non-fulfillment of an offset obligation in a particular year attracts a penalty of 5% of the unfulfilled obligation. The unfulfilled value is then re-phased over the remaining contract period in the offset contract. The penalty may be recovered from the performance bond submitted by the vendor. The cap on penalties is 20% of the net offset obligation. A penalty is administered by the DOMW in consultation with the Acquisition Wing. A vendor not fulfilling offset obligations may be liable for debarment under the DPP 2016

Differences that may arise with vendors are to be settled through discussion. Decisions of the Acquisition wing and DOMW in matters relating to offsets are final. The Defence Acquisition Council (**"DAC"**) may waive the requirement of an offset, either completely or partially. It may be noted that when the waiver of the offset clause is partial, then selected/eligible Indian vendors will be exempted from corresponding IC stipulations.

IV. Efficacy of offsets

The questions that arise upon this optimistic estimation of offset contracts and their execution by 2022 is, whether the offset policy enhances India's domestic production capabilities and revitalizes the domestic manufacturing base.

138. DPP 2016, Chapter 2, Annexure VII to Appendix D
139. DPP 2016, Chapter 2, Para 5.7, Appendix D
140. DPP 2016, Chapter 2, Para 5.10, Appendix D
141. DPP 2016, Chapter 2, Para 5.11 and 5.12, Appendix D
142. DPP 2016, Chapter 2, Para 8.10, Appendix D
143. DPP 2016, Chapter 2, Para 8.11, Appendix D
144. DPP 2016, Chapter 2, Para 8.13 -8.16, Appendix D

Lack of data in public domain such as names of the Indian Offset Partners (**"IOP"**), the amount and kind of offsets received by each IOP and the detailed timeframes for execution of each offset contract has impaired an effective analysis on effect of the offset policy. In the realm of FDI, one cannot assess whether offsets have led to increased FDI, since every FDI cannot be linked to offsets (such as portfolio investments) and data is not available. Indeed, FDI inflows have risen post rise in the FDI cap. However, there is no evidence to the effect that the inflows are being triggered by offsets. Exports, however, seem to have increased in volume post introduction of the offset policy. With respect to the effect on public sector, CAG mentions that offsets do not contribute to indicators such as value of sales or exports in public sector since majority offsets are made in the form of equipment transfers. However, in the private sector, there has been a staggering increase of nearly fifteen times, which strongly indicates that the offset policy has influenced increase in exports of defence products by the Indian private sector. However, data is not available for complete assessment of effect of offsets in Indian defence private sector since defence production is often clubbed into larger civilian segments in the private sector.

The CAG, which has audited several offset contracts, has identified invalid selection of IOPs, minimal value addition, equipment transfer, and weak monitoring system have been identified as weaknesses in implementation of offsets.[145] Inherent structural and administrative difficulties exist, such as absence of a single agency in charge of managing offsets. However, the offset policy has generated a different form of business in the defence industry and has certainly created a positive wave, especially amongst the private sector.

145. CAG Report No. 17 of 2012-13, pages 27-28

9. Intellectual Property

The following is a list of legislative provisions relating to intersection of defence and security, and Intellectual Property (**'IP'**) in India. Where these provisions are silent regarding ownership and assignment of IP with regard to Transfer of Technology arrangements, the agreements between the parties prevail. This has been covered in the "Transfer of Technology and Relevance of Intellectual Property Rights" portion of this chapter.

I. Relevant Statutes

A. The Patents Act, 1970

The most important provisions in the Patents Act 1970 (**"Patents Act"**) from a defence perspective are those which provide the Central Government (**'CG'**) or any person authorized by the CG - the right to use inventions for the purposes of government. An invention is used for the purposes of government if it is made, used, exercised or vended for the purposes of the CG, state government or a government undertaking.[146]

The CG or any person authorized by the CG may, at any time after an application for a patent has been filed or a patent has been granted, use the invention for the purposes of government. The CG is under an obligation to notify the concerned patentee as to the use of his/her invention for the purposes of government. This obligation does not apply when the invention is used in a national emergency, for non-commercial purposes or in a circumstance of extreme urgency. The right has been granted to the CG with certain restrictions to prevent misuse. If the CG makes use of the granted patent, it is obligated to pay adequate royalties to the concerned patentee.[147]

The CG may acquire an invention which is the subject of an application for a patent, or a patent and all the rights in respect of the same, by publishing a notification to that effect in the Official Gazette.[148] The aforementioned right is curtailed to the extent that the CG is required to pay the concerned patentee or applicant such compensation as may be agreed between the CG and the patentee/applicant, or in the event of failure of the parties to agree to the same, such compensation as may be determined by the relevant High Court.[149]

In addition to provisions on government acquisition of patents, there are a series of provisions protecting national interest by restricting disclosure of certain information. The Controller of Patents has the power to give directions to prohibit or restrict the publication or communication of information with respect to inventions belonging to a class notified by the CG as relevant for defence purposes or where the invention seems to him to be so relevant. Where the Controller exercises his power, he is required to give notice of the same to the CG, which shall take the final decision on whether the publication of the invention shall be prejudicial to the defence of India. CG can also issue directions for prohibiting or restricting publication of information with respect to specific inventions even if no direction to such effect has been made by the Controller.[150]

The secrecy directions given above are reviewed every six months, either by the CG or upon request by the applicant. If the CG finds that the publication of the invention is no longer prejudicial to the defence of India, or in case of an application filed by a foreign applicant it is found that the invention is published outside India, it shall forthwith give notice to the Controller to revoke the direction previously given.[151] The CG shall not disclose any information relating to any patentable invention or patent application under the

146. Patents Act, Section 99
147. Patents Act, Section 100
148. Patents Act, Section 102
149. Patents Act, Section 103
150. Patents Act, Section 35
151. Patents Act, Section 36

Patents Act which it considers to be prejudicial to the security of India. 'Security of India' has been defined as any action necessary for the security of India which relates to (a) fissionable materials or their derivatives; (b) traffic in arms, ammunition and implements of war, and such traffic in goods carried on to supply a military establishment, and (c) actions taken in time of war or other emergency in international relations. Any action taken by the CG, including the revocation of patents, which it considers necessary for the security of India is taken by a notification in the Official Gazette.[152]

B. The Designs Act, 2000

The Designs Act, 2000 (**'Designs Act'**) defines a design as only the features of shape, configuration, pattern, ornament or composition of lines or colours applied to any article whether in two dimensional or three dimensional or in both forms, by any industrial process or means, whether manual, mechanical or chemical, separate or combined, which in the finished article appeal to and are judged solely by the eye; but does not include any mode or principle of construction or anything which is in substance a mere mechanical device or any trademarks, property mark[153] or artistic work.[154]

The Controller-General of Patents, Designs and Trademarks has similar powers as its powers under Patents Act to direct non-disclosure of any information regarding a registration or application under the Designs Act which s/he considers prejudicial to the interest of the security of India.[155] The Controller-has power to cancel such registration in the interest of security of India.

152. Patents Act, Section 157A

153. As defined under Section 479 of the Indian Penal Code, 1860

154. As defined under Section 2 of the Copyright Act, 1957

155. Under Section 46, Designs Act, "security of India" means any action necessary for the security of India which relates to the application of any design registered under this Act to any article used for war or applied directly or indirectly for the purposes of military establishment or for the purposes of war or other emergency in international relations.

C. The Semiconductor Integrated Circuits Layout-Design Act, 2000

A 'semiconductor integrated circuit' (**'SIC'**) is a product having transistors and other circuitry elements which are inseparably formed on a semiconductor material or an insulating material or inside the semiconductor material and designed to perform an electronic circuitry function.[156] A 'layout-design' is a layout of transistors and other circuitry elements and includes lead wires connecting such elements and expressed in any manner in a semiconductor integrated circuit.[157]

The Semiconductor Integrated Circuits Layout-Design Act, 2000 (**'IC Act'**) contains provisions similar to the Designs Act regarding the security of India, with respect to disclosures and cancellation of registrations in the interest of the security of India.[158]

D. The Protection Of Plant Varieties And Farmer's' Rights Act, 2001

The Protection of Plant Varieties and Farmer's' Rights Act, 2001 (**'Plant Varieties Act'**) defines a 'variety'.[159] Akin to powers under the Patents act, Designs Act and the IC Act, the Registrar of Plant Varieties has powers to direct non-disclosure of information regarding the

156. Semiconductor Integrated Circuits Layout-Design Act, 2000, Section 2(r)

157. Semiconductor Integrated Circuits Layout-Design Act, 2000, Section 2(h)

158. Under Section 68 of Semiconductor Integrated Circuits Layout-Design Act, *"any action necessary for the security of India relating to use of a layout-design or an SIC incorporating it or an article incorporating such SIC which relates to fissionable materials, the traffic in arms, ammunition and implements of war or in any goods carried out to supply a military establishment, or any action taken in war or other emergency in international relations"*.

159. Section 2 (za) of Protection Of Plant Varieties And Farmer's' Rights Act, 2001 defines "variety" as "a plant grouping except micro-organism within a single botanical taxon of the lowest known rank, which can be (i) defined by the expression of the characteristics resulting from a given genotype of that plant grouping; (ii) distinguished from any other plant grouping by expression of at least one of the said characteristics; and (iii) considered as a unit with regard to its suitability for being propagated, which remains unchanged after such propagation, and includes propagating material of such variety, extant variety, transgenic variety, farmers' variety and essentially derived variety."

registration or application of a variety under the Plant Varieties Act which is considered prejudicial to the interests of the security of India. The Registrar of Plant Varieties also has powers to take any actions regarding cancellations of registrations of such varieties which the CG may specify by notification in the Gazette in the interests of the security of India.[160]

There are no specific provisions related to national security in the laws on copyright, trademark or geographical indications.

II. The DPP 2016 and Intellectual Property

For 'Make' projects, the DPP provides extensive Guiding Principles (**'GPs'**) on the allocation of IP rights of the Government under Appendix H to Chapter III.[161] Under these principles, for most circumstances, the contractor retains the ownership of the IP generated under the contract, with the Government only retaining a license as per the terms given herein.[162] However, if during the development of a prototype, the Government identifies a technology or product as being sensitive and requiring restricted access, through the Integrated Project Management Team (**"IPMT"**) or any other expert body, it shall retain the full ownership of the IP of such a technology or product.[163]

The types of IP covered herein can be divided into two categories:

a. Inventions and patents;

b. Technology licensing

i. Technical Data

ii. Computer Software

The Government gains licenses over the a) subject inventions and associated data, and b) all other data generated under the 'Make' contract.[164] The rights accorded to the Government here are termed 'Government Purpose Rights' (**'GPRs'**),[165] which mature into 'Unlimited Rights' after ten years from the vesting of such GPRs' with the Government.[166] 'Government Purpose' for the purpose of the GPs has been defined as an activity in which the Government of India is a party, including cooperative agreements with international or multinational defence organizations, or sales or transfers by the Government of India to foreign Government or international organizations.[167] 'Government Purposes' here also includes competitive procurement, but expressly does not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or to authorize others to do so.[168]

The GPRs apply at the 'prime' and the 'subcontract' levels. It requires the prime Development Agencies (**'DAs'**) to incorporate the Government's rights as outlined in the Guiding Principles in all their subsequent subcontracts and agreements, insofar as technology development under the 'Make' category is concerned.[169] Every sub-contractor shall have the same obligations vis-à-vis the Government as the prime contractor under the main procurement contract.

The contractor is also required to put into place a timely and efficient disclosure system to report IP generated under a 'Make' contract to the Ministry of Defence (**'MoD'**).[170] It is also required to submit

160. Section 78, Protection Of Plant Varieties And Farmer's' Rights Act, 2001 defines "Interests of the security of India" as "any action necessary for the security of India relating to the use of any registered variety directly or indirectly for the purposes of war or military establishments, or for the purposes of war or any other emergency in international relations."

161. DPP 2016, page 250.

162. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 1.

163. Chapter III, Appendix H, Guiding Principles, 2.

164. Chapter III, Appendix H, Guiding Principles, 4.

165. Chapter III, Appendix H, Guiding Principles, 5.

166. Chapter III, Appendix H, 'Guiding Principles, 8.

167. Chapter III, Appendix H, Guiding Principles, 10.

168. Chapter III, Appendix H, Guiding Principles, 10.

169. Chapter III, Appendix H, 'Guiding Principles, 6.

170. Chapter III, Appendix H, Guiding Principles, 14.

periodic reports about the commercialization and manufacturing activities undertaken for subject inventions under 'Make' contracts.[171]

A contractor can elect to retain titles in any inventions made in performance of work under a contract. A contractor's failure to disclose such IP to the MoD in a timely manner or a failure to invoke his/her default right of ownership shall result in the IP vesting *ab initio* in the Government by implication.[172] In the latter case, the contractor shall only be entitled to a license on such terms and conditions as the Government may deem fit.[173] As per the GPs, such a license shall 'usually' be revocable and non-exclusive, but shall be royalty free. It shall extend to the contractor's domestic affiliates and subsidiaries and include the right to sub-license, but shall not be transferrable without the Government's prior approval.

It must be noted here that as per the GPs, the ownership of any rights by the contractor does *not* include an absolute right to transfer any software, product or documentation. Such transfer, including any export of the same, shall still be governed by the Export Policy, Export Guidelines, and all applicable laws, rules, regulations, orders and instructions released by the Government, and shall require the prior and explicit approval of the MoD.[174]

In cases of dissolution of the DA, where the DA is not a consortium, the ownership of any IP generated under a 'Make' contract shall vest with the Government. If the DA in question is a consortium, the ownership of such IP shall vest among the partners as per the Joint Partnership Agreement between them; however, the rights of the Government as licensee shall not be 'adversely affected' in any manner.

171. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 15.

172. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 14.

173. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 14.

174. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 17.

A. Subject Inventions

The DPP defines 'subject inventions' and 'invention' as follows:

> *"'Subject Invention' implies any invention of the contractor conceived or first actually reduced to practice in the performance of work under a Government Contract.*
>
> *'Invention' implies any invention or discovery that is or may be patentable or otherwise protectable under the Patent Laws in force in India."*

The GPs state that for all 'subject inventions' under the 'Make' contracts, the Government shall hold GPRs. The GPs indicate that a GPR is a non-exclusive, non-transferrable, irrevocable, paid-up (royalty-free) license to practice the subject invention or have it practiced on its behalf, throughout the world.[175]

B. Technical Data ('TD') and Computer Software ('CS')

As mentioned earlier, the GPs state that the Government would gain GPRs over the data associated with the subject inventions, and 'all other data generated under the 'Make' contract'. In this context, the DPP indicates that the GPRs imply the right to use such TD and CS within the Government without restriction and the right to authorize any other entity, presumably to use the same, for any Government purpose including re-procurement.[176]

The following rights have specifically been included in the GPRs:

a. The right to use, modify, reproduce, release, perform, display, or disclose TD within the Government without restriction;

b. The right to release or disclose TD outside the Government and to authorize persons to

175. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 8.

176. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 9.

whom such release and disclosure has been made to use, modify, reproduce, release, perform, display or disclose that data for government purposes;

c. The right to prepare and deliver form, fit and function data and manuals or instructional and training materials for installation, operation or routine maintenance and repair;

d. The right to prepare computer software documentation required to be delivered under the 'Make' contract; and

e. The right to make corrections or changes to the computer software or computer software documentation furnished to the contractor by the government.

In addition to the above, Government rights in CS to be delivered under contract specifically also include:

a. Use of a computer program with government computer(s);

b. Transfer to another Government computer;

c. Making copies of CS for safekeeping, backup, or modification purposes;

d. Modification of CS;

e. Disclosure to service contractors;

f. The right to permit service contractors to use computer software to diagnose/correct deficiencies, or to modify to respond to urgent or tactical situations; and

g. The right to disclose to contractors or any other third-parties for proposes of emergency repair and overhaul.

C. March-In Rights

The Government also has 'March-In Rights' for all items it has GPRs over, as per the GPs.[177] The GPs define 'March-In Rights' as including the right to either work the patent by itself or have it worked on its behalf by another entity on behalf, in case the contractor fails to work the patent on its own within a 'specified and reasonable' period of time.[178] Under 'March-In Rights', the Government can either require the contractor to grant a license or can itself grant a license for the following reasons:

a. The contractor fails to work the patent towards a practical application within a reasonable period of time; or

b. Health and safety requirements require the Government to grant such a license to act in public interest; or

c. For 'National Security Reasons'; or

d. To meet 'public use' requirements not reasonably satisfied by the contractor; or

e. For the contractor's failure to substantially manufacture the products embodying the subject inventions in India; or

f. In case of a failure on part of the contractor to comply with any of the requirements laid down in the Guidelines.

III. Transfer of Technology and Relevance of Intellectual Property Rights

A. Nature of Transfer of Technology ("TOT") Arrangements

DPP 2016 requires vendors supplying products to the Government to confirm that there is no infringements of patent rights in accordance with the laws prevailing in their respective countries.[179] It requires anyone replying to an Expression of

177. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 12.

178. Chapter III, Appendix H, 'Intellectual Property Rights of Government in 'Make' Projects', Guiding Principles, 12.

179. Chapter II, Schedule I, 'Request for Technical and Commercial Proposal for (Generic Nomenclature of Equipment) Category', 21.

Interest (**'EoI'**) to disclose 'Patent/IPR Certificates (If any)'.[180] IP rights also form part of the evaluation of an EoI.[181] It also requires an Original Equipment Manufacturer (**'OEM'**) to indemnify and protect a Production Agency from any costs or claims arising from any third party claims over patent or intellectual or industrial property rights, in India or outside.[182]

As seen above, the IP rights category in the defence sector in India includes inventions, industrial designs and the creation of technology. The main aim of the "Make in India" policy of the Government with regard to the defence sector is to provide protection for investments in the development of new technology, thus incentivizing research and development activities in the defence sector in India. The vision of "Make in India" is to achieve self-reliance in the defence sector through building indigenous capabilities for manufacture and maintenance of defence equipment in a cost effective manner.[183] The opening of the strategic defence sector for private sector participation has opened avenues for foreign OEMs to enter into partnerships with Indian companies and leverage the domestic markets. There is a need for Indian companies to bridge the capability gap in technology and equipment development through partnership with global OEMs by Transfer of Technology (**"TOT"**) arrangements.[184] The fact that such TOT arrangements help a developing country to bridge a capability gap in technology can be evidenced by the growth of the domestic defense industry in Japan, in the post-World War II era. The main reason for the economic development of Japan was its ability to effortlessly absorb and adapt foreign technology. The Japanese obtained over 36,000 license agreements between 1950 and 1980, and integrated such licensed-in technologies in their industrial development and in research and development arms of their domestic production/ manufacturing industries.

However, there are several issues in the current system in place with regard to such TOT arrangements. As stated above, the main aim of the Government in bringing out the DPP was to bridge the capability gap between Indian companies and foreign OEMs. However, as there are no specific guidelines or standards laid down in the DPP with regard to the IP being transferred in such TOT arrangements, most of the TOT arrangements are in the form of restrictive licenses with regard to the IP being transferred. In fact, management of IP rights, whether in procurement-cum-manufacturing contracts such as "Buy & Make", or public-funded R&D-cum-production contracts such as "Make" cases, or licensing of DRDO-developed technologies for that matter, is still one of the relatively unaddressed areas in the DPP. Resultantly, Indian companies are not effectively being provided with the right to carry out domestic production or development of such technology. On a deeper analysis, it is clearly evident that a whole plethora of factors linked mainly to legal clauses protecting the IP rights of OEMs/ technology sellers are the major contributors to the failure of such TOT arrangements to meet the main aim of attaining self-reliance in the defense sector in India.

TOT essentially translates into either an assignment of the property or licensing of the use of these properties by the technology holder to the technology recipient. An IP assignment is a permanent transfer of ownership of an IP, such as a patent, trademark, copyright or knowhow, from one party (the assignor) to another party (the assignee). The assignee thus becomes the new owner of the IP. A license agreement, on the other hand,

180. Appendix D, Annexure II, 'Documents/Information to be submitted as part of Responses to EoI: An Illustrative List', 10.

181. Chapter III, Appendix E, 'Illustrative Evaluation Criteria & Sub-criteria', (b) 'R&D Criteria', (iii) *"Total No of patents translated into product in the subject Field and total no proposed to be utilized for the project"*.

182. Chapter II, Schedule I, Appendix G, 'Transfer of Technology (TOT) (For SKD/CKD/IM KIT BASED)', 20.

183. 'Intellectual property rights & defence production', available at http://www.defproac.com/?p=2435 , accessed on 12 December 2016.

184. Ibid

is a contract under which the holder of the IP (licensor) grants permission to another party (licensee) for the use of its IP, within the limits set by the provisions of the contract.[185]

B. Challenges/Issues with TOT arrangements

The major challenges faced by IPA's in TOT arrangements are detailed below.

i. OEM's/ Technology Seller Practices

As mentioned above, due to the lack of specific guidelines in the DPP with regard to transfer of IP in TOT arrangements, the OEM's/ technology sellers engage in practices such as imposing restrictions on field of use, volume and territory; demanding prolonged periods of validity (thus precluding any further development by Indian Production Agencies i.e. IPAs); restricting any research and development in the field by IPA's ; imposing non-competition clauses on IPA's ; fixing their own prices; imposing restrictions in the event of the expiry or loss of secret technical knowhow; preventing challenges to the validity of the rights of the seller; imposing grant-back provisions which force the IPA to transfer back any improvements, inventions to the OEM ; and lastly, restricting the ability of the IPA's to carry out exports in relation to such technology.

In addition to the aforementioned clauses, there are also certain agreements via which countries with OEM's/technology sellers impose on developing countries. The Logistic Support Agreement (**"LSA"**) and other such agreements being thrust upon India by the United States as pre-conditions for the Defense Trade and Technology Initiative are apt examples in this regard. Such agreements seriously hamper the efficacy of TOT arrangements in India.

ii. Costs

TOT arrangements in India are commonly regarded to be exorbitant for the IPA's due to the oft-one-sided nature of the technology market in favour of foreign OEMs. Often, excessive returns are made to foreign OEMs from such arrangements, over and above the basic costs in such agreements for (i) high royalties and fees for licensing subsequent batches of production; (ii) costs for right to use the trademarks. (iii) costs through artificially inflated prices of parts from intra-company sales; (iv) costs for profits capitalized in the acquisition of shares in the receiving company; (v) costs for some part of the profit of fully owned subsidiaries which have no special provision to pay for technology transfer and (vi) costs due to overpricing of capital goods i.e. industrial machines and equipment.

iii. Relevance

A common issue that arises with regard to TOT arrangements in India is the actual relevance/value of the technology being transferred, with regard to the product which is being procured along with the concerned technology. Several times, foreign OEM's may offer technology which is not relevant to the product being procured by the IPA's. Therefore, it is crucial that such technology being offered is thoroughly scrutinized by IPA's prior to entering into such TOT arrangements.

Another major challenge that arises with regard to TOT arrangements in India, is the capability of the IPAs to appropriately utilize the technology being transferred under such arrangements. In order to achieve the objective of self-reliance in the defense sector and to ensure that a level playing field exists between OEM's and IPAs, it is of utmost importance that the DPP focuses more on the domestic development of technology in the defense sector in India. This would ensure that TOT arrangements are more effective and attain their broader objectives.

185. 'Commercialising Intellectual Property: Assignment Agreements', available at https://www.iprhelpdesk.eu/sites/default/files/newsdocuments/Assignment_Agreements_0.pdf , accessed on 11 December 2016.

iv. Governmental Licensing Issues

Another challenge that arises regularly with regard to TOT arrangements is the fact that the transfer of the concerned technology is subject to approval from foreign governments. Resultantly, as there are no specific guidelines laid down with regard to TOT arrangements in the DPP, OEMs tend to place enormous prices and restrictive licensing terms in TOT arrangements with IPAs.

C. Benefits of TOT arrangements

i. Benefits to Technology Sellers/Licensors

The primary benefit for sellers/licensors in TOT arrangements in India is the potential revenue that can be gained due to absence of specific guidelines in the DPP with regard to pricing parameters. Resultantly, sellers are provided with the freedom to determine pricing and the license terms. Thereby, sellers/licensors can easily recover their research and development costs and also obtain profits above and beyond such costs from TOT arrangements in India.

ii. Benefits to Technology Recipients/ Licensee's

The acquisition of new technology for manufacture brings in new industrial machines and processes, thereby helping to modernize the production system. This promotes industrial growth and economic development. Such increased production would resultantly increase employment and tax revenues in the recipient country. Additionally, acquisition of any new technology would also result in growth in innovation and technological progress in the recipient country.

D. Offsets and Transfer of Technology Arrangements

The RDO guidelines in India obligates OEMs to invest a minimum of thirty (30) per cent of the contractual value of projects that are worth more than INR 300 crores in the domestic defense industry in India. This policy intends to strengthen the domestic defense industry via a combination of TOT arrangements, investment in research and development, and production facilities. TOT arrangements are recognized as a permissible method for discharging such offset obligations in the revised offset guidelines of 2012 (**"RDO Guidelines"**)

The various types of TOT arrangements entered into by OEMs to meet their obligations under the defense offset policy are detailed below:

i. Co-development and Co-production

In such an arrangement, the concerned OEM and domestic company or the concerned countries become partners and contribute to specific areas of the development and production of the goods. There are several benefits that accrue to the domestic defense industry via this arrangement, most important being access to advanced technology and products at reasonable rates. Furthermore, such an arrangement provides Indian entities with the necessary skill sets acquired via their contribution to the arrangements. Such arrangements are seen as effective mechanisms for induction and absorption of state of the art technology.

ii. Sub - contracting / Contract Manufacturing

TOT arrangements can be of two types, namely - 'Build to Print' or 'Build to Specification'.

Build to Print: The foreign supplier provides all the documentation to the Indian entity. The documentation should include information such as manufacturing drawings, quality requirements, test methods, acceptance criteria etc. The Indian entity completes the manufacture of the product. Design issues, if any, are the essential responsibility of the foreign supplier. However, the Indian entity could also share the responsibility for design verification, especially while implementing modifications to the original documents.

Build to Specification: The foreign supplier provides detailed technical specifications, quality requirements etc. to the Indian entity who undertakes the design, development, manufacture and supply of the product.

In the short term, such TOT arrangements suffice as an effective mechanism in bringing in required technology into India.

iii. Joint Ventures

TOT arrangements are also instituted via the establishment of Joint Ventures (**"JVs"**). However, the extent of foreign equity participation is a critical factor which affects the success of a JV. In a JV with foreign equity participation restricted to 26 per cent, the OEMs may inhibit the collaborating partners from bringing in cutting-edge technology.

iv. Maintenance TOT and Training

Long-term customer support activities have become an essential aspect of TOT arrangements. The training of local industrial partners and user agencies in maintenance of the system through TOT arrangements ensures effective and committed maintenance support. Establishment of a maintenance, repair and overhaul facility on partnership basis can help to achieve this objective. As a result, the local defense industry acquires the necessary technology and also acquires the capability to offer maintenance support on a long-term basis. Establishment of training facilities like flight simulators and user-training centers by OEM's in partnership with local defense industry will also help to adequately meet this requirement.

The business opportunities arising out of the mandatory offset provisions in defense import contracts provide ample scope for the Indian defense industry to obtain state of the art technology which would, in due course of time, ensure that the Indian defense industry progresses substantially towards achieving self-reliance in indigenous design and manufacture of defense products.

Conclusion

History indicates India's massive dependence on TOT arrangements through the decades. While this dependence has reduced marginally with the recent production of a few indigenous systems, it is unlikely that India will be able to do without TOT arrangement in the next few decades. Furthermore, as "Buy & Make" with TOT is the principal category of capital acquisitions relied upon under the DPP for encouraging domestic manufacturing of foreign-origin equipment [186], the DPP ideally should contain a robust set of contractual provisions outlining the MODs IP Rights in technologies being received by IPAs.

On the contrary, a plain reading of the DPP reveals that there is very little guidance in the DPP of use to procurement professionals on the subject: a situation that is quite different from international best practices such as the European Union's and the United States exhaustive guidance on Intellectual Property Rights in the defence acquisitions[187] and in procurement of R&D and innovation.[188] Management of IPRs, whether in arrangements such as "Buy & Make", or public funded arrangements such as "Make" cases, or licensing of technologies developed by the DRDO, still remains a relatively unaddressed area in the DPP. In fact, DRDO practices in technology-licensing are rather unique, with perhaps the only known case in the world where transfer of IPRs in public-funded technology is effected to a foreign entity without insisting on domestic manufacturing in India.[189]

186. Defense Procurement Policy 2016, 3.

187. See DFARS Part 227 *rw* Part 252 for government IPRs in defence acquisitions in the United States.

188. See, e.g., CORDIS, Pre-Commercial Procurement, available online http://cordis.europa.eu/fp7/ict/pcp/overview_en.html.

189. DRDO and FICCI's Joint Initiative for Accelerated Technology Assessment and Commercialization (www.drdoficciatac.com) does not list terms and conditions of the standard licensing agreement for public-funded technologies. However, broad elements of the same can readily be inferred from a number of official communiqués; PIB (2011), US Firm signs Pact to Acquire DRDO's Technology for Explosive Detection Kit, available online http://pib.nic.in/newsite/erelease.aspx?relid=71788; DRDO (2013), DRDO's Explosive Detection Kit launched in the US, available online http://www.drdo.gov.in/drdo/pub/nl/2013/NL_Sept_ 2013_web.pdf ; and ¶¶(a)-(b), Answer dated 26.08.2013 to Unstarred Parliament Question No. 2583.

As there is no clear set of rules or guidelines laid down in the DPP with regard to the transfer of the underlying Intellectual Property Rights in TOT arrangements, such transfers are regulated or governed purely by the contractual terms of the TOT arrangements entered into by the parties. As highlighted above, the DPP 2016 appears to be in need of a complete rewrite of its TOT and Intellectual Property Rights provisions so as to ensure legal consistency, contractual clarity and effectiveness in achieving intended procurement objectives. This could perhaps be modeled on international best practices such as, inter alia, the *"Defence Federal Acquisition Regulation Supplement"* in the US, or the guidance on IPR acquisition during pre-commercial procurement under the EU Public Procurement Directives.

Eventually, a clear and unambiguous DPP containing explicit and detailed guidelines on IPRs and TOT may help in reducing processing delays, contracting timelines and contractual disputes. At the same time, this will also ensure that the MoD's core procurement objective of using a procurement-cum-manufacturing route for achieving self-reliance through transfer of technology is satisfactorily achieved during its capital acquisition processes. This is likely the ultimate objective of the CG with regard to the defence industry in India.

10. Taxation

I. Corporate Income Tax

Income tax in India is levied under the Income Tax Act, 1961 (**"ITA"**). While residents are taxed on their worldwide income, nonresidents are only taxed on income arising from sources in India. A company is said to be resident in India if it is incorporated in India or its place of effective management is located in India.[190]

Resident companies are taxed at the rate of 25-30% [191], while non-resident companies are taxed at the rate of 40%. A minimum alternative tax is payable by resident, and in certain circumstances, non-resident companies at the rate of around 18.5%.

The Indian Finance Minister in his budget speech in 2015 had proposed to reduce the headline domestic corporate tax rate from 30% to 25% over the next four years, accompanied by a corresponding phasing out of the various exemptions and deductions available under the ITA. The Finance Act, 2016 began this process by reducing the domestic corporate tax rate to 29%, for those companies whose total turnover or gross receipts in financial year 2014-15 (i.e., April 1, 2014 to March 31, 2015) does not exceed INR 50 million. This process has subsequently been furthered by the Finance Act, 2017, which has reduced the domestic corporate tax rate to 25% for those companies whose total turnover or gross receipts in financial year 2015-16 (i.e., April 1, 2015 to March 31, 2016) does not exceed INR 500 million.

II. Dividends

Dividends distributed by Indian companies are subject to a dividend distribution tax (**"DDT"**) at the rate of around 15% (calculated on a gross-up basis), payable by the company. However, except as stated immediately below, no further Indian taxes are payable by the shareholders on such dividend income once DDT is paid. Accordingly, there should be no withholding tax applicable on the payment of dividends to a non-resident.

The Finance Act, 2016 levied a tax at the rate of 10% on dividends received from a domestic company, by a resident individual, HUF or firm, where the amount of dividend received exceeds INR 1 million. The Finance Act, 2017 has expanded upon this list to include almost all categories of resident persons except for domestic companies and specified categories of funds, universities, institutions, trusts etc. (largely those pursuing charitable or religious purposes) Dividends received from a domestic company by a non-resident company should continue to be Indian tax exempt in the hands of the foreign company, provided that DDT has been paid by the distributing domestic company.

III. Interest, Royalties and Fees for Technical Services

Interest earned by a non-resident may be taxed at rates ranging between 5% to around 40%, depending on the nature of the debt instrument.

The withholding tax on royalties and fees for technical services earned by a non-resident is 10%. These rates are subject to available relief under an applicable tax treaty. In this context, it is important to note that the definition of royalties and fees for technical services under Indian domestic law is

190. India introduced the 'place of effective management (**"POEM"**) test for determining the residential status of a company in 2016. Under the POEM test, a company is said to be resident in India if it is incorporated in India or; if its place of effective management is in India. POEM has been defined to mean the place where key management decisions that are necessary for the conduct of the business of an entity as a whole are, in substance made. Until the introduction of POEM, foreign companies were characterized as being tax resident of India only on the satisfaction of the 'control and management' test, which required that the foreign company's control and management be wholly situated in India.

191.

much wider than the definition under most tax treaties signed by India.

IV. Capital Gains

Gains earned by a resident company from the transfer of capital assets situated anywhere in the world are taxable in India. In the case of non-residents, only those gains arising out of the transfer of a capital asset in India should be taxable.[192] The tax treatment of capital gains depends mainly on whether the gains are short term or long term. Short term capital gains arise upon the transfer of assets held by a taxpayer for a period of 36 months or less before the date of transfer (12 months or less in the case of securities listed on a recognized stock exchange in India, and 24 months in the case of unlisted shares of an Indian company). Long term capital gains arise upon the transfer of a capital asset held for a period of more than 36 months (12 months in the case of listed securities and 24 months in the case of unlisted shares of an Indian company).

Short term capital gains arising from the transfer of a listed equity share are taxable at the beneficial rate of 15%, while long term capital gains arising from the transfer of listed equity share are tax exempt under the ITA generally.[193]

Short term capital gains arising from the transfer of any other capital asset are taxed at the corporate tax rate of 25-30%, while long term capital gains arising from the transfer of such other capital assets are subject to tax at the rate of 20%.[194]

An Indian company would also be taxed at the rate of around 20% on gains arising to shareholders from distributions made in the course of a buy-back or redemption of shares.

V. Withholding Taxes

Tax would have to be withheld at the applicable rate on all payments made to a non-resident, which are taxable in India. The obligation to withhold tax applies to both residents and non-residents. Withholding tax obligations may also arise with respect to specific payments made to residents and the failure to withhold tax could result in tax, interest and penal consequences.

VI. Double Tax Avoidance Treaties

India has entered into more than 80 treaties for avoidance of double taxation. A taxpayer may be taxed either under domestic law provisions or the tax treaty to the extent it is more beneficial. Tax treaties generally provide that the business profits of a foreign enterprise are taxable in a State only to the extent that the enterprise has in that State a permanent establishment (PE) to which the profits are attributable. The definition of PE included in tax treaties is therefore crucial in determining whether a non-resident enterprise must pay income tax in another State.

Certain tax treaties such as the treaties with Mauritius, Singapore, and the Netherlands also provide significant relief against Indian capital gains tax and interest income in specific circumstances. Until recently, the treaties with Mauritius and Singapore provided such relief with respect to tax on all capital gains.

192. Having said that, India has recently introduced a rule to tax non-residents on the transfer of foreign securities the value of which are substantially (directly or indirectly) derived from assets situated in India.

193. The Finance Act, 2017 has created an exception to the exemption in certain specified cases (which have since been notified) of transactions of acquisition of equity shares entered into after October 1, 2004 which are not chargeable to securities transaction tax.

194. In the case of non-resident companies, a further concessional rate of 10% is applicable on the gains arising to such non-resident from the transfer of shares of an Indian company.

However, the Governments of India and Mauritius have recently agreed upon a Protocol to the India-Mauritius tax treaty which provides for source-based taxation of capital gains arising on or after April 01, 2017 from the alienation of shares of an Indian company.[195] The Protocol also provides for a grandfathering provision which exempts capital gains arising out of sale of shares of an Indian company that were acquired before April 01, 2017, and a transition period which allows for a beneficial tax rate for capital gains, subject to satisfaction of conditions relating to limitation of benefits as prescribed, arising from the alienation shares between April 01, 2017 and March 31, 2019.[196]

Similarly, the Governments of India and Singapore have entered into a Third Protocol to the India-Singapore tax treaty which (similar to Mauritius Protocol) provides for source-based taxation of capital gains arising on or after April 01, 2017 from the alienation of shares of an Indian company. The Third Protocol also provides for a grandfathering provision which exempts capital gains arising out of sale of shares of an Indian company that were acquired before April 01, 2017, and a transition period which allows for a beneficial tax rate for capital gains, subject to satisfaction of conditions relating to limitation of benefits as prescribed, arising from the alienation shares between April 01, 2017 and March 31, 2019.[197]

195. Protocol Amending the Convention between the Government of Mauritius and the Government of the Republic of India for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital Gains for the Encouragement of Mutual Trade and Investment. Available at: http://www.investmauritius.com/media/342048/protocol-to-the-mauritius-india-dtac-signed-on-10-may-2016.pdf

196. Protocol Amending the Convention between the Government of Mauritius and the Government of the Republic of India for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital Gains for the Encouragement of Mutual Trade and Investment. Available at: http://www.investmauritius.com/media/342048/protocol-to-the-mauritius-india-dtac-signed-on-10-may-2016.pdf

197. Third Protocol Amending the Agreement between the Government of the Republic of Singapore and the Government of the Republic of India for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income. Available at: https://www.iras.gov.sg/irashome/uploadedFiles/IRASHome/Quick_Links/Protocol%20amending%20Singapore-India%20DTA%20(Not%20in%20force)%20(31%20Dec%202016).pdf It may be noted that as of January 10, 2017, the Third Protocol is yet to come into force.

VII. Anti-Avoidance

A number of specific anti-avoidance rules are enforced in India. Cross-border transactions between related parties would be viewed for tax purposes on an arm's length basis. Transfer pricing rules apply to certain domestic transactions as well. General anti avoidance rules (**"GAAR"**) have become effective from April 1, 2017. GAAR can be implemented to tax or disregard certain 'impermissible avoidance arrangements' that are abusive or lack commercial substance. GAAR is likely to impact some of the conventional tax optimization structures for India.

The Finance Act, 2017 has introduced thin capitalization rules to the Indian income tax regime. Now, Indian companies and permanent establishments of foreign companies having interest expenditure in excess of INR 100 million as well as in excess of 30% of earnings before interest, taxes, depreciation and amortization are liable to have such interest expenditure as is in excess of INR 100 million disregarded for the purposes of computation of taxable income.

Direct tax incentives for the defence sector, in terms of both direct taxes are, few and far between. There is no special regime in relation to the defence sector in India. While, upon satisfying certain conditions, players in the defence sector can benefit from other special regimes such as those applicable to special economic zones, manufacturing concerns etc., these benefits are not specifically related to the defence sector alone.

Yet, with increasing developments in other spheres, such as increasing liberalization under the foreign exchange regime and governmental push for 'Make in India', increased investment and mergers and acquisition activity can be expected. Hence, tax structuring is expected to continue to be an important theme for players in the defence industry.

VIII. Indirect Taxes

Indirect taxes are imposed at the federal and state level on expenses incurred. Currently, prominent indirect taxes being levied include customs duty and the goods and services tax (**"GST"**). The rate of these taxes vary depending on the product and / or service.

The Government of India has, over the last two years, removed exemptions of customs duty on a wide range of goods imported by the Government of India, state governments, or their contractors / sub-contractors.[198] From June, 2015, the Government had also withdrawn excise duty exemptions for ordnance factories and public sector undertakings in the defence sector.[199] These moves aimed at providing an impetus to domestic manufacturing, especially manufacturers in the private sector, and putting them on par with foreign manufacturers. Manufacture of defence equipment is in line with the Government of India's 'Make in India' policy.

However, a major change with respect to indirect taxes is the introduction of the unified GST regime in India. GST is a comprehensive tax on the manufacture, sale and consumption of goods as well as services, and has replaced most major indirect taxes on goods and services at both Central and State levels, including central excise, service tax and state sales / value added tax. Primarily, from the point of view of a manufacturing-heavy industry such as defence, GST has replaced the existing excise duty regime. However, it has not replaced basic customs duty levied on imports. Therefore, with the onset of the GST, businesses may potentially reconsider the proportion of goods manufactured domestically as against their imports.

The GST regime will take the form of "Dual GST", which is concurrently levied by the Central and State Government. This comprises:

- Central GST (**"CGST"**) –levied by the Centre on intra-state supply of goods and services.
- State GST (**"SGST"**) –levied by each state on intra-state supply of goods and services in that state. A state also includes a Union Territory.
- Integrated GST (**"IGST"**) –levied by the Central Government on inter-State supply of goods and services. The IGST is distributed by the Central Government to the Centre and the destination State.

In this regard, the Parliament has passed 4 legislations, which received Presidential assent on April 13, 2017 - the CGST Act, 2017 (**"CGST Act"**), IGST Act, 2017 (**"IGST Act"**), the GST (Compensation to States) Act, 2017, and the Union Territory GST Act, 2017 (**"UTGST Act"**). The respective State legislatures too have passed state legislations which are applicable to intra-State transactions.

Unlike the erstwhile regime, GST is applicable on a single taxable event at each stage, i.e., supply. It is a destination based tax, i.e., it accrues to the State where the goods / services are consumed. Through a tax credit mechanism, GST is collected on value added on goods and services at each stage of sale or purchase in the supply chain and thereby reduces cascading of taxes. The system allows the set-off of GST paid on the procurement of goods and services against the GST, which is payable on the supply of goods or services. The GST regime has a five-tier rate structure for goods and services– with the rates being Nil, 5%, 12%, 18% and 28%.[200]

198. Notification No. 29/2015 – Customs and Notification No. 14/2016 – Customs dated March 1, 2016.

199. Notification No. 23/2015 – Central Excise dated April 30, 2015. Excise duty has since been subsumed under the GST.

200. GST scheduled for July 1 rollout: Arun Jaitley, Press Trust of India, available at http://economictimes.indiatimes.com/news/economy/policy/gst-scheduled-for-july-1-rollout-arun-jaitley/articleshow/58571795.cms (last accessed on May 15, 2017). The rates mentioned here are intended to apply to IGST.

Almost all military goods (except specified categories of revolvers and pistols), including military weapons, firearms, bombs, grenades etc. fall under the 18% tax bracket in the GST regime. In the erstwhile excise duty regime, the rates of central excise for most defence related products (arms and ammunitions) varied between 6 – 12.5%. Consequently, the introduction of GST may lead to some degree of inflation with respect to most defence goods.

While the introduction of the GST may impact the defence sector in the short term, the creation of a unified goods and services market and the attendant efficiencies should ultimately support the larger aim of increasing domestic manufacturing and positively impact the defence industry. The positive implications can extend beyond the vendors to the offset partners as well.

Therefore, from an indirect tax standpoint, the industry should benefit from the introduction of the unified GST (in spite of the increase in headline rates), the implications of which should be visible in the coming years. Also, in spite of the limited incentives from a direct tax legislative standpoint, with encouraging policy decisions being made by the Government, increased activity (including in the form of increased investment and / or mergers and acquisitions) should continue to keep direct tax structuring as relevant as it can be.

11. Dispute Resolution

Disputes between buyers and vendors arising out of breach of defence procurement contracts are similar to those arising out of breach of commercial contracts of any other nature. However, most disputes that receive public attention in defence industry involve allegations of corruption in the process of allocation of the defence contract and consequent termination of the contract. In certain cases, parties are required to sign Integrity Pacts. Breach of Integrity Pacts, therefore, creates another body of disputes.

I. Breach of Defence Contracts

Chapter VI of DPP 2016 provides a Standard Form Contract. This chapter of DPP 2016 has not been notified as on date of this Paper. The standard form contract under DPP 2013 is, therefore, applicable presently.

Key provisions in the standard form contract include scope of contract, effective date of contract, advance bank guarantee, performance cum warranty bond, payment terms, specification, quality, delivery, liquidated damages, joint receipt inspection in India, warranty, claims, taxes and duties, penalty for use of undue influence, agents, force majeure, non-disclosure of contract documents, notices, , patents and other industrial property rights etc. The Standard Form Contract also contains a provision on termination of the contract and on dispute resolution.

Under Article 19 of the standard form contract, the Buyer can terminate the contract in part or in its entirety on the following grounds:-

i. Delay in delivery of material beyond a specified number of months post the scheduled date of delivery. (Apart from delays attributable to a *force majeure* event);

ii. delay in delivery due to *force majeure* events for more than a specified number of months;

iii. bankruptcy or insolvency of the vendor;

iv. direct or indirect payment made by the seller to any Indian or foreign agent (person or entity) as commission for procuring the contract.

v. As per decision of an arbitral tribunal in Art. 21.

The nature of grounds for termination of contract are broadly classified into delays in delivery (encompassing force majeure considerations), insolvency of the seller and instances of corruption where the seller engages an agent for commission to procure the contract. However, the last ground for termination, i.e. "as per decision of an arbitral tribunal in Art. 21", is unclear. Such decisions may envisage a decision on breach of contract by the seller, determination of insolvency of the seller, or other grounds such as finding on fraud, undue influence or corruption (with respect to corruption, the state investigative agencies may also, and often do, initiate proceedings). Through this ground, the arbitration clause provides leeway to the buyer to terminate the contract depending on the decision rendered by the arbitral tribunal.

II. Corruption

Corruption through payment of commission to an agent for procurement of a defence contract has been the key reason for termination of contracts in the defence industry. Under the standard form of contract, the Vendor undertakes that it has not appointed any agent to influence, manipulate or recommend to any functionary of the Government of India, officially or unofficially to award the contract to the vendor or indulge in any unethical or corrupt practices .[201]

201. Article 23, Standard Form of Contract, DPP 2013

In the event of breach of the aforesaid undertaking, the Vendor shall be liable for one or more of the following penalties: the Buyer shall receive the amount paid in order to influence the Government functionaries, along with a specified interest rate from the Vendor; the contract may be suspended or cancelled along with a refund of payments made by the Buyer upto that point; the above amount may also be recovered from other contracts that the Buyer has with the Vendor. The vendor may be liable for suspension and disbarment.

The standard form contract also provides a stipulation that the vendor must submit an undertaking to the effect that neither the vendor nor any person in its employment has given, or promised to give, directly or indirectly, any monetary incentive to any person employed by the Buyer (India) to influence such person in any way in the conduct of his official duty pertaining to the contract.[202]

The undertaking is binding upon the vendor. The buyer or its nominee may at any point arrive at a decision that the undertaking has been breached. Such a decision shall be final and binding upon the parties. The breach of the undertaking entitles the buyer to impose various penalties upon the vendor, including but not limited to termination of the contract, penal damages as applicable, forfeiture of the bank guarantee and a refund of the amounts already paid to the vendor in pursuance of the contract.

Instances of corruption in the allocation of defence contracts also attract penal provisions under the Prevention of Corruption Act, 1988. Under the Act it is an offence for a Public Servant to take any illegal gratification in the exercise of his official duties.[203] However, it is important to note that under the Act it is also an offence for a person to receive illegal gratification to influence a Public Servant in the exercise of his official duties.[204] Thus, in each instance of corruption shrouding the allocation process of a defence contract, the Public Servant as well as any middlemen or agents involved will be criminally liable under the Act. Depending on the nationality of the corporations and the officials involved, liabilities may also be attracted under the FCPA or the UK Bribery Act, amongst others.

The history of defence procurement in India has seen many instances of corruption and exercise of undue influence in the allocation of a defence procurement contract. The first notable instance involved allegations of irregularity in the purchase of jeeps from the UK for the Indian Army, shortly after independence. Other notable instances that have received considerable public attention include the allegations of high-level corruption in the BOFORS contract for artillery pieces procured for the army, allegations of graft in the allocation of contracts for naval procurement, and irregularities in the procurement of coffins for martyrs of the Kargil War.

However, the most recent allegations of corruption were made in the procurement of VVIP Augusta-Westland helicopters from an Italian firm and consequent arrest of the former IAF Chief.[205] In February 2010, the government signed a contract with UK- Based Agusta Westland to buy 12 AW101 helicopters for the Indian Air Force for Rs. 3600 Cr. In 2013, the deal was put on hold after officials of Agusta Westland and Finmeccanica were arrested on charges of bribing middlemen to acquire the deal with IAF. A CBI probe into the matter is ongoing in India.[206]

III. Actions by Government

In each of these instances, the Ministry of Defence has referred the matter to the Central Bureau of Investigation (**"CBI"**) for investigation. Criminal proceedings are initiated and penalties are imposed for commission of offences under the Indian Penal Code and the PC Act, amongst others.

202. Article 22, Standard Form of Contract, DPP 2013
203. Section 7, Prevention of Corruption Act 1988.
204. Section 8, Prevention of Corruption Act 1988.
205. Indian Express, 'Agusta-Westland case: Former IAF Chief S P Tyagi, two others arrested in VVIP Chopper deal probe', December 12, 2016, available at http://indianexpress.com/article/india/agustawestland-case-former-iaf-chief-tyagi-two-others-arrested-in-vip-chopper-deal-probe-4419715/
206. http://www.firstpost.com/india/agustawestland-upa-sonia-gandhi-vvip-choppers-finmeccanica-2751386.html

Other than criminal action, the Ministry of Defence has also cancelled or terminated contracts where charges of corruption have been proved against middlemen and agents who sought to influence the allocation process.

Blacklisting of vendors that have indulged in corruption has been a measure that the Government has taken on previous instances. For example, the government blacklisted the Swedish Firm BOFORS AG when it was discovered that there were bribes paid to high ranking officials in the award of the contract for artillery pieces to BOFORS AG. Another notable instance is blacklisting of the Italian group Finmeccanica through a complete ban on its products following the Augusta-Westland corruption scandal. The MoD not only terminated the contract with Augusta-Westland but is also believed to be considering termination of defence procurement contracts that it has signed with another subsidiary of the group, Whitehead Alenia Sistemi Subacquel, for supply of torpedoes for India's strategic submarine program. However, blacklisting has caused significant set-backs to India's defence and strategic positions and the MoD is considering dealing with such instances with a more nuanced strategy.

IV. Integrity Pacts

DPP 2016 contains an Integrity Pact between the Government and the bidders for all procurement schemes over ₹ 20 Crores.[207] Integrity Pact is a binding agreement between the government department and bidders for specific contracts in which the government promises that it will not accept bribes during the procurement process and bidders promise that they will not offer bribes.[208]

The Integrity Pact is included at a pre-contractual stage and is aimed at preventing instance of corruption in the allocation and bidding process. It entails obligations that are distinct from the obligations under the Standard Form of Contract as provided under the DPP 2013.

Under DPP 2013, Integrity Pacts were required to be executed when the value of the contract exceeded 100 Crores. Under DPP 2016, the threshold has been reduced to value of contracts being 20 Crores or more. The reduction in threshold fortifies the resolve of the government against corruption and its intent to bring more defence contracts under the ambit of obligations under the DPP.

An IP is accompanied by an Integrity Pact Bank Guarantee (**"IPBG"**). This is an amount that the Vendor binds to the conditional fulfilment of its obligations under the IP.

A. Obligations upon the Government

Under an Integrity Pact, the Government or the Buyer undertakes to fulfil the following obligations [209]:

i. neither the Government nor its employees shall agree to receive any form of illegal gratification in exchange for any advantage in the bidding process or the procurement process.

ii. during the pre-contractual phase, the Government shall treat all the bidders in the same manner and not accord any bidder any advantage selectively. This obligation includes providing a bidder with exclusive information that might give it an advantage in the bidding or procurement process.

207. Chapter 2, DPP 2016, Annexure I to Appendix M of Schedule I (RFP format)

208. DPP 2016, Clause 8, Standard Form of Contract

209. Clause 4, Pre-Contract Integrity Pact, Annexure I, Appendix M, Schedule I

iii. All government employees and officials will report any transgressions, including suspected instances to the Appropriate Government Office.

The Vendor is also allowed to report instances of a breach of the above obligations along with verifiable facts to the Government, which shall take all applicable disciplinary and penal actions against the official/employee of the Government implicated in the report. The said official/employee shall be removed from the bidding process and the process shall continue while the enquiry is being conducted.

B. Obligations upon the Vendor

The Vendor undertakes a wide range of obligations aimed at preserving the fairness of the bidding process. These are as follows[210] : -

i. Neither the Vendor nor its employees shall, directly or indirectly, offer any consideration in any form to any official or employee of the Government in exchange for any advantage in the bidding and procurement process.

ii. The Vendor shall not collude with any person, including other bidders, to impair the fairness of the bidding and procurement process.

iii. The Vendor shall not accept any advantage given to it as a result of any corrupt practice, unfair means or illegal activities.

iv. The Vendor undertakes that it has not entered into a contract with any agent or third party where the payment is conditional upon it being awarded the contract. It further has to disclose 12 months prior to the tender selection all payments made or intended to be made to government officials/employees, their family members, brokers or any intermediaries. This obligation of disclosure to the Ministry of Defence extends throughout the validity of the IP.

v. The Vendor shall not use any information disclosed to it by the Government in relation to any technical information or business dealings that may be disclosed to it during the bidding or procurement process, for competition or gain.

vi. The Vendor shall not make complaints without verifiable facts and shall do so in accordance with the procedure specified by the Government.

vii. The Vendor shall not transgress from any of the above obligations through a third party.

The Vendor is also require to undertake that it has not made any transgression set out above in the preceding three years in any country or with any state-owned entity in India.

C. Sanctions applicable in non-compliance

The Government reserves the right to impose severe sanctions in the event that the Vendor breaches its obligations under the IP, even when the breach is done without its knowledge. Some of these sanctions include [211]:-

a. Immediate termination of pre-contract negotiations without assigning any reasons.

b. The IPBG shall be forfeited entirely or partially.

c. The cancellation of the contract at any stage without compensating the Vendor.

d. Recover all payments made by the Government to the Vendor along with a specified amount of interest

e. Encashment of the IP Bank Guarantee, including the Performance-cum-Warranty Bank Guarantee, to recover amounts already by the Government to the Vendor

f. Cancellation of all other contracts with the Vendor

210. Clause 6, Pre-Contract Integrity Pact, Annexure I, Appendix M, Schedule I..

211. Clause 10, Pre-Contract Integrity Pact, Annexure I, Appendix M, Schedule I.

g. Placing a bar or suspension upon the Vendor under the extant policy.

h. Recover sums paid to agents by the Vendor in order to secure the contract

i. In the event that the Vendor fails to disclose that any of its employees/persons engaged by it, are close relatives of any Government employee/official connected with the bidding or procurement process, the Vendor may be barred from the process or its contract may be rescinded without payment.

j. In the event that the Vendor borrows or lends any amount from or to any government employee/official or any close relative of such person, the contract may be rescinded along with compensation paid to the Government for any loss it sustains as a result of such rescission.

k. Irrevocable Letters of Credit may not be opened.

D.Other Relevant Clauses

The IP also provides for the establishment of Independent Monitors who are appointed by the Central Vigilance Commission. The Vendor must disclose the IP and other relevant information to the Independent Monitors, who may require additional information to be submitted by them. The Information Monitors also undertake an investigation into the breach of the IP and submit a report to the Government upon its conclusion.

The IP obligates the Vendor to refund any difference in price in the event that it has supplied the same products to any other state-owned entity at a lower price. The IP also advices the Vendors to put in place a Company Code of Conduct and a compliance program to ensure that the IP obligations will be complied with.

The IP is valid for 5 years from its signing or up to the completion of the contract if the bidder is successful. The period for which the IP Bank Guarantee is to be valid is the same. It is pertinent to note that the IP is signed by the CEO of the Vendor.

In January 2014, India cancelled the INR 3,600 crore deal with Agusta Westland on grounds of breach of the Pre-contract Integrity Pact and the agreement by AWIL (AgustaWestland International Ltd). The contract was frozen in February 2013 after allegations surfaced that Rs 3,600 crore was paid as a bribe.

V. Alternative Dispute Resolution

Disputes that relate to defence procurement contracts are, by their nature, sensitive in nature and often contain information vital to the national security. In such circumstances, it is in the interest of the government to avoid long drawn out litigation before Courts, whether in India or any other jurisdiction, and rely on alternate methods of dispute resolution. Article 21 of Standard form of contract in DPP 2016 provides for resolution of disputes through alternate methods of resolution such as negotiation and arbitration. Through insertion of an arbitration clause, the contract effectively pre-empts any litigation pertaining to defence contracts.

Article 21 of DPP 2013 envisages separate dispute resolution clauses depending on the nature of the vendor. The vendors are categorized as foreign, domestic, Central/State Public Sector Enterprises and Defence Public Sector Undertakings. The Buyer in all cases is the MoD, Government of India (**"Buyer"**). In all categories, the proposed dispute resolution clauses have been structured to ensure that arbitration is seated in India and is governed by Indian laws.

Salient features of each of these dispute resolution clauses have been set out below:

A.Foreign Vendors: Article 21A

Article 21A covers disputes that arise between the Buyer and a Foreign Vendor. The highlights of the arbitration clause are as follows:

i. Initially, attempt will be made to settle disputes bilateral discussion between the parties.

ii. In the event the dispute cannot be settled amicably, a notice of the dispute is sent to the other party. The dispute shall be referred to arbitration within 60 days of receipt of the notice, or such period as may be agreed upon. Both the buyer and seller shall nominate an arbitrator within the aforesaid period of 60 days.

iii. The presiding arbitrator shall not be nominated by the parties within 90 days of receipt of the aforesaid notice, and must not be a citizen or domicile of the country of nationality of either of the parties. Failing such nomination, he/she shall be nominated under the Indian A&C Act or by dispute resolution institutions like ICA and ICADR. If such nomination is not acceptable to the seller, the third arbitrator may be nominated by the President of ICC, Paris after consultation with both the parties.

iv. The seat of the arbitration shall be New Delhi with the arbitration being held at any such place in India as may be specified. The arbitration shall be conducted in accordance with the Indian A&C Act.

v. The award of the arbitral tribunal shall be enforceable only in the Courts of India.

A specific stipulation as to enforcement of awards in the courts of India alone entails that the foreign vendor cannot proceed against assets held by the government, outside India. This protects sovereign assets and properties of India not only by way of sovereign immunity that may be used as a ground to resist enforcement in foreign jurisdiction (where sovereign immunity is considered as a ground to resist enforcement depending on law of the jurisdiction), but also by way of binding agreement. The parties are however, required to continue the performance of their contractual obligations except in so far as such obligations are the subject matter of the said arbitration proceedings.

B. Indian Private Vendors: Article 21B

This clause is concerned with the arbitration of disputes that arise between the Buyer and a vendor who is an Indian person/entity but not a state-owned entity.[212] It is similar to Article 21A, except in so far as procedure for appointment of the presiding arbitrator. The third arbitrator may be nominated by the President of ICC, Paris after consultation with both the parties, in the event the nomination by arbitral institutions is not acceptable to the seller. The decision of the arbitral institution is final and binding on the seller.

C. Central or State Public Sector Enterprises –Article 21C

When the vendor is a Central or State PSE, the dispute will be resolved through an arbitration by a sole arbitrator in the Department of Public Enterprises, to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises.[213] An application for revision or setting aside of the award is required to be made to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, or his nominee, whose decision shall be final and binding.

Under the Indian A&C Amendment Act, amended on 23 October 2015, such an arbitrator would be ineligible for appointment under Section 12(5) of the A&C Act. Section 12(5) provides that "any person whose relationship, with the parties or counsel or the subject-matter of the dispute, falls under any of the categories specified in the Seventh Schedule shall be ineligible to be appointed as an arbitrator; provided that parties may, subsequent to disputes having arisen between them, waive the applicability of this sub-section by an express agreement in writing." Under the Seventh Schedule, a person who is an employee,

212. Article 21B, Standard Form Contract, DPP 2013

213. Article 21C, Standard Form of Contract, DPP 2013

consultant, advisor or has any other past or present business relationship with a party, is ineligible for appointment as an arbitrator.

However, interestingly, Article 21C provides that the A&C Act shall not apply to arbitrations under this clause. This creates a potential grey area where no procedure is prescribed for adjudication / arbitration of disputes in such cases, in addition to issues relating to ousting of application of a legislation governing arbitration in India.

D.Defence Public Sector Undertakings - Article 21D

When the vendor is a Defence Public Sector Undertaking, the dispute shall be arbitrated by an arbitrator appointed by the Defence Secretary, whose decision shall be final and binding.[214] The one-sided grant of powers of appointment to the Defence Secretary, who holds a position with the MoD (Buyer), may place the appointment under the scanner of guidelines on impartiality and independence of arbitrators, set out in Section 12 along with the Fifth and Seventh Schedule of the A&C (Amendment) Act, 2015.

Arbitration has been accepted world-wide as the best means to resolve technical, complex, and sensitive disputes necessitating confidentiality. In an industry such as defence which involves highest levels of security concerns, geopolitical considerations, high costs, complex technology, confidentiality and a matrix of interwoven factors running the industry, arbitration provides the best means to adjudicate disputes arising in the industry. Since the seat of arbitration remains in India and the governing law remains Indian law, the overhaul in the Indian A&C Act through amendments effective from October 23, 2015 proves to be excellent for adjudication of disputes through arbitration in India. The concerns relating to time and costs of arbitration have now been effectively addressed. It is now incumbent upon the arbitral tribunal to make an award within 12 months of constitution of the tribunal, extendable to 6 months by consent. An application for appointment of arbitrator by the court shall now be endeavored to be disposed within 60 days of serving notice on the opposite party. An application for challenge to an award shall be decided expeditiously within a period of one year from the date of service of notice on the other party. Further, challenge to an arbitral award will not operate as an automatic stay on execution of the award. The party filing a challenge to the award will be required to obtain a separate order of stay on the merits of a separate application for stay. It is now well settled by judicial interpretation that arbitral tribunal have powers to adjudicate upon allegations of fraud, and that the same may not be moved to the court. The arbitral tribunal also has powers to grant interim measures that can be granted by courts. Such orders passed by arbitral tribunal have the force of a court order. The costs-follow-event basis of cost provisions considers conduct of both parties in execution of the contract, as well as any means adopted by the parties to mitigate / resolve the dispute.

Through arbitration as the choice of dispute resolution, coupled with reliance on arbitral institutions for appointment of arbitrators and the like, the Government of India displays its intent to adopt the best practices in the world and offer a stable, robust and predictable legal framework to address disputes arising in the defence industry and therefore, add a feather to its promise of 'ease of doing business in India'.

214. Article 21D, Standard Form of Contract, DPP 2013

About NDA

Nishith Desai Associates (NDA) is a research based international law firm with offices in Mumbai, Bangalore, Palo Alto (Silicon Valley), Singapore, New Delhi, Munich and New York. We provide strategic legal, regulatory, and tax advice coupled with industry expertise in an integrated manner.

As a firm of specialists, we work with select clients in select verticals on very complex and innovative transactions and disputes.

Our forte includes innovation and strategic advice in futuristic areas of law such as those relating to Bitcoins (block chain), Internet of Things (IOT), Aviation, Artificial Intelligence, Privatization of Outer Space, Drones, Robotics, Virtual Reality, Med-Tech, Ed-Tech and Medical Devices and Nanotechnology.

We specialize in Globalization, International Tax, Fund Formation, Corporate & M&A, Private Equity & Venture Capital, Intellectual Property, International Litigation and Dispute Resolution; Employment and HR, Intellectual Property, International Commercial Law and Private Client. Our industry expertise spans Automobile, Funds, Financial Services, IT and Telecom, Pharma and Healthcare, Media and Entertainment, Real Estate, Infrastructure and Education. Our key clientele comprise marquee Fortune 500 corporations.

Our ability to innovate is endorsed through the numerous accolades gained over the years and we are also commended by industry peers for our inventive excellence that inspires others.

NDA was ranked the 'Most Innovative Asia Pacific Law Firm in 2016' by the Financial Times - RSG Consulting Group in its prestigious FT Innovative Lawyers Asia-Pacific 2016 Awards. While this recognition marks NDA's ingress as an innovator among the globe's best law firms, NDA has previously won the award for the 'Most Innovative Indian Law Firm' for two consecutive years in 2014 and 2015.

As a research-centric firm, we strongly believe in constant knowledge expansion enabled through our dynamic Knowledge Management ('KM') and Continuing Education ('CE') programs. Our constant output through Webinars, Nishith.TV and 'Hotlines' also serves as effective platforms for cross pollination of ideas and latest trends.

Our trust-based, non-hierarchical, democratically managed organization that leverages research and knowledge to deliver premium services, high value, and a unique employer proposition has been developed into a global case study and published by John Wiley & Sons, USA in a feature titled 'Management by Trust in a Democratic Enterprise: A Law Firm Shapes Organizational Behavior to Create Competitive Advantage' in the September 2009 issue of Global Business and Organizational Excellence (GBOE).

A brief below chronicles our firm's global acclaim for its achievements and prowess through the years.

- IDEX Legal Awards: In 2015, NDA won the "M&A Deal of the year", "Best Dispute Management lawyer", "Best Use of Innovation and Technology in a law firm" and "Best Dispute Management Firm<http://idexlegalawards.in/ArticlePage.aspx?aid=6>". Nishith Desai was also recognized as the 'Managing Partner of the Year' in 2014.
- Merger Market: has recognized NDA as the fastest growing M&A law firm in India for the year 2015.
- Legal 500 has ranked us in tier 1 for Investment Funds, Tax and Technology-Media-Telecom (TMT) practices (2011, 2012, 2013, 2014, 2017)

- International Financial Law Review (a Euromoney publication) in its IFLR1000 has placed Nishith Desai Associates in Tier 1 for Private Equity (2014, 2017). For three consecutive years, IFLR recognized us as the Indian "Firm of the Year" (2010-2013) for our Technology - Media - Telecom (TMT) practice.
- Chambers and Partners has ranked us # 1 for Tax and Technology-Media-Telecom (2014, 2015, 2017); #1 in Employment Law (2015 & 2017); # 1 in Tax, TMT and Private Equity (2013, 2017); and # 1 for Tax, TMT and Real Estate – FDI (2011).
- India Business Law Journal (IBLJ) has awarded Nishith Desai Associates for Private Equity, Structured Finance & Securitization, TMT, and Taxation in 2015 & 2014; for Employment Law in 2015
- Legal Era recognized Nishith Desai Associates as the Best Tax Law Firm of the Year (2013).

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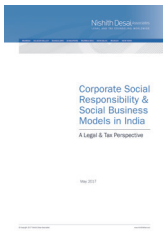

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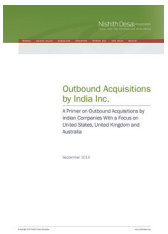

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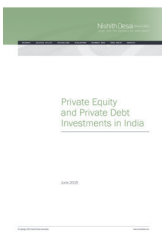

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Research @ NDA

Research is the DNA of NDA. In early 1980s, our firm emerged from an extensive, and then pioneering, research by Nishith M. Desai on the taxation of cross-border transactions. The research book written by him provided the foundation for our international tax practice. Since then, we have relied upon research to be the cornerstone of our practice development. Today, research is fully ingrained in the firm's culture.

Research has offered us the way to create thought leadership in various areas of law and public policy. Through research, we discover new thinking, approaches, skills, reflections on jurisprudence, and ultimately deliver superior value to our clients.

Over the years, we have produced some outstanding research papers, reports and articles. Almost on a daily basis, we analyze and offer our perspective on latest legal developments through our "*Hotlines*". These *Hotlines* provide immediate awareness and quick reference, and have been eagerly received. We also provide expanded commentary on issues through detailed articles for publication in newspapers and periodicals for dissemination to wider audience. Our *NDA Insights* dissect and analyze a published, distinctive legal transaction using multiple lenses and offer various perspectives, including some even overlooked by the executors of the transaction.

We regularly write extensive research papers and disseminate them through our website. Although we invest heavily in terms of associates' time and expenses in our research activities, we are happy to provide unlimited access to our research to our clients and the community for greater good.

Our research has also contributed to public policy discourse, helped state and central governments in drafting statutes, and provided regulators with a much needed comparative base for rule making. Our *ThinkTank* discourses on Taxation of eCommerce, Arbitration, and Direct Tax Code have been widely acknowledged.

As we continue to grow through our research-based approach, we are now in the second phase of establishing a four-acre, state-of-the-art research center, just a 45-minute ferry ride from Mumbai but in the middle of verdant hills of reclusive Alibaug-Raigadh district. The center will become the hub for research activities involving our own associates as well as legal and tax researchers from world over. It will also provide the platform to internationally renowned professionals to share their expertise and experience with our associates and select clients.

We would love to hear from you about any suggestions you may have on our research reports.

Please feel free to contact us at
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