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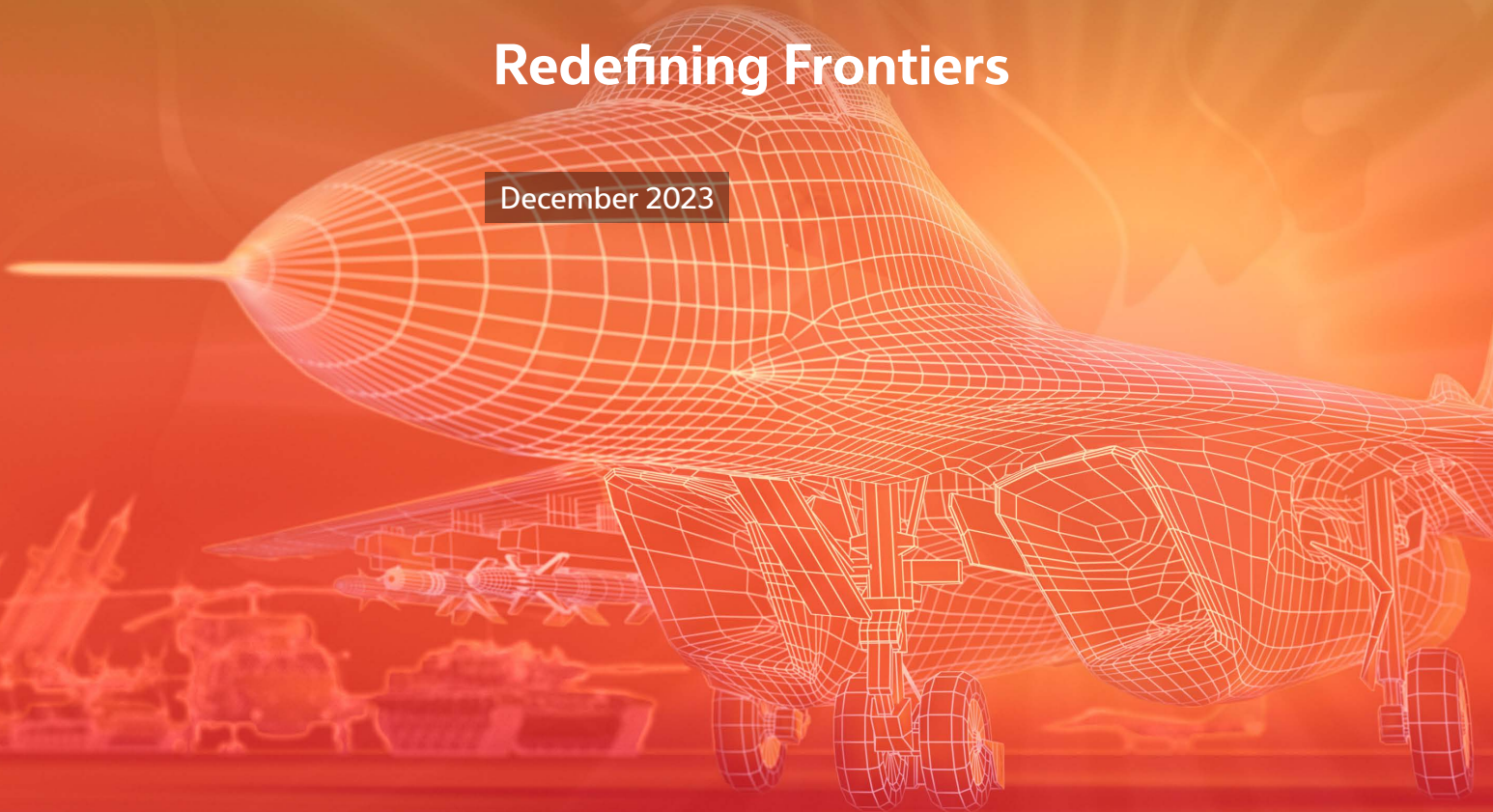
GIFT CITY

Research

# The Indian Defence Industry

## Redefining Frontiers

December 2023



Research

# The Indian Defence Industry

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**Redefining Frontiers**

December 2023

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We would like to thank **Sehar Sharma** for her contribution to the paper.

NDA's research in the defence sector is ongoing, and we will continue to track this space with keen interest. As always, we are happy to discuss these issues at greater length. Do reach out to our team at [defence.nda@nishithdesai.com](mailto:defence.nda@nishithdesai.com)

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# 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**”).<sup>1</sup>

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%.<sup>2</sup> Following the war between India and Pakistan in 1965, an embargo imposed by the United States of America (“**USA**”) 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.<sup>3</sup> 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 a joint venture agreement with the Soviet Union to develop a supersonic cruise missile system, the ‘Brahmos’.<sup>4</sup>

Towards the onset of the 21st century, India opened her 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 the 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.<sup>5</sup> Foreign direct investment (“**FDI**”) of 26% was also permitted in the defence sector.<sup>6</sup> 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 Indian Air Force, submarines and missile destroyers being purchased for the Indian Navy and howitzers such as the BOFORS system being purchased for the Indian Army.

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 <https://idsa.in/issuebrief/BrahMos-amanikhtalia-290523>.

5 Laxman K. Behera, ‘DPP 2016: An analytical overview’, April 12, 2016.

6 <https://pib.gov.in/PressReleasePage.aspx?PRID=1654091#:~:text=In%20May%2C%202001%2C%20the%20Defence,26%25%20both%20subject%20to%20licensing>.

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**History**

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.

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. In this pursuit, it has not only become one of the few nations to possess and develop such capabilities but has also engaged in strategic collaborations with technologically advanced nations to strengthen its defense capabilities. This approach is reflected in its record high defence exports of approximately INR 16,000 crore in the financial year 2022–23, marking a remarkable tenfold increase since 2016–17, thereby showcasing India’s growing influence in the global defense manufacturing industry.<sup>7</sup>

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7 <https://timesofindia.indiatimes.com/blogs/col-nagial/the-rising-story-of-the-indian-defence-industry-from-importer-to-exporter/>.



## Industry Overview

The global defence industry paints an interesting picture for the year 2030, with an anticipated rise at a considerable rate during the period between 2022 and 2030. We have seen a steady growth of the sector in the year 2021, however, with the growing adoption of pivotal strategies by the key players in the sector, the market projections are expected to rise exponentially moving forward.<sup>1</sup> USA and Russia have been the largest defence suppliers since 1950. USA has also remained the largest defence spending nation, representing 40% of the total global military spend of USD 2.2 trillion in 2022.<sup>2</sup>

### Global Trends in Imports & Exports

Country	Export%	Country	Export%
USA	39%	India	11%
Russia	19%	Saudi Arabia	11%
France	11%	Egypt	5.7%
China	4.6%	Australia	5.4%
Germany	4.5%	China	4.8%
Italy	3.1%	Qatar	4.6%
UK	2.9%	S Korea	4.1%
S Korea	2.8%	Pakistan	3%

Source: SIPRI (2022)

However, due to the pandemic, the defense industry saw a decline in the imports and exports and the year 2022 resulted in a recovery period with many countries investing substantially in increasing their deterrence capabilities. The industry still faced supply chain issues due to the pandemic, like workforce shortages, leading to production hiccups and lower profits. Overall, the industry performed below pre-pandemic levels. The US Department of Defense took steps to prevent excessive consolidation, affecting defense deals. This was done to safeguard national security.<sup>3</sup>

On the other hand, the space sector is experiencing heightened demand. Small satellite networks are proliferating, as the world moves toward a space-based economy. The industry is carrying out an accelerating pace of launches in this domain. The space industry's value has been forecasted to triple to roughly USD 1.5 trillion over the next decade.<sup>4</sup>

1 "Aerospace and Defense Market" Insights 2023 By Types (Aerospace, Defense), Applications (Aircraft and Components Manufacturing, Space, Military, and Other Transportation, Ship Building and Repairing, Radars and Weapon, Other), Regions and Forecast to 2030.

2 Statista Research Department Report: Countries with the highest military spending 2022, <https://www.statista.com/statistics/262742/countries-with-the-highest-military-spending/#:~:text=The%20United%20States%20led%20the,to%202.2%20trillion%20U.S.%20dollars>.

3 "DOD Report: Consolidation of Defense Industrial Base Poses Risks to National Security," DOD News, US Department of Defense, February 16, 2022.

4 McKinsey Quarterly, "How will the space economy change the world?," November 28, 2022.

## 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 clear positive.

Despite a gloomy global economic environment, post the pandemic, the Indian economy continues to sustain a robust position, becoming the world's fifth largest economy with an expected growth of 6% by 2024.<sup>5</sup> This growth momentum is likely to be sustained at around 6.0%–6.8% in 2023–24, as projected by the latest economic survey.<sup>6</sup> Besides this growth, the economy has also witnessed a credit growth of 30.5% for the micro, small and medium enterprises (“MSME”) sector.<sup>7</sup>

On the defence front, India has a mighty defence industrial base with 41 ordnance factories (“OF”) and 9 defence public sector undertakings (“DPSU”),<sup>8</sup> collectively forming the public sector component, and more than 100 private companies. The DRDO, India's premier defence research organization, has over 50 laboratories under its aegis.<sup>9</sup> India has the third largest armed forces in the world. The government has also announced 2 dedicated defence industrial corridors in the states of Tamil Nadu and Uttar Pradesh to act as clusters of defence manufacturing that leverage existing infrastructure, and human capital.<sup>10</sup> Further, to enable innovation within the defence & aerospace eco-system there are supportive government schemes such as **iDEX** and **DTIS**.

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.<sup>11</sup> In 2015, the defence budget allocation rose to INR 222,370 crores. Currently, India is positioned as the 3rd largest military spender in the world, with its defence budget accounting for 2.15% of the country's total GDP. Over the next 5–7 years, the Government of India plans to spend USD 130 billion for fleet modernisation across all armed services. The industry received INR 5.94 lakh crore in the budget for 2023–24, a jump of 13% from the previous year.<sup>12</sup>

## II. International Involvement in India

Defence collaboration has become a key tool for achieving many crucial foreign policy goals. The Indian government has implemented a number of changes over the last few years to support a strong defence industry ecosystem with versatility in the domestic design, development and manufacturing of defence equipment.

As of 2020, India was one of the top 5 largest defence spenders globally. However, in an attempt to strengthen her defence manufacturing industry and address national security concerns, India started focusing on domestic companies and reduced foreign defence imports through programs such as ‘Atmanirbhar Bharat’ and ‘Make in India’.<sup>13</sup>

5 Ministry of Finance, India – Economic Survey 2022-23.

6 <https://economictimes.indiatimes.com/news/economy/indicators/gdp-growth-estimated-at-6-3-per-cent-for-2023-24-ficci-economic-outlook-survey/articleshow/104474168.cms>.

7 Available at: <https://www.pib.gov.in/PressReleaseDetailm.aspx?PRID=1894932>.

8 Available on <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1575777>.

9 Available at : <https://www.ddpmod.gov.in/defence-public-sector-undertakings>.

10 Available at <https://www.ddpmod.gov.in/sites/default/files/Reforms%20Booklet.pdf>.

11 IDSA Issue Brief, Laxman K Behera, ‘India's Defence Budget 2017-18: An Analysis’.

12 Available at <https://www.investindia.gov.in/sector/defence-manufacturing>.

13 Available on <https://www.ddpmod.gov.in/sites/default/files/Reforms%20Booklet.pdf>.

## Industry Overview

Over the years, India has grown international relations with various countries across the globe in the defence domain. The Political-Military Affairs Bureau in USA encouraged the expansion of total defence trade with India from a negligible level in 2008 to more than USD 20 billion by 2020. The Basic Exchange and Cooperation Agreement ('BECA') between India and USA is a symbol of the two nations' growing defence and security cooperation as well as their increasing military interoperability. In the last 10 years, India and USA have developed a strong defence and security connection, with greater emphasis on the research and manufacture of defence technology.<sup>14</sup>

In furtherance of the government's willingness and active efforts to boost the defence manufacturing industry in India, defence exports grew by 334% in the last five years. The exports reached a record INR 13,000 crores in the financial year 2021–22. India has currently entered into deals for exporting defence equipment with over 85 countries.<sup>15</sup>

### III. Defence Acquisition Procedure 2020

The Defence Acquisition Procedure 2020 ("DAP 2020"), which supersedes the Defence Procurement Procedure, 2016 ("DPP 2016"), is a step by the Ministry of Defence towards improving the capital procurement procedure, in alignment with the 'Make in India' and 'Aatmanirbharat' initiatives.

Some conceptual, structural and procedural changes have been made within this broad framework "to ensure timely acquisition of military equipment, systems and platforms as required by the Armed Forces in terms of performance, capabilities and quality standards, through optimum utilisation of allocated budgetary resources".<sup>16</sup> This objective has remained unchanged since the promulgation of the first defence procurement procedure in 2002. We have delved into the DAP 2020 in further detail under the Legal and Regulatory section of this Paper.

### 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.<sup>17</sup> 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. Further, under the Arms Act, 1959 and the Arms Rules, 2016, a license granted shall be valid for the lifetime of the licensee company provided that the licensee shall be required to setup facility and fulfill other conditions within a period of 7 years from the date of grant of a license.<sup>18</sup>

14 Available on <https://www.usip.org/publications/2023/06/big-step-forward-us-india-defense-ties>.

15 Available on <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1912885>.

16 Ministry of Defence, Defence Acquisition Procedure 2020 (DAP 2020), Chapter I, Para 1, p. 1.

17 Available on [www.dipp.nic.in](http://www.dipp.nic.in).

18 Available at: <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1694879>.

As per the Registration and Licensing of Industrial Undertaking (Amendment) Rules, 2019<sup>19</sup> dated September 4, 2019 notified by Ministry of Commerce & Industry, the timeline for processing the application is 5 months from the date of registration. The application process has been automated and simplified. Up until April 2023, a total of 606 Industrial Licenses have been issued to 369 companies operating in the defence sector.<sup>20</sup>

## V. Foreign Direct Investment

In the last few years, Government has brought major FDI policy reforms in a number of sectors including defence. The new FDI Policy<sup>21</sup> has liberalised and allowed FDI under the automatic route up to 74% and up to 100% through the Government route wherever it is likely to result in access to modern technology. Since the notification of the revised FDI policy, the total FDI inflow reported till May 2022 is approximately INR 494 Crores.<sup>22</sup>

The Department of Defence Production (“**DDP**”) has implemented several policy reforms to attract investment:<sup>23</sup>

1. The offset policy now offers higher multipliers to encourage investment and technology transfer in defense manufacturing.
2. Regular consultations are held with the Foreign Original Equipment Manufacturers (**FOEMs**) to foster collaboration and address their needs.
3. Two Defense Corridors have been established in Tamil Nadu and Uttar Pradesh, providing ready-to-use infrastructure and support to industries, including FOEMs. These corridors offer customized incentive packages based on investment, employment, and project location. Incentives may include goods and services tax (“**GST**”) refunds, stamp duty concessions, electricity tax exemptions, capital subsidies and training subsidies for workers.
4. A defense investor cell has been established to provide comprehensive information and address queries regarding investment opportunities, procedures and regulatory requirements in the sector. The cell has successfully resolved 1,445 queries thus far.

## VI. Level Playing Field

The demand for a level playing field in India’s defense industry pertains to achieving fairness and equity between the public and private sectors. Historically, DPSUs enjoyed exemptions from customs and excise duties when supplying products to the defense forces, giving them a competitive advantage. However, these exemptions were revoked in 2015 to attract foreign investment.<sup>24</sup> Despite this change, the private sector continues to face challenges as the government’s preference for state-run defense companies and the DRDO limits their role in defense production.

19 Available on <https://www.sconline.com/blog/post/2019/09/20/notification-of-registration-and-licensing-of-industrial-undertaking-amendment-rules-2019/>.

20 Available on <https://www.investindia.gov.in/sector/defence-manufacturing>.

21 Government vide Press Note No. 4 (2020 Series) dated September 17, 2020.

22 <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1844610>.

23 Available on <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1844610>.

24 <https://cgda.nic.in/circulars/Level%20DPSUsOFB.pdf>.

While some major orders have been placed with select private firms, the private sector predominantly acts as suppliers to state-run entities. The call for a level playing field seeks to address this disparity and ensure equal opportunities for private companies in the defense sector.<sup>25</sup>

## VII. Transfer of Technology

With respect to transfer of technology (“ToT”), the DAP 2020, in furtherance of the DPP 2016, attempts to foster growth of the domestic defence industry. It lays down requirements to be fulfilled where ToT is being sought including an ‘Indigenisation Plan’ etc. Currently, a vacuum of specific guidelines on underlying Intellectual Property Rights 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 the 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 with the ‘Make in India’ initiative. The exports have reached an all-time high of approximately INR 16,000 crore in the financial year 2022–23 which amounts to an increase of over 10 times since the financial year 2016–17. A statement of purpose has been released to elucidate the process and documentation required for the grant of export license clearance. Creation of an export strategy and granting online ‘No Objection Certificates’ (“NOC”) to defence exporters are steps taken in this direction.

From 1960s onwards, India initiated sporadic arms exports to a limited number of friendly nations, but these exports were constrained by outdated technology. By around 2013–14, the exports had only amounted to a modest USD 110 million in value. In August 2014, a comprehensive defense export strategy was established, coinciding with the tenure of the Modi government.

Under this new strategy, an active effort to promote and regulate defense exports has been launched. A steering committee, led by the Secretary of the DDP, has been established. This committee includes representatives from various segments such as the armed forces, DRDO, Planning and International Cooperation, Acquisition Wings of the Ministry of Defense, Ministry of External Affairs and the Directorate General of Foreign Trade. Their responsibilities encompass decisions related to exporting sensitive equipment, tracking progress and suggesting effective measures to enhance exports.

Delegations representing both the public and private sectors of India’s defense industry have been actively engaging with friendly countries to build confidence in the quality of Indian defense products. Indian Embassies have also been playing a proactive role in promoting defense exports. To encourage exports, specific incentives have been incorporated within the Foreign Trade Policy. The Ministry of External Affairs has begun extending credit lines to developing nations for procuring defense items, and the India Exim Bank facilitates financial support for defense exports.

25 Vivek Raghuvanshi, “India’s private defense firms seek level playing field as MoD preps new arms embargo”, available at: <https://www.defensenews.com/top-100/2022/08/08/indias-private-defense-firms-seek-level-playing-field-as-mod-preps-new-arms-embargo/>.

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The offset policy for defense imports has also been revised to align with the integration of weapons systems within India. Additionally, an Open General Export License (“OGEL”) Policy has been initiated for certain categories.

The Defense Acquisition Procedure has been further strengthened and formalized in the year 2020, with a specific emphasis on the ‘Make in India’ initiative. Aligned with the government’s ‘Aatmanirbhar Bharat Abhiyan’ (Self-Reliant India Campaign), fostering self-sufficiency and augmenting defense exports has emerged as prominent policy objectives of the DAP 2020. Over the years, Positive Indigenization List,<sup>26</sup> encompassing a total of 411 defense weaponry and equipment items, have been issued since 2020. Notably, around 75% (approximately INR 1 lakh crore) of the defense capital procurement budget has been allocated to the domestic industry for the fiscal year 2023–24, marking an increase from the 68% allocation in 2022–23.<sup>27</sup>

There has been a significant push for defense expos, Aero India exhibitions, and various conferences aimed at showcasing India’s prowess in the defense manufacturing sector and bolstering exports. The former Ordnance Factory Board has undergone a transformation into seven new DPSUs. A dedicated endeavor is underway to modernize these DPSUs

Further, the Indian government announced on April 1st that the country is presently exporting significant military equipment and platforms.<sup>28</sup> These exports encompass a range of items including the Dornier-228 aircraft, advanced 155 mm Towed Artillery Guns, Brahmos Missiles, the Akash Missile System, radar systems, training simulators, vehicles equipped for mine protection and armored purposes, PINAKA Rockets and launchers, various types of ammunition, thermal imaging devices, protective body gear, in addition to avionics systems, components, and replaceable units, along with small arms.<sup>29</sup>

For an uptick in defense exports, India needs to prioritize a comprehensive array of medium and high-level military technology weaponry and equipment. Items such as the Brahmos missile, Pinaka multi-barrel rocket launcher, Advanced Light Helicopter, naval vessels, Tejas fighter aircraft, Akash air defense system, Astra air-to-air missile, radars, and artillery guns should be emphasized. However, India’s current export offerings in this realm are limited and lack competitiveness. India’s defense market remains constrained to nations with limited financial capability that rely on our credit facilities. This scenario is unlikely to change unless more private participation is encouraged on weaponry and domestically manufactured equipment attain higher quality and competitiveness.

While ‘Make in India’ has provided significant fillip, significant government backing in terms of domestic orders and research and development funding is crucial for the private sector to play a major role. In the interim, emphasis should be retained on exporting lower-end technology arms and non-lethal military equipment. Most developing nations maintain their own military and police forces. Relatively economically disadvantaged countries in Africa and the Middle East, lacking a manufacturing base, import military gear from Western nations, China, and Russia at costs they can scarcely afford. India’s defense export industry’s focus should therefore be capturing the small arms and non-lethal military equipment market, which alone has the potential to achieve the USD 5 billion target.

26 Please see Press Information Bureau, (Defense Wing), Government of India information dated October 19, 2022. The link can be accessed at <https://pib.gov.in/PressReleasePage.aspx?PRID=1964272>, <https://www.mod.gov.in/sites/default/files/PM-announces-fourth-positive-indigenisation-list.pdf>.

27 <https://theprint.in/opinion/indias-quantum-jump-in-defence-exports-is-high-on-rhetoric-and-low-on-substance/1500976/>.

28 <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1912885>.

29 <https://pib.gov.in/PressReleseDetailm.aspx?PRID=1912885>.

## Industry Overview

In January 2023, India and USA officially introduced the United States-India initiative on iCET.<sup>30</sup> The objective of iCET is to grow relations between the two nations and underscore the potential for further collaboration across critical and emerging technologies. From a geo-strategic and defense collaboration standpoint, iCET framework can act as a catalyst, signaling a distinctive phase of collaboration among the governments, private sector, research institutions, and academia in both India and the United States.

iCET looks to strengthen bilateral ties by advancing quantum communications, establishing a semiconductor ecosystem in India, expediting defense partnerships, exploring commercial prospects in space, and invigorating existing research endeavors while forging new partnerships.

The iCET framework envisages the following:

- Establishment of quantum coordination mechanisms and collaborative efforts in high-performance computing;
- Creation of a roadmap for defense industrial cooperation;
- Identifying immediate opportunities and facilitating the long-term strategic growth of a mutually beneficial semiconductor ecosystem; and
- Solidifying connections in crucial and emerging technological domains.<sup>31</sup>

The iCET is not designed for a single transaction but encompasses multiple avenues of collaboration between USA and India in critical and emerging technologies. It consists of around eight to ten distinct cooperation streams, serving as a foundational structure. This framework facilitates cooperation across a diverse range of technologies, leading to various potential agreements. For instance, within the commercial space domain, the focus lies on establishing efficient methods for granting licenses to Indian space startups within appropriate timelines. In cases where licenses are not readily available, the objective is to identify ways to exempt specific cases from the U.S. International Traffic in Arms Regulation.

Regarding semiconductors, the envisioned agreement centers on encouraging US based companies to invest in India to cultivate an ecosystem, recognizing that this is a gradual process. In the realm of quantum computing and communications, the opportunity for collaboration rests with universities in both countries that are actively engaged in quantum technology research. The subsequent step is for industries to effectively utilize the knowledge shared among scholars, students, and experts. The overarching goal is to establish practical applications for quantum technologies.

India is currently under discussion with several countries to export its indigenous supplies such as LCA Tejas and the BrahMos supersonic cruise missiles.<sup>32</sup>

30 <https://www.mea.gov.in/bilateral-documents.htm?dtl/36711/IndiaUSA+Joint+Statement+during+the+Official+State+visit+of+Prime+Minister+Shri+Narendra+Modi+to+USA>  
<https://www.whitehouse.gov/briefing-room/statements-releases/2023/06/22/joint-statement-from-the-united-states-and-india/#:~:text=The%20leaders%20hailed%20the%20inauguration,for%20the%20strategic%20technology%20partnership.>

31 [https://www.mea.gov.in/press-releases.htm?dtl/36153/Visit\\_of\\_National\\_Security\\_Advisor\\_to\\_Washington\\_DC\\_January\\_30February\\_01\\_2023.](https://www.mea.gov.in/press-releases.htm?dtl/36153/Visit_of_National_Security_Advisor_to_Washington_DC_January_30February_01_2023.)

32 <https://swarajyamag.com/defence/from-rs-1521-crores-in-fy-17-to-rs-15198-crores-in-fy-23-indias-defence-exports-is-showing-promising-growth-prospects.>

## 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. As per the Union Budget 2022–23, 25% of the defence research and development (“R&D”) budget has been earmarked for private industry and start-ups which will pave the way for innovation of new defence technologies in India. Large defence projects are witnessing increasing private sector involvement. In November 2021, the first private operationalised defence manufacturing facility in the Uttar Pradesh Defence Industrial Corridor (“UPDIC”) in Lucknow was inaugurated. The facility operated by Aerolloy Technologies — a wholly owned subsidiary of PTC industries — manufactures parts for aircraft and helicopter engines, structural parts for aircrafts, drones and unmanned aerial vehicle (“UAV”), submarines, ultra-light artillery guns, space launch vehicles and strategy systems. The Ministry of Defence in March 2023 entered into an agreement with BrahMos Aerospace Private Limited for procurement of Next Generation Maritime Mobile Coastal Batteries (Long range) {NGMMCB (LR)} and BrahMos Missiles at an approximate cost of over INR 1,700 crore under the Buy (Indian) Category.<sup>33</sup>

Numerous opportunities, including in-space manufacturing, asteroid mining, space tourism, and space-based solar power, are driving significant interest from private companies. In 2023, innovation and reusability will likely reduce launch costs further. The strength of the private sector is long recognized in defence. As with the liberalisation of the Indian economy in the 1990s, active involvement of the private sector in the manufacturing of major defence equipment will have a transformational impact. The Strategic Partnership Model under the DAP 2020 is expected to play the role of a system integrator by building an extensive eco-system comprising development partners, specialised vendors and suppliers.<sup>34</sup>

## 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 within 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.<sup>35</sup>

The Defense Production and Export Promotion Policy, 2020 has boosted exports by requiring defense public sector undertakings to generate at least 25% of their revenue from exports, including success fees, by 2025. This policy leverages Defense Expo and Aero India to showcase India’s defense production capabilities and promote Indian made products. It also aims to achieve timely export clearances from the DDP and gain active support from the armed forces in exploring defense product export opportunities.

33 <https://newsonair.gov.in/News?title=Defence-Ministry-inks-contract-with-BAPL-for-Next-Generation-Maritime-Mobile-Coastal-Batteries-and-BrahMos-Missiles-worth-Rs-1700-crore&id=458517>.

34 <https://www.mod.gov.in/sites/default/files/DAP2030new.pdf>.

35 Deloitte, ‘2017 Global Aerospace and Defence Sector Outlook: Growth Prospects remain upbeat’.



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**Industry Overview**

However, there are several factors that are hindering the growth of Indian defense exports. The most significant factors include the lack of critical technologies, the lengthy process involved in establishing a capital and technology-intensive production base, challenges in conducting business operations due to strict labor laws and compliance requirements, inadequate funding for R&D, and a shortage of engineering and research skills.

The lack of capacity in core technologies, insufficient funding for R&D, and the inability to produce critical subsystems and components have long hindered indigenous manufacturing in India. Additionally, the extended time required for production makes indigenous products outdated compared to emerging technologies. Furthermore, the existing skill gap has persisted due to a weak interface between industry and academia.

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.

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.

# Industry Breakthroughs

published on Ministry of Defence website in February 2023<sup>1</sup>

## Encouraging Government Measures

- The DPP 2016 was replaced by the DAP 2020.
- The Buy (Indian – IDDM) category has been accorded the highest priority in forms of acquisition.
- Funding of private sector design and development projects with a special focus on the MSME sector.

## Upcoming Defence Acquisitions

- Acquisition of 26 Rafale M Aircraft and 3 Scorpene submarines worth approximately INR 90,000 crore.<sup>2</sup>

## Major Capital Procurements in Recent Times

- Procurement of 83 LCA Tejas MK-1A jets worth INR 48,000 crore and<sup>3</sup> 56 C-295MW transport aircrafts for estimated INR 22,000 crores.<sup>4</sup>
- Procurement of 118 new Arjun Mk-1A battle tanks worth INR 7,523 crore.<sup>5</sup>
- Procurement of ASTRA, an Air-Air Radar Guided Missile, on Su-30MKI worth INR 2,900 crores.<sup>6</sup>
- Entered into INR 19,600-crore contracts with Indian shipyards for acquisition of 11 next generation offshore patrol vessels and six next generation missile vessels for Indian Navy.<sup>7</sup>
- MoD inks over Rs 9,100-crore contracts for improved Akash Weapon System and 12 weapon locating radars Swathi (Plains) for Indian Army.<sup>8</sup>
- Approved 9 proposals to buy defence equipment worth INR 450 billion (USD 5.41 billion) from domestic vendors.<sup>9</sup>

## Defence Acquisitions Under Progress

- Acquisition of 36 Rafale Multi-Role Combat Aircraft from the French manufacturer Dassault.
- Indigenous Manufacture of Kamov- Ka 226, Twin Engine Helicopters as well as 145 Ultra-Light Howitzers.
- Acquisition of 31 MQ-9B Predator drones from General Atomics for nearly USD 3 billion.<sup>10</sup>
- Contract for supply of 16 Advanced Light Helicopter (ALH Mk-III) concluded with HAL.
- Procurement of 35 combat and three Practice BrahMos missiles for two P-15B ships from M/s BrahMos Aerospace Pvt. Ltd., India for an amount of INR 1,723 crore.<sup>11</sup>

1 <https://pib.gov.in/PressReleasePage.aspx?PRID=1899388#:~:text=In%20FY%202023%2D24%2C%20Ministry,to%20Rs%201.63%20lakh%20crore;https://www.mod.gov.in/sites/default/files/urfinal.pdf;https://pib.gov.in/PressReleasePage.aspx?PRID=1884353>.

2 <https://www.indiatoday.in/india/story/india-to-sign-deals-worth-rs-96000-crore-with-france-during-pm-modis-visit-2404536-2023-07-10>.

3 [https://economictimes.indiatimes.com/news/defence/lca-tejas-and-its-future-variants-will-form-mainstay-of-iaf-defence-ministry/articleshow/101394965.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economictimes.indiatimes.com/news/defence/lca-tejas-and-its-future-variants-will-form-mainstay-of-iaf-defence-ministry/articleshow/101394965.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst).

4 <https://www.thehindu.com/news/national/government-seals-mega-deal-with-airbus-for-purchase-of-56-c-295-military-transport-aircraft/article36644148.ece>.

5 <https://indianexpress.com/article/india/defence-ministry-places-order-for-118-battle-tanks-arjun-mk-1a-7530167/>.

6 <https://www.mod.gov.in/sites/default/files/urfinal.pdf>.

7 <https://www.businesstoday.in/latest/economy/story/boost-for-make-in-india-defence-ministry-signs-multiple-deals-worth-rs-37600-crore-for-armed-forces-375464-2023-03-30>.

8 <https://www.businesstoday.in/latest/economy/story/boost-for-make-in-india-defence-ministry-signs-multiple-deals-worth-rs-37600-crore-for-armed-forces-375464-2023-03-30>.

9 <https://www.reuters.com/world/india/india-approves-purchase-defence-equipment-worth-54-bln-2023-09-15/>.

10 <https://economictimes.indiatimes.com/news/defence/ahead-of-predator-drone-deal-announcement-heres-what-you-should-know-about-the-man-who-played-an-instrumental-role/articleshow/101207509.cms?from=mdr>.

11 <https://pib.gov.in/PressReleasePage.aspx?PRID=1884353>.

## Enhanced Defence Production Measures

- 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; and indigenously developed Akash Surface to Air Missile Defence System has become fully operational.
- 25% of domestic capital procurement (INR 21,149 crore) earmarked to promote private industry, MSMEs and start-ups.
- Two Defence Industrial Corridors established in Uttar Pradesh and Tamil Nadu to boost defence manufacturing ecosystem.
- 334% increase in defence exports (INR 8,434 crore in 2020-22 from INR 1,941 crore in 2014-15).
- 12.82% increase in capital allocations to INR 1.52 lakh crore in Union Budget FY 2022-23 achieve 'Make in India, Make for the World', FDI in defence enhanced up to 74% through Automatic Route for companies seeking new defence industrial licence and 100% by Government Route.
- Technology Development Fund, INR 100 crore corpus fund created to enable Indian Industries, specially MSMEs, for indigenization of defence products.
- 75 newly developed Artificial Intelligence ("AI") products/technologies were launched by the Raksha Mantri during the first ever 'AI in Defence' symposium and exhibition organized by Ministry of Defence in New Delhi.<sup>12</sup>

## Diplomatic Overtures in the Realm of Defence Co-operation

- India has recently signed Defence Cooperation Agreements and Memorandums of Understanding ("MoU") with over 20 countries such as Japan, Singapore, UAE, Oman, Canada, Kenya etc. to encourage defence exports. India has defence cooperation agreements with over 53 countries.<sup>13</sup>
- India strengthened its strategic partnerships with USA, Russia and EU nations to facilitate transfer-of technology for cutting-edge defence equipment.
- Joint venture between India and Russia, an INR 5,100 crore project to jointly manufacture AK-203 assault rifles in Amethi, U.P.<sup>14</sup>

## 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.
- Successful flight test of indigenously developed Man Portable Anti-Tank Guided Missile.
- Maiden flight test of home-made surface-to-surface missile Pralay successfully conducted.<sup>15</sup>
- Indigenously developed Anti-Tank Guided Missile 'HELINA' successfully flight tested.<sup>16</sup>

## Major agreements

- MoU between Hindustan Aeronautics Limited and Safran Helicopter Engines, France for Work Share for formation of Joint venture for Design, Development, Manufacture and lifetime support of Helicopter Engines.
- MoU between Bhazarat Electronics Ltd and Aeronautical Development Agency on IWBC and Other LRUs for Advanced Medium Combat Aircraft.
- Co-operation between BSS Material Limited and Pegasus Engineering, an ADUSEA Inc. Division (USA) for Logistic Drones for the Indian Army towards Last Mile Delivery for forward troops deployed along the border areas with capability of operation in wind/gust condition, rain/Snow etc.
- MoU on collaboration of Sagar Defence Engineering Private Limited & Israel Aerospace Industries for IDEX Challenge "Autonomous Weaponized boat Swarm" for Indian Navy.

<sup>12</sup> <https://pib.gov.in/PressReleasePage.aspx?PRID=1884353>.

<sup>13</sup> <https://www.ibef.org/blogs/india-s-defence-collaborations>.

<sup>14</sup> <https://www.thehindu.com/news/national/indo-russian-joint-venture-begins-manufacturing-ak-203-assault-rifles-in-up/article66386155.ece>.

<sup>15</sup> <https://www.thehindu.com/news/national/india-successfully-tests-pralay-missile-off-odisha-coast/article38011495.ece>.

<sup>16</sup> <https://pib.gov.in/PressReleasePage.aspx?PRID=1815644>.

## Industry Breakthroughs

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### Products

- Jishnu (Bharat Dynamics Limited): Jishnu, a Drone Delivered Missile, is light weight and miniaturised missile targeted for soft-skinned targets. It has a range of 1.5 km with a flight time of 9 seconds. The missile can be semi-automatic or completely autonomous based on the systems configurations.
- Indigenously built 'Counter Drone Radar' based on technology from DRDO (Astra Microwave Products Limited).
- BFT on Ios (ideaForge Technology Limited): BlueFire Touch, our Ground Control Station software, is built to plan and command both mapping and surveillance missions with the ability to pre-plan missions based on operational area and target locations via waypoint-based navigation.
- HF SDR Radio (Bharat Electronics Limited): It is an advanced software defined radio. The radio is lightweight 20 W transmit capable radio. It provides a complete solution to the short-range communication requirements in the crowded HF band and long-range communications beyond line of sight.
- Goniometer (Bharat Electronics Limited): It is part of any integrated observation and fire control monitoring system for daytime or nighttime use by the Artillery.

# Legal and Regulatory Framework

Policy	Ministry of Defence	All Defence and Security Related Matters
<b>Legislations and Procedures</b>	Industries (Development and Regulation) Act, 1951	Governs industrial licensing for manufacture of defence items;
	Defence Acquisition Procedure, 2020	Governs procedure for capital acquisitions in the defence sector;
<b>Regulators and Agencies</b>	Foreign Direct Investment Policy & Regulations under Foreign Exchange Management Act, 1999 (“FEMA”)	Governs policy on foreign direct investment and regulations on foreign exchange;
	<b>Other Acts</b>	
	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.
	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 the policy framework on all defence and security related matters. The MoD bears the holistic responsibility of overseeing the operations of all governmental agencies tasked with the maintenance of the national security. The vision of the MoD 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 five departments.

- a. 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, defence co-operation with foreign countries and co-ordination of all defence related activities.<sup>1</sup>
- b. The DDP, headed by the 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 DPSUs.<sup>2</sup>

<sup>1</sup> <https://mod.gov.in/dod/>.

<sup>2</sup> <https://www.ddpmod.gov.in/>.

## Legal and Regulatory Framework

- c. The DRDO, headed by the Scientific Adviser to the Defence Minister is tasked with the function to advise the Government of India on the scientific aspects of military equipment, logistics and the formulation of research, design and development plans for equipment required by the SHQs.<sup>3</sup>
- d. The Department of Ex-Servicemen Welfare, headed by the secretary, deals with all resettlement, welfare and pension matters of Ex-Servicemen.<sup>4</sup>
- e. The Department of Military Affairs, headed by the Chief Defence of Staff, deals with all military matters within the MoD. The Department of Military Affairs serves as the bridge between the armed forces of India and the MoD.

## II. Industries (Development and Regulation) Act, 1951

Manufacturing in the defence industry requires holding an IL as per the Industries (Development and Regulation) Act, 1951 (“IDRA”).<sup>5</sup> 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 the DDP, 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

Post liberalization of the defence manufacturing industry in 2001, there arose ambiguity surrounding the classification of items which would fall within the purview of ‘defence items’ mandating IL. Vide Press Note 3 of 2014<sup>6</sup> (“**PN3 of 2014**”), the government sought to address this ambiguity and provided a consolidated list of items requiring IL. PN3 of 2014 explicitly clarified that items not included in the list do not require an IL for defence purposes. Further, PN3 of 2014 also elucidated that (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 the purview of defence.<sup>7</sup> The objective of PN3 of 2014 was to reduce entry barriers for the industry, particularly for the small & medium segment<sup>8</sup> and stimulate growth of the supply chain in the defence sector.<sup>9</sup> However, the notification of the Ministry of Home Affairs (“MHA”) on May 19, 2017<sup>10</sup> (“**2017 MHA Notification**”) added a further layer of complexity to the clarity brought in by the PN3 of 2014.

3 <https://www.drdo.gov.in/>.

4 <https://desw.gov.in/>.

5 Sr. No. 37, Schedule I, “Defence Industry: Arms and ammunition”.

6 <https://pib.gov.in/newsite/PrintRelease.aspx?relid=105881>.

7 <https://pib.gov.in/newsite/PrintRelease.aspx?relid=105881>.

8 Press Information Bureau, Government of India, Ministry of Defence: Industrial Licenses to Defence Sector, July 24, 2015.

9 ASSOCHAM India: Make in India: Achieving self-reliance in defence production, 2016.

10 [https://www.mha.gov.in/sites/default/files/2022-10/Notificationdated19052017byDepartmentofIndustrialPolicyandPromotion%5B1%5D\\_0.PDF](https://www.mha.gov.in/sites/default/files/2022-10/Notificationdated19052017byDepartmentofIndustrialPolicyandPromotion%5B1%5D_0.PDF).

The 2017 MHA Notification stipulated that the power to issue licenses for the manufacture in respect of arms and ammunition and defence items has been delegated to the Secretary, Department for Promotion of Industry and Internal Trade (“**DPIIT**”) in furtherance of the Arms Act, 1959 (“**Arms Act**”).<sup>11</sup> The delegated powers are to be exercised only in respect of the category of arms and ammunition and defence items specified in the schedule that forms part of the 2017 MHA Notification. However, the introduction of the 2017 MHA Notification has only resulted in further ambiguity as the items mentioned in the schedule of this notification overlap with those notified through the PN3 of 2014.

The Arms Act, in comparison to the procedure for procuring an IL as provided under the IDRA, establishes a more rigorous protocol and licensing regime with respect to the manufacture and sale of arms and ammunition. Accordingly, there was a lack of clarity on whether the manufacture of defence items which are common under both the 2017 MHA Notification and PN3 of 2014 would be governed by the IDRA or the Arms Act.

While a majority of the items intersect between the 2017 MHA Notification and the PN3 of 2014, it is pertinent to note that various items listed under the category of arms and ammunition and allied items such as electronic equipment, armored or protective equipment, specialized equipment for military training etc. have not been included in the 2017 MHA Notification. This incertitude resulted in confusion particularly with respect to the licensing of dual use items and assembly of parts and components. By enforcement of the 2017 MHA Notification, the MHA has effectively 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.

Accordingly, it came as no surprise that considerable criticism had 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 and DPIIT-administered IDRA, there was no reason to disturb the status quo i.e. to continue with MoD dealing with defence items.<sup>12</sup>

In order to assuage the concerns of several stakeholders, the 2017 MHA Notification was rescinded and replaced by the notification brought out by the MHA on December 14, 2018<sup>13</sup> (“**MHA 2018 Notification**”) which clarified that the manufacture of “defence aircraft” and “warships of all kinds” would no longer fall within the purview of the Arms Act.

In order to shed further clarity to the construct put forth by the MHA 2018 Notification, the Press Note 1 of 2019<sup>14</sup> (“**PN1 of 2019**”) was introduced which clearly set out the category of defence items which would need licenses under the IDRA and Arms Act respectively. Therefore, the PN1 of 2019 strove to address the issue of ambiguity regarding which authority would have jurisdiction over which class of defence items.

11 <http://www.bareactslive.com/ACA/ACT099.HTM>.

12 <http://www.spsmai.com/experts-speak/?id=369&q=Empow-ering-DIPP-or-weakening-defence>.

13 [https://www.mha.gov.in/sites/default/files/T8\\_14122018.pdf](https://www.mha.gov.in/sites/default/files/T8_14122018.pdf).

14 [https://www.makeinindia.defence.gov.in/admin/writereaddata/upload/files/Press%20Note\\_1\\_2019.pdf](https://www.makeinindia.defence.gov.in/admin/writereaddata/upload/files/Press%20Note_1_2019.pdf).

The below table illustrates the defence items which fall within the purview of the IDRA and Arms Act respectively:

IDRA	Arms Act
<ul style="list-style-type: none"> <li>▪ Defence Aircraft</li> <li>▪ Warship of all kinds</li> <li>▪ Allied items of Defence Equipment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Tanks and other armoured fighting vehicles</li> <li>▪ Arms and ammunition</li> </ul>

## B. Procedure to Apply for IL

The Government of India issued a press release in 2021 (“**2021 Press Release**”) which sought to streamline the application process for an IL under the Arms Act and IDRA respectively. Post introduction of the 2021 Press Release, all applications for an IL under the Arms Act and IDRA were to be undertaken on the digital portal of the DPIIT.<sup>15</sup> Accordingly, the entire application process for an IL has been digitized and can no longer be undertaken physically.

## C. 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.<sup>16</sup> If the IL has already expired, a fresh application is required to be made.

The 2021 Press Release<sup>17</sup> has further clarified that licenses granted in furtherance of the Arms Act would be valid for the lifetime of the license company, provided that the licensee shall have set up the facility and fulfilled all other conditions in relation to such license within 7 years from the date of grant of such license.

## D. Additional Clarifications<sup>18</sup>

An Indian offset partner (“**IOP**”), as will be detailed in the 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. As of April 2023, a total of 606 Industrial Licenses have been issued to 369 companies operating in the defence sector.<sup>19</sup>

<sup>15</sup> <https://services.dpiit.gov.in/lms/ilServices>.

<sup>16</sup> <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1694879>, <https://services.dpiit.gov.in/lms/ilServices>.

<sup>17</sup> <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1694879>.

<sup>18</sup> [https://www.ddpmod.gov.in/sites/default/files/FAQ-07042017\(1\)\\_0.pdf](https://www.ddpmod.gov.in/sites/default/files/FAQ-07042017(1)_0.pdf).

<sup>19</sup> Available on <https://www.investindia.gov.in/sector/defence-manufacturing>.



### III. Defence Acquisition Procedure, 2020

The DAP 2020 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 the framework and criteria for allotment of defence contracts. The first Defence Procurement Procedure was formulated in 1992 but came into effect only in 2002. Since then, it has been revised in 2005, 2006, 2008, 2009, 2011, 2013, 2016 and 2020.

DAP 2020 was introduced in September 2020 with a slew of changes. The primary objective of the DAP 2020 is to stimulate growth and foster a heightened level of public accountability, transparency, fair competition in the defence manufacturing industry. The DAP 2020 establishes guidelines which abates the procurement and acquisition of technology, products and services and allied defense services. One of the focal features of the DAP 2020 is its concentration on augmenting the manufacture of defence items within India.<sup>20</sup>

DAP 2020 is applicable to all capital acquisitions undertaken by the MoD. The DRDO and DPSUs forming the country’s core defence industry in the public sector may follow their own procurement policies.

#### A. Factors Considered During Acquisition

Capital acquisitions under the DAP 2020 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.

##### a. ‘Indian Vendor’

This includes an entity incorporated or registered under the Companies Act, 2013, a partnership, proprietorship or another ownership model including societies etc.<sup>21</sup> 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 DPIIT. For defence products not requiring an IL, an Indian entity registered under the relevant Indian laws and complying with all regulations in force applicable to that industry will be classified as an Indian Vendor.

<sup>20</sup> <https://www.makeinindia.com/defense-acquisition-procedure>.

<sup>21</sup> DAP 2020, Chapter 1, Para 20.

### b. 'Indigenous Content' ('IC')

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

- direct cost of all imports into India;
- direct and indirect cost of all services obtained from foreign entities/citizens; and
- all royalties/licensing fees/technical fees and other fees of such nature paid out of India.<sup>22</sup>

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 ToT 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
- 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.<sup>23</sup>

A key feature of the DAP 2020, in comparison with its predecessor, DPP 2016, is that IC requirements have been increased in all categories.

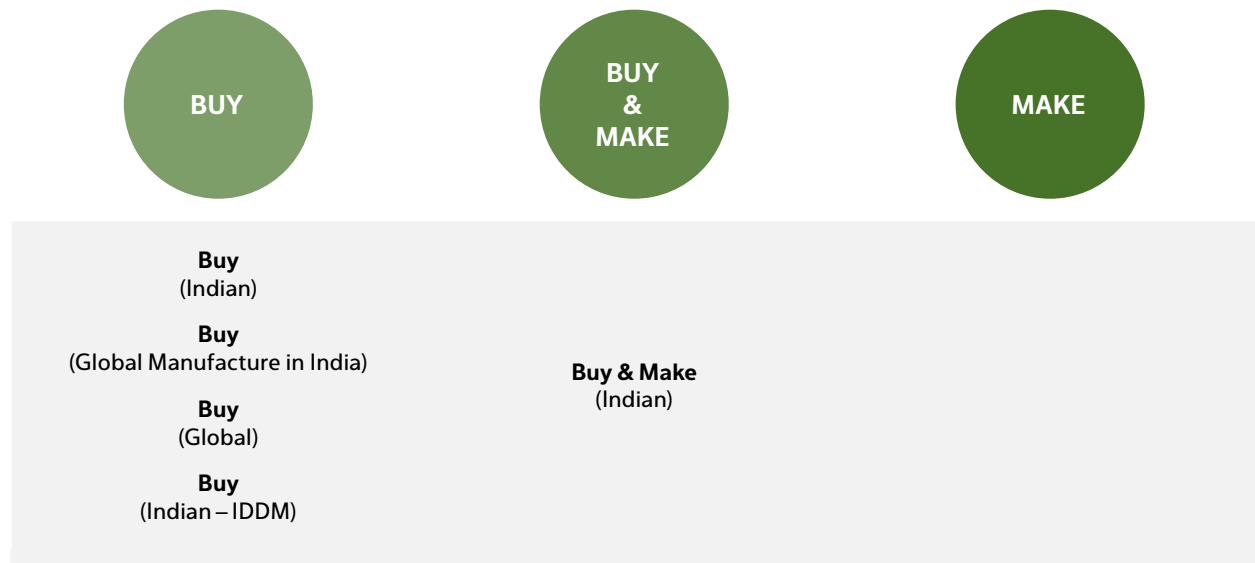
## B. Types of Capital Acquisitions

Under the DAP 2020, capital acquisitions are classified into five categories. The defining attributes for these categories are found in DAP 2020, Chapter II, Appendix D. The DAP 2020 introduced a new category for capital acquisition titled “Buy – Global Manufacture *in India*.”

<sup>22</sup> DAP 2020, Chapter I, Para 21 and Chapter I, Appendix B.

<sup>23</sup> DAP 2020, Chapter I, Appendix A.

## Legal and Regulatory Framework



### a. 'BUY' Categories

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

#### i. Buy (Indian IDDM)<sup>24</sup>

This acquisition involves procurement from an Indian Vendor to provide products which are designed, developed and manufactured in India with minimum 50% 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).

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 ToT. 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.<sup>25</sup>

#### ii. Buy (Indian)<sup>26</sup>

Buy (Indian) acquisition involves procurement from an Indian Vendor with minimum of 60% 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 ToT. Vendors eligible in 'Buy (Indian-IDDM)' category will also be permitted to participate in this category with indigenous design and a minimum of 50% IC on cost basis of the base contract price.

<sup>24</sup> DAP 2020, Chapter 1, Para 8.

<sup>25</sup> DAP 2020, Chapter 2, Appendix D, Para 2.

<sup>26</sup> DAP 2020, Chapter 1, Para 9.

**iii. Buy (Global – Manufacture in India)<sup>27</sup>**

Buy (Global – Manufacture in India) acquisition involves the outright purchase of equipment from foreign vendors followed by indigenous manufacture of the entire/part of the equipment through its subsidiary in India/through a Joint Venture/through an Indian Production Agency, meeting a minimum of 50% IC. Indian vendors will also be permitted to participate in this category.

**iv. Buy (Global)<sup>28</sup>**

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 the Chapter on Offsets. An Indian Vendor participating in this category would be required to meet minimum 30% IC, failing which such vendor would be required to discharge offsets as applicable in the case.

**b. “BUY & MAKE” Categories**

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

**Buy and Make (Indian)<sup>29</sup>**

Buy and Make (Indian) refers to an initial acquisition of equipment in a fully formed state from Indian vendor(s) engaged in a tie-up with a FOEM followed by indigenous production in a phased manner involving transfer of technologies. Under this category of acquisition, a minimum of 50% IC is required.

**C. ‘MAKE’ Category<sup>30</sup>**

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 alongside the other categories.

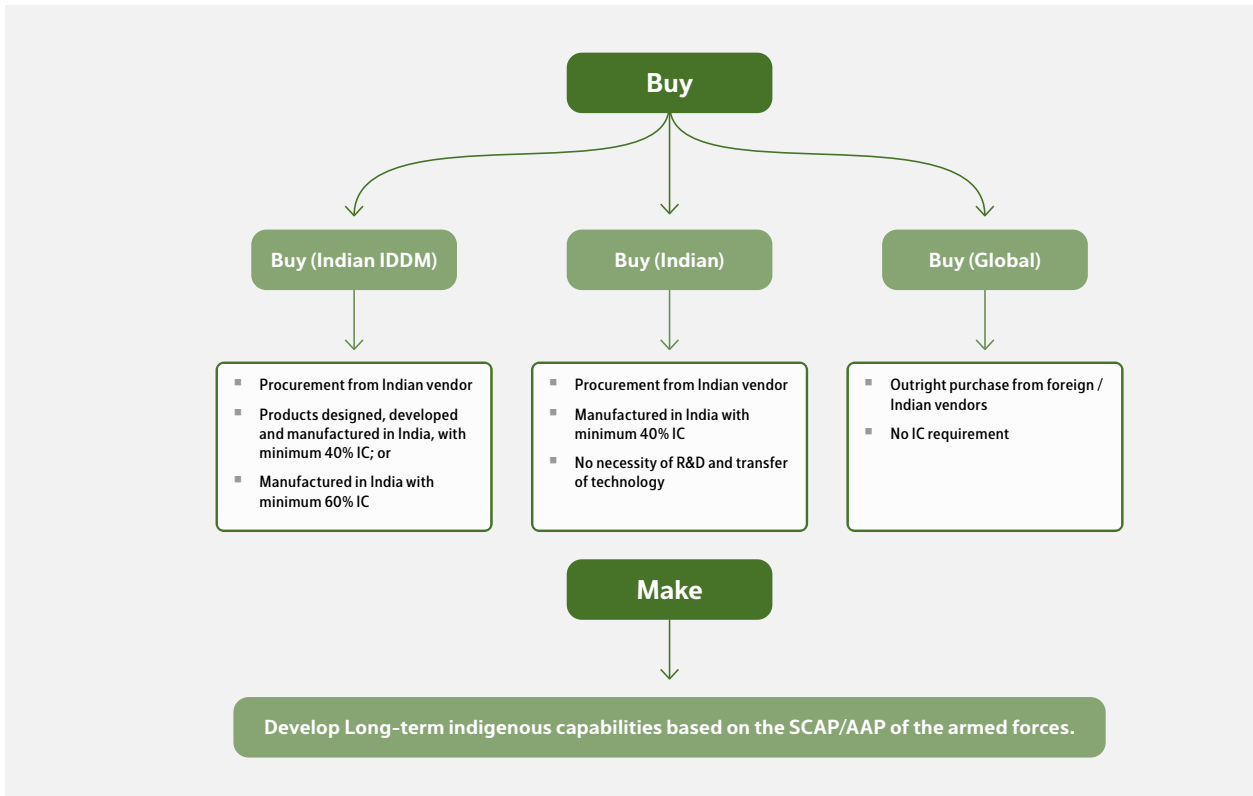
27 DAP 2020, Chapter 1, Para 11.

28 DAP 2020, Chapter 1, Para 12.

29 DAP 2020, Chapter 1, Para 12.

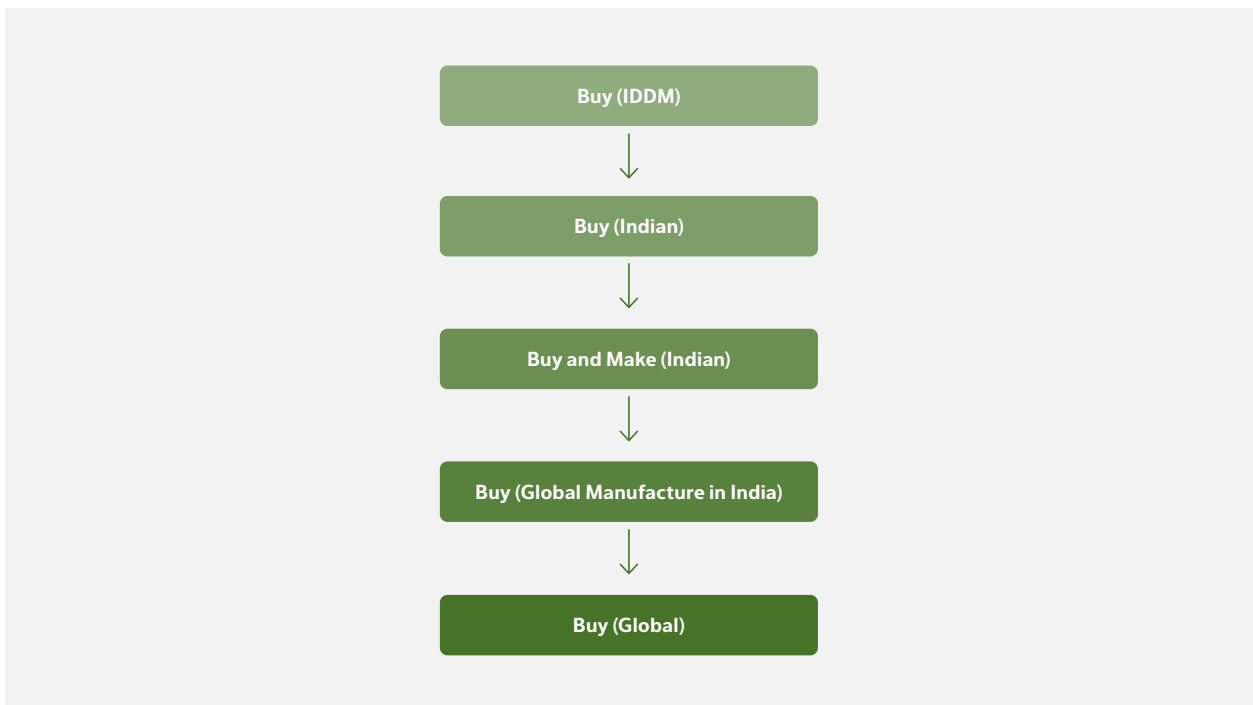
30 DAP 2020, Chapter 1, Para 15.

Legal and Regulatory Framework



D. Buying Priority<sup>31</sup>

The DAP 2020 provides the following order of preference for acquisition:



31 DAP 2020, Chapter 1, Para 5.

## E. Procedure for Capital Acquisitions Under DAP 2020<sup>32</sup>

### a. Request for information (“RFI”)

The RFI, published on MoD and SHQ websites, seeks to obtain information on specific procurement schemes from vendors. 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.

### b. Services qualitative requirements (“SQR”)

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.

### c. Acceptance of necessity (“AON”)

The SHQ submits a Statement of Case (along-with draft Request for Proposal, as detailed below) to the DDP, 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 300 crores are sent to SCAPHC for grant of AoN. Cases with estimated costs between INR 300 – 500 Crores are sent to Defence Procurement Board for approval. Those beyond INR 500 crores are forwarded to the DAC.<sup>33</sup> 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.

### d. Request for proposal / Solicitation of offers

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.

<sup>32</sup> Chapter 2, DAP 2020.

<sup>33</sup> DAP 2020, Chapter 2, Para 22.

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.<sup>34</sup> 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.

#### **e. 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.

#### **f. Field evaluation Trial (“FET”)**

Once TEC report is accepted, vendors are required to provide their equipment for 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 FET is then sent to the SHQ.

#### **g. 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.

#### **h. 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.

#### **i. 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.

<sup>34</sup> A standardised RFP document is attached as Chapter I, Schedule I

**j. Approval of the Competent Financial Authority**

The CNC makes a recommendation report on selection of vendor. This is processed by the Director/ Acquisition Manager/SHQ. The DAP 2020 covers situations where lowest tenderer is unable to supply the entire quantity, where contracts signed earlier are reviewed and renewed, or validity of the commercial offer expires before acceptance of Staff Evaluation Report.

**k. 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).

**l. 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.

**m. Contract administration and post-contract management**

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

**n. 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 DAP 2020 on a 'turnkey' basis i.e. a complete operational facility is handed over to the MoD at the end of the project.

**Procedural Timeline<sup>35</sup>**

Sr No.	Stage of Procurement	Time-line as per DAP (in weeks)	Cumulative Time-line (in weeks)
1	Acceptance of Necessity	—	0
2	Issue of RFP	6	6
3	Pre-Bid Meeting	6	12
4	Dispatch of Pre-Bid Reply	3	15
5	Receipt of Responses	3	18
6	Completion of TEC Report	8	26

<sup>35</sup> Annexure I, Appendix L, Chapter 2, DAP 2020.



## Legal and Regulatory Framework

7	Acceptance of TEC Report	2	28
8	Completion of Technical Offset Evaluation Committee Report	4-6 (concurrent activity)	28
9	Acceptance of Technical Offset Evaluation Committee Report	4 (concurrent activity)	34
10	Completion of Field Evaluation (Trials)	16-24	44-52
11	Completion of Staff Evaluation	4	48-56
12	Acceptance of Staff/Trials Evaluation Reports	2	50-58
13	Acceptance of TOC report (If applicable)	0-4	50-62
14	i. Finalization of CNC Report ii. Finalization of Offset Contract	i. Multivendor – 6 ii. Single Vendor – 18-26	i. Multivendor – 56-68 ii. Single Vendor – 68-88
15	Obtaining approval from CFA-MoD, MoF and CCS	4-16	Multivendor – 60-84 Single Vendor – 72-104
16	Signing of Main Contract and Offset Contract	2	Multivendor – 62-86 Single Vendor – 74-106

## IV. Regulatory Agencies

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

### A. Department for Promotion of Industry and Internal Trade

The DPIIT 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 DPIIT include formulation and implementation of industrial policy and strategies for industrial development in conformity with the development needs and national objectives, formulation of the FDI Policy and promotion, approval and facilitation of FDI, amongst others.

### B. Department of Defence Production, Ministry of Defence

DDP 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. 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 Defence Procurement Board is assisted by a Defence Acquisition Wing and has 4 divisions functioning within its control. The structures facilitates 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.

# Foreign Direct Investment

The defence industry in any country is highly technology driven and capital intensive.<sup>1</sup> 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 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 up to 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 with respect to 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 Foreign Investment Promotion Board), 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'.<sup>2</sup> 'Other reasons to be recorded' could range from creation of large number of jobs to setting up new manufacturing facilities in a backward region.<sup>3</sup> 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.<sup>4</sup>

In order to further augment the inflow of FDIs into the defence sector, the Government of India vide Press Note.4, 2020 Series dated 17.09.2020<sup>5</sup> enhanced the FDI limit to 74% under the automatic route. The above-mentioned 74% threshold for FDI is applicable in the defence industry subject to such entity procuring an IL under the IRDA and Manufacturing of small arms and ammunition under the Arms Act. Any FDI subsequent to the above-mentioned threshold of 74% and where the same would result in access to modern technology or for any other reasons to be recorded would require the prior approval of the government.<sup>6</sup>

Additionally, in case of infusion of FDI of up to 49% in a company not seeking the IL (as mentioned above) or where such company has received the prior approval from the government for FDI in defence, such company shall be obligated to mandatorily submit a declaration with the MoD in circumstances where there is change in equity/shareholding pattern or transfer of stake by existing investor to new foreign investor for FDI up to 49% within 30 days of such change.<sup>7</sup>

1 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 [https://taxindiaonline.com/RC2/pdffdocs/wnew/FDI\\_MultiBran.pdf](https://taxindiaonline.com/RC2/pdffdocs/wnew/FDI_MultiBran.pdf).

2 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 at <http://www.thehindubusinessline.com/economy/policy/dcns-proposal-for-100-fdi-in-defence-project-rejected/article9072577.ece>.

3 Available at <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1685013>, <https://economictimes.indiatimes.com/news/economy/indicators/manufacturing-is-key-to-create-jobs-and-accelerate-growth-amitabh-kant-dipp/articleshow/46032119.cms>.

4 Available at <https://pib.gov.in/PressReleaselFramePage.aspx?PRID=1844610#:~:text=The%20Government%20vide%20Press%20Note,in%20access%20to%20modern%20technology>.

5 Available at [pib.gov.in/PressReleaselFramePage.aspx?PRID=1656082](https://pib.gov.in/PressReleaselFramePage.aspx?PRID=1656082).

6 Paragraph 5.2.6, Consolidated FDI Policy, 2020 (Available at [https://dpiit.gov.in/sites/default/files/FDI-PolicyCircular-2020-29October2020\\_0.pdf](https://dpiit.gov.in/sites/default/files/FDI-PolicyCircular-2020-29October2020_0.pdf), last accessed on July 12, 2023).

7 Paragraph 5.2.6(ii), Consolidated FDI Policy, 2020, Available at [https://dpiit.gov.in/sites/default/files/FDI-PolicyCircular-2020-29October2020\\_0.pdf](https://dpiit.gov.in/sites/default/files/FDI-PolicyCircular-2020-29October2020_0.pdf), last accessed on July 12, 2023.

## Foreign Direct Investment

Since the notification of revised FDI policy, the total FDI inflow reported till May 2022 is approximately INR. 4,940,000,000.<sup>8</sup>

With respect to manufacturing of small arms and ammunitions covered under Arms Act, 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.

The DDP has also brought in a number of policy reforms for attracting FDI in the defence sector. Few of the reforms introduced by the DDP include:

- i. Higher multipliers assigned in offset policy to attract investment and ToT for defence manufacturing;
- ii. Specific consultations undertaken regularly with FOEMs;
- iii. Establishment of 2 (Two) defence corridors in Tamil Nadu and Uttar Pradesh, respectively for providing the ‘Plug and Play’ support to industries including FOEMs in the above-mentioned corridors;
- iv. Customised incentive packages provided to investors based on investment, employment and project location, including GST based refunds on sales, stamp duty concessions on land allotment, electricity tax exemption, capital subsidy and training subsidy for training workers; and
- v. Establishment of defence investor cell for providing all the necessary information including addressing queries related to investment opportunities, procedures and regulatory requirements for investment in the sector.<sup>9</sup>

The new FDI policy, along with the revamped DAP 2020, 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 original equipment manufacturers to set up shop in India.

It is touted that the aforesaid initiatives targeted at private sector participation will greatly help FOEMs to strategically collaborate with Indian companies, in order to take advantage of the current economic climate.<sup>10</sup> 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.

India has taken significant measures to attract FDI and implement policy changes in the defence and aerospace sector. These actions aim to encourage global companies with advanced technologies to establish manufacturing operations in collaboration with local entities in India. The government’s objective is to enhance access to new technologies and lay the groundwork for a strong defence industrial base within the country. Additionally, the government has introduced various initiatives, including the strategic partnership policy, to facilitate long-term partnerships between the private sector and international OEMs.

8 Available at [pib.gov.in/PressReleaseIframePage.aspx?PRID=1844610](http://pib.gov.in/PressReleaseIframePage.aspx?PRID=1844610).

9 Available at [https://www.mod.gov.in/sites/default/files/pre2\\_1.pdf](https://www.mod.gov.in/sites/default/files/pre2_1.pdf).

10 Defense Manufacturing – Make In India initiative, available at [https://www.ddpmod.gov.in/sites/default/files/DAP%202020%20%2011%20Nov%2021\\_0.pdf](https://www.ddpmod.gov.in/sites/default/files/DAP%202020%20%2011%20Nov%2021_0.pdf), <http://www.makeinindia.com/defense-acquisition-procedure>.

## Foreign Direct Investment

These collaborations focus on the production of major defence products such as fighter aircraft, helicopters, submarines, and armoured vehicles. Furthermore, in March 2019, the government introduced a policy on indigenisation of components and spares used in defence platforms to increase the proportion of locally manufactured defence equipment. These efforts align with India's pursuit of self-reliance in defence procurement.

Developed markets are willing to spend more in technological innovation.<sup>11</sup> Consequently, it is extremely likely and evident now that foreign companies specializing in provision of complex equipment and machinery 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.

42 FDI proposals/ joint ventures have been approved for the manufacture of various defence equipment both in public and private sector, which include three joint ventures with Russia namely Multirole Transport Aircraft Ltd (a joint enterprise comprising HAL, Russian OJSC UAC — Transport Aircraft and OJSC Rosoboronexport), IRHL and Indo Russian Rifles Private Limited (a partnership between Kalashnikov Rifles and the Indian State-owned Ordnance Factory Board).<sup>12</sup>

Further, the Indo-Russian Helicopters Limited (“**IRHL**”), a joint venture was established in 2017 to produce Kamov 226T military helicopters for the Indian army and air-force. The detailed proposal, submitted by this JV (comprising HAL and Russian state-owned firms, Russia Helicopter and Rosoboronexport) is expected to soon receive clearance.<sup>13</sup>

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

### Private Sector

1. Alpha-ITL Electro Optics Private Limited.
2. HBLElta Avionics Systems Private Limited, BF Systems Limited.
3. Alpha Electronica Defence Systems Pvt Ltd, Armet Armored Vehicles (India) Ltd.
4. Samtel Thales Avionics Pvt Ltd, Astra Microwave Products Ltd, Mahindra Defence Systems ltd Taneja Aerospace and Aviation Ltd. Vyoneesh Technologies Pvt. Ltd.
5. ICOMM Tele Ltd. Lakshmi Machine Works, Tata Aerostructure Ltd., Larsen and Toubro Ltd, ABG Shipyard Ltd.
6. Jubilant Aeronautics Pvt Ltd, Maini Precision Products Pvt Ltd.
7. Park Controls and Communications Ltd, Rossell Aviation Pvt Ltd.
8. Indian Rotorcraft Ltd.
9. M/s Mahindra Defence Systems Ltd., Tata Aerospace Systems Ltd.

11 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>.

12 Available at <https://indbiz.gov.in/building-a-robust-defence-industrial-base/>.

13 Available at <https://www.thehindu.com/news/national/india-russia-try-to-resolve-impasse-over-ka-226-helicopter-deal/article30754482.ece>.

**Foreign Direct Investment**

10. Larsen and Toubro Ltd.
11. Space Era Materials and Processes Pvt Ltd, Track Systems India Pvt Ltd.
12. Amertec Systems Pvt Ltd, Hical Technologies Pvt Ltd.
13. BF Elbit Advanced Systems Pvt Ltd, SasMos Het Technologies Limited.
14. Quest Global Manufacturing Private Limited, Ideaforge Technology Pvt. Ltd.
15. Quantum Simulators Pvt. Ltd.

# Public Sector

Defence production in India has long been dominated by state-run entities such as the OFs, DPSUs and the DRDO. The size, vast resources and experience of public sector defence production entities constantly places them under scrutiny as there is an expectation on such production entities to deliver maximum output in the most efficient manner.

## I. Ordnance Factories

The OFs form a giant industrial setup which functions under the DDP. Headquartered at Kolkata, the Indian Ordnance Factories is a conglomerate of 41 Factories, 9 Training Institutes, 3 Regional Marketing Centres and 4 Regional Controllers of Safety.<sup>1</sup> 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 & strategic partnership models. 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 the Central Paramilitary Forces and State Police Forces in respect of arms, ammunition, clothing, bullet proof vehicles and mine protected vehicles etc.<sup>2</sup>

Prior to 2021, the OFs used to be managed by the DDP as the highest decision-making body. The objectives set by the DDP were carried out by the erstwhile Ordnance Factory Board (“OFB”) which laid out the policies to be followed by the various OFs. The OFB also laid out the budget allocated to the OFs. Due to the lack of sufficient R&D, skilled manpower and efficient management, the OFs were unable to cater to the ever-growing demands of the Armed Forces. Further, the OFs also struggled with additional burdens with the entry of the private sector in the realm of defence production.<sup>3</sup>

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 had recommended corporatization of OFs under the leadership of one corporate entity to increase the level of accountability and management of the OFs. It specified that corporatization did not have to entail privatization and that a corporate structure would increase the efficiency of the OFs.<sup>4</sup>

The recommendation put forth by the Kelkar committee saw light of day by way of the decision taken by the Union Cabinet on June 16, 2021 to corporatize the functions of the 41 OFs. Accordingly, effective from October 1, 2021, the management, control, operations and maintenance of the 41 OFs were transferred from the now defunct OFB to the following 7 companies which are wholly owned by the Government of India:<sup>5</sup>

1 <https://ddpdoo.gov.in/pages/ofb-in-brief#:~:text=Indian%20Ordnance%20Factories%20is%20a,4%20Regional%20Controller%20of%20Safety.>

2 [https://ti-defence.org/dci/wp-content/uploads/sites/2/2021/01/02-033\\_Indian\\_Ordnance\\_Factories\\_FINAL\\_ASSESSMENT\\_20201216\\_FINAL.pdf](https://ti-defence.org/dci/wp-content/uploads/sites/2/2021/01/02-033_Indian_Ordnance_Factories_FINAL_ASSESSMENT_20201216_FINAL.pdf).

3 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.

4 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.

5 <https://ddpdoo.gov.in/>.

## Public Sector

- a. Munitions Limited India;
- b. Armoured Vehicles Nigam Limited;
- c. Advanced Weapons and Equipment India Limited;
- d. Troop Comforts Limited;
- e. Yantra India Limited;
- f. India Optel Limited; and
- g. Gliders India Limited.

## II. Defence Public Sector Undertakings

Government-owned corporations are termed as Public Sector Undertakings (“PSUs”) in India. In a PSU, a majority (51% or more) of the paid-up share capital is held by the 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, there are 16 central PSUs run under the administrative control of the Department of Defence Production, MoD. These DPSUs are corporate entities run by the Board of Directors and follow broad guidelines set by the DDP, Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises.

The 16 DPSUs are as follows:<sup>6</sup>

1. Hindustan Aeronautics Limited (“HAL”)
2. Bharat Electronics Limited (“BEL”)
3. BEML Limited (“BEML”)
4. Bharat Dynamics Limited (“BDL”)
5. Mishra Dhatu Nigam Limited (“MIDHANI”)
6. Goa Shipyard Limited (“GSL”)
7. Garden Reach Shipbuilders and Engineers Limited (“GRSE”)
8. Mazagon Dock Shipbuilders Limited (“MDL”)
9. Hindustan Shipyard Limited (“HSL”)
10. Advanced Weapons and Equipment India Limited (“AWEIL”)
11. Gliders India Limited (“GIL”)
12. Troop Comforts Limited (“TCL”)
13. Armoured Vehicles Nigam Limited (“AVNL”)
14. Munitions India Limited (“MIL”)
15. Yantra India Limited (“YIL”)
16. India Optel Limited (“IOL”)

<sup>6</sup> <https://www.ddpmod.gov.in/defence-public-sector-undertakings>.



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HAL is the flagship DPSU that accounts for approximately 34% of their collective production<sup>7</sup> (as of the financial year 2021–2022). 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.<sup>8</sup> BEML, BDL, GSL, GRSE and MDL have been conferred the status of Miniratna I<sup>9</sup> which is accorded to those state-owned entities which have (i) made a profit in the past three financial years; (ii) made a pre-tax profit of at least INR 30 crores in any of the past three financial years; and (iii) a positive net worth.<sup>10</sup>

HAL has produced 17 aircrafts with its own research and design, and 14 under license from foreign companies.<sup>11</sup> HAL has also established 11 research centres across India to further stimulate production and innovation in the aircraft manufacturing industry.<sup>12</sup>

BEL manufactures a range of electronic products and systems for ground and aerospace utility for the Army, Navy and Air Force.<sup>13</sup> BEL is currently in phase one of the process of setting up a Missile Systems Integration Complex in Andhra Pradesh for which INR 384 crores has been sanctioned.<sup>14</sup> BEL has also jointly been selected with Rolta India (a private company) to design the Battlefield Management System for the Indian Army which is worth an estimated INR 50,000 Crores.<sup>15</sup> As of June 2023, BEL has received orders worth 5,900 crores for the various weapons systems it manufactures including but not limited to the Akash Prime Weapon System.<sup>16</sup>

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.<sup>17</sup> 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 manufactures cutting edge technology for the Navy including but not limited to conventional submarines, naval ships, tugs, ferries, cargo vessels, etc.<sup>18</sup> AWEIL, GIL, TCL, AVNL, MIL, YIL and IOL 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 and ancillary components.

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.

7 <https://www.ddpmod.gov.in/defence-public-sector-undertakings>.

8 List of Maharatna, Navratna and Miniratna CPSEs, available at <https://dpe.gov.in/en/about-us/policy-i-division/list-maharatna-navratna-and-miniratna-cpse>.

9 <http://www.bsepsu.com/miniratnas.asp>.

10 <https://pib.gov.in/allRel.aspx>.

11 [https://hal-india.co.in/Our%20History/M\\_\\_111](https://hal-india.co.in/Our%20History/M__111).

12 Ibid.

13 <https://bel-india.in/>.

14 <https://www.thehindu.com/news/national/andhra-pradesh/decks-cleared-for-setting-up-of-bel-unit-at-palasangam-in-andhra-pradesh/article66278385.ece>.

15 [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](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).

16 <https://www.outlookindia.com/business/bharat-electronics-bags-rs-5900-crore-orders-from-akash-weapon-system-others-news-296479>.

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

18 <https://mazagondock.in/English/products>.

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. In FY 2023–2024, the MoD has been allotted a budget of INR 5.94 lakh crores and, more significantly, 75% of the entire defence procurement budget has been earmarked for domestic production.<sup>19</sup>

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.<sup>20</sup>

### III. The Defence Research and Development Organization

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 11 research institutions. Currently, it has over 53 research laboratories and establishments<sup>21</sup> and 15 centres of excellence.<sup>22</sup>

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.

The DRDO has transferred indigenously developed technologies to Indian industries. As of July 2022, the DRDO has executed 1,464 ToT agreements with various industries.<sup>23</sup> The DRDO has also 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.

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.<sup>24</sup> India's missile systems are among the most advanced in the world. The Indian LCA is among a handful of such cutting-edge fighter aircraft of its class.

19 <https://pib.gov.in/PressReleasePage.aspx?PRID=1899388#:~:text=In%20FY%202023%2D24%2C%20Ministry,to%20Rs%201.63%20lakh%20crore.>

20 <https://pib.gov.in/newsite/PrintRelease.aspx?relid=133239>, <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1539035>.

21 <https://www.drdo.gov.in/labs-and-establishments>.

22 <https://www.drdo.gov.in/adv-tech-center>.

23 <https://economictimes.indiatimes.com/news/defence/drdo-has-signed-1464-technology-transfer-agreements-with-indian-companies-till-date-government/articleshow/92985418.cms?from=mdr>.

24 Engineering Watch, March 2013, Interview of Mr. V.K. Saraswat, chief of DRDO in 2013.

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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. In the current defence budget, less than 2 percent of the total defence budget has been apportioned for R&D.<sup>25</sup> This has prompted establishment of various training institutes and academic institutions in the country. The DRDO's annual budget is around \$2.8 Billion<sup>26</sup> as compared to \$2.01 trillion<sup>27</sup> allocated for Defence R&D by the United States of America.

Lack of an R&D Plan on a national level that integrates the research needs of the country and spans the entirety of the ambit for defence research, commercial research, information technology, space research etc. has been sorely felt .

## 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 off-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.<sup>28</sup> 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.<sup>29</sup> Additionally, as of July 2021, 333 private companies have been issued a total of 539 industrial licenses. Out of these, 110 companies have reported commencement of production.<sup>30</sup> As of April 2023, a total of 606 Industrial Licenses have been issued to 369 companies operating in the defence sector.

The annual turnover as reported by companies operating in defence and aerospace sectors in the private sector for the year 2018–19 is approximately INR 15,000 crores.<sup>31</sup> 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.

25 <https://www.orfonline.org/expert-speak/weak-investment-in-defence-rd/>.

26 <https://www.financialexpress.com/business/defence-budget-2023s-allocation-for-defence-manufacturing-and-rampd-is-insufficient-say-india-inc-2970428/#:~:text=Research%20and%20Development%20in%20Defence,on%20a%20technology%20development%20fund.>

27 <https://www.usaspending.gov/agency/department-of-defense?fy=2023>.

28 IDSA Publications, Lakshman K Behera, 'The Private Sector', July 2016.

29 '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.

30 [pib.gov.in/PressReleaselframePage.aspx?PRID=1739049](http://pib.gov.in/PressReleaselframePage.aspx?PRID=1739049).

31 <http://www.businesstoday.in/current/economy-politics/indian-defence-investment-on-pm-narendra-modi-pledge/story/209442.html>, August, 2014 Available at <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1579736#:~:text=The%20Annual%20Turnover%20as%20reported%20by%20companies%20operating,corresponding%20figures%20for%20Public%20sector%20is%20Rs.63208%20crores.>

## IV. 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.<sup>32</sup> 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.<sup>33</sup>

### A. The Tata Group<sup>34</sup>

- The Tata Group has bagged the biggest private sector contract in defence sector in a deal for making military aircrafts. For the first time, an Indian private sector company will manufacture military aircraft, the long-pending Airbus-Tata project to build 56 C-295 transport aircraft, for a cost of over INR 21,000 crore.
- In 2021, Lockheed Martin has established a joint venture with Tata Advanced Systems to manufacture F-21 fighter wings at a production facility in India. The partnership comes after Tata manufactured parts for a fighter aircraft wing prototype to support a campaign to sell 114 F-21 fighters to the Indian Air Force.<sup>35</sup>
- 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.
- 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 ToT 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.<sup>36</sup> A marquee procurement order for the Indian Army, the Integrated Electronic Warfare Systems for Mountainous Terrain (“IEWS-MT”),

32 Tata Motors website, available at <https://www.businesstoday.in/markets/stocks/story/stocks-in-news-tata-motors-ashok-leyland-piramal-enterprises-aurobindo-pharma-and-more-405305-2023-11-10>.

33 Pipavav Defence and Offshore Engineering Company Limited, Annual Report 2010-11, p.2.

34 Available at [www.tataadvancedsystems.com](http://www.tataadvancedsystems.com).

35 Available at <https://www.thedefensepost.com/2021/12/09/tata-lockheed-f21-wings-india/#:~:text=Lockheed%20Martin%20has%20established%20a%20joint%20venture%20with,114%20F-21%20fighters%20to%20the%20Indian%20Air%20Force>.

36 Defence Now, ‘Tata Power wins prestigious contract for modernisation of IAF airbases’, April 11, 2011, available at [https://www.business-standard.com/article/companies/tatas-bag-record-deal-to-modernise-air-force-bases-111041100078\\_1.html](https://www.business-standard.com/article/companies/tatas-bag-record-deal-to-modernise-air-force-bases-111041100078_1.html).

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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.<sup>37</sup>

- On February 22, 2017, the MoD signed a contract with Nova Integrated Systems (“NISL”), a subsidiary of Tata Advanced Systems 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 DAP 2020. 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.

## B. The Mahindra Group<sup>38</sup>

- The Mahindra Defence Systems Limited (“MDS”) bagged a major defence deal from the Indian government for the manufacturing of Integrated Anti-Submarine Warfare Defence Suite (“IADS”) for the Indian navy. The Mahindra & Mahindra Ltd group company signed a contract worth INR 1,349.95 crore for manufacturing of 14 IADS systems for modern warships of the Indian Navy with the Union Defence Ministry in 2021.
- Airbus Helicopters 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.<sup>39</sup>
- Annual procurement of Airbus Group from India exceeds USD 500 million from over 45 suppliers in 2015. It 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.

37 Available at <https://economictimes.indiatimes.com/news/politics-and-nation/tata-group-to-form-jv-with-israel-firm-for-defence-products/articleshow/2789803.cms>.

38 Available at [www.mahindra.com](http://www.mahindra.com).

39 Available at [http://www.airbusgroup.com/int/en/news-media/press-releases/Airbus-Group/Financial\\_Communication/2016/07/Make-in-India-boost-Airbus-Helicopters.html](http://www.airbusgroup.com/int/en/news-media/press-releases/Airbus-Group/Financial_Communication/2016/07/Make-in-India-boost-Airbus-Helicopters.html).

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- 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 February, 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.

### C. Reliance Defence<sup>40</sup>

- 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.<sup>41</sup> In February 2017, Dassault Reliance Aerospace Limited (“DRAL”), a joint venture 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.<sup>42</sup>

### D. Bharat Forge<sup>43</sup>

- Kalyani Strategic Systems, a subsidiary of Bharat Forge Limited, has announced that it has bagged an order worth USD 155.5 million (about INR 1,270 crore) for export of its 155mm, 39 calibre truck-mounted artillery guns. The deal is being seen as a significant step towards India achieving its defence export target of USD 5 billion (Rs 40,792 crore) by 2025.<sup>44</sup>
- Kalyani Strategic Systems Ltd (“KSSL”) entered into a joint venture with Saab Group for manufacturing of surface-to-air missile system and very short-range 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.

40 Available at <https://www.deccanchronicle.com/business/in-other-news/031016/rafale-deal-reliance-dassault-aviation-set-up-joint-venture.html>, <https://thewire.in/security/full-text-french-report-on-dassault-saying-reliance-jv-is-imperative-and-obligatory>.

41 Available at <https://economictimes.indiatimes.com/news/defence/reliance-aerostructure-limited-joint-venture-with-rafale-manufacturer-dassault-aviation-incorporated/articleshow/57188030.cms>.

42 Available at <http://www.thehindubusinessline.com/companies/reliance-defence-teams-up-with-south-korean-co-lig-nex1/article9643273.ece>.

43 Available at [www.bharatforge.com](http://www.bharatforge.com).

44 Available at <https://www.indiatoday.in/india-today-insight/story/bharat-forge-subsidiarys-1555-mn-artillery-gun-deal-a-big-boost-for-indian-defence-exports-2295743-2022-11-10>.

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- Kalyani Strategic Systems, 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.

## E. Larsen & Toubro (“L&T”)<sup>45</sup>

- 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.<sup>46</sup>
- In Feb 2017, L&T and the UK-based MBDA, one of the leading global players in missile systems, set up a joint venture 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.
- L&T entered into an agreement with and IdeaForge, manufacturer of Unmanned Aerial Vehicles to offer drones and allied systems for defence use. Both the companies will combine their strengths to offer hi-tech, integrated drone solutions to enhance security and surveillance. They will also offer anti-drone solutions to counter the threat of malicious or unintended usage of drones.<sup>47</sup>
- The MoD on Friday signed a contract with Indian conglomerate, L&T for the acquisition of 2 (Two) multi-purpose vessels (“MPV”) for the Indian Navy. The INR 8.87 billion deal was signed under the “Buy-Indian” category.<sup>48</sup>

## F. Wipro Limited<sup>49</sup>

- 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 analysis and design (“A&D”) companies for providing Manufacturing, Engineering and information technology solutions to support Indian as well as Global Aerospace and Defence Programs.
- Wipro established an A&D green field plant in Bangalore’s Aerospace special economic zone and supplies parts/ components for Hydraulic actuation to leading European and US air framers/ tier 1&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.

45 Available at [www.larsentoubro.com](http://www.larsentoubro.com).

46 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/>.

47 Available at <https://www.thehindubusinessline.com/companies/lt-to-offer-drone-technology-to-defence-forces/article30760249.ece>.

48 Available at <https://www.financialexpress.com/business/defence-indian-navy-to-get-two-indigenous-mpvs-from-larsen-and-toubro-mod-signs-contract-for-rs-887-crore-2472217/>.

49 Available at <https://www.wipro.com/newsroom/press-releases/archives/wipro-joins-hands-with-cae-to-address-indias-defence-training-ne/>.

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- 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 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 tests on LRU's, as well as ruggedizing for avionics and defence requirements.

## G. Other Breakthroughs<sup>50</sup>

- Lumax Auto Technologies Ltd (“LATL”) and SIPAL S.P.A entered into a joint venture in fiscal 2016 which deals in defence services. Lumax Integrated Ventures Pvt. Ltd. (“LIVL”), a wholly owned subsidiary of LATL holds 51% equity with management control over JV, while SIPAL SpA holds the remaining 49%.<sup>51</sup> The company is 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 BEL 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 of India.<sup>52</sup> 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.<sup>53</sup>
- Aircraft engine maker Rolls-Royce Holdings Plc on Thursday opened a new defence service delivery centre 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 HAL.<sup>54</sup>

50 ASSOCHAM, 'Make in India: Achieving self-reliance in defence production', available Available at <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1945710>.

51 Available at: <https://www.lumaxworld.in/lumaxautotech/downloads/Credit-Rating-28022023.pdf>.

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

53 'Mahindra soars into the aerospace segment, acquires majority stake in two Australian companies', available at [https://idsa.in/TWIR/12\\_3\\_2009\\_DefenceNational4](https://idsa.in/TWIR/12_3_2009_DefenceNational4), <https://www.thehindu.com/business/companies/Mahindra-buys-major-stake-in-Australian-firms/article16853553.ece>.

54 Available at <https://www.ibef.org/news/rollsroyce-opens-defence-ser-vice-delivery-centre-in-india>.



## V. 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:

- Annual rise in the defence budget of India.
- Aerospace and defence sector with vast potential for growth is an industry of INR 80,000 crore out of which the contribution of private sector is INR 17,000 crore.<sup>55</sup>
- Clarity on items requiring ILs, single window for application to obtain ILs and streamlined procedures
- Large imports.
- Delisting of several items from export clearances.
- New thrust to Buy and Make, and Make, categories of procurement in DAP 2020.
- Increased scope for ToT.
- Increased FDI cap in automatic route and governmental route subject to certain conditions.
- Level playing field with the public sector-removal of exemptions granted to public sector companies and undertakings for payment of customs and excise duties.
- 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.<sup>56</sup>

## VI. The Way Forward

The defence industry sector, which was hitherto reserved for the public sector, was opened up to 100% for the Indian private sector participation in May 2001. The Indian defence ecosystem is a confluence between the government and the defence manufacturing industry. Sustainable growth in the industry can only be achieved when one propels the other. Aerospace & defence sector is estimated to be INR 80,000 crore industry, to which the private sector's contribution has steadily grown to INR 17,000 crore. The recent government policies reflect on the vision of making the private defence sector a global leader.

Several policies & initiatives have been implemented to boost the private defence and aerospace sector. The steps taken include digitising internal processes, providing checks and balances to restrict imports and promote exports, formulating schemes aimed at promoting ease-of-doing-business and encouraging the manufacture and purchase of indigenous products, which act as the wings for the private defence sector to take flight.

For the financial year 2022–23, the share of domestic capital procurement, which was earmarked at 64% in 2021–22, has been enhanced to 68% of the Capital Acquisition Budget of the Defence Services (INR 1.24 lakh crore).<sup>57</sup> The total budget for defence has been increased in 2022–23 to INR 5.25 lakh crore, up from INR 4.78 lakh crore in 2021–22. A total of INR 1,52,369 crore has been set aside for capital expenditure that includes purchasing new weapons, aircraft, warships and other military hardware.<sup>58</sup>

55 Available at <https://mod.gov.in/sites/default/files/Excellence-in-defence-%26-aerospace-sector.pdf>.

56 p114, Dhirendra Singh Committee Report.

57 Available at: [pib.gov.in/PressReleaseIframePage.aspx?PRID=1794415](http://pib.gov.in/PressReleaseIframePage.aspx?PRID=1794415).

58 Available at: <https://indiandefenceindustries.in/defence-budget-2022-23>.

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**Public Sector**

In yet another major move, the government has established two defence industrial corridors, one each in Uttar Pradesh and Tamil Nadu. The investments of INR 20,000 crore have been envisaged in defence corridors of Uttar Pradesh and Tamil Nadu by the year 2024. So far, investment of approximately INR 3,342 crore has been made in both the corridors by public as well private sector companies. Moreover, the respective state governments have also announced their Aerospace & Defence Policies to attract private players as well as foreign companies including OEMs in these two corridors.

DAP 2020 provided a level-playing field for Indian Private Defence Industries as elaborated below:<sup>59</sup>

- i. Various categories of capital acquisition prescribed under DAP 2020 allow Indian companies, both private and public, to participate in the acquisition process.
- ii. Under strategic partnership model, any Indian company (as defined under the Companies Act, 2013), owned and controlled by resident Indian citizen is only eligible for applying under selection process for strategic partners.
- iii. Indian private shipyards have also been made eligible for bidding in projects along with PSU shipyards.
- iv. Trial and testing procedures have been overhauled with the objective to nurture competition based on principles of transparency, fairness and equal opportunities to all.
- v. Industry friendly commercial terms have been introduced.

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59 Reforms Booklet for print 14-7-21english, available at [pib.gov.in](http://pib.gov.in).

# 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:<sup>1</sup>

- a. Develop globally competitive Indian enterprises;
- b. Increase India's R&D capacity;
- c. Develop synergistic sectors (e.g. Civil Aviation).

Under DAP 2020, offsets are applicable to acquisitions under the Buy (Global) 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:<sup>2</sup>

- a. 30% of the indigeneous content.

The DAP 2020 exempts the following from offset obligations:<sup>3</sup>

- 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 March 2023, a total of 15 offset agreements have been signed.<sup>4</sup> The total contracted offset amount from the year 2017 to 2022 in the agreements with nine foreign vendors is USD 1.86 Billion.<sup>5</sup>

The evolution of the offset policy from the DPP 2016 to DAP 2020 includes articulated objectives of offset policy; broadened avenues for the discharge of the offset obligations; streamlined applicability of offset; refined mechanisms of implementation and monitoring; flexibility for vendors to plan offset activity; and incorporation of multipliers. Despite periodic reformulation of the offset policy, it seems to have multiple shortcomings.

1 DPP 2016.

2 Para 28, Chapter 2, DPP 2016.

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

4 <https://www.thehindubusinessline.com/news/national/foreign-vendors-owe-over-89-crore-in-three-defence-offset-agreements-ministry-of-defence/article66615429.ece>.

5 <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1906338#:~:text=The%20total%20contracted%20offset%20amount,of%20claims%20fulfilled%20are%20175.48%25>.

## Offsets

In the past five years, 21 contracts have revealed that multiple vendors have failed to fulfill their offset obligations. This failure has resulted in a significant shortfall of USD 2.4 billion as of December 31, 2021.<sup>6</sup> Audit reports conducted by the Comptroller and Audit General (“CAG”) indicate various issues with these procurements. These issues include a lack of realization of offset benefits, absence of value additions, inappropriate selection of Indian offset partners, delays throughout the contract and delivery process, and inadequate monitoring and supervision. Furthermore, a study conducted by the Institute for Defense Studies and Analysis (“IDSA”) highlights that the offset policy has had limited impact on the defense industry, particularly in the transfer of technology.

44 more contracts with potential offsets worth USD 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.<sup>7</sup>

## 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 Appendix E to Chapter II of the DAP 2020, 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<sup>8</sup> 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. 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.<sup>9</sup>

6 <https://economictimes.indiatimes.com/news/defence/view-what-is-to-be-done-with-indias-defence-offset-policy/articleshow/93805484.cms?from=mdr>.

7 Dhirendra Singh Committee Report, para 4.18.02 and 4.18.03.

8 Appendix E, Chapter 2, DAP 2020.

9 Para 3, Appendix E, Chapter 2, DAP 2020.

## B. Identify Indian Offset Partner<sup>10</sup>

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 DPIIT/MHA 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.<sup>11</sup> 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 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.<sup>12</sup>

## 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) in clause I(A) of the paper. 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.<sup>13</sup>
2. The DAP 2020 provides special procedure for Inter-Governmental Agreements forming the basis of a main procurement contract.<sup>14</sup>
3. The DAP 2020 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 DAP 2020 permits the discharge of upto 50% of the offset obligations through banked offset credits. The banking of offset credits is covered by prescribed guidelines.<sup>15</sup> 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.<sup>16</sup>

<sup>10</sup> Para 4, Appendix D, Chapter 2, DAP 20202016.

<sup>11</sup> DAP 2020, Chapter 2, Annexure 1 to Appendix E.

<sup>12</sup> DAP 2020, Chapter 2, Appendix E.

<sup>13</sup> DAP 2020, Chapter 2, Annexure 2, Appendix E.

<sup>14</sup> DAP 2020, Chapter 2, Appendix E.

<sup>15</sup> DAP 2020, Chapter 2, Appendix E.

<sup>16</sup> DAP 2020, Chapter 2, Appendix E.

## Offsets

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.<sup>17</sup>
5. The DAP 2020 also provides various multipliers for discharge of offset obligations as follows:<sup>18</sup>
  - a. Offsets towards Micro, Small and Medium Enterprises: multiplier of 1.5.
  - b. Towards ToT to the DRDO: multiplier of up to 3.

Where:

- i. Multiplier of 2 when the armed forces are allowed use of the technology without restriction on production numbers.
  - ii. Multiplier of 2.5 when both civil and military applications are allowed in India but only for usage without restrictions on production numbers.
  - iii. 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.<sup>19</sup> 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.<sup>20</sup>

### III. Penalties and Clarifications<sup>21</sup>

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 DAP 2020.

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 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.

<sup>17</sup> DAP 2020, Chapter 2, Appendix E.

<sup>18</sup> DAP 2020, Chapter 2, Appendix E.

<sup>19</sup> DAP 2020, Chapter 2, Appendix E.

<sup>20</sup> DAP 2020, Chapter 2, Appendix E.

<sup>21</sup> DAP 20202016, Chapter 2, Para 8.1113, Appendix E.

## 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.

Lack of data in public domain such as names of the 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.<sup>22</sup> 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.

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<sup>22</sup> CAG Report No. 17 of 2012-13, pages 27-28.

# Exports

A corollary to the re-invigorated focus on augmentation of indigenous manufacturing capacities is the revamped approach to building the export potential of the industry. While satisfying domestic requirements remains the priority for India, there is a marked trend towards development of India's role as a global arms exporter.<sup>1</sup>

The expenditure on defence procurement from foreign sources has reduced from 46% of the overall expenditure in 2018–19 to 36.7 per cent as of December 2022, reflecting a strategic shift towards self-reliance and indigenous manufacturing capabilities. In 2016–17, 17.8% of the total central government expenditure was spent on defence which is expected to decline to 13.2% according to the budget estimates of 2023–24. Furthermore, with the eight times increase in the defence exports since 2016–17, the exports worth INR 1,522 have gone up to INR 13,800 till date.<sup>2</sup>

This paradigm shift in India's defence landscape has transformed the country from primarily being an importer of defence equipment to emerging as an exporter of significant platforms. Notable examples include the indigenous production of aircraft such as the Dornier-228, artillery guns, Brahmos Missiles, PINAKA rockets and launchers, radars, simulators, and armoured vehicles. India's successful foray into the global defence market showcases its expertise and potential to meet the diverse needs of nations worldwide.

## I. International Regulatory Framework

The international market for defence products is characterised by export control regimes which seek to secure the non-proliferation of weapons of mass destructions, missiles and conventional arms. Multilateral export regimes governing these equipment are: the Nuclear Suppliers' Group, the Wassenaar Arrangement, the Australia Group, and the Missile Technology Control Regime. In order to gain access to advanced technology products, India has been attempting to secure the membership of these international control regimes. Recently, India has obtained entry to the MTCR,<sup>3</sup> Wassenaar Arrangement,<sup>4</sup> and the Australia Group.<sup>5</sup>

Joining these export regimes has provided a huge boost to India's attempts to access the international market for missiles. India has been actively marketing its BrahMos missiles and has also sought to purchase advanced missiles from other countries.

1 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1912192>.

2 Available at: <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1913302>.

3 India joins the Missile Technology Control Regime, The Hindu, June 27, 2016; available at: <http://www.thehindu.com/news/national/%E2%80%8BIndia-joins-Missile-Technology-Control-Regime.-Top-5-things-to-know/article14405165.ece>.

4 India to assume chairmanship of Wassenaar Arrangement for one year today, National News, January 01, 2023, available at <https://newsonair.gov.in/News?title=India-to-assume-chairmanship-of-Wassenaar-Arrangement-for-one-year-today&id=453292#:~:text=India%20joined%20the%20Wassenaar%20Arrangement,as%20its%2042nd%20participating%20state>.

5 Press Release: India Joins the Australia Group, available at: [https://www.dfat.gov.au/publications/minisite/theaustraliagroupnet/site/en/india\\_statement.html](https://www.dfat.gov.au/publications/minisite/theaustraliagroupnet/site/en/india_statement.html).



## II. Domestic Regulatory Framework

**Foreign Trade (Development and Regulation) Act, 1992 (“FTDRA”):** FTDRA forms the basis for India’s export trade regime, including in the defence industry. The FTDRA defines an export as “taking out of India any goods, technologies, or services by land, sea or air.” It empowers the government to regulate, restrict, prohibit all or specified classes of exports/ imports.

It also allows the government to prepare the Foreign Trade Policy (“FTP”) (the current policy being FTP 2023) and to set out procedures for carrying out import/ export of goods and services. These procedures are set out in the Foreign Trade Policy Handbook of Procedures (“FTP Handbook”).

The administration of the FTDRA and the FTP is the responsibility of the Directorate General of Foreign Trade (“DGFT”). The DGFT periodically provides for the list of goods and services that may or may not be exported and/or imported, as the case maybe. Goods, technologies, and services subject to dual- use licensing requirements<sup>6</sup> are listed in India’s national export product control list, known as the Special Chemicals, Organisms, Materials, Equipment, and Technologies (“SCOMET”) list contained in Appendix 3 of Schedule 2 of the ITC (HS) Classification. SCOMET items are listed under nine (9) categories as follows:

- Category 0: Nuclear material, nuclear-related other materials, equipment and technology.
- Category 1: Toxic chemical agents and other chemicals
- Category 2: Micro-organisms, toxins
- Category 3: Material, Materials Processing Equipment, and related technologies.
- Category 4: Nuclear-related other equipment, assemblies and components; test and production equipment; and related technology, not controlled under Category 0
- Category 5: Aerospace systems, equipment including production and test equipment, related technology and specially designed components and accessories thereof.
- Category 6: Munitions List
- Category 7: Electronics, computers, and information technology including information security.
- Category 8: Special Materials and Related Equipment, Material Processing, Electronics, Computers, Telecommunications, Information Security, Sensors and Lasers, Navigation and Avionics, Marine, Aero-space and Propulsion.

Each category contains exhaustive listing of items covered under that category. Special conditions applicable to items under different categories are mentioned there-under. The gamut of the SCOMET list is large and covers a wide variety of defence equipment and products. Foreign trade in the list of defence equipment is highly restricted and requires licensing from various governmental authorities. Further, the SCOMET list is periodically updated to reflect India’s international commitments in respect of the Nuclear Suppliers’ Group, the Wassenaar Arrangement, the Australia Group, and the MTCR.

The overall aim of the FTP and the FTP Handbook is to secure a streamlined set of procedures and regulations for the export and import of goods and services in India. With respect to defence equipment and materials designated as SCOMET, the prior approval of the DGFT and other governmental authorities (as may be applicable) shall be required.

<sup>6</sup> Dual-use items are goods, software, technology, chemicals etc. which can be used for both civil and military applications. Such items require an authorization for exporting out of the country. India’s list of items which need an export license is known as the SCOMET list.

## Exports

As highlighted above, the revised SCOMET regulations have been sought to be brought in line with global standards. With the increasing interconnectivity of global supply chains, the adoption of global best practices in the form of the SCOMET list and concomitant authorisations, India's trading partners can be assured of the quality standards of the defence equipment. The stricter standards also place India on a stronger footing in competing with other exporting nations. The DGFT is the competent authority to issue authorisations for items listed in categories 1, 2, 3, 4, 5, 7 and 8 of the SCOMET list. Further, for items listed in category 0, the competent licensing authority is the Department of Atomic Energy which is also responsible for monitoring the movement, security, protection of such items.

The revisions to the SCOMET list were made with the view to ensure that India's participation in the global supply chain for weapons is transparent and adequate safeguards are in place to ensure that exports do not fall into the hands of proliferators, terrorist groups and non-state actors. The new Category 8 of SCOMET is titled 'Special Materials and Related Equipment, Material Processing, Electronics, Computers, Telecommunications, Information Security, Sensors and Lasers, Navigation And Avionics, Marine, Aerospace And Propulsion'. It has been populated with Wassenaar Arrangement (WA). Dual use list items to harmonize India's export control list with the WA. Importantly, the DGFT has also specified that the timeline for the authorisation of the exports has been brought down to a period of 30 days from the earlier period of 45 days. These concessions have been notified in the FTP Handbook. The SOP (revised by the New Notification and explained below) covers items set out as category 6 ('Munitions List'). Export trade in these items would require the authorisation of the Department of Defence Production, Ministry of Defence.

The Weapons of Mass Destruction and Their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005 ("WMD Act"). The WMD Act authorizes the government to regulate export, re-transfer, re-export, transit, transshipment of any items relating to or connected with the development, manufacturing, operation, storage, etc. of weapons of mass destruction. The WMD Act is to be read together with the FTDRA in appreciating India's policy framework with respect to conventional weapons. No individual or entity can undertake an export if they are aware that the transaction is related to a prohibited activity, including the development, storage, transmission, etc. of WMDs.

### III. Strategy for Defence Exports

With a view to harmonize the approach of the government to the export capacities of the domestic defence industry, the DDP, MoD, Government of India has formulated the Strategy for Defence Exports<sup>7</sup> ("Export Strategy"). The Export Strategy has been formulated with the view to harmonise India's domestic needs without prejudicing efforts by Indian businesses to tap the international market for defence products. Further, promoting the export of defence equipment would also be beneficial for the purposes of improving the country's balance of trade position. The salient features of the Export Strategy are as follows:

- Constitution of an export promotion council to aid and advise the Government of India to develop export promotion schemes, identify potential export markets and aid in the development of an export control regime in light of the India's international obligations;
- An export steering committee is also to be set up under the chairmanship of the Secretary, Department of Defence Production. The Committee shall also have representatives of the armed forces, DRDO, the Ministry of External Affairs, and the DGFT.

7 Strategy for Defence Exports, Government of India; available at: <https://www.ddpmod.gov.in/sites/default/files/STRATEGY%20FOR%20DEFENCE%20EXPORTS.pdf>.

## Exports

The functions of this committee would include consideration and taking decisions on cases of export permissions (which are outside the purview or scope of subordinate authorities/committees), particularly export of indigenously developed sensitive defence equipment, monitor the progress in defence exports and suggest specific steps/ strategy to boost exports;

- Incentives and government support through trade missions, diplomatic support, financial and fiscal incentives such as ease of obtaining credit, line of credit, etc.; and
- The use of the offsets mechanism to bolster exports.

Further, the Export Strategy is also committed to the introduction of a more streamlined process for export control, regulatory clearances and issuance of no-objection certificates.

## IV. Standard Operating Procedure for Obtaining a No Objection Certificate

Pursuant to the requirements of the FTP and the FTP Handbook, exporters of defence goods are required to obtain a NOC from the DDP, Ministry of Defence, New Delhi. The application procedure had been enumerated under a standard operating procedure (“SOP”) vide Notification No. (115(RE-2013/2009–2014) dated 13th March 2015 (“Old Notification”). However, in order to bring the foreign trade regulations in line with India’s international obligations, the SOP under the Old Notification has been rescinded and has been substituted by the SOP under the DGFT’s Policy Circular No. 5/ 2015–2020 dated May 25, 2017 (“New Notification”). The revisions to the SOP were made in order to synchronise the standard operating procedure for trade of goods designated on the SCOMET list with standards laid down by Missile Technology Control Regime, the Wassenaar Arrangement, the Australia Group and to adhere to the guidelines of the Nuclear Suppliers Group.

### A. Supporting Documents

It may be noted that the exporter is required to make an online application for NOC on the online portal hosted by the Department of Defence Production. The exporter is required to provide a ITC(HS) classification of the defence equipment proposed to be exported together with the intent for the NOC being sought. Further, the application is to be accompanied with the following documents:

- a. The copy of the purchase/ supply order, proofs of participation in a tender offer, and where the export is sought for exhibitions or testing, etc. — documentary evidence of the same;
- b. The technical specifications of the items sought to be exported; and
- c. An end-user certificate (in the prescribed format) signed and stamped by the competent governmental authority.

## B. Application

The application is to be examined in consultation with the stakeholders. The application shall be evaluated on the basis of the requirement of the FTP Handbook.

Once a consensus has been reached between stakeholders, the application is approved. If, no consensus is reached, the case is referred to the Joint Secretary who shall convene a meeting within a period of 15 days to resolve outstanding issues and arrive at a consensus.

If a consensus is still not reached, the matter is referred to a meeting of the Defence Export Steering Committee. If the matter remains unresolved at this stage, the Minister for Defence, Government of India, is required to provide a decision. The SOP further specifies the technical requirements and procedures required to be undertaken by the competent authorities at the time of examining applications made by the exporters.

## C. Validity of NOC

In case of general export, NOC is valid for a period of two years (from the date of issue) or completion of order, whichever is earlier. If NOC is issued for testing and evaluation purpose, the validity of NOC is one year. NOC issued for tender participation and exhibition purpose is valid for 6 months only. The NOC for Transfer of Technology/Software shall be valid for 2 years from the date of issue of approval or the date of completion of contract/order, whichever is earlier. However, the same can be extended from time to time based on requirement and merit.

## D. Appeal

Where, however, the application has been rejected, the SOP provides for an appeal mechanism. In the case of rejection/denial of the NOC, the exporter may make representations to the ministry within 30 days of such denial/ rejection.

## E. Record Keeping

Once the NOC is received and the export has taken place, the exporter is required to maintain adequate records of such export for a period of 5 years.

## F. No Broking

It may be noted that exporters are not permitted to engage professional brokering firms for the purposes of their export trade. Brokering is prohibited in terms of provisions of the Foreign Trade Development and Regulation Act 1992 as amended and the Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act 2005.

## V. Notable Exports<sup>8</sup>

- India is in talks with Egypt and Argentina for the possible sale of LCA Tejas to their air forces as the country sharpens its focus on increasing its share in foreign markets;
- Egypt has projected a requirement for 20 aircraft while Argentina needs 15 new fighters;
- HAL, the public sector aerospace and defence company, is also looking at exporting Advanced Light Helicopters (ALH) to the Philippines;
- BrahMos Aerospace and the Philippines signed a deal worth almost USD 375 million in 2022 for the Philippine Marines to buy three batteries of the BrahMos supersonic cruise missile;
- Kalyani Strategic Systems Limited won an export order worth USD 155.5 million for supplying 155mm artillery guns;
- Recently, the defence ministry, on March 30, 2023, signed a raft of contracts for indigenous military hardware worth INR 32,100 crore, including warships, supersonic missiles for the navy, and surface-to-air missiles and weapon locating radars for the army;

In light of these notable instances, it is evident that India's export capabilities are fast-growing and are finding a strong international market. The Government of India is keen to harness this prowess to improve India's standing in the international markets for defence products.

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<sup>8</sup> <https://www.hindustantimes.com/india-news/indias-defence-exports-hit-record-high-of-rs-15-920-crore-in-fy-2022-23-a-tenfold-increase-since-2016-17-thanks-to-make-in-india-reforms-101680344018909.html>.

# Intellectual Property

Intellectual property ('IP') plays a major role in defense acquisition and procurement contracts and the protection as well as retention of such Intellectual Property Rights ("IPRs") developed during or for a project becomes critical. The following is a list of legislative provisions relating to intersection of defence and security and IP in India. Where these provisions are silent regarding ownership and assignment of IP with regard to ToT arrangements, the agreements between the parties prevail. This has been covered in the "ToT 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.<sup>1</sup>

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 other circumstances 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.<sup>2</sup>

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.<sup>3</sup> 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.<sup>4</sup>

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.

1 Patents Act, Section 99.

2 Patents Act, Section 100.

3 Patents Act, Section 102.

4 Patents Act, Section 103.

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.<sup>5</sup>

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.<sup>6</sup>

The CG shall not disclose any information relating to any patentable invention or patent application under the 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.<sup>7</sup>

## 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<sup>8</sup> or artistic work.<sup>9</sup>

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 they consider prejudicial to the interest of the security of India.<sup>10</sup> The Controller has power to cancel such registration in the interest of security of India.<sup>11</sup>

5 Patents Act, Section 35.

6 Patents Act, Section 36.

7 Patents Act, Section 157A.

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

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

10 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.

11 Designs Act, Section 46.

### 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.<sup>12</sup> 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.<sup>13</sup>

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.<sup>14</sup> Thus, in exercise of these powers, the Controller can mandate for disclosure or cancellation of the registration on grounds of security of India.

### 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’.<sup>15</sup> 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 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.<sup>16</sup> Hence, the Registrar, in exercise of these powers can direct for non-disclosure or even cancellation of registrations in the interests of the security of India.

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

## II. The DAP 2020 and Intellectual Property

The DAP 2020 provides for IP related safeguards across acquisition categories such as ‘Buy’, ‘Buy and Make’ and ‘Make’ categories (which includes the Make I, Make II and Make III sub-categories). Since these categories involve Indian firms to collaborate and obtain the ToT arrangements from FOEMs, there are various restrictions and compliance requirements prescribed.

<sup>12</sup> Semiconductor Integrated Circuits Layout-Design Act, 2000, Section 2(r).

<sup>13</sup> Semiconductor Integrated Circuits Layout-Design Act, 2000, Section 2(h).

<sup>14</sup> 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”.

<sup>15</sup> 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.”

<sup>16</sup> 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.”



The DAP 2020 also clarifies that the terms of the ToT arrangements shall be provided to the designated production agency(s) who contract with the OEMs, prior to the issue of RFP and the terms of the same shall be negotiable.<sup>17</sup>

### ToT under the ‘Buy’ and ‘Buy and Make’ Category

The DAP 2020 prescribes the items that are to be identified as part of a ToT by the OEM. These include: the complete engineering and manufacturing documentation of the items are being provided by an OEM, items that are manufactured by the OEM’s subcontractors based on engineering documentation provided by the OEM, items that the OEM completely subcontracts the development and manufacture of technology by providing only procurement specifications, etc. ToT may also be limited to maintenance where the OEM can only provide documentation for maintenance, recommended list of spares for repair and overhaul as may be applicable and maintenance training. Some technology that is ‘proprietary’ to the OEM may not be transferred at all and such technology should not be critical technology to the product structure or add significant value in the relative percentage of the product cost by more than 10%.<sup>18</sup>

Any technology that is to be acquired or where ToT is being sought must be laid down in detail in the RFP including with the following notable details:<sup>19</sup>

- All technology for design/development and manufacture of systems, sub-systems, assemblies, components, materials, etc. as well as for repair, overhaul (besides production from Completely Knocked Down (“CKD”)/Semi Knocked Down (“SKD”) kits), and production from raw material must be covered in the range and depth of the ToT. This ToT arrangement should include the required rights, licenses and authorisation to manufacture, use and sell the product.
- Thresholds of Indigenous Content as per the defence acquisition category must be ensured by asking the vendor to furnish an ‘Indigenous Plan’. OEM suppliers must either set up indigenous manufacturing facilities or enter into joint ventures with Indian companies towards achieving these Indigenous Content requirements.
- The vendor is required to undertake to provide and support complete ToT wherein the support should be provided for a minimum of 20 years after production of the last unit.
- The vendor should submit an undertaking not to exceed budgetary price for parameters such as license fee, documentation, technical assistance, spares, training, etc.
- Catalogue/standard items sourced by OEMs against procurement specifications by the vendor must be “bought out” and limited ToT for maintenance support may be obtained.
- If a single sub-system/assembly/sub-assembly constitutes more than 10% of the product cost, a separate ToT proposal must accompany the bid.
- A list of heads of documentation is prescribed that must be provided by the OEM, in English, including technical manuals, engineering documentation, software support manual including source code, etc. A ‘Compliance Statement’ in respect of each type of detailed documentation requirement must be furnished by the OEM too.
- Industrial training must be undertaken by the OEM in English.

<sup>17</sup> Chapter II, Schedule I, Appendix F, Point 1(a).

<sup>18</sup> Chapter II, Schedule 1, Appendix F, Para 1(k).

<sup>19</sup> Chapter II, Schedule 1, Appendix F, Para 1.

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- The Indian production agency contracting with the OEM must be entitled to claim liquidated damages for delays in delivery.
- Warranties must be provided by the OEM including a guarantee for quality/satisfactory performance for a period of minimum 24 calendar months.
- OEMs must indemnify and protect from any costs or claims arising from any third party claims over patent or intellectual or industrial property rights, in India or outside.<sup>20</sup>
- The ToT proposal should be kept valid for a minimum of 18 months.
- Apart from these, the DAP 2020 also has provisions for product upgrade requirements,<sup>21</sup> training,<sup>22</sup> technical assistance,<sup>23</sup> product support,<sup>24</sup> delivery schedules,<sup>25</sup> amongst others.

For Buy & Make (Indian) and Buy (Global) categories, ToT for maintenance infrastructure (MToT) may be required to be obtained by an Indian vendor for setting-up maintenance infrastructure to support operation and deployment of the platform/equipment on sustainable basis. The Indian vendor must be able to provide 'Intermediate', 'Depot' and 'Overhaul' level repairs, maintenance and upgrade for entire life cycle of equipment, set up test facilities for testing for the entire equipment life cycle, set up an ecosystem to manufacture spares, etc.<sup>26</sup>

### ToT under the 'Make' Category

Make I sub-category (Government Funded) of projects involve design and development of equipment, systems, major platforms or upgrades thereof by the industry.<sup>27</sup> Make-II sub-category (Industry Funded) of projects include design and development and innovative solutions by Indian vendor, for which no Government funding will be provided. Whereas, Make-III sub category includes projects which may not be designed/developed indigenously, but can be manufactured in India as import substitution for product support of weapon systems/equipment held in the inventory of the Services. Indian firms may manufacture these either in collaboration or with ToT from OEMs. In this category, an Indian vendor can enter into a joint venture with the OEM.

### ToT under the 'Make I' Category

For 'Make I' projects, the DAP provides extensive Guiding Principles ("GPs") on the allocation of IP rights of the Government under Appendix J to Chapter III.<sup>28</sup> These GPs apply both at the level of primary/prime contractor and subcontractor levels.<sup>29</sup> 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.<sup>30</sup>

20 Chapter II, Schedule I, Appendix F, Para 20.

21 Chapter II, Schedule I, Appendix F, Point 6.

22 Chapter II, Schedule I, Appendix F, Point 7.

23 Chapter II, Schedule I, Appendix F, Point 8.

24 Chapter II, Schedule I, Appendix F, Point 12.

25 Chapter II, Schedule I, Appendix F, Point 17.

26 Chapter II, Paragraph 48.

27 DAP 2020, Chapter III, Paragraph 5.

28 DAP 2020, internal page 368.

29 Chapter III, Appendix J, Guiding Principles, 6.

30 Chapter III, Appendix J, 'Intellectual Property Rights of Government in 'Make'-I Projects', Guiding Principles, 1.

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However, if during the development of a prototype, the Government identifies a technology or product as being sensitive and requiring restricted access, through the Project Facilitation Team (“PFT”)<sup>31</sup> or any other expert or body, the IPRs in respect of such technology/product will be separately negotiated in compliance with the relevant IP laws.<sup>32</sup>

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

- a. Inventions and patents;
- b. Technology licensing<sup>33</sup>
  - i. Technical Data<sup>34</sup>
  - ii. Computer Software:<sup>35</sup>

The Government gains licenses over the (a) subject inventions and associated data, and (b) all other data generated under the ‘Make’ contract.<sup>36</sup> The rights accorded to the Government here are termed ‘Government Purpose Rights’ (“GPRs”) and held in a manner that is non-exclusive, non-transferable, irrevocable, paid up (royalty-free) license to practice, or have practiced for on its behalf, the subject invention throughout the world.<sup>37</sup> These GPRs will mature into ‘Unlimited Rights’ after ten years from the vesting of such GPRs’ with the Government.<sup>38</sup>

‘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.<sup>39</sup>

‘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.<sup>40</sup>

31 Chapter III, Para 4 defines PFT as a team constituted by Service Head Quarte under a two-star/one-star officer/ Director level officer. PFT is to act as the primary interface between the SHQ and the industry during the design and development stage.

32 Chapter III, Appendix J, Guiding Principles, 2.

33 Chapter III, Appendix J, Guiding Principles, 3.

34 “Technical data” means recoded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

35 “Computer software” means computer programs, source code, source code listings, object code listings, design details algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated or recompiled. Computer software does not include computer data bases or computer software documentation. (b) “Computer program” means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations. (c) “Computer software documentation” means owner’s manuals, user’s manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software. (d) “Computer data base” means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

36 Chapter III, Appendix J, Guiding Principles, 5.

37 Chapter III, Appendix J, Guiding Principles, 5.

38 Chapter III, Appendix J, ‘Guiding Principles, 8.

39 Chapter III, Appendix J, Guiding Principles, 10.

40 Chapter III, Appendix J, Guiding Principles, 10.

The GPRs apply at the ‘prime’<sup>41</sup> and the ‘subcontract’ levels. It requires the prime Development Agencies (“DA”) 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.<sup>42</sup> 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 I’ contract to the MoD.<sup>43</sup> It is also required to submit periodic reports about the commercialization and manufacturing activities undertaken for subject inventions under ‘Make’ contracts.<sup>44</sup>

The DAP 2020 specifies that the grant of Government’s IPRs shall flow down from the prime contractor to all sub-contractors at all tiers. This implies that every sub-contractor will have the same obligations vis-à-vis the Government as applicable to the prime contractor under the main procurement contract. Thus, the sub-contractors shall have limited contractual privity with the Government solely for the purposes of their IPR obligations to the Government.<sup>45</sup>

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.<sup>46</sup> In the latter case, the contractor shall only be entitled to a license on such terms and conditions as the Government may deem fit.<sup>47</sup> 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.<sup>48</sup>

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,<sup>49</sup> export guidelines,<sup>50</sup> and all applicable laws, rules, regulations, orders and instructions released by the Government, and shall require the prior and explicit approval of the MoD.<sup>51</sup>

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.<sup>52</sup>

41 Chapter I, Appendix B, Para 2 defines ‘Prime Vendor’ as the vendor with whom the contract is signed, is required to maintain this Proforma for the purpose of any Verification by the MoD during the tenure of the contract.

42 Chapter III, Appendix J, ‘Guiding Principles, 6.

43 Chapter III, Appendix J, Guiding Principles, 14.

44 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 14.

45 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 15.

46 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 13.

47 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 15.

48 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 15.

49 Directorate General of Foreign Trade, Available at: <https://www.dgft.gov.in/CP/>.

50 Directorate General of Foreign Trade, Available at: <https://www.dgft.gov.in/CP/?opt=export-import-guide>.

51 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 15.

52 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 17.

## A. Subject Inventions

The DAP defines ‘subject inventions’ and ‘invention’ as follows:<sup>53</sup>

*“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.<sup>54</sup>

## 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 DAP 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.<sup>55</sup>

The following rights have specifically been included in the GPRs:<sup>56</sup>

- 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
- c) to whom such release and disclosure has been made to use, modify, reproduce, release, perform, display or disclose that data for government purposes;
- d) 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;
- e) The right to prepare computer software documentation required to be delivered under the ‘Make’ contract; and
- f) The right to make corrections or changes to the computer software or computer software documentation furnished to the contractor by the government.
- g) The right over computer software or computer software documentation that is otherwise publicly available and has been released or disclosed by the contractor or subcontractor without restrictions on further use, However, this shall not include the release or disclosure resulting from the sale, transfer, or other assignment of interest in the software to another party or the sale or transfer of some or all of a business entity or its assets to another party;

<sup>53</sup> Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, to Guiding Principles, 8 (fn).

<sup>54</sup> Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 8.

<sup>55</sup> Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make-I’ Projects’, Guiding Principles, 9.

<sup>56</sup> Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make I’ Projects’, Guiding Principles, 9.

In addition to the above, Government rights in CS to be delivered under contract specifically also include:<sup>57</sup>

- 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.<sup>58</sup> 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.<sup>59</sup> 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.

### ToT under the ‘Make II’ category

In case of Make II category, the DA shall retain title or ownership and all other rights in intellectual property generated during the development of project.<sup>60</sup> However, the Government shall have ‘March-in rights’ under which the Government can ask the contractor to grant, or itself grant license, These March-in rights can be exercised in the following cases:

57 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make I’ Projects’, Guiding Principles, 10.

58 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make I’ Projects’, Guiding Principles, 12.

59 Chapter III, Appendix J, ‘Intellectual Property Rights of Government in ‘Make I’ Projects’, Guiding Principles, 12.

60 Chapter III, Procedure for Procurement Under ‘make’ and ‘innovation’ Categories, 59.

- a) Where health and safety requirements so require the Government to act in public interest;
- b) For national security reasons;
- c) To meet requirements for public use not reasonably satisfied by the contractor;
- d) For failure of the contractor to substantially manufacture the products embodying the subject invention in India; and
- e) For failure of the contractor to comply with any of the requirements laid down under these guidelines.

### III. Relevance of Intellectual Property Rights in Transfer of Technology Arrangements

#### A. Nature of ToT Arrangements

As seen above, the IP rights category in the defence sector in India includes inventions, industrial designs creation of technology, technical data and computer software. The focus 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.<sup>61</sup> The opening of the strategic defence sector for private sector participation has opened avenues for FOEMs 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 TOT arrangements.<sup>62</sup> With the introduction of Make II and Make III categories, the private players have been provided the impetus to more actively participate in the defence sector. Further, promoting the idea of Make in India, the newly established defence industrial corridors will catalyse indigenous production of defence and aerospace-related items.<sup>63</sup>

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 DAP was to bridge the capability gap between Indian companies and FOEMs. However, while the Make I category of projects have a clear description of the IP rights of OEMs/technology sellers/government, the same is not true for Make II and Make III projects. The Make II projects have been provided clauses dealing with IP rights, but are as not as comprehensive as those provided for Make I projects. On the other hand, the DAP 2020 is altogether silent regarding IP rights in Make III projects.

61 ‘Intellectual property rights & defence production’, available at <http://www.defproac.com/?p=2435>, accessed on 12 December 2016.

62 ‘Intellectual property rights & defence production’, available at <http://www.defproac.com/?p=2435>, accessed on 12 December 2016.

63 <https://www.makeinindia.com/defence-industrial-corridors-india>. Also see [pib.gov.in/PressReleaselframePage.aspx?PRID=1777610](http://pib.gov.in/PressReleaselframePage.aspx?PRID=1777610).

The push to private sector participation in the defence sector is a commendable move by the government. However, taking into consideration the lack of IP rights protection in projects where private sector participation has been allowed in the DAP, it is up to the Indian vendors and foreign OEMs to contractually agree on the scope of IP rights being accorded.

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, 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.<sup>64</sup>

## B. Challenges/Issues with TOT arrangements

The ToT arrangements are typically aimed at promoting an inclusive growth from the domestic industry which can counter the over-reliance on import of defence products. The DAP 2020 has tried to take this into consideration. However, as evident from the discussion above, while safeguards have been put in place, an adequate framework protecting rights of indigenous players is still lacking. The major challenges faced by Indian Production Agencies (“IPA”) in ToT arrangements are detailed below.

### a. OEMs/ Technology Seller Practices

As mentioned above, due to the lack of specific guidelines in the DAP 2020 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.

However, bilateral agreements such as the Logistics Exchange Memorandum Of Agreement (LEMOA),<sup>65</sup> The BECA,<sup>66</sup> and the Communications Compatibility and Security Agreement (‘COMCASA’)<sup>67</sup> signed between India and the United States also provide for easier access and information sharing for defence and strategic purposes. These channels may help with the efficacy of TOT arrangements in India.

64 ‘Commercialising Intellectual Property: Assignment Agreements’, available at <https://intellectual-property-helpdesk.ec.europa.eu/system/files/2021-02/EU-IPR-Guide-Commercialisation-EN%283%29.pdf>, accessed on 11 December 2016.

65 <https://archive.pib.gov.in/newsite/PrintRelease.aspx?relid=149322>.

66 <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1667841>.

67 <https://www.thehindu.com/news/national/what-is-comcasa/article24881039.ece>.



## b. 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 FOEMs. Often, excessive returns are made to FOEMs 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.

The requirement of provision of itemized price list may help stem such inflated costs in this regard, if any. Additionally, with the establishment of the defence industrial corridors,<sup>68</sup> the government is trying to catalyse indigenous production of defence and aerospace-related items. The main aim is reduction of imports and promotion of export of these items to other countries. These corridors are expected to generate direct and indirect employment opportunities and spur the growth of private domestic manufacturers, MSMEs and Start-ups. With the shift towards self-reliance, it could affect the issue of costs and promote use of more indigenous defense products which would benefit the domestic players and eventually do away with the cost disparity that exists today.<sup>69</sup>

## c. 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, FOEM'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.

The requirement of providing a detailed ToT arrangement before finalization of RFP would ensure that the IPA are able to identify the key technologies and make a better-informed choice.<sup>70</sup>

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. The DAP 2020 has taken into account these factors and focuses more on the domestic development of technology in the defense sector in India by various initiatives like the Make III category of projects, defense industrial corridors, etc. These provisions have ensured that the TOT arrangements are more effective and attain their broader objectives in the longer run.

## d. 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 DAP 2020, OEMs tend to place

68 <https://pib.gov.in/PressReleasePage.aspx?PRID=1605965>.

69 <https://pib.gov.in/PressReleasePage.aspx?PRID=1884817>.

70 Chapter II, Schedule I, Appendix F, Point 1(a).

enormous prices and restrictive licensing terms in ToT arrangements with IPAs. India has been actively taking the diplomatic route and trying to secure bi-lateral treaties with the foreign governments to ensure that such issues are minimized to a larger extent.

## C. Benefits of ToT arrangements

### a. 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 DAP 2020 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.

### b. 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 30% 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 Defence Offset Guidelines prescribed under the DAP 2020 (“**Defence Offset Guidelines**”).<sup>71</sup> The various types of TOT arrangements entered into by OEMs to meet their obligations under the defense offset policy are detailed below:

### a. 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.

<sup>71</sup> Chapter II, Appendix E.

### b. 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.

### c. Joint Ventures

ToT arrangements are also instituted via the establishment of joint ventures (“JV”). It is a known notion that extent of foreign equity participation is a critical factor which affects the success of a JV. While previously, the JV with foreign equity participation was restricted to 26%, inhibiting the OEMs from bringing in cutting-edge technology, the Indian Government liberalized the FDI framework in India for the defence sector. Foreign investors are now permitted to hold up to 74 percent of the companies which fall under the defence sector in India under the automatic route (without Government approval) and up to 100% through Government route wherever it is likely to result in access to modern technology.<sup>72</sup> Since the notification of the revised FDI policy, the total FDI inflow reported till May, 2022 is approximately INR 494 Crores.<sup>73</sup>

### d. 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 MRO facility on partnership basis can help to achieve this objective. The previous iterations did not have any provisions to enable these maintenance and training requirements, as a result, even though the local defense industry acquired the necessary technology and also acquired the capability, they could not utilize them to the maximum due to the absence of maintenance support on a long-term basis.

Keeping this in mind, the DAP 2020 has introduced obligations such as providing technical data including relevant Documentation update in respect of any modifications/improvements/upgrades undertaken by the OEM in the licensed product during the entire life cycle of the product/license. This shall ensure that the Production Agency shall be provided all such data at no additional cost during the entire life-cycle of the product.<sup>74</sup>

72 The Government vide Press Note No. 4(2020 Series) dated 17.09.2020. Available at; [https://dpiit.gov.in/sites/default/files/pn4-2020\\_0.PDF](https://dpiit.gov.in/sites/default/files/pn4-2020_0.PDF).

73 <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1844610>.

74 Chapter II, Schedule I, Appendix F, Point 6.

Additionally, the DAP 2020 also has provisions for product upgrade requirements,<sup>75</sup> training,<sup>76</sup> technical assistance,<sup>77</sup> product support,<sup>78</sup> and delivery schedules<sup>79</sup> for ToT arrangements. All these factors aim to ensure that a long-time maintenance and training is ensured for the domestic players.

Establishment of training facilities like flight simulators and user-training centers by OEMs in partnership with local defense industry, and the setting up of defence industrial corridors 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.

The government has also created an innovation ecosystem for Defence, iDex, launched in April, 2018 and aims at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs,<sup>80</sup> Such initiatives are bound to provide a stimulation to the growth of domestic players in India and to an extent reduce their dependability on foreign counterparts.

## E. Conclusion

History indicates India's massive dependence on TOT arrangements through the decades. It is pertinent to note that this dependence has been readily decreasing with the production of indigenous systems, and the current trends paint an optimistic future of self-reliant India. As noted by the MoD in the erstwhile DPP 2016, as amended in May 2017, to progress towards the aim of achieving self-reliance within the country, subsequent acquisitions in the identified segments/platforms should ideally be carried out from Indian companies under Buy (IDDM), Buy (Indian), Buy and Make (Indian) and Make categories of acquisition under DAP 2020. However, this can be accomplished only when Indian companies make considerable, long term investments in capacity creation and capability development including infrastructure, tiered ecosystem of vendors, skilled human resources, futuristic R&D, etc.<sup>81</sup>

A plain reading of the DAP 2020 reveals that there is very little guidance in the DAP 2020 regarding the 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<sup>82</sup> and in procurement of R&D and innovation.<sup>83</sup>

75 Chapter II, Schedule I, Appendix F, Point 6.

76 Chapter II, Schedule I, Appendix F, Point 7.

77 Chapter II, Schedule I, Appendix F, Point 8.

78 Chapter II, Schedule I, Appendix F, Point 12.

79 Chapter II, Schedule I, Appendix F, Point 17.

80 Defence Industrial Corridors, Available at: [pib.gov.in/PressReleaseIframePage.aspx?PRID=1777610](http://pib.gov.in/PressReleaseIframePage.aspx?PRID=1777610).

81 <https://www.mod.gov.in/sites/default/files/Amend7.pdf>.

82 See DFARS Part 227 r/w Part 252 for government IPRs in defence acquisitions in the United States.

83 See, e.g., CORDIS, Pre-Commercial Procurement, available online [http://cordis.europa.eu/fp7/ict/pcp/overview\\_en.html](http://cordis.europa.eu/fp7/ict/pcp/overview_en.html).

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**Intellectual Property**

While the management of IPRs, within the Make I category has been provided with sufficient safeguards, the same zeal has not been demonstrated in arrangements such as “Buy & Make”, or private funded arrangements such as “Make II” and “Make III” cases, or licensing of technologies developed by the DRDO, still remains a relatively unaddressed area in the DAP 2020.

Where there is no clear set of rules or guidelines laid down in the DAP 2020 with regard to the transfer of the underlying Intellectual Property Rights in ToT arrangements (such as in Make I and Make II categories), such transfers are regulated or governed purely by the contractual terms of the TOT arrangements entered into by the parties. As highlighted above, the DAP 2020 has made a considerable progress when it comes to addressing the concerns which were largely left unaddressed in the previous decades. However, a lot of progress still needs to be made and a potential solution could be modelling the next iterations of DAP 2020 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. Eventually, a clear and unambiguous DAP 2020 containing explicit and even more detailed guidelines on IPRs and ToT arrangements in all categories of defence acquisition 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 ToT 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.

# Taxation<sup>1</sup>

## 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, non-residents 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.<sup>2</sup>

Resident companies are taxed at the rate of 25–30%,<sup>3</sup> 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 15%.

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.

Furthermore in 2019, the Government introduced an alternative regime for corporate taxation whereby companies opting for this regime would be taxed at the beneficial rate of 22% subject to giving away certain deductions and the ability to set off carried forward losses. At the same time, the Government had also introduced a beneficial corporate tax rate of 15% for new manufacturing entities subject also to conditions such as giving away certain deductions and the ability to set off carried forward losses.

## II. Dividends

Earlier, dividends distributed by Indian companies were subject to a dividend distribution tax (“DDT”) at the rate of around 15% (calculated on a gross-up basis), payable by the company and no further Indian taxes were payable by the shareholders on such dividend income once DDT is paid, except in certain specified situations. Finance Act, 2020 abolished DDT. Accordingly, since April 1, 2020, dividends declared by an Indian company is subject tax in the hands of the recipient at slab rates and subject to necessary withholding tax in the hands of the Indian payer company. Unlike in case of DDT, the foreign recipients of the dividends should now be able to avail treaty benefits in respect of the taxes paid on dividends. Further, the mechanism to claim foreign tax credit on the taxes paid on the dividends should be much easier than it was in case of payment of DDT. This is because DDT was tax paid by the distribution company and the not the recipient and there needed to be necessary language in the laws of the relevant foreign jurisdiction / applicable treaty on availment of underlying tax credits for availing foreign tax credit in respect of DDT paid in India.

1 All the tax rates mentioned herein are exclusive of applicable surcharge and cess.

2 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.

3 Finance Act, 2023.

### 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 20%. 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 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.<sup>4</sup> 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 shares are taxable at the beneficial rate of 15%, while long term capital gains arising from the transfer of listed equity shares are taxable at the rate of 10%.<sup>5</sup>

Short term capital gains arising from the transfer of any other capital asset are taxed at the slab rates, while long term capital gains arising from the transfer of such other capital assets are subject to tax at the rate of 20%.<sup>6</sup>

An Indian company would also be taxed at the rate of 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.

4 Having said that, India also 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.

5 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. The applicability of this rate is subject to fulfillment of conditions under section 112A of the ITA.

6 In the case of non-resident (not being a company) or foreign companies, a further concessional rate of 10% is applicable on the gains arising to such non-resident from the transfer of unlisted shares of an Indian company.

## VI. Double Tax Avoidance Treaties

India has entered into more than 88 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 a permanent establishment (“PE”) in that state 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.

## 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.

To address the issues of tax avoidance and treaty shopping at a global level, similar anti avoidance measures were proposed by way of a multilateral instrument (“MLI”). One such measure is the Principal Purpose Test (“PPT”). The PPT allows for a benefit under the treaty to be denied where it is reasonable to conclude that one of the principal purposes of an arrangement or transaction was to obtain tax treaty benefit. This provision has been introduced into the respective tax treaties of jurisdictions that have signed and ratified the MLI.

The Finance Act, 2017 had 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 10 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 10 million disregarded for the purposes of computation of taxable income. However, it has been clarified that the thin capitalization rules would not apply to interest paid in respect of a debt issued by a lender which is a permanent establishment in India of a non-resident engaged in the business of banking or insurance, or to such class of non-banking financial companies as notified by the central government.

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 GST. The rate of these taxes vary depending on the product and / or service.

The Government of India has removed exemptions of customs duty on a wide range of goods imported by the Government of India, state governments, or their contractors / sub-contractors.<sup>7</sup> From June, 2015, the Government had also withdrawn excise duty exemptions for ordnance factories and public sector undertakings in the defence sector.<sup>8</sup> These moves aimed at providing an impetus to domestic manufacturing, especially manufacturers in the private sector, and putting them on par with foreign manufacturers. It is noted, however, that certain goods imported by the Government of India or the defence forces for the purpose of and use by the defense forces have been exempted from customs duty by the way of a notification.<sup>9</sup> This benefit of an exemption has been granted only up to July 01, 2024.

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 excise duty regime. However, it has not replaced basic customs duty levied on imports.

The GST regime has taken 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.

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

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

9 Notification No. 19/ 2019 – Customs dated July 6, 2019.

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**Taxation**

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%.<sup>10</sup>

From the perspective of the defence sector, 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.

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<sup>10</sup> 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.

# 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

As set out in the earlier sections, The DPP 2016 has now been revised as DAP 2020 to further promote indigenous manufacturing and self-reliance, particularly through MSMEs. Chapter VI of the DAP 2020 provides a Standard Contract Document (“SCD”). The SCD sets out general conditions of contract which would serve as the guideline for all acquisitions.

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 22 of the SCD, the Buyer can terminate the contract in part or in its entirety on the occurrence of the following events:

- Delivery of the complete goods/services is delayed for causes not attributable to *Force Majeure* for (a) more than specified (weeks/months) as related to the delivery period/ date of the relevant lot/ batch as per contract or (b) a period greater than 50% of the scheduled delivery period for the overall Contract, whichever is earlier. In such case, the payment against dispatch has to be returned by the vendor for the undelivered goods, if any;
- On the achievement of a contractual milestone being delayed for more than a duration, as stipulated by the buyer, related to the relevant period for scheduled completion of the milestone as per Contract or scheduled completion of the subsequent milestone, whichever is later.
- delay in delivery of goods/services due to force majeure events for more than a specified number of months;
- bankruptcy or insolvency of the vendor;
- direct or indirect payment made by the seller to any Indian or foreign agent (person or entity) as commission for procuring the contract.
- As per decision of an arbitral tribunal under Article 24 of the SCD.

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.<sup>1</sup>

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.<sup>2</sup>

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 earnest money deposit 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 (“PCA”). Under the PCA it is an offence for a Public Servant to take any illegal gratification in the exercise of his official duties.<sup>3</sup> However, it is important to note that under the PCA, it is also an offence for a person to receive illegal gratification to influence a Public Servant in the exercise of his official duties.<sup>4</sup> 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 PCA. Depending on the nationality of the corporations and the officials involved, liabilities may also be attracted under the Foreign Corrupt Practices Act, 1977 or the UK Bribery Act, 2010 amongst others.

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

2 Article 22, Standard Form of Contract, DPP 2013.

3 Section 7, Prevention of Corruption Act 1988.

4 Section 8, Prevention of Corruption Act 1988.

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.

The most noteworthy allegations of corruption were made against Rolls Royce PLC in the procurement of 24 Hawk 115 Advance Jet Trainer Aircrafts, United Kingdom and BAE Systems.<sup>5</sup> The same has led to it being dropped from consideration for India's next AMCA engine project, and its French competitor, Safran, being chosen instead. A CBI investigation into the said allegations are ongoing. Earlier, similar 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.<sup>6</sup> In February 2010, the government signed a contract with UK-based Augusta Westland to buy 12 AW101 helicopters for the Indian Air Force for INR 3600 Crores. In 2013, the deal was put on hold after officials of Augusta 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.<sup>7</sup> Recently, MOD suspended business dealings with another firm, Defsys Solutions Pvt. Ltd. in connection with the AugustaWestland VVIP helicopter scam.<sup>8</sup>

### III. Actions by Government

In each of these instances, the MoD has referred the matter to the Central Bureau of Investigation 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.

Other than criminal action, the MoD 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.

5 Financial Express, Safran Secures India's AMCA Jet Engine Contract amid Rolls Royce & BAE Systems Corruption Scandal, July 17, 2023, <https://www.financialexpress.com/business/defence-safran-secures-indias-amca-jet-engine-contract-amid-rolls-royce-bae-systems-corruption-scandal-3174842/>.

6 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/>.

7 <http://www.firstpost.com/india/agustawestland-upa-so-nya-gandhi-vvip-choppers-finmeccanica-2751386.html>.

8 [http://timesofindia.indiatimes.com/articleshow/96120292.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://timesofindia.indiatimes.com/articleshow/96120292.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst).

## IV. Integrity Pacts

DAP 2020 contains an Integrity Pact between the Government and the bidders for all procurement schemes over INR 20 Crores.<sup>9</sup> 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.<sup>10</sup> The Integrity Pact is included at a precontractual 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 DAP 2020.

Under DPP 2013, Integrity Pacts were required to be executed when the value of the contract exceeded INR 100 Crores. Under DPP 2016, the threshold was reduced to value of contracts being INR 20 Crores or more. The reduction in threshold fortified the resolve of the government against corruption and its intent to bring more defence contracts under the ambit of obligations under the DAP 2020.

An IP was previously accompanied by an Integrity Pact Bank Guarantee (“**IPBG**”). This was an amount that the Vendor binds to the conditional fulfilment of its obligations under the IP. However, as set out in the earlier sections, under DAP 2020, Earnest Money Deposit (“**EMD**”) will be taken as a bid security for all acquisition cases with AoN cost more than INR 100 crore. EMD will be valid for the selected vendor up to signing of contracts and returned to remaining vendors post declaration of selection. Post contract, Integrity Pact will be covered through the Performance Cum Warranty Bank Guarantee (“**PWBG**”). Further, EMD is not required from MSMEs.<sup>11</sup>

### A. Obligations upon the Government

Under an Integrity Pact, the Government or the buyer undertakes to fulfil the following obligations:<sup>12</sup>

- 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.
- 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.
- 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.

9 Chapter 2, DAP 2020, Annexure I to Appendix O to Schedule I to Chapter II (RFP format).

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

11 PIB Release dated April 25, 2022; available at <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1819937>.

12 Clause 4, Pre-Contract Integrity Pact, Annexure I to Appendix O to Schedule I to Chapter II (RFP format) of the DAP 2020.

## 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:<sup>13</sup>

- 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.
- The vendor further undertakes that neither the vendor nor its employees have given, offered or promised to give, directly or indirectly any consideration, favor, any material or immaterial benefit or other advantage, or inducement to any official of the buyer or otherwise in procuring the contract or forbearing to do or having done any act for showing or forbearing to show favour or disfavour to any person in relation to the Contract or any other Contract with the Government.
- The vendor shall not collude with any person, including other bidders, to impair the fairness of the bidding and procurement process.
- The vendor shall not accept any advantage given to it as a result of any corrupt practice, unfair means or illegal activities.
- The vendors confirms and declares to the Government that the vendor is the original manufacturer/integrator/authorised government sponsored export entity of the Defence stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Government or any of its functionaries to award the contract to the vendor, nor has any amount been paid for such intercession, facilitation or recommendation
- 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 MoD extends throughout the validity of the IP.
- 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.
- The vendor shall not make complaints without verifiable facts and shall do so in accordance with the procedure specified by the Government.
- The vendor shall not transgress from any of the above obligations through a third party.

The vendor is also required 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.

13 Clause 6, Pre-Contract Integrity Pact, Annexure I to Appendix O to Schedule I to Chapter II (RFP format) of the DAP 2020.

## 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:<sup>14</sup>

- Immediate termination of pre-contract negotiations without assigning any reasons.
- The EMD for pre contract period, and the Performance-cum-Warranty Bond post signing of the contract shall be forfeited entirely or partially.
- The cancellation of the contract at any stage without compensating the Vendor.
- Recover all payments made by the Government to the vendor along with a specified amount of interest.
- Encashment of the advance Bank Guarantee, including the Performance-cum-Warranty Bank Guarantee, to recover amounts already by the Government to the Vendor.
- Cancellation of all other contracts with the vendor.
- Placing a bar or suspension upon the vendor under the extant policy.
- Recover sums paid to agents by the vendor in order to secure the contract.
- 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. 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.
- 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 advises 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.

<sup>14</sup> Clause 10, Pre-Contract Integrity Pact, Annexure I to Appendix O to Schedule I to Chapter II (RFP format) of the DAP 2020.



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 24 of SCD under the DAP 2020 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 24 of DAP 2020 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 24A

Article 24A covers disputes that arise between the Buyer and a Foreign Vendor. The highlights of the arbitration clause are as follows:

- Initially, attempt will be made to settle disputes bilateral discussion between the parties.
- 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 each within the aforesaid period of 60 days.
- 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.
- 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.
- 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 24B

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.<sup>15</sup> It is similar to Article 24A, 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 24C

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.<sup>16</sup> 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, consultant, advisor or has any other past or present business relationship with a party, is ineligible for appointment as an arbitrator.

However, Article 24C (similar to Article 21C under the DPP 2016) provides that the A&C Act shall not apply to arbitrations under this clause. This continues to be 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.

<sup>15</sup> Article 24B, SDC, DAP 2020.

<sup>16</sup> Article 24C, SDC, DAP 2020.

## D. Defence Public Sector Undertakings – Article 24D

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.<sup>17</sup> 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'.

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<sup>17</sup> Article 24D, SDC, DAP 2020.



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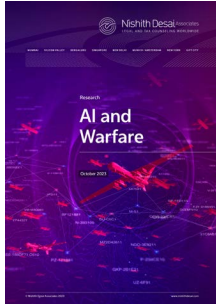
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