

# INDIAN AEROSPACE & DEFENCE INDUSTRY OUTLOOK



DECEMBER 2020

# CONTENTS

PREFACE	02
INTRODUCTION	03
<b>CHAPTER 1: INDIAN DEFENCE BUDGET AND MARKET ATTRACTIVENESS</b>	<b>04</b>
DEFENCE BUDGET	04
MARKET ATTRACTIVENESS	07
<b>CHAPTER 2: INDIAN DEFENCE ECOSYSTEM</b>	<b>09</b>
ORDNANCE FACTORIES	10
DEFENCE PUBLIC SECTOR UNDERTAKINGS (DPSUS)	10
DEFENCE RESEARCH AND DEVELOPMENT ORGANIZATION (DRDO)	12
PRIVATE SECTOR	13
SCOPE OF THE PRIVATE SECTOR	17
<b>CHAPTER 3: LEGAL AND REGULATORY FRAMEWORK FOR DEFENCE PROCUREMENT</b>	<b>18</b>
MINISTRY OF DEFENCE	19
DEFENCE ACQUISITION PROCEDURE 2020	20
DEFENCE PROCUREMENT MANUAL	24
INDUSTRIAL LICENSE IN DEFENCE MANUFACTURING	26
FDI POLICY	27
EXPORT POLICY	28
OFFSETS POLICY	29
DOING BUSINESS IN INDIA	33
<b>CHAPTER 4: TAMIL NADU DEFENCE INDUSTRIAL CORRIDOR AND CLUSTERS</b>	<b>41</b>
TAMIL NADU AEROSPACE & DEFENCE POLICY 2019	46
<b>CHAPTER 5: LOOKING FORWARD</b>	<b>51</b>
CONCLUSION	53
REFERENCES	55

# FOREWORD



**AR RM ARUN**

**PRESIDENT**

**THE SOUTHERN INDIA CHAMBER OF COMMERCE AND INDUSTRY (SICCI)**

As Readers may be aware, the 'Make in India' initiative, aims to achieve 70% indigenization in our Defence sector. The Ministry of Defence recently released a negative list of 101 Defence items which are banned for import. The list of embargoed items, along with the Defence Acquisition Procedure 2020 (DAP-2020) and the draft Defence Production & Export Promotion Policy 2020 (DPEPP-2020) is sure to provide the required thrust to revitalize the Defence & Aerospace sector in Tamil Nadu.

Tamil Nadu is an industrially advanced State with highest number of factories in India. It is also the most urbanized state with 48% of the population based out of cities having world class Industrial Parks & SEZs. The Aerospace & Defence Policy 2019 provides the needed incentives and measures to develop a strong domestic capability in Defence. The Policy gives greater impetus for economic growth, skilled job creation and supporting growth of domestic manufacturers, especially MSMEs.

The Southern India Chamber of Commerce & Industry (SICCI) has been advocating for indigenization of India's Defence & Aerospace requirements and our specific focus has been on Tamil Nadu with our multiple engagements & conferences with the Defence forces. SICCI is committed to the establishment of the Defence corridor in the State. We strongly feel that industry in this region should not miss this unique opportunity to manufacture for and supply to the world's most profitable Defence market. With Chennai already possessing inherent strengths in Automotive manufacturing, the scaling to Defence manufacturing would be the next logical step.

SICCI has therefore been engaging in hosting relevant conferences, releasing knowledge reports and interfacing with Government for Defence Production & Procedures. This has been towards enabling greater participation of industry in the region, especially within the MSME sector. This report released at the Defence & Aerospace Roundtable on 17th December 2020 is but one example.

We hope this study is insightful and helps every stakeholder of the Defence industry gain a better perspective while making informed decisions. This would in turn help in the flourishing of the Defence sector in Tamil Nadu. We appreciate the efforts put in by SAS Partners and Sugosha Advisory in the preparation of this comprehensive study and making it a "ready reference" on the subject.

---

# FOREWORD



**SOY JOSEPH**  
**DIRECTOR**  
**SAS PARTNERS CORPORATE ADVISORS**

SAS Partners Corporate Advisors takes pride in presenting this knowledge paper in collaboration with its strategic partner Sugosha Advisory for describing the Indian opportunity in the Aerospace & Defence Industry in the context of a virtual Round table organized with the Southern India Chamber of Commerce & Industry (SICCI).

India is adjudged as one of the largest Aerospace & Defence industrial opportunities in the emerging world. From a public sector and import-dependent Industry, India's Aerospace & Defence industry has been constantly evolving over the last two decades with measured relaxations for private sector participation.

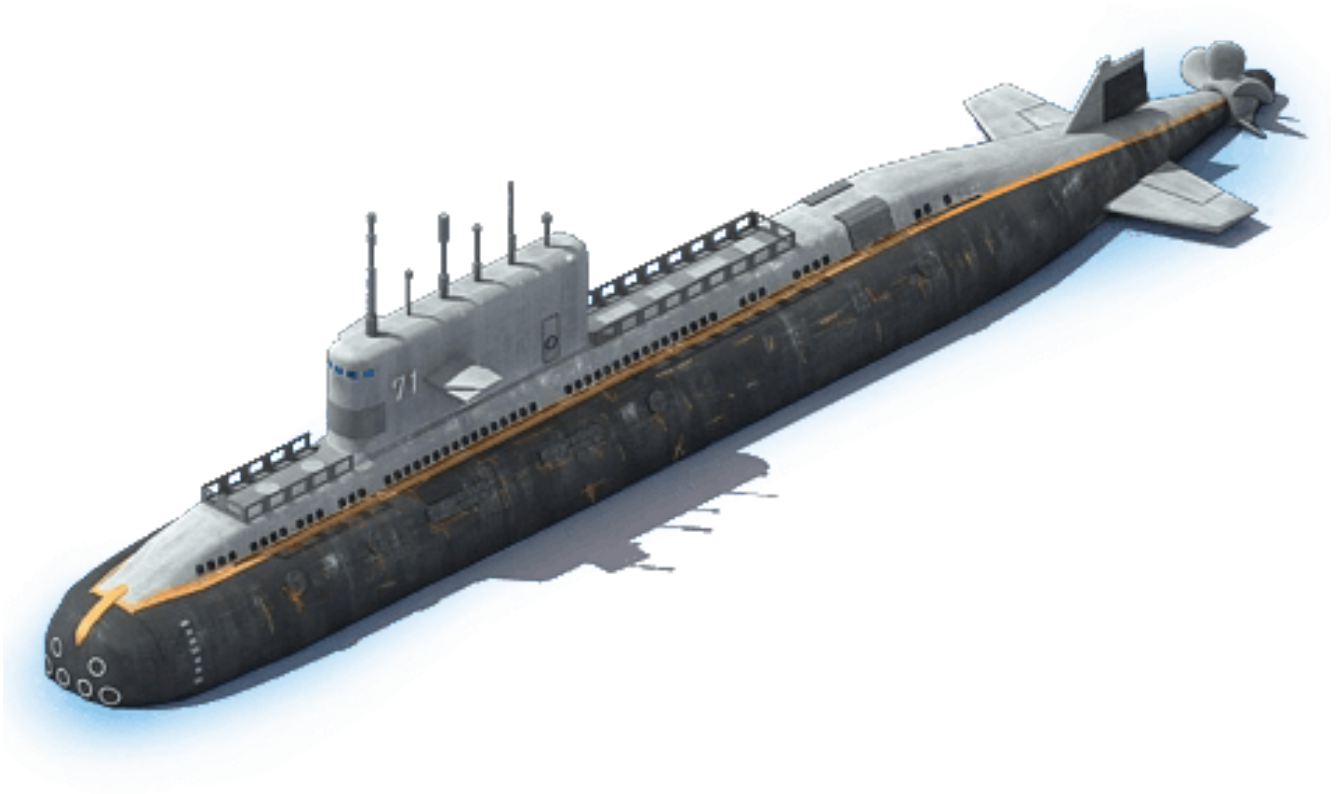
Being one of the most critical sectors and a catalyst for industrial development, the sector continues to attract serious interest from stakeholders. Among the various Indian states that are competing to get a slice of this vast opportunity, Tamil Nadu positions itself as a compelling location for investments.

This knowledge paper is aimed at portraying various aspects of Aerospace & Defence Industry landscape, Regulatory framework for Defence Procurement including the Defence Acquisition Policy 2020, Framework for doing business in India, Tamil Nadu's positioning and the outlook towards the future.

We certainly hope this knowledge paper enlighten its readers and remain as a reference point for some of the critical matters related to the topics described above.

---

# DISCLAIMER



This report has been prepared by SAS Partners in collaboration with Sugosha Advisory in the context of a virtual roundtable organized along with The Southern India Chamber of Commerce and Industry. All rights reserved and this report is for information purposes only. While due care has been taken during the compilation of this report to ensure that the information is accurate to the best of our knowledge and belief, the content is not to be construed in any manner whatsoever as a substitute for professional advice. We neither recommend nor endorse any specific company or service that may have been mentioned in this report and nor do they assume any liability or responsibility for the outcome of decisions taken as a result of any reliance placed on this report.

---

# PREFACE



This Knowledge Paper aims to provide an overview of the Indian Defence and Aerospace Manufacturing industry which encompasses the Governing Departments, Policies and Regulations, Public and Private Sector Organisations. The general theme of this paper is “**Make-in-India**”, for Procurement in the Defence & Aerospace. The paper correlates policies to the current trends in the Indian Defence and Aerospace industry, and the trajectory of the future trends & potential, as India strives to establish its own self-reliant defence industrial base. The scope of this paper also covers the current ecosystem with regards to the Defence Public Sector Unit, and the level playing field created for the Private Sector companies.

# INTRODUCTION

The Indian Defence industry was thrown open to the private companies in 2001, when the then dispensation realized the gravity of the situation in keeping this as the exclusive privilege of the Defence Public Sector Units (DPSUs) and the Ordnance Factory Boards (OFBs). This wisdom dawned on the decision makers during the Kargil war of 1999, when the DPSUs and the OFBs could not cater to supply of the critical arms and ammunition to the Indian soldiers, guarding the frontiers. This became the proverbial “last straw on the camel’s back”, when the Defence forces stomped its foot and the decision makers “bit the bullet”, and the first Defence Procurement Policy (DPP), inviting 100% private sector participation in Defence production was formally realized.

Ever since, the DPP has evolved with new versions every couple of years, and has attempted to integrate all the stakeholders for a more comprehensive and cohesive approach, and has hence crystallized its core philosophy from a mere “Importer-and-Buyer-of-platforms” to “Make-in-India”. This transformational approach to acquisition was imbibed from many developed Defence manufacturing countries and well researched & well intended committee reports – For example: Shri Dhirendra Singh Committee report was essentially brought up to infuse self-reliance and transparency in the acquisition process, and in keeping in stride with India’s aspiration to be a regional and global power.

Even as India was making these transitions in its Defence procurement, the Geo-politics, and along with it the Geo-strategic and Geo-economics in the region and beyond, have also transformed and realigned significantly. The reverberations of these alignments have been felt in the Indian Defence procurement, with some of the best-of-the-breed Defence equipment exporters in the world, vying to partner with India, as opposed to maintaining the “buyer”-“seller” relationship. Such inducements by global Defence OEMs seeking partnerships with Indian companies, augurs well with India’s “Make-in-India” plans, and opens the flood gates to the aspiring Indian Defence companies, with cornucopia of opportunities.

Add to this mix, the relaxation of the Foreign Direct Investment (FDI) policy, 20% reservation for MSME companies, and we have all the right ingredients to create the top-of-line ecosystem. Further, the successes of ISRO and the Department of Atomic Energy (DAE) in integrating the private companies and the recognition of India’s contribution in the Joint Development (JV) of BRAHMOS Missiles and Sukhoi 30 Fighter Aircrafts have underlined India’s capabilities to deliver cutting-edge technology and state-of-art Defence equipment.

The spirit of Indian Defence sector is driven by the Make in India movement and thus the focus on indigenization and manufacturing of Defence equipment in India. Therefore, making it essential for Indian industry to collaborate with foreign companies for long term partnerships to ensure a vibrant manufacturing industry in India.

# INDIAN DEFENCE BUDGET AND MARKET ATTRACTIVENESS

## DEFENCE BUDGET

The Indian Aerospace and Defence market presents an attractive and significant opportunity for Indian and foreign companies across the supply chain. India has the 3rd largest armed forces in the world, and its Defence budget is about 1.62% of its GDP. India is one of the largest importers of conventional Defence equipment and spends about 40% of its total Defence budget on capital acquisitions. About 60% of its Defence requirements are met through imports.

A report from the Stockholm International Peace Research Institute (SIPRI) which tracks global arms purchases has found that between 2015 and 2019, India accounted for 10% of global arms imports, followed by Saudi Arabia, the United Arab Emirates and China.

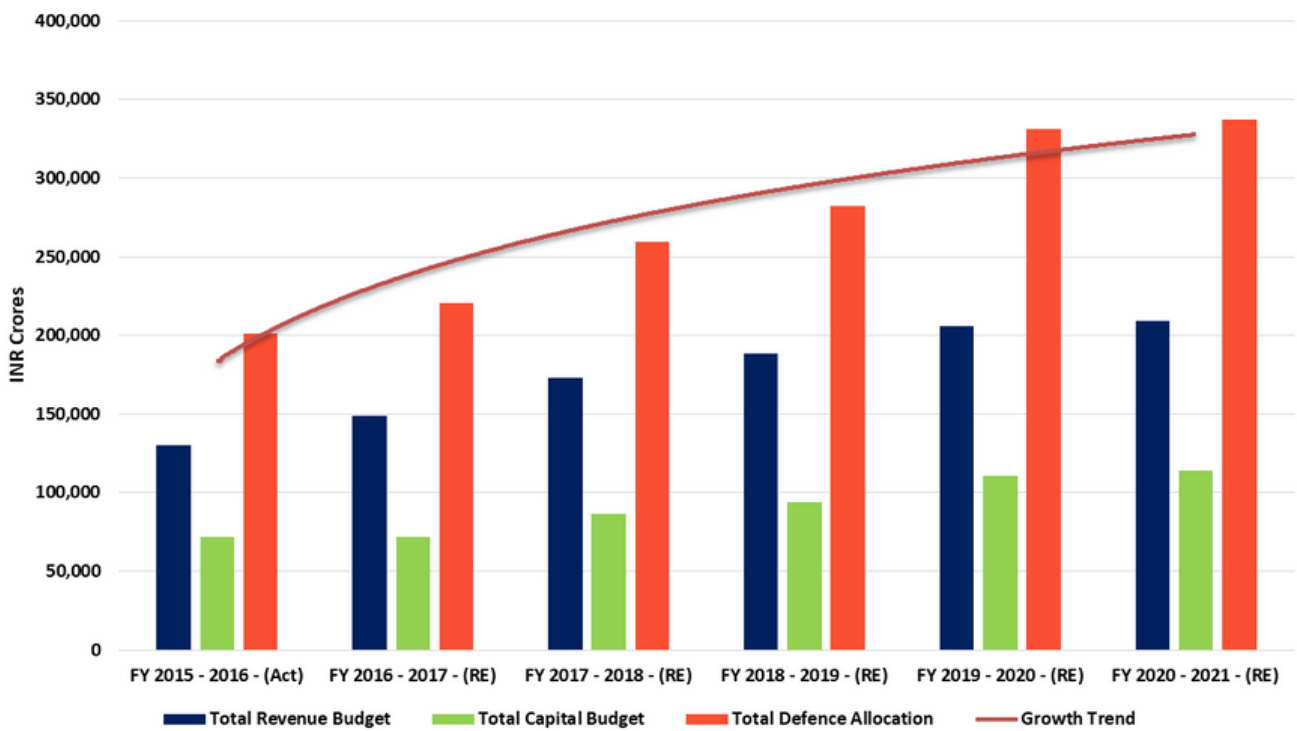
Here is a glimpse of the Defence budget for the last 3 financial years categorized by the two main heads of Revenue Expenditure and Capital Expenditure.

FY	REVENUE EXPENDITURE (RS. IN CRORE)	CAPITAL EXPENDITURE (RS. IN CRORE)	TOTAL (RS. IN CRORE)
<b>2017-18</b>	172,774	86,488	259,262
<b>2018-19 (RE)</b>	188,118	93,982	282,100
<b>2019-20 (RE)</b>	205,902	110,394	316,296
<b>2020-21 (BE)</b>	209,319	113,734	323,053

India's Defence spending has grown tremendously to 62 Bn USD in 2020 as against 15 Bn USD in 2007 at a compounded annual growth rate (CAGR) of approximately 7%. The Defence expenditure of the government accounts for about 11% of its total expenditure.



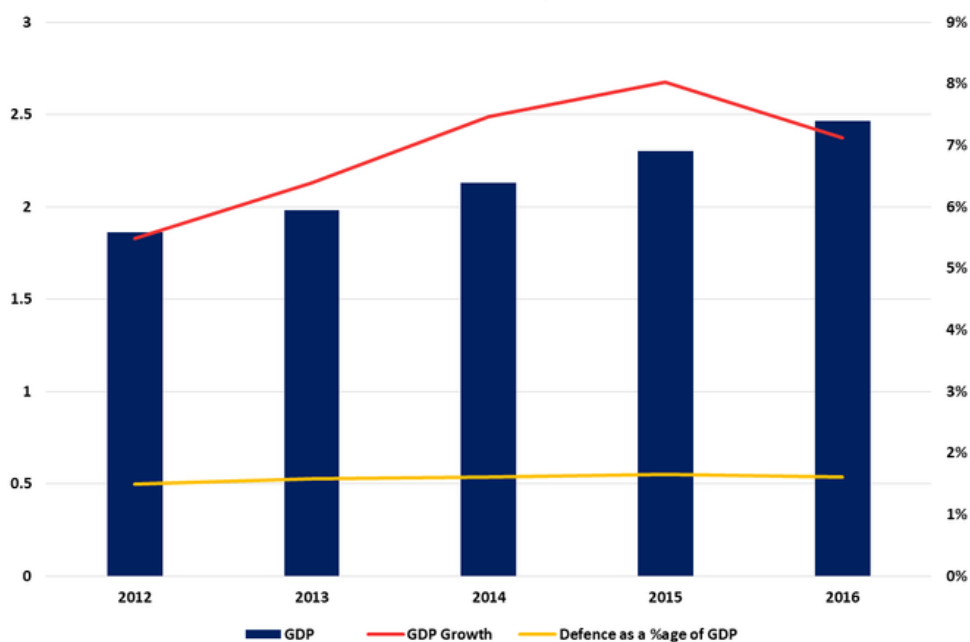
Indian Defence Budget - Growth Trend



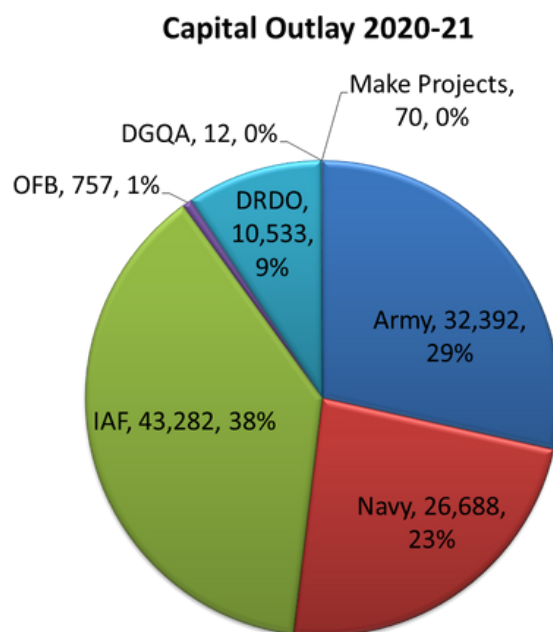
The Indian economy continues to be at a bright spot in the global economic environment, with the initial estimates of the Gross Domestic Product (GDP) showing a growth of over 7% per annum for 3 consecutive years between 2014 and 2016. The growth momentum has taken a beating this year globally due to the Covid-19 pandemic.

The Defence budget allocation has been consistent at around 1.6 - 2% of the GDP. Experts feel the ideal allocation of Defence Budget should be 2.5% of the GDP.

GDP and Defence Expenditure



Among the Defence services, the Indian Army with a capital budget of Rs. 179333 crore accounts for the biggest share in Defence budget, followed by the Air Force, Navy, Defence Research and Development Organization (DRDO) and Ordnance Factories (OFs) (Figure below). The lion's share for the Army is primarily because of its overwhelmingly numerical superiority over the sister services. Accounting for over 85% of the uniformed personnel, bulk of the Army's budget goes into meeting the pay and allowances of the personnel. In 2017-18, only 17% of Army's total allocation has been earmarked for capital expenditure. The comparative figures for the Air Force and Navy are 58% and 51% respectively.



The capital budget is primarily spent for the modernization of Defence Forces.

### Modernisation Budget of the Armed Forces

	2018-19 (RE) (RS IN CRORE)	2019-20 (RE) (RS IN CRORE)	2020-21 (BE) (RS IN CRORE)	% INCREASE IN (RS IN CRORE)
<b>Army</b>	21094	23420	25799	10.16%
<b>Navy</b>	19148	24226	24598	1.54%
<b>Air Force</b>	34039	42482	40032	-5.77%
<b>Total</b>	74281	90128	90429	0.33%

While the Armed Forces budget draws out a reasonably high 12% of the union budget, most of the allocation apparently seems to service the pay and allowances and other requirements. A large standing armed force draws out a good part of this budget. What is left over for new schemes is a meagre Rs. 70000 Cr which is termed as the budget for modernization or budget for cap expenditure. So, at the end of the day the DPP services this miniscule portion. What is however more intriguing is that about 90% of the modernization budget is consumed to service the commitments and procurements made in the yester years. This is what is called committed liabilities. The committed liabilities for a 70,000 crores outlay are as high as Rs. 62-63,000 Cr. What remains (to the tune of Rs. 6-8000 Cr) is all that is available to conclude contracts in the present year. In accordance with the provisions of the GFR and the DPP, an advance of 10-15% is admissible while concluding a new contract. And therefore, as an optimistic estimate we have Rs. 8000 Cr which would translate to Rs. 55000 Cr worth of new deals value.

The MoD has a record of not being in a position to spend the complete allocation and Rs. 10-12000 Cr, which is called back by the Ministry of Finance or returned by the MoD.

## MARKET ATTRACTIVENESS

### DEFENCE OPPORTUNITIES



Defence has signed more than 180 contracts with the Indian Industry, as of December 2019. These contracts were valued over USD 25.8 Bn approximately. Favorable government policy is the one which promotes self-reliance, indigenization, and technology upgradation. The policies also aim at achieving economies of scale, including the development of capabilities, and for exports in the Defence sector. India's extensive modernization plans are with an increased focus on homeland security and growing attractiveness as a Defence sourcing hub.

Defence production in India is gradually heading towards private sector participation. Between 2015-16 and 2018-19 (April-October), out of a total 188 contracts, 121 contracts have been signed with Indian vendors including DPSUs/PSUs/OFB and private vendors for capital procurement of Defence equipment. The equipment to be procured includes Helicopters, Naval vessels, radars, ballistic helmets, artillery guns, simulators, missiles, bulletproof jackets, electronic fuses and ammunition.

The size of the opportunity is huge. The government is looking at achieving a turnover of Rs 1.7 trillion in military goods and services by 2025 and the SP model is envisaged to capitalize this opportunity and contribute to the Make in India initiative. The target also is to achieve export of Rs 350 billion (USD 5 billion approximately) in Defence goods and services by 2025. As per the acquisition plans of the three armed forces in the next 10 years, the industry is expected to acquire capital assets worth Rs 15 trillion.

## AEROSPACE OPPORTUNITIES

The Civil Aviation industry in India has emerged as one of the fastest growing industries in the country during the last 3 years. India has become the 3rd largest domestic aviation market in the world and is expected to overtake UK to become the 3rd largest air passenger market by 2024.

To cater to the rising air traffic, the Government of India has been working towards increasing the number of airports. As of March 2019, India had 103 operational airports. India has envisaged increasing the number of operational airports to 190-200 by FY40.

Further, the rising demand in the sector has pushed the number of airplanes operating in the sector. The number of airplanes is expected to reach 1,100 by 2027.

## SPACE OPPORTUNITIES

India's space program stands out as one of the most cost-effective in the world. India has earned worldwide recognition for launching lunar probes, building satellites, ferrying foreign satellites up and has even succeeded in reaching Mars. Till December 2019, a total of 319 foreign satellites from 33 countries have been successfully launched onboard Polar Satellite Launch Vehicles (PSLVs) by ISRO.

With the ISRO undertaking the development of cutting-edge technologies and interplanetary exploratory missions, there is a tremendous scope in contributions to the realization of operational missions and new areas such as satellite navigation. The Union Cabinet of India has approved reforms in the Space sector which will boost private sector participation in the entire range of space activities. The Indian National Space Promotion and Authorization Centre (IN-SPACe) will provide a level playing field for private companies to use the Indian space infrastructure and also hand-hold, promote and guide the private industries in Space activities through encouraging policies and a friendly regulatory environment. Such a thrust from the Government of India is intended to create investment opportunities for private companies in the Space sector in India.

# INDIAN DEFENCE ECOSYSTEM



The Department of Defence Production (DDP) was set up in November 1962 with the objective of developing a comprehensive production infrastructure to produce the weapons/systems/platforms/equipment required for Defence. Over the years, the Department has established wide ranging production facilities for various Defence equipment through Ordnance Factories and Defence Public Sector Undertakings (DPSUs). The products manufactured include arms and ammunition, tanks, armored vehicles, heavy vehicles, fighter aircraft and helicopters, warships, submarines, missiles, electronic equipment, earth moving equipment, special alloys and special purpose steels.

With the objective of achieving self-reliance in Defence production, the Ordnance Factories and DPSUs have been continuously modernizing and upgrading their capabilities and widening their product range. Many major products have been developed through in-house research and development initiatives in addition to a number of products and equipment being produced through transfer of technology.

## ORDNANCE FACTORIES

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

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

Production achievement: The turnover during the financial year 2015-16 was Rs 14158 crore. The turnover for 2016-17 up to December 2016 is Rs 9154 crore including taxes and duties.

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

## DEFENCE PUBLIC SECTOR UNDERTAKINGS (DPSUS)

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

These DPSUs are not departmentally run like the OFs. They 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 9 DPSUs are as follows,

- |   |   |
|---|---|
| 1. Hindustan Aeronautics Limited (HAL)  | 6. Goa Shipyard Limited (GSL)                         |
| 2. Bharat Electronics Limited (BEL)     | 7. Garden Reach Shipyard and Engineers Limited (GRSE) |
| 3. BEML                                 | 8. Mazagon Dock Limited (MDL)                         |
| 4. Bharat Dynamics Limited (BDL)        | 9. Hindustan Shipyard Limited (HSL)                   |
| 5. Mishra Dattu Nigam Limited (MIDHANI) |   |

HAL is the flagship DPSU that accounts for over 50% of their collective production. BEL and HAL have been accorded the status of 'Navratna' companies, i.e. state-owned entities listed on stock exchanges, having an average turnover of INR 25,000 Crores and average net profit of INR 5000 Crores. HAL is ranked 34 amongst the top 100 global Aerospace industries. As on date, HAL has produced or overhauled 1,416 aircraft (of 17 types) of indigenous design, 2,097 aircraft (of 14 type) under license and a total of 5,015 aero engines. BEL is currently in the process of setting up a Missile Systems Integration Complex in Andhra Pradesh and has been jointly selected with Rolta India (a private company) to design the Battlefield Management System (BMS) for the Indian Army. This is worth an estimated INR 50,000 Crores.

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. GSL, GRSE, MDL and HSL have been involved for decades in the design, development and production of many of the vessels in India's fleet, including Destroyers, missile boats and submarines. MDL has recently undertaken the project of developing cutting-edge Scorpene-class conventional submarines and four missile destroyers.

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



## DEFENCE RESEARCH AND DEVELOPMENT ORGANIZATION (DRDO)

Defence Research and Development Organization (DRDO) is the country's leading organization involved in the design and development of indigenous Defence systems. The organization has set its sights on making India self-sufficient in Defence equipment ranging from missiles, radars, sonars, electronic warfare, engineering systems, surveillance and recce systems, among others. DRDO is also looking at providing state-of-the-art communication systems, electro-optics, night vision devices, information security products, naval & airborne weapons etc. Each of these has been developed using indigenous manufacturing and testing facilities to maximum extent.

DRDO labs are grouped into 7 technology clusters namely, Aeronautical Systems (AERO), Armament and Combat Engineering Systems (ACE), Electronics and Communication Systems (ECS), Life Sciences (LS), Micro Electronic Devices and Computational Systems (MED & CoS), Missiles and Strategic Systems (MSS) and Naval Systems and Materials (NS&M).

During the financial year 2016- 17, DRDO has been allocated Rs 13,593.78 crore (BE) which is about 5.5% of the total Defence Budget. A total of Rs 6,865.73 crore has been allocated under Capital head and Rs 6,728.05 crore under Revenue head.

DRDO currently has 291 ongoing projects (excluding strategic projects) amounting to approximately Rs 49,030 crore (including User share). Out of 291 ongoing projects, 42 large projects (cost  $\geq$  Rs 100 crore) have a cost of Rs 42,643 crore (DRDO's share~ 70% of the total share). Major projects undertaken by DRDO are as follows,

- Light Combat Aircraft (LCA) 'Tejas'
- LCA Navy
- Airborne Early Warning and Control (AEW&C) System
- Airborne Warning and Control System (India)
- Medium Altitude Long Endurance UAV 'Rustom-II'
- Heavy Drop System (HDS)
- Controlled Aerial Delivery System
- Medium Size Aerostat Surveillance System 'Nakshatra'
- Long Range Surface-to-Surface Ballistic Missile 'Agni-5'
- Surface-to-Air Missile 'Akash'
- Long Range Surface-to-Air Missile (LRSAM)
- Medium Range Surface-to-Air Missile (MRSAM)
- Supersonic Cruise Missile 'BrahMos'
- Beyond Visual Range Air-to-Air Missile 'Astra'



## PRIVATE SECTOR

To achieve the goal of self-reliance in the Defence sector, continuous efforts are being made to increase indigenization, wherever technologically feasible and economically viable.

In May 2001, the Defence Industry sector, which was hitherto reserved for the public sector, was opened up to 100% for Indian private sector participation, with Foreign Direct Investment (FDI) up to 26%, both subject to licensing. However, recently the Department of Industrial Policy & Promotion, Ministry of Commerce & Industry vide Press Note No. 5 (2016 Series), has allowed FDI under automatic route upto 49% and above 49% wherever it is likely to result in access to modern technology or for other reasons to be recorded.

Post liberalization of the Defence sector in 2001, the first instance of opportunity was sighted in the DPP 2006 with the introduction of Make category, which was exclusively reserved for Indian private companies. We are now looking at a decade of development since 2006 in the private industry and here are some of the companies which have proved themselves in Defence manufacturing.



### THE TATA GROUP

The Tata group is leading the 'Make in India' charge in the Defence & Aerospace spaces and is a key private sector player in the industry.

In Aerospace, Tata has emerged as a global, single-source supplier for a number of important fixed wing and rotary wing programmes. In the Defence domain, as a trusted partner to the Ministry of Defence (MoD), armed forces and Defence Research and Development Organization (DRDO), Tata is playing an increasingly important role in Defence programmes of strategic importance.

Going forward, the group is focused on, partnering global OEMs for 'Make in India' programmes for fighters, helicopters, transport aircraft and weapon systems and land systems; building unmanned systems; supporting other critical aerospace & Defence programs for the Indian Defence sector, and setting up world-class aero engine components manufacturing facilities.

#### BUSINESS HIGHLIGHTS

Tata group announced the consolidation of five Aerospace and Defence businesses into a single entity to be known as Tata A&D. It will be amongst India's largest private Aerospace and Defence players post consolidation, moving beyond providing individual products to developing integrated offerings and executing larger and more complex products.

- Tata Advanced Systems
- Tata Power SED
- Tata Advanced Material Limited (TAML)
- TAL Manufacturing Solutions Ltd (TAL)
- Tata Motors Limited

## THE MAHINDRA GROUP

Airbus Helicopters has awarded a contract to Mahindra Aerostructures to make airframe parts for the AS565 MBe Panther. These parts will be produced at the Mahindra facility in Bengaluru. They will be shipped directly to the Airbus Helicopter production line in Marignane, France where they will be integrated with the rest of the airframe assembly and will form a critical part of the Panthers sold worldwide. The contract positions Mahindra Aerostructures as the first Indian company to receive a direct manufacturing contract from Airbus Helicopters as a Tier 1 supplier.

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'.

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. In July 2016, Boeing Co. and Mahindra Defence Systems formally opened a centre to provide C-17 training services to the Indian Air Force.

In Feb 2017, Mahindra Aerostructures, a Mahindra Group company, signed an agreement with Segnere SAS of France to collaborate on airframe manufacturing.



## LARSEN & TOUBRO (L&T)

L&T is one of India's leading companies for supply of Defence Equipment and Systems in the private sector, with over 30 years of experience in this field. They provide indigenous, design-to-delivery solutions across the Defence spectrum – from land-based weapon launch systems, air Defence and artillery systems and upgrades, to naval weapon launch systems with fire control solutions, bridging systems, communication, avionics, C4I and missile systems.

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.

In Feb 2017, L&T and the UK-based MBDA, one of the leading global players in missile systems, set up a joint venture (JV) to develop and supply missiles and missile systems to meet the growing potential requirements of the Indian armed forces. MBDA is jointly held by Airbus Group (37.5 %), BAE Systems (37.5 %), and Leonardo (25 %). The Joint Venture Company is named 'L&T MBDA Missile Systems Ltd'.

**DYNAMATIC TECHNOLOGIES LIMITED**

DYNAMATIC TECHNOLOGIES LIMITED designs and builds highly engineered products for Automotive, Aeronautic, Hydraulic and Security applications. With futuristic design, engineering and manufacturing facilities in Europe and India, they are able to meet customers' exacting requirements on 6 continents.

Their facilities which are located in India (Bengaluru, Chennai, Coimbatore, Nasik), United Kingdom (Swindon, Bristol) and Germany (Schwarzenberg), are lean, green and clean, and designed to support neighboring communities as well as the environment.

With three design laboratories in India and Europe, Dynamatic Technologies is a leading Private R&D Organization, with numerous inventions and patents to its credit. The Company and its Subsidiaries employ around 50 scientists and 500 engineers with expertise in Mechanical Engineering, Advanced Computer Aided Engineering, Materials & Metallurgical Engineering, Fluid Dynamics and Defence & Aerospace Research.

Most recently, Dynamatic has built the first front fuselage for the FOC version of the Tejas Light Combat Aircraft (LCA). This is the first time a complex fuselage section for a supersonic fighter aircraft has been built by a private sector company.



KALYANI

BHARAT FORGE

**BHARAT FORGE**

Kalyani Strategic Systems Ltd entered into a JV with Saab Group for manufacturing of surface-to-air missile (SRSAM) system and very short-range air Defence (VSHORAD) air Defence programmes.

In Feb 2017, Kalyani Group, the owners of Bharat Forge, finalized a JV 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 Armor Solutions. The proposed JV will produce Spike Anti-Tank Guided Missiles (ATGM).

Kalyani Strategic Systems (KSSL), the Defence arm of Kalyani Group and Israel Aerospace Industries (IAI) signed a memorandum of understanding to incorporate a JV company in India, at the Aero-India exhibition in Bengaluru. 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.

**KIRLOSKAR**

“Marine & Defence” division was formed exclusively to cater to the requirements of Marine and Defence sector including the Indian Public Sector Undertaking (PSU) Shipyards, Indian Navy, Indian Coastguard, Indian Army, Indian Air force, Ordnance Factories, Civil & Marine Ships, MES and all other Defence establishments.

Their facilities are approved by IRS for production of Marine grade products. They are also registered vendors for pumps and valves for the Indian Navy, DGS & D, and registered with DGQA. They have had the privilege to be associated with the Indian Navy. They have supplied AC sea water and chilled water pumps for INS Viraat, INS Ranjit, INS Ranvijay & Salvage pumps for INS Makar Survey Ship.

**VEM TECHNOLOGIES**

Established in 1988, VEM Technologies Pvt. Ltd. has a significant experience in providing technological solutions to the Defence and Aerospace Industry. Over the years, VEM developed expertise in wide range of technological domains ranging from connectors to missile systems and has successfully executed many important projects of national interest, using its highly reliable state of the art manufacturing, assembly and testing facilities. VEM is one of the most reliable technological partners for the Defence and Aerospace Industry. VEM was awarded with the “Best Technology Award for the Servo System” by DRDO.

VEM has transformed itself into a prominent player for system integration of missiles and aircrafts by developing know-how and expertise in various technological fields like Composites, Mechatronics, Electro-optics, RF & MW, Power Electronics and Micro-electronics. With the help of the expertise in all these fields, VEM successfully develops, manufactures and integrates major systems for Aerospace and Defence Industry.

**ANANTH TECHNOLOGIES**

Ananth's Aerospace division since 1992 has been one of its core strength and differentiators. The division's capabilities span both the embedded software, hardware and system design. Through their services and solutions, Aerospace companies achieve faster time-to-market with quality products, cost effectively. They offer best-of-breed design solutions in aero-structures, aero-engines for Aircraft Original Equipment Manufacturers (OEMs) and suppliers.

Core areas of expertise also include systems design and development including Avionics, RF and Microwave communication systems, Telemetry systems, power modules, DC-DC converters, PCM encoders, and more.



## ALPHA DESIGN TECHNOLOGIES PVT. LTD.

Alpha is set up to utilize the Government of India's policies for liberalization of Indian economy and opening of Defence Production to Private Sector Industries. Alpha responds in a very unique and innovative manner to the needs of India's Defence and para military markets.

Established in Bengaluru, India's high-tech metropolis, the company is structured to offer technical support, indigenous assembly/manufacture facilities and technology integration services for a wide range of products to Indian and international organizations.

## GOPALAN AEROSPACE



Gopalan Aerospace is a fast paced, innovative Aerospace composite Design, Development and Manufacturing company. Their expertise lies in Precision Engineering, Sheet Metal Fabrication, Heavy Parts Manufacturing and Aerospace Composites. They also manufacture Aerospace interiors parts and more in order to cater to the increasing Aerospace equipment and other heavy engineering needs of India.

Established in Bengaluru, Gopalan Aerospace was conceptualized to enable and contribute to the country's rapidly changing Aerospace industry. A domain which was sparsely populated by only a few large players is now open to new, more progressive, faster moving entrants.

## 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
- Clarity on items requiring ILs, single window for application to obtain ILs and streamlined procedures
- Large capital expenditure projection. The government has estimated that around 33% of its Defence budget for the year 2020-2021 is to be spent on capital acquisitions of Defence equipment.
- Large imports - scope for indigenization
- Delisting of several items from export clearances
- New thrust to Buy and Make (Indian), and Make categories of procurement in DAP
- Increased scope for transfer of technology due to procurement categorizations in DAP
- 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
- Increased flexibility to FOEMs in discharge of offset obligations in terms of change in IOPs, timeframe and products & services. The government has estimated a net amount of contractual offset obligation of around \$4.5 Billion over the next 5-6 years.

# LEGAL AND REGULATORY FRAMEWORK FOR DEFENCE PROCUREMENT

POLICY	MINISTRY OF DEFENCE	ALL DEFENCE AND SECURITY RELATED MATTERS
<b>Legislations &amp; 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
	FOREIGN DIRECT INVESTMENT POLICY & REGULATIONS UNDER FOREIGN EXCHANGE MANAGEMENT ACT, 1999 (FEMA)	Governs policy on foreign direct investment and regulations on foreign exchange
	OTHER ACTS - INDIAN ARMY ACT, 1950; INDIAN AIR FORCE ACT, 1950; INDIAN NAVY ACT, 1957	Statutory provisions and supplementary rules concerning government, regulation, administration, enrolment and discipline of the Army, Air Force and Navy.
<b>Regulators &amp; Agencies</b>	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	Reviews the post contract status of all the offset agreements entered into by IOPs

# MINISTRY OF DEFENCE

The Government of India is responsible for ensuring the Defence of India and every part thereof. The Supreme Command of the Armed Forces vests in the President. The responsibility for national Defence rests with the Cabinet.

This is discharged through the Ministry of Defence, which provides the policy framework and wherewithal to the Armed Forces to discharge their responsibilities in the context of the Defence of the country. The Raksha Mantri (Defence Minister) is the head of the Ministry of Defence.

The principal task of the Defence Ministry is to obtain policy directions of the Government on all Defence and security related matters and communicate them for implementation to the Services Headquarters, Inter-Services Organizations, Production Establishments and Research and Development Organizations. It is also required to ensure effective implementation of the Government's policy directions and the execution of approved programmes within the allocated resources. Ministry of Defence comprises of four Departments, Department of Defence (DOD), Department of Defence Production (DDP), Department of Defence Research & Development (DDR&D) and Department of Ex-Servicemen Welfare and also Finance Division. The principal functions of all the Departments are as follows:

**The Department of Defence** deals with the Integrated Defence Staff (IDS) and three Services and various Inter-Service Organizations. It is also responsible for the Defence Budget, establishment matters, Defence policy, matters relating to Parliament, Defence co-operation with foreign countries and co-ordination of all Defence related activities.

**The Department of Defence Production** is headed by a Secretary and deals with matters pertaining to Defence production, indigenization of imported stores, equipment and spares, planning and control of departmental production units of the Ordnance Factory Board and Defence Public Sector Undertakings (DPSUs).

**The Department of Defence Research** is headed by a Secretary. Its function is to advise the Government on scientific aspects of military equipment and logistics and the formulation of research, design and development plans for equipment required by the Services.

## DEFENCE ACQUISITION PROCEDURE 2020

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

DAP 2020 focuses on simplifying the Defence acquisition procedure and institutionalizing monitoring mechanism with concurrent actions using digital technologies & database for selection of best equipment in a transparent and competitive manner giving adequate opportunities to capable vendors. Make in India initiative of the Government of India focuses on increasing participation of Indian Vendors including MSMEs, and therefore “Make” procedure has been further refined in DAP 2020 to make it more objective and time bound with focus on Indian industry especially MSMEs. Cutting down permissible timeframes for various activities and institutionalizing robust mechanisms to monitor for probity at various stages of the acquisition process are the attributes of this DAP.

### KEY FEATURES OF THE DAP 2020

DAP 2020, a product of extensive analysis, deliberations, interactions and focused formulations, aims to further ‘Self Reliance’ of the country in the Defence sector and implement ‘Ease of Doing Business’ with emphasis on Simplification, Delegation, Reduced Timelines and making the process as Industry friendly as possible. The following chapters have been introduced in DAP 2020,

- **Chapter IV** - Procedure for Acquisition of systems designed and developed by DRDO/DPSU/OFB
- **Chapter VIII** - Acquisition of Systems Products and ICT Systems
- **Chapter IX** - Leasing
- **Chapter X** - Other Capital Procurement Procedure
- **Chapter XI** - Post Contract Management
- **Chapter III** - Addition of Innovation category

### EASE OF DOING BUSINESS

One of the key focus areas of the review was to implement ‘Ease of Doing Business’ with emphasis on simplification, delegation and making the process industry friendly with certain specific provisions incorporated:-

#### a. Procedural Changes

- Single stage accord of AoN in all cases upto Rs 500 crores has been instituted thereby reducing time
- FTP cases, post accord of AoN, will be progressed as per delegated powers thereby reducing the procurement cycle considerably
- In Planning Process, LTIPP has been re-designated as Integrated Capability Development Plan (ICDP) covering planning period of 10 years instead of 15 years.



### b. Request for Proposal (RFP) and Standard Contract Document (SCD)

Certain measures to provide clarity and alignment of requirements and also enabling provisions have been incorporated in the RFP and SCD in terms of Flow Chart driven guidelines, provision of in-storage preservation and termination of contracts in cases where projects are not progressing as per pre-defined milestones.

#### SALIENT FEATURES OF DAP 2020

##### Reservation in Categories for Indian Vendors

The categories of Buy (Indian-IDDM), Make I, Make II, Production Agency in Design & Development, OFB/DPSU and SP model will be exclusively reserved for Indian Vendors meeting the criteria of Ownership and Control by resident Indian Citizens with FDI not more than 49%. This reservation will provide exclusivity in participation to domestic Indian industry.

##### Enhancement of Indigenous Content

- a. Overall Enhancement in Indigenous Content (IC)
- b. **IC Verification** - A simple and practical verification process has been instituted and IC will now be calculated on 'Base Contract Price' i.e. Total Contract Price less taxes & duties
- c. **Indigenous Military Material** - Promoting use of indigenous military material with provisions for examination of platforms and other equipment/ systems and reward for vendors for using indigenous raw material
- d. **Indigenous Software** - Provision for exploring options for operating base applications like Fire Control System, Radars, Encryption, Communications etc on indigenous software in Buy (Indian- IDDM) & Buy (Indian) cases has been included.

### Modernisation Budget of the Armed Forces

CATEGORY	DDP 2016	DAP 2020
<b>Buy (Indian-IDDM)</b>	Min 40%	Min 50%
<b>Buy (Indian)</b>	Min 40%	Indigenous design - Min 50%, otherwise - Min 60%
<b>Buy &amp; Make (Indian)</b>	Min 50% of Make	Min 50% of Make
<b>Buy (Global - Manufacturing in India)</b>	-	Min 50%
<b>Buy (Global)</b>	-	Min 30% for Indian vendors

### RATIONALISATION OF TRIAL AND TESTING PROCEDURES

- Testing equipment based on its employability and for other conditions, appropriate certifications confirming functional effectiveness may be obtained
- Scope of Trials will be restricted to physical evaluation of core operational parameters, other parameters may be evaluated based on vendor certification, certification by accredited laboratories, computer simulations of parameters
- Avoid duplication of trials and waiver will be granted based on Certificates of Conformance. Ensure simultaneity of various Trials and wherever feasible, entire Trials be conducted by a Combine Trial Team in order to save time
- Requisite opportunity will be afforded to participating vendors to rectify shortcomings/faults during the Trials with permission to carry out repairs
- Request For Proposal will apprise vendors to submit draft Acceptance Test Procedure (ATP), to be finalized by QA agency during Technical Trials itself. Sample size for destructive tests including the aspect of cost to be borne by seller will be stated upfront in the RFP for vendor
- No repetition of inspections will be done especially during acceptance of equipment. Third Party Inspections will also be carried out.

### MAKE & INNOVATION

- **Make I** (Government Funded upto 70%). Laying down a cap of Rs 250 crore/DA and selection of DAs based on bidding criteria
- **Make II** (Industry Funded) for production of indigenously designed & developed weapons/equipment/systems/platforms along with sub components/assemblies
- **Make III** (Indigenously Manufactured) category for manufacture of equipment/platforms or spares/assemblies/sub-assemblies for enabling import substitution
- Procurement of prototypes developed through 'Innovation' under various initiatives like iDEX, Technology Development Fund and Internal Services Organizations has been facilitated.

### DESIGN & DEVELOPMENT

A separate dedicated chapter has been incorporated in the DAP 2020 for acquisition of systems designed and developed by DRDO/DPSUs/OFB. A simplified procedure with Integrated Single Stage Trials to reduce timelines and laying greater emphasis on evaluation through certification and simulation has been incorporated. Aspects of Spiral Development have been incorporated as well.

**ADDRESS VOIDS**

Certain existing voids have been addressed in the form of new Chapters as under,

- **Information Communication Technology** - Peculiar issues related to procurement of ICT intensive equipment especially of Interoperability & Built-in Upgradability, enhanced security requirements and change management have been included
- **Leasing** - A new category introduced to enable operating of assets without owning thereby, substituting huge initial capital outlays
- **Post Contract Management** - To formalise procedures post signing of contract with respect to inspections, levying of Liquidity Damages, Contract Amendments etc
- **Other Capital Procurement Procedure** - A new procedure has been included as a new chapter in DAP and structured as an enabling provision for Services to procure essential items through Capital Budget under a simplified procedure in a time bound manner.

**INDUSTRY FRIENDLY COMMERCIAL TERMS**

- Price Variation Clause has been incorporated for large and protracted contracts in order to avert inflated initial quotes by vendors and arriving at a realistic price of the project
- Payments to Vendors - Suitable provisions like parallel processing of documents by SHQ/PCDA through digital verification, within laid down timelines, has been included to ensure timely payment to vendors. Payments to Indian industry have been aligned with foreign industry.

Some of the major highlights of the DAP considered favorable are,

- Focus on technology in offsets, discarding traditional build to print or contract manufacturing
- Higher multipliers for technology transfers in Offsets
- Introduction of third party valuations and removal of restrictions on sub tier discharge of offsets as well as percentage discharge on particular avenues. All avenues are equally good
- Importance given to design and development from the planning stage through execution
- New concepts in terms of long term product support, leasing, price variation clause
- Introduction of AI, Military Materials, Indigenous software, Aero Engines and FAB
- Term of DPP Fixed , so one knows the duration of effect
- Timeframes - Reduction in implementation timeframes is encouraging
- Make 2, Make 3 and iDEX categories for more open competition.
- Clarity in Indigenous Content - Very clear and positive and also increase in percentages of IC in various categories of procurement.



# DEFENCE PROCUREMENT MANUAL

This Defence Procurement Manual 2009 (DPM 2009) contains principles and procedure relating to procurement of goods and services for the Defence Services, Organizations and Establishments falling under Revenue Expenditure. The term procurement means acquiring all types of goods (both scaled and non-scaled), such as equipment, stores, spares, technical literature, etc., as well as all types of services, including packing, unpacking, preservation, transportation, insurance, delivery, special services, leasing, technical assessment, consultancy, systems study, software development, maintenance, updates, conservancy, etc. implies procurement of items and equipment, including replacement equipment (functionally similar) assemblies/sub-assemblies and components, to maintain and operate already sanctioned assets in the service, the necessity of which has been established and accepted by the Government.

**Revenue Procurement:** Implies procurement of items and equipment, including replacement equipment (functionally similar) assemblies/sub-assemblies and components, to maintain and operate already sanctioned assets in the service, the necessity of which has been established and accepted by the Government.

**Channels of procurement** - by placing demand on

- The Director General of Ordnance Factories
- Other ministries of government and state governments
- Industries/Factories/Statutory Corporations (partially or wholly owned by govt)
- Indigenous trade either directly or through the Director General of Supplies
- Local Purchase in respect of items which are not supplied by the central procurement authority/ organizations of the Services / Departments and stores emergently required
- Defence Public Sector Undertakings and other Government Public Sector Undertakings

**Types of Procurement:**

**Capital** – significant expenditure incurred with the object of acquiring tangible assets of a permanent nature (for use in the organization and not for sale in the ordinary course of business) or enhancing the utility of the existing assets, shall broadly be defined as Capital expenditure. Capital procurement would, therefore, refer to procurement of all goods and services that fit the description of capital expenditure. The procedure for capital procurement is separately laid down in the Defence Procurement Procedure 2016.

**Revenue** – revenue should bear all subsequent charges for maintenance and all working expenses, including all expenditure on working and upkeep of the project and also on such renewals and replacements and such additions, improvements or extensions, etc., as under rules made by the Government are debit-able to revenue account.

- Financial powers delegated to service/departments and SHQ: For Revenue Procurement, Government has delegated financial powers under revenue heads to a number of authorities in each Service/Department.

**Indigenous** - Procurement from indigenous sources is called indigenous procurement. It is the policy of the Government to encourage indigenization, particularly in the field of Defence to achieve self-reliance. Hence, indigenous firms should be given all support to produce and supply quality goods conforming to specifications. Proper loading criteria for all taxes, duties and other expenses involved in procurement of an item need to be applied to provide a level playing field to the indigenous manufacturers. Payments against indigenous procurement are made in rupee terms.

**Foreign Procurement** - Defence equipment and assets, which are of foreign origin, items required to maintain and operate these equipment may also need to be procured from suppliers abroad.

**Central Procurement** (CP) is undertaken against indents resulting from planned provisioning process like the Annual Provision Review, refit planning, obsolescence planning and planned routines. CP indents normally cover the entire requirement of the item for the duration of the provisioning period.

**Local Purchase** (LP) is undertaken within the LP powers of various authorities as per the delegated powers in the following circumstances:

- To meet the short-term, ad-hoc or urgent requirements of units/ establishments when supplies are not available through the central provisioning agency
- To meet the normal requirements of units/establishments for stores which are not within the purview of central purchase organizations.

## INDUSTRIAL LICENSE IN DEFENCE MANUFACTURING

Manufacturing in the Defence sector is governed through industrial licensing under The Industries (Development and Regulation) Act, 1951. Before 2001, manufacturing in Defence sector was limited to public sector companies (OFB & DPSUs). However, in 2001, the Government allowed 100% Indian private sector participation in Defence manufacturing sector subject to licensing under IDR Act.

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. The validity of an IL has been raised from 3 to 15 years, extendable to 18 years considering the long gestation period of Defence contracts. The application process has been automated and simplified.

Manufacturing in the Defence industry requires industrial license (IL) as per the Industries (Development and Regulation) Act, 1951 (IDRA). 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 Department of Defence Production, MoD. In 2001, Defence manufacturing 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.

## LIST OF DEFENCE ITEMS

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



## FDI POLICY

FDI policy applies to any organization that is looking for establishment of branch office, liaison office or project office or any other place of business in India. If the principal business of the applicant is Defence, approval of Reserve Bank of India is not required in cases where Government approval or license/permission by the concerned Ministry/ Regulator has already been granted. The latest release in August 2020 of the FDI policy allows the following investment in Defence sector,

- 74% is automatic approval
- 75 -100 % allowed with Government approval.

**Other Conditions** as per the most recent press note are as follows:

- Infusion of fresh foreign investment within the permitted automatic route level, in a company not seeking industrial license, resulting in change in the ownership pattern or transfer of stake by existing investor to new foreign investor, will require Government approval.
- License applications will be considered and licenses given by the Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, in consultation with the Ministry of Defence and the Ministry of External Affairs
- Foreign investment in the sector is subject to security clearance and guidelines of the MoD
- Investee company should be structured to be self-sufficient in areas of product design and development. The investee/joint venture company along with manufacturing facility should also have maintenance and life cycle support facility of the product being manufactured in India.

### Key enablers of the FDI policy

- 100% FDI in Defence sector: FDI upto 74% under Automatic route
- Requirement of single largest Indian ownership of 51% of equity is removed
- 3 years of lock in period for equity transfer has been abolished.

FDI in Defence sector is also subject to industrial license under the Industries (Development & Regulation) Act 1951.

## EXPORT POLICY

The Export policy in India for the manufacturing and exporting of components and equipment of critical Defence platforms categorized as dual-use items and technologies, are either completely prohibited or permitted under license only. Such dual use items, with the nomenclature of SCOMET (Special Chemicals, Organisms, Materials, Equipment and Technologies), as per the Foreign Trade Policy, are assigned specific codes called the ITC – HS Code (Indian Trade Clarification – Harmonised System Code). The products that are under the compulsory licensing regime are mentioned in Chapter 88 (all Aerospace related products), and Chapter 93 (arms and ammunition) and ITC HS code of 8710 also covers Armored vehicles.

### Criteria to Qualify for the Issue of License:

The export license applications are scrutinized and issued on case-to-case basis, after thorough evaluation, considering the following factors, as per its categorization under the SCOMET list:

- End-user credentials, credibility of declarations of end-use of the item or technology, integrity of chain of transmission of item from supplier to end user, and the potential of item or technology, including timing of its export, to contribute to end users that are not in conformity with India's national security or foreign policy goals and objectives, objectives of global non-proliferation, or its obligations under treaties to which it is a State party
- Assessed risk that exported items will fall into hands of terrorists, terrorist groups, and non-State actors
- Export control measures instituted by recipient State
- Assessment of end-uses of item(s)
- Applicability to an export license application of relevant bilateral or multilateral agreements to which India is a party
- The item will be used only for the stated purpose and that such use will not be changed, nor items modified or replicated without consent of Government of India
- Neither the items nor replicas nor derivatives thereof will be re-transferred without consent of Government of India
- End-user shall facilitate such verifications as are required by Government of India. Government of India may also require additional formal assurances, as appropriate, including on end-use and non-retransfer, from State of recipient.



## OFFSETS POLICY

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.

As per the extant provision of the policy, a 30% offset apply to all Capital Acquisitions categorized as 'Buy (Global)', i.e. outright purchase from foreign/Indian Vendor, or 'Buy and Make' categories of procurements where the estimated cost of the acquisition proposal is Rs. 2000 Crore or more as on the date of accord of AoN.

30% of the estimated cost of the acquisition in 'Buy (Global)' category acquisitions and 30% of the foreign exchange component in 'Buy and Make' categories of procurements will be the required value of the offset obligations.

MoD released the revised version of the Defence Acquisition Procedure (DAP) 2020 in Sep 2020. Here we would like to highlight the changes in the Defence Offset guidelines, **Appendix E to Chapter II of DAP 2020.**

### AVENUES OF DISCHARGE

Changes to the Avenues of Discharge for offset obligations are highlighted in the table below

CLAUSE	AVENUES OF DISCHARGE	
	DPP 2016	DDP 2020
<b>3.1.a</b>	Direct Purchase Export Orders	Direct Purchase Export Orders
<b>3.1.b</b>	FDI in Joint Ventures	Investment in Defence Manufacturing
<b>3.1.c</b>	Investment in 'Kind' (private industry)	Investment in ToT (private industry)
<b>3.1.d</b>	Investment in ToT (private industry)	Acquisition of tech through ToT to Government institutions
<b>3.1.e</b>	Acquisition of tech or equipment through ToT to Govt institutions	Technology Acquisition by DRDO
<b>3.1.f</b>	Technology Acquisition by DRDO	-

Investment in 'kind' to the Indian private industry has been removed as an avenue for offset discharge. Details of each avenue of discharge are as follows:

### **3.1.a : Direct Purchase or Export orders**

- For eligible products manufactured or services
- Through Indian enterprises

### **3.1.b : Investment in Defence Manufacturing**

- FDI or direct investment or JVs or through the non-equity route
- For co-production, co-development and production or licensed production of eligible Defence products
- As per guidelines of DPIIT / MHA

### **3.1.c : Investment in ToT (private industry)**

- Through Indian enterprises for manufacture of eligible products
- Must cover all documentation, training and consultancy required for full ToT (civil infrastructure and related equipment is excluded).
- ToT should be provided without license fee and there should be no restriction on domestic production, sale or export.

### **3.1.d : Acquisition of tech through ToT to Government institutions**

- Through Government institutions and establishments engaged in the manufacture and/or maintenance of eligible products.
- Includes augmenting capacity for Research, Design and Development, Training and Education but excludes civil infrastructure and related equipment.

### **3.1.e : Technology Acquisition by DRDO**

- In areas of critical technology

The following Mandatory Offsets clause has been **removed** from DPP 2020.

- A minimum 70 % of the offset obligation must be discharged by any one or a combination of Paras 3.1(a), (b) and (c).
- Where the discharge of offset obligations is proposed in terms of Para 3.1(c), the vendor will be required to buyback a minimum 40% of the eligible product and/or service (by value) within the permissible period for discharge of offset obligations.

## MULTIPLIERS

As a welcome change, there is an impetus on system/product development compared to component manufacturing. Majority of offset discharge has been through the export avenue, but with limited know-how from the FOEM. The new multipliers give significant weightage to product development and Transfer of Technology to Indian Enterprises. The below table provides the revised multipliers for Offset Discharge through various avenues:

CLAUSE	AVENUE OF DISCHARGE		DRDO	DPSU	PRIVATE INDUSTRY	MSME
<b>3.1.a</b>	Direct Purchase/ Export Orders	Product	1	1	1	1.5
		Components	0.5	0.5	0.5	0.75
<b>3.1.b</b>	Investment in Defence Manufacturing	Investment	1.5	1.5	1.5	1.5
		Defence Corridor	2	2	2	2
<b>3.1.c</b>	Investment in ToT (private industry)		NA	NA	2	2
<b>3.1.d</b>	Acquisition of tech through ToT to Government Institutions		3	3	NA	NA
<b>3.1.e</b>	Technology Acquisition by DRDO		4	NA	NA	NA

For ToT on critical technologies to DRDO, a range of 2 to 3 multiplier was prescribed based on the restriction enforced by the OEM in DPP 2016. These conditions have been removed in DPP 2020. This leaves the question whether DRDO will have unrestricted rights to use the critical technology they might acquire.

## OFFSET BANKING

The provision for Offset Banking was introduced in DPP 2008. DPP 2016 had a provision for offset banking, where pre-approved banked offset credits would be considered for discharge of offset obligations subject to a maximum of 50 % of the total offset obligation under each procurement contract.

*DPP 2020 has done away with offset banking.*

## CONDITIONS FOR OFFSET CREDITS

**Investment in Defence Manufacturing:** Must provide a Detailed Project Report (DPR) with cost break-up. Offset discharge shall be subject to physical completion of the project and verification of audited accounts of the company setting up the manufacturing unit.

**Investment in ToT:** Where technology is proposed to be transferred under Para 3.1(c), a third party valuation from the recognized/certified valuation firms duly accepted by the IOP to be submitted.

- Valuation to be done on Cost Approach and Market Approach
- *Buyback clause has been removed in DPP 2020*

### Submission of Offset Discharge Claims

**DPP 2020** states that the vendor shall submit offset discharge claims in the required format to the DOMW through the **online portal**.

*The requirement to submit six-monthly reports has been done away with in DPP 2020.*

### Eligible Products

For discharge through Indian companies under clause 3.1.a, 3.1.b and 3.1.c, the following products/services have been **removed from list of eligible products**.

- Specialized equipment for military training or for simulating military scenarios
- Miscellaneous equipment and materials designed for military applications, specially designed environmental test facilities and equipment for the certification, qualification, testing or production of the above products
- Software specially designed or modified for the development, production or use of eligible products
- High velocity kinetic energy weapon systems and related equipment
- Civil Aerospace Products
- Services (Related to Eligible Products) including Engineering, design and testing or Software development.

Technologies eligible for ToT under clause 3.1.d to DPSUs has been introduced in DAP 2020.

Critical technologies for ToT under clause 3.1.e to DRDO has been updated in DAP 2020.



## DOING BUSINESS IN INDIA

The State and Central Governments have made changes to various laws to deal with economic growth and to streamline the legal system like, Introduction of a Unified Indirect tax law system, introduction of Insolvency and Bankruptcy Code (IBC) to turn around stressed assets and also the recent vast reforms in the proposed New Labour Codes.

The biggest testament of effectiveness of all the changes that have been introduced by the Government is that, India has continuously been scaling to a greater ranking in the World Bank's Ease of Doing Business rankings.

### General Legal Framework for investing in India:

- **Foreign Exchange Laws:** Foreign Exchange Management Act, 1999 ("FEMA") and rules, regulations, circulars, notifications and press notes issued under the same.
- **Corporate Laws:** Companies Act, Limited Liability Partnership Act, 2008 and the regulations laid down by the Securities and Exchanges Board of India (SEBI) for listed or to be listed companies in India.
- **Labour Laws:** India has many Central & State Labour laws such as the Industrial Disputes Act, 1947, Minimum Wages Act, 1948 etc. Labour Laws are going through a major reform of getting compiled into four major codes and expected to be effective soon. The applicability of such laws is determined by various parameters (such as the nature of work to be performed, type of establishment, number of employees, etc.).
- **Sector Specific Laws:** In addition to the abovementioned general legislations, specific laws relating to Insurance, Aviation, Financial Services (banking, non-banking financial services), Infrastructure and other sectors are also applicable.



### TAX:

- **Taxation Laws:** The Income Tax Act, 1961 (ITA); Indirect tax laws including laws relating to Goods and Service Tax, (GST), Customs, Excise etc.,
- **International Tax Treaties:** Treaties with favorable jurisdictions are in place which help to plan the tax applicability globally.

### Critical aspects for Doing Business in India:

#### I. Foreign Direct Investment (FDI):

Setting up India operations or investing in India by non-residents requires conformity with India's foreign exchange regulations, specifically, the regulations governing FDI. Most aspects of foreign currency transactions with India are governed by FEMA and the delegated legislations thereunder.

FDI limits with respect to the shareholding of non-residents in an Indian company can be divided into the following categories:

- **Prohibited Sectors in FDI:** Activities/ sectors not open to private sector investment like Atomic Energy, Railway operations, Gambling and betting including casinos/ Lottery business including online lotteries, Chit funds, Nidhi company, Real estate business or construction of farm houses, Manufacturing of cigars, cheroots, cigarillos and cigarettes, of tobacco or of tobacco substitutes.
- **Permitted Sectors:** In the sectors/ activities, which don't fall within 'Prohibited Sectors', FDI is (i) either permitted upto the limit indicated against each sector/ activity or (ii) is permitted upto 100% under the automatic route, subject to applicable laws/ regulations; security and conditions. In few sectors, additional conditions are required to be complied with such as minimum capitalization requirements.

*Aerospace & Defence Sector: The latest release in August 2020 of the FDI policy allows the following investment in Defense sector*

- 74% - Automatic approval
- 75 - 100 % allowed with Government approval.

## II. Establishing a Presence (Unincorporated and Incorporated Options):

**a. Unincorporated Entities:** A foreign company can use unincorporated entities to do business in India through following options,

**Liaison Office:** A liaison office acts as a representative of the parent foreign company in India. However, a liaison office cannot undertake any commercial activities and must maintain itself from the remittances received from its parent foreign company.

**Branch Office:** It can represent the foreign parent company in India and act as its buying or selling agent in India. However, a branch office cannot carry out any retail, manufacturing or processing activities. The branch office is permitted to remit surplus revenues to its foreign parent company subject to the taxes applicable.

**Project Office:** A foreign company may set up a project office in India to execute a project in India. A project office is permitted to operate a bank account in India and may remit surplus revenue from the project to the foreign parent company.

**b. Incorporated Entities:** Incorporated entities in India are governed by the provisions of the Companies Act / Limited Liability Partnership Act, 2008.

**Limited Liability Partnership (LLP):** LLPs are governed by the Limited Liability Partnership Act, 2008. LLP is a body corporate and exists as a legal person separate from its partners.

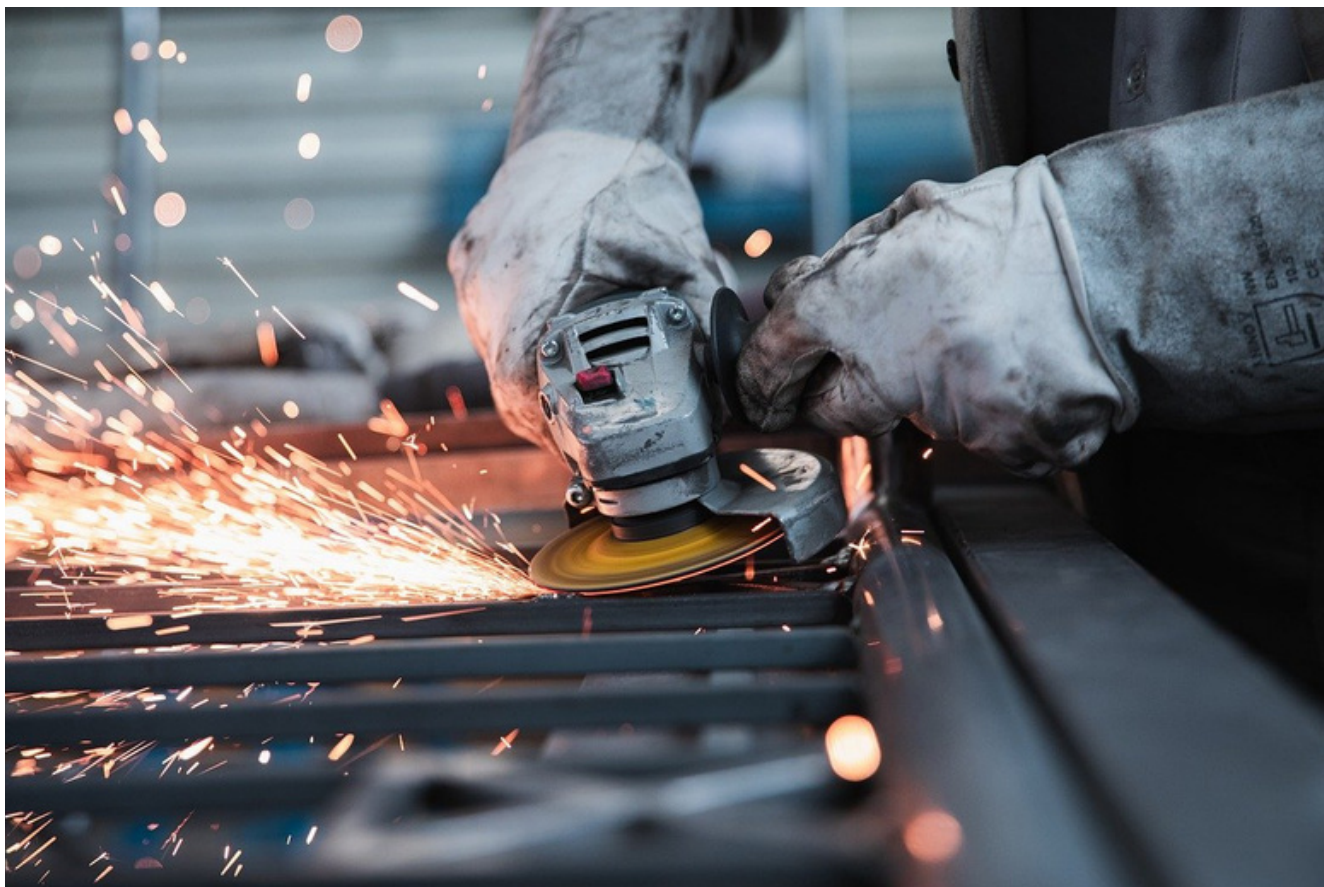
**Companies under the Companies Act:** With effect from April 1, 2014, the Companies Act, 2013 has replaced the previous Companies Act, 1956. The Companies Act, 2013 sets out, inter alia, provisions related to incorporation of a company, issuance of shares, roles and responsibilities of directors, winding up etc. Companies may either be 'Private Limited Companies' or 'Public Limited Companies'.

## III. Tax Considerations: Direct & Indirect Tax

Any person investing or doing business in India has to consider various Direct Tax (Income Based) and Indirect Tax (Consumption Based) which are levied and collected by the Central Government and the State Governments.

### A. Direct Tax: Corporate Tax:

**i. Tax incidence** of a company depends on the residential status of the company, i.e., whether the company has been incorporated in India or its place of effective management lies in India.



## ii. Domestic Company: Tax Rates

### a. New Tax Rate for New Manufacturing Companies (Section 115 BAB)

The Government, via Taxation Laws (Amendment) Ordinance, 2019 passed on 20 September 2019, has introduced a **favorable** new corporate tax rate for **new manufacturing companies**. It has inserted Section 115BAB offering a low corporate tax rate of 15% (plus Surcharge and Health and Education Cess) making an effective rate of 17.16% to new manufacturing companies, subject to conditions.

This is aimed at attracting new Investment to India from abroad and boost expansion plans by existing companies operating in India. Few sample conditions attached with new section are,

- The domestic company should have been set-up and registered on or after the 1st October 2019, and has commenced manufacturing or production of any article or thing on or before 31st March 2023.
- The business should not be formed by splitting up, or the reconstruction of a business already in existence (not applicable to a business referred in Sec 33B of I.T Act,1961)
- The company should not use any machinery or plant previously used for any purpose, but with **exceptions**.



**b. Other Companies Tax rate are as below,**

The Government has been taking steps towards reducing corporate tax rates from 30% to 25% (excluding surcharge and cess) over the next 4 years. Few changes in tax rates have come in the last few years.

PARTICULARS	FY 2020-21 (AY 21-22)
Income Tax on total turnover / gross receipts during PY 2018-19 does not exceed Rs. 400 crores	<b>25%</b>
Income Tax on any other domestic company	<b>30%</b>
Company opting for section 115BA	<b>25%</b>
Minimum Alternate Tax (MAT)	<b>15%</b>
Surcharge where total income is Rs. 1 crore < Rs. 10 crores	<b>7%</b>
Surcharge where total income > Rs. 10 crores	<b>12%</b>
Company opting for section 115BAA*	<b>22%</b>
Surcharge	<b>10%</b>

\*Section 115BAA- As per the 2019 Amendment, effective from April 1, 2019, domestic companies may choose to be taxed at an effective rate of 25.17% under the newly introduced section 115BAA of the ITA subject to certain conditions.

**iii. Dividends and Share buy-back**

Dividends distributed by Indian companies were subject to a dividend distribution tax (DDT) at an effective rate of 20.55% payable by the company. However, the Finance Act, 2020 has abolished the DDT and reverted to a classical system of taxation of dividend / distributed income in the hands of shareholders / unit holders respectively, at the applicable marginal tax rate. Therefore, on payment of dividend there shall be a dividend withholding tax applicable on the company at the time of payment to the shareholders who can then take credit of the withheld amount while calculating his own taxes. **The new regime is applicable from April 1, 2020.**

#### **iv. Double Tax Avoidance Treaties**

India has entered into more than 100 bilateral tax treaties for avoidance of double taxation. A taxpayer may be taxed either under domestic law provisions (i.e. under the ITA) or the applicable tax treaty to the extent it is more beneficial. India is also a signatory to the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (MLI), in furtherance of the OECD's Base Erosion and Profit Shifting (BEPS) project.

#### **v. Structuring Investments**

Investments into India are often structured through holding companies in various jurisdictions for number of strategic and tax reasons. While selecting a holding company jurisdiction, it is necessary to consider a range of factors. Over the years, majority of investments into India have come from countries such as Mauritius, Singapore and The Netherlands, which have favorable tax treaties with India.

### **B. Indirect Taxation**

Prior to July 1, 2017, a series of Central and State taxes were levied at various stages of the production and distribution process. These included Central Excise Duty on manufacture, Central Sales Tax on interstate sale, sales tax / value added tax on intra-state sale, and Service Tax on the rendering of services. Moreover, credit for input taxes paid was not uniformly available across central and state levies thereby leading to a cascading of taxes. With the introduction of the Goods and Services Tax (GST), India now has unified indirect tax system.

#### **i. Goods and Services Tax (GST)**

GST is levied at the following rates nil, 5%, 12%, 18% and 28% depending on the rate schedule applicable to the supply in question. To prevent cascading of taxes, a uniform input tax credit system is available in respect of input supplies of goods or services used or intended to be used in the provision of output supplies of goods or services or both. GST is a consumption tax and is typically passed on to the consumer of the good / service as part of the price.

#### **ii. Customs Duty**

Customs duty is levied on goods that are imported into India by the Central Government. The rates at which customs duty is levied are specified in the Customs Tariff Act, 1975. Prior to the introduction of GST in India, import duties were generally categorized into basic customs duty, additional customs duties, countervailing duty, safeguard duty and anti-dumping duty. With the introduction of GST, the customs framework has been significantly revamped.

### **C: Equalization Levy (EL)**

The Finance Act 2016 introduced a new kind of tax called the equalization levy (EL). The EL is a 6% tax on income in excess of INR 1 crore earned by non-residents from the provision of online advertising revenues in India. The EL is intended to tax revenue streams which were previously not considered taxable in India on the basis of physical-presence based permanent establishment tests.

With effect from April 1, 2020, the scope of the EL has been expanded to cover non-resident e-commerce operators making supplies in India or having a nexus with India by imposing a 2% EL on the amount of consideration received or receivable by an 'e-commerce operator' from 'e-commerce supply or services' made or provided or facilitated by or through it.

### **IV. Central and State Incentives**

#### **Central Incentive Schemes**

##### **Production Linked Incentive Schemes ( PLI Schemes)**

A scheme that aims to give companies incentives on incremental sales from products manufactured in domestic units. The scheme invites foreign companies to set units in India. It also aims to encourage existing companies to set up or expand existing manufacturing units.

The Central Government already announced PLI Schemes in three sectors i) Mobile Manufacturing and Specified Electronic Components, ii) Drug Intermediaries and Active Pharmaceutical Ingredients, iii) Manufacturing of Medical Devices.

In addition to the above three sectors, following 10 sectors are also proposed on 11th November 2020, namely, i) Advance Chemistry Cell (ACC) Battery, ii) Electronic/Technology Products, iii) Automobiles & Auto Components, iv) Pharmaceuticals drugs, v) Telecom & Networking products, vi) Textile products: MMF segment and technical textiles, vii) Food products, viii) High Efficiency Solar PV modules, ix) White Goods (ACs & LED) x) Specialty Steel.

##### **Few other Central Incentive Schemes**

There are other incentives available from Central Government like Authorized Economic Operator Scheme, Project Import Scheme, Export Promotion Capital Goods Scheme, MEIS/ RoDTEP Schemes etc which may also be availed from case to case basis subject to conditions.

**State wise Incentive Schemes**

State wise incentives are available to all types of entities, whether Indian or foreign. It is also available whether “New” or “Expanding Operations” in India. Incentives vary based on the location, industry, investment, employment generation etc.

State Wise incentives are available in addition to the Central Incentives Schemes and generally no restriction to avail both together. Most states have announced Sector Specific Policies granting incentives to thrust sectors like Aerospace & Defence, Electronics etc.

Tailor made Incentive Packages are available in most states for substantial investments (generally referred as Mega Projects).

Fiscal Incentives generally provided in three methods, i) Capital Linked- Cash Back, ii) Expenditure Linked- Exemption / Cash Back iii) Sales Linked- Domestic Sales by GST Subsidy.

*Tamil Nadu also offers various incentives through Tamil Nadu Industrial Policy, 2014 and Tamil Nadu Aerospace & Defence Industrial Policy, 2019. Tamil Nadu Government is working on New Industrial Policy, which is expected to be announced soon.*

# TAMIL NADU & TN DEFENCE INDUSTRIAL CORRIDOR



Tamil Nadu (TN), located on the south-eastern coast of India, is a well-known and industrially diversified economy. The State is a significant contributor to the Indian economy and has consistently performed well. It is India's 2nd largest economic powerhouse. It is one of the most sought after investment destinations in India due to the availability of skilled manpower, high quality infrastructure, a conducive business environment and its favorable location.

***Tamil Nadu ranks number one in industrial performance, number of factories, annual turnout of skilled manpower and number of operational Special Economic Zones. The State ranks second in healthcare and good governance. It is the second largest economy in the country.***

TN is home to the largest automotive hub, with OEM companies like Hyundai Motor Co., BMW, Daimler, Renault-Nissan, Ford Motors, Yamaha Motors, Ashok Leyland, TVS motors, Royal Enfield etc., TN accounts for 35% of India's auto component production. The state also accounted for 45% of India's total auto exports in previous years.

TN also contributes to 16% of the total electronics production in India, 2nd in India in Computer, Electronics and Optical Products, 3rd in India in terms of Electronic Exports and home to leading companies like Dell Computers, Motorola, Samsung, Foxconn, Flextronics, Nokia, Siemens, Sanmina - SCI, Salcomp etc and many other suppliers of components.

Tamil Nadu should be seen as an attractive destination due to its existing industries and infrastructure in the Automotive, Engineering, Electronics & other sectors and how this would have synergies with the Aerospace and Défense sector.

## FEW OTHER HIGHLIGHTS OF TAMIL NADU

- **Infrastructure:** On the infrastructure front, the state boasts of 4 large ports - Madras, Ennore, Kattupakkam, and Tuticorin - handling around 19.3% of India's capacity; 4 Airports handling 23 Million passengers; 6700 KM of Rail network, and 200,000 KM of Road network, and more, like the 8 lane Chennai-Salem Green Expressway are in the pipeline
- **FDI:** The state has received \$27 Billion USD as Foreign Direct Investment (FDI), between 2000 to 2017
- **SEZ& Industrial Parks:** Tamil Nadu has 36 operational Special Economic Zones (SEZs) - the highest in the country - and a vibrant MSME sector, and a network of about 113 industrial parks, and the highest number of factories in the country, giving it the edge of being one of the most urbanized states in the country
- **Higher Education:** With over 500 Engineering colleges, and an equal number of Polytechnics, the state can offer an abundance of skilled manpower, and a vibrant youth population of more than 66% are in the working age group
- **Power Sector:** The state has 2 Nuclear plants - at Kalpakkam and Kudankulam - besides many Thermal Solar and Wind power plants, to provide cost-effective power for the industries
- **Others:** The state of TN has a good blend of Public Sector Units - including Defence PSU - many Indian and global manufacturers and IT companies, and its proximity to the IT/ITES and Electronic design and manufacturing base hub, Bengaluru, is an added advantage.

## TAMIL NADU DEFENCE INDUSTRIAL CORRIDOR

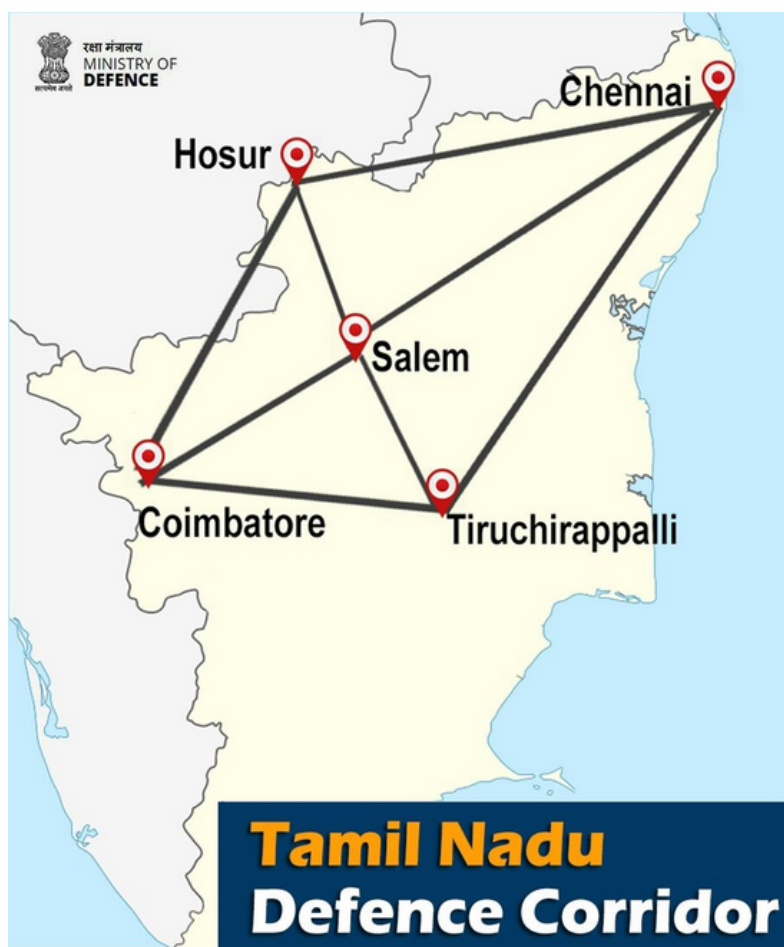
The formal launch of the Tamil Nadu Defence Industrial Corridor was done by the then Defence Minister Nirmala Sitharaman in Trichy on 20th January 2019. This southern Defence corridor is also called the "**Tamil Nadu Defence Production Quad**", since the nodal cities namely, Chennai, Salem, Hosur, Tiruchirappalli and Coimbatore form the quadrilateral. Independently, each of these cities already supports well defined tiered manufacturing clusters, which cater to a variety of industries, from automobiles to heavy industries. These manufacturing hubs also have a fairly developed ecosystem like the Ordnance Factory Boards, DRDOs, and other Defence Public Sector Units.

The following are some of the key highlights of the launch:

- Investments of approximately INR 3,100 crores have been announced in the Tamil Nadu Defence Corridor
- An established TIDCO Aerospace park with 250 acres (expandable to 500 acres)
- An Aircraft MRO (Maintenance Repair Overhauling) facility in Krishnagiri and an upcoming MRO facility in Chennai will further catalyze industry growth
- An Advanced Computing & Design Engineering Centre (ACDEC) for Aerospace Industry in TIDCO Aerospace & Defence Park will offer cutting edge technology and state-of-the-art infrastructure to support incubation and innovation in the Aerospace Industry. Most of the investment will come from the Defence Public Sector Units (DPSUs), such as Ordnance Factory Board (OFBs), Bharat Electronics Limited (BEL), Bharat Dynamics Limited (BDL), Bharat Heavy Movers Limited (BEML), and Mazagon Dock Limited (MDL). OFB will be investing Rs 2,305 Crores, BDL will invest Rs 150 Crores, MDL will be setting up incubators in IIT Chennai with an investment of Rs. 15 Crores, and BEML is planning to set up a spares manufacturing facility with an investment of Rs. 40 Crores
- Tamil Nadu Industrial Explosives Limited has signed an MoU with Bharat Electronics Limited for reviving its defunct factory for producing ammunition and to set up a Centre of Excellence for ammunition related technologies
- An Aerospace division is being established by BHEL in Ranipet with an investment of Rs.200 crore
- Land acquisition has commenced for the satellite launch station of ISRO at Kulasekarapattinam in Thoothukudi District. This launching station will be established at an estimated investment cost of Rs.1000 crore
- A feasibility study by TIDCO through IIT-Madras for developing Ulundurpet airstrip as an Aviation Technology Development complex including UAV Testing, Flight Academy, Aeromodeling, etc is in progress
- The private sector companies have also announced their investment plans. The Bengaluru headquartered Alpha Design has announced an investment of Rs 100 Crores, while the TVS Group will be investing Rs 50 Crores, with plans for manufacturing tactical combat gears for soldiers. The Chennai headquartered Data Patterns with plans for Transfer-of-Technology (ToT), will invest Rs 75 Crores. Aerospace Engineers based at Salem also plans to invest Rs 105 Crores
- L&T MBDA Missile Systems Ltd, a JV between Larsen & Toubro and France's MBDA, have obtained the provisional approval for their SEZ unit in Coimbatore from Government of India, for producing missile weapon systems

- Lockheed Martin's has announced their intention to invest in the corridor and also mentioned of the impressive expertise and capabilities of companies like Lakshmi Machine Works (LMW) and some others, which measure up to be their supply chain partners
- The Defence Minister also launched by video conferencing, the "CODISSIA Defence Innovation and Incubation Centre" to support the MSMEs, Start-up, and existing companies, to encourage their participation and indigenous contribution to the Defence industry
- DRDO handed over the model of Arjun Mark-1A to Mr Saurabh Kumar, Director General of Ordnance Factories (DGOF) and chairman of the Ordnance Factory Board. The release also said that the Arjun Mark-1A is much superior to the earlier version in terms of firepower, mobility and protection features
- According to the TN Govt, Govt has identified about 1,000 acres of land in Manapparai, 1,300 acres in Krishnagiri, 1,000 acres in Dharmapuri and 900 acres in Hosur

## AEROSPACE AND DEFENCE CLUSTERS UNDER TN DEFENCE INDUSTRIAL CORRIDOR





## ANALYSIS OF CLUSTERS IN TN DEFENCE CORRIDOR AND ITS STRENGTHS

- **Chennai:** The capital city of the state is also the automobile capital of South Asia. It is home to Armored Vehicles and Ammunition Depot – AVADI has been a military base since the colonial times. Heavy Vehicles Factory (HVF), EFA-Engine Factory Avadi, Combat Vehicles Research and Development Establishment (CVRDE), Central Vehicle Depot (CVD), The Ordnance Depot [OD], Unfit Vehicles Park [UVP] and the Ordnance Clothing Factory (OCF) exist within the limits of Avadi. A Maintenance Repair Overhauling (MRO) complex is being planned in Chennai which will emerge as the preferred MRO destination. Aerospace Park in Sriperumbudur (Vallam - Vadagal) with an Advanced Computing and Design Engineering Centre (ACDEC) is being set up to form a strong base for supporting large OEMs.
- The city also boasts its advantage of having the largest port in India which connects with the busiest trade routes in the Indian Ocean.
- **Trichy:** One of Trichy's unique advantages is the usage of state-of-the-art tools and technology in SMEs that specialize in laser cutting of tungsten, a material which is widely used in the making of ships and submarines. Heavy Alloy Penetrator Project (HAPP) Trichy pioneers in the manufacture of Tungsten and other heavy alloys primarily for Defence applications
- Trichy also houses Bharat Heavy Electricals (BHEL). The Ordnance Factory of Trichy (OFT) specializes in the manufacture of rifles, grenades etc.
- **Coimbatore:** The entrepreneur rich city is a strong base for foundry, machining, tooling and forging. It also has a large base for auto-ancillaries manufacturing in the country. It is an education hub with a large number of Engineering and Industrial Training Institutes supplying technical talent to the nation. Termed the "Manchester of South India" it pioneered the industrial development in India. Currently, over 14,000 MSMEs support the supply chain across foundry, motor & pumps, auto-components and tooling sectors.
- **Salem:** Strategically lying at the heart of the Defence quadrilateral and equidistant from the four Nodal cities of the Defence corridor, Salem has rich deposits of minerals such as bauxite, magnesite, granite and calcite, and is a hub for making power grids and steel, which form the foundation for the shipping industry. Salem is also a focus state for Power Grid.
- **Hosur:** Hosur is a prominent city along the Chennai -Bengaluru Industrial Corridor. Heavy Engineering and Automobile majors across the globe have set-up bases. Hosur is a powerhouse in the auto corridor. Often missed out in the Defence quadrilateral is the proximity of the corridor with Bengaluru, the IT hub of the world. Bengaluru is right at the doorstep of Hosur and Defence corridor. Electronics, embedded systems and software controls are critical to Engineering systems and proximity of Bengaluru is a bonus to the already well-placed Quadrilateral.

## TAMIL NADU AEROSPACE & DEFENCE POLICY 2019

### POLICY OBJECTIVES

- To create an end-to-end ecosystem for A&D sector
- To attract an estimated investment of around 5 Bn USD in 5 years and 10 Bn USD in 10 years in A&D sector
- To generate direct & indirect employment opportunities to around 1 lakh persons in 10 years
- To create a global workforce for high-end manufacturing by establishing Centre of Excellence, R&D and skill development institutions and
- To attract global OEMs and Tier-1 suppliers and Indian majors as anchor units in the State.

### INCENTIVES & CONCESSIONS AND SINGLE WINDOW CLEARANCE

#### ANCHOR UNIT SUBSIDY (CLAUSE 5.1)

Anchor Unit Subsidy of Rs.10 Crore for the first 10 tier 1 / OEMs each and / or their supplier with a minimum investment of Rs.50 crore each and direct employment of 50 persons.

#### SUBSIDY FOR SKILL DEVELOPMENT (CLAUSE 5.2)

100% of the cost of the “on job” technical training will be reimbursed (subject, to max. of Rs.10000/ month/ trainee for 50 trainees per unit per year).

#### SUBSIDY FOR CERTIFICATION PROCESS (CLAUSE 5.3)

50% of the cost of Certification from Indian and International bodies will be reimbursed to the Industry, subject to a ceiling of Rs 25 lakhs per unit.

#### SUBSIDY FOR LAND ALLOTMENT (CLAUSE 5.4)

20% Concession will be given on the land cost for A&D units.

#### CAPITAL SUBSIDY FOR MSME UNITS (CLAUSE 5.5)

Back ended Subsidy @10% will be given to the MSME industry investment upto Rs.10 crore.

#### CAPITAL SUBSIDY FOR DEVELOPMENT OF AEROSPACE AND DEFENCE PARK (CLAUSE 5.6)

Back ended Subsidy @10% will be given to the developers of A&D parks.

#### MRO (CLAUSE 5.7)

Attractive Tax refund for MRO activities in Tamil Nadu.

#### OTHERS

Structured Package of Incentives for projects @ investment >Rs.300 crores will also be offered to both new and expansion of A&D manufacturing units on a case-to-case basis.

## AEROSPACE & DEFENCE ECO SYSTEM IN TAMIL NADU

- The Defence industry in Tamil Nadu is one of the fastest growing sectors in the state generating a huge amount of export revenue. The state serves as the headquarters for numerous Defence manufacturing public undertakings and number of private companies. Few highlights of the AD industry are:
  - More than 120 Aerospace Component manufacturing companies
  - More than 700+ suppliers to Defence Public Sector Units (DPSUs)

## FEW OF DEFENCE PSUS AND ORDINANCE FACTORIES IN TAMIL NADU

- Heavy Vehicles Factory (HVF), Avadi, Chennai, manufacturing tanks and heavy vehicles for military requirements
- Ordnance Clothing Factory (OCF), Avadi, Chennai manufacturing clothing and other military wears for armed forces
- Engine Factory (EFA) manufacturing high power diesel engine and battle tanks for Defence applications
- Ordnance Factory Trichy (OFT) manufacturing rifles and grenade launchers etc.,
- Heavy Alloy Penetrator Project (HAPP), Trichy manufacturing special alloys like Titanium and other alloys for Defence applications, and
- Cordite Factory Aruvankadu (CFA) Ooty manufacturing arms and ammunitions

## FEW PRIVATE SECTOR PLAYERS IN A&D SECTOR IN TAMIL NADU



### L&T SHIPBUILDING

L&T's shipbuilding arm offers total solutions, from concept design to construction for new builds, as well as repair, refits and mid-life upgrades. L&T offerings span both Defence and commercial vessels. L&T has designed, built and delivered 50 Defence vessels in less than a decade. <https://www.lntshipbuilding.com/>

### ASHOK LEYLAND DEFENCE SYSTEMS



Ashok Leyland has supported the modernization of the Indian Army by developing a host of logistical vehicles with military payloads ranging from 1.5 to 16 tonnes for Light Specialty Vehicles (LSV), Mine Protected Vehicles (MPV), General Services Role, Light Recovery Vehicles, High Mobility Vehicles, Fire Fighting Trucks, Field Artillery Tractors and other special applications. Its diesel engines have been used to power vehicles, boats, cranes, ground starter aggregates, compressors and generators. <https://www.ashokleyland.com/en/defence>.

## DATA PATTERNS

## DATA PATTERNS

Data Patterns possesses complete in-house design capability for developing high reliability solutions in Defence and Aerospace systems. Data Patterns works on Automatic Test Equipment and Test Solutions, Avionics Products, COTS Boards, Fiber Optics, Fire Control systems, Gimbal and Actuator Control systems, High Speed Processor solutions with CPU, DSP and FPGA architectures, Identify Friend or Foe systems, Lasers and Electro Optics products, Naval Systems, Navigation systems, Power Supplies, Radar and Radar Subsystems, Radio Frequency and Microwave products, Cockpit & Rugged Displays, Seekers & Space Products. <https://www.datapatternsindia.com/>

## TITAN ENGINEERING &amp; AUTOMATION LIMITED (TEAL)



Titan Engineering & Automation Limited (TEAL), formerly known as TITAN -Precision Engineering division (PED) is a wholly owned subsidiary of Titan Company Limited, a TATA Enterprise.

Born as an in-house engineering team dedicated to high precision component manufacturing and designing, manufacturing automation machines, the Aerospace and Defence business builds precision components and sub-assemblies catering to the Global Aerospace and Defence customers in Aircraft Engine and its accessories, Actuators, Transmissions, Landing systems, Environment systems, Underwater systems, Missiles and UAVs. <https://www.titanteal.com/aerospace>



## LAKSHMI MACHINE WORKS- ADVANCED TECHNOLOGY CENTRE (ATC)

Lakshmi Machine Works (LMW), in 2010 added a new plant to produce critical components and sub-assemblies for Aerospace industry focused on Engine, Structural and Sheet Metal parts.

LMW Advanced Technology Centre (ATC) manufactures engine parts from various exotic alloys. Has capabilities to machine structural components up to 10-meter length and assembly & system integration range from small sub-assembly to major structural assembly, capabilities to manufacture sheet metal parts of various alloys up to the length of 4 meters, with various processes, and provide one stop solution from parts manufacturing to assembly of large structures under one roof including components as per 'Build-to-Print' and 'Design-to-Print' concept. <https://www.lmwatc.com/>

## CARBORUNDUM UNIVERSAL LTD



CUMI, which is part of Murugappa group, helps Defence industry to develop lightweight and ergonomic ballistic protection solutions. CUMI engineers design and manufacture customized solutions to cater for special Defence needs. CUMI ceramics specializes in solutions for Defence industry with Lightweight & ergonomic bullet proof armour. The CUMI Protect range covers both personnel and vehicle protection. [www.cumi-murugappa.com](http://www.cumi-murugappa.com)

**SANMAR GROUP**

Sanmar Engineering Technologies Private Limited (SETL) is a well-integrated, synergistic group of engineering companies and foundries in India and the USA. The Sanmar Group to offer indigenously manufactured products as substitution of imports for a wide range of critical process equipment, contributing significantly to enhanced industrial efficiency and process safety. The range includes mechanical seals, rupture disks and explosion vents, sleeved plug valves, lined plug valves, high performance butterfly valves, safety relief valves and high pressure gate, globe, check valves. <http://www.sanmargroup.com/>

**HIGH ENERGY BATTERIES (INDIA) LTD**

High Energy Batteries (India) Limited, is a manufacturer of batteries for Aerospace, Naval, Power System Batteries, and Lead Acid Storage Batteries. The Company's batteries are used for various applications, such as underwater propulsion, control guidance, communication, emergency starting and Aerospace. <http://www.highenergy.co.in/products/defence/>

**COUNTER MEASURES TECHNOLOGIES PVT LTD**

Counter Measures Technologies Pvt Ltd (CMT), for over a decade has been a trusted supplier of world-class arms, ammunition, and special equipment to Defence Forces, Central Armed Police Forces and State Police Forces. Products include Pistols, Submachine Guns, Assault Rifles, Submersibles etc. <https://www.cmtpl.com/>

**SALEM AEROPARK GROUP- ELASTOMERIC ENGINEERS & AEROSPACE ENGINEERS PRIVATE LIMITED (AEPL)**

Aerospace Engineers started with manufacture of Flameproof Seals, Gaskets, Bellows & Hoses, and later moved to manufacturing steel braided and un-braided hose assemblies for Hydraulic Fuel Hot Air lines with suitable end fittings.

**MAK CONTROLS AND SYSTEMS PVT LTD**

MAK Controls and Systems P Ltd manufactures Ground Support Equipment required for aircraft, airlines, Defence, Aviation and Ground Handling industry in India and around the world. <https://www.makcontrols.com/>



HILD AD provides strategic services to private sector clients and government segment in the areas of national home land security, cybersecurity, Intelligent Camera & Surveillance solutions, intelligent camera products, Command & Control Systems, Anti-drone solutions, AI based software solutions and Border Security solution. <https://hildad.com/>

## MELSS

### MEL SYSTEMS AND SERVICES LTD (MELSS)

MEL Systems and Services Ltd (MELSS) offer electronics, automation and IT solutions to its customers. MELSS has developed Correction Units, DVR, DDU, SWISS and HUD Camera for strategic applications. They work with Defence forces for obsolescence management support, strategic electronics and indigenize products at both system level and component level. <https://www.melss.com/strategic-electronics/>



### UCAL TECHNOLOGIES

UCAL Technologies specializes in Aerospace design, analysis, manufacturing, system integration and testing. UCAL also operate a fleet of Drone-as-a-Service vehicles for Defence and civilian applications. UCAL supports Defence organizations such as DRDO labs, Indian Navy and ISRO. <http://www.ucalglobal.com/>



### LUCAS TVS DEFENCE UNIT

Lucas TVS Defence Unit caters to Indian Armed forces with electrical & electro- mechanical products by supplying to Heavy Vehicles Factory ( HVF) and Bharat Earth Movers Ltd ( BEML). [http://www.lucas-tvs.com/customers\\_others](http://www.lucas-tvs.com/customers_others)

### ROOTS GROUP



ROOTS follow every requirement of Aerospace specifications. With the support of their Casting & Sheet metal divisions, Roots High Precision Engineering Division has the facilities for development and manufacture of new products and process. They adopt new technologies to meet customer needs in areas like, identification of low cost alternate materials, surface finishing techniques, Environmental Requirement & Standardization using Value Engineering. <https://www.rootsindia.com/>



### AVALON TECHNOLOGY & SERVICES PVT LTD

Avalon Technology & Services, part of Sienna Group, is involved in over 500 sheet metal components and assemblies for commercial and Defence aircrafts. Application vary from flight critical engine parts across multiple engine platforms to Avionics enclosures, Seating, Sensing and Inflight Entertainment systems. <http://siennagroup.com/>

### PRICOL LIMITED



Pricol provides leading automobile and industrial brands with precision-engineered technological solutions in over 45 countries with more than 2000 product variants, including Aerospace & Defence segment. <https://www.pricol.com/>



# LOOKING FORWARD

## ENCOURAGING GOVERNMENT MEASURES

- The Defence Acquisition Procedure 2020, introduced the category of Buy (Global – Manufacture in India) for the acquisition of foreign designed and developed equipment but to be manufactured in India
- The Buy (Indian - IDDM) category has been afforded the highest priority among the forms of acquisition.
- Procurement of equipment with enhanced performance metrics
- Funding of private sector design and development projects with a special focus on the Medium and Small Manufacturing Enterprises (MSME) Sector.

## UPCOMING DEFENCE ACQUISITIONS

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

## MAJOR CAPITAL PROCUREMENTS IN RECENT TIMES

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

**ENHANCED DEFENCE PRODUCTION MEASURES**

- The process of granting Industrial Licenses (ILs) has become more liberalized and transparent, leading to a sharp increase in the number of ILs issued. The number rose from 19 in 2013-14 to 200 in 2018-19
- Strong focus on self-reliance, with all naval vessels including submarines on order, being constructed in India and a drop in expenditure on capital procurement from foreign vendors from INR 35,082 crores in 2013-14 to INR 22,422 crores in 2015-16
- The Streamlining of the Defence exports process has led to a significant rise in the value of Defence exports from INR 1,050 crores in 2013-14 to INR 2,014 crores in 2015-16
- There has also been a rise in the production value of DPSUs and OFBs from INR 43,746 crores to INR 51,351 crores
- The new Offset Policy has led to 100% of the offset obligations being claimed by Foreign Vendors in 2014 and 2015, a significant increase from 63% from 2008-13
- The 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 inducted in Dec 2017
- The indigenously developed Akash Surface to Air Missile Defence System has become fully operational.





The Indian government and the MoD, have pronounced their intention, and have walked their talk, by creating policies and opportunities to catalyze the growth in the Indian Defence & Aerospace industry. Taking cognizance of the undue advantage enjoyed thus far by the DPSUs & OFBs, the policies have been significantly modified, to encourage private sector participations of all sizes and capabilities, leaving it for the market forces to takeover and establish the industry ecosystem. The key drivers such as indigenization and an aggressive government spending on new platforms, throws up plenty of opportunities for the private sector companies, for both established and the new aspiring ones. A well planned, and periodically calibrated approach, can make the difference between being a recognized Defence company or the mediocre ones, which continue to exist in the system.

The opportunities are vast in the Indian Defence sector. With the ever-changing security environment in the APAC region, whether it is the uncertainties of North Korea or volatile situations with China, the requirements are only getting stronger. As the world is getting vary of China as a manufacturing hub, and looking for a new destination, India seems to be emerging as a favorite destination and it is the right time to make inroads into Defence Manufacturing.

In a bid to woo investments for the Tamil Nadu Defence Industrial Corridor, the State government is planning to tweak the Aerospace and Defence Industrial Policy, 2019. The policy aims to create an end-to-end ecosystem for Aerospace sector development covering design, engineering and manufacturing of aircraft for the civil and Defence sector. The plan is also to attract Original Equipment Manufacturers and Tier-1 suppliers and India's majors as anchor units, by providing required facilities and support at competitive rates.

There are a lot of schemes available to support and handhold industries to undertake in-house production. Expected tweak in TN Aerospace & Defence Policy and revised TN Industrial Policy, the Government is focusing on developing a strong domestic capability in Defence to give greater impetus for economic growth, skilled job creation and to support growth of domestic manufacturers and MSMEs.

### REFERENCES

- MoD - <http://mod.nic.in/>
- Ordnance Factory Board - <http://ofbindia.gov.in/>
- Department of Defence Production - <http://ddpmod.gov.in/>
- Department of Industrial Policy & Promotion - [www.dipp.nic.in](http://www.dipp.nic.in)
- Make in India - <http://www.makeinindia.com/>
- AONs - 'Make in India: the way ahead for indigenous Defence production in India', 6th Y.B. Chavan Memorial Lecture delivered by A.K. Gupta, Secretary (Defence Production), MoD, at IDSA on December 7, 2015
- DPP 2016, DAP 2020
- DPM 2009
- Industrial Licensing Policy in Defence Sector
- Consolidated FDI Policy (Effective from August 28, 2017)
- Dhirendra Singh Committee Report
- Aatre Committee Report
- SIPRI
- World Defence Statistics
- TIDCO - <http://tidco.com/>
- Tamil Nadu GUIDANCE - <https://investingintamilnadu.com/>
- Invest India - <https://www.investindia.gov.in/>

## ABOUT THE SOUTHERN INDIA CHAMBER OF COMMERCE AND INDUSTRY (SICCI)



SICCI was founded in 1909 under Mahatma Gandhi's inspiration to fight for the economic freedom of the nation. Though a leading regional chamber, SICCI possess national outlook having excellent relationship with Central & State governments.

SICCI has inherited rich tradition and at the same time remains youthful, dynamic & embracing change. Being in business for over 110 years, SICCI plays significant role in bridging Industry-Government connect while empowering society.

The Chamber is a founder member of The Federation of Indian Chambers of Commerce and Industry (FICCI), New Delhi, the apex body, and continues to take an active interest in the affairs of this national body. Many Presidents of the SICCI have also been Presidents of FICCI and many members are also on the committees of the FICCI and other national bodies.



**VINOD SOLOMON, SECRETARY**

VINODSOLOMON@SICCI.IN

+91 94862 04970

WWW.SICCI.IN

---



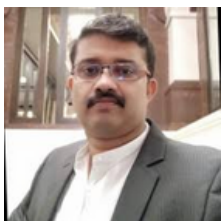
## ABOUT SAS PARTNERS CORPORATE ADVISORS

SAS Partners has been in the forefront of promoting and facilitating cross border investments with India as a focal point. Since its inception in 2008, SAS Partners has been an advisory partner for governments, businesses and entrepreneurs in their endeavor to conceiving, implementing and managing path breaking business ideas to successful organizations.

Drawing from the inherent competencies in legal and regulatory knowledge, SAS Partners has diversified into tax, finance and human resource advisory services. While the offerings are sector agnostic, SAS Partners is building a passionate and experienced talent pool, who can address the nuances of manufacturing in India, including in the domain of Aerospace & Defence.

Successful advisory interventions with SAS Partners has resulted in its clients establishing numerous manufacturing projects, undergoing result oriented corporate restructurings and expanding businesses through corporate M&A initiatives.

SAS Partners is establishing themselves as an end to end advisory partner for Indian and foreign Corporates for doing business in India.



**PARTNER CONTACT : SONY GEORGE MATHEW**

[SONY@SASPARTNERS.COM](mailto:SONY@SASPARTNERS.COM)

+ 91 98846 56382

[WWW.SASPARTNERS.COM](http://WWW.SASPARTNERS.COM)

*In their endeavor to provide a comprehensive suite of service offering for Aerospace & Defense Industry, SAS Partners has entered into a strategic collaboration MoU with Sugosha Advisory.*

---

### ABOUT SUGOSHA ADVISORY



“Sugosha” is the conch of Nakula of the Mahabharata fame. Nakula, gifted with the power to see the future, was cursed that he must not share his knowledge, lest he loses the said powers. Lord Krishna, the Chief architect of Kurukshetra war, used Nakula as the Military Advisor to the Pandava leadership. Lord Krishna, used the knowledge in Nakula, to position the friendly forces. We derive our inspiration from Nakula, as described in the Bhagwat Geeta, in following the principles of Dharma in our Advisory to industry.

Sugosha Advisory, is founded on the principle of providing “Value Based Consulting” to our clients, partnering with them, so as to create an impact on their revenue growth. With a team of erudite industry veterans, having deep domain experience in the Aerospace, Defence and Homeland Security verticals, Sugosha Advisory specializes in Defence Policies, Procurement Procedures and Offsets.

Sugosha Advisory leverages the expertise of the sectoral experts - with some of them having over four decades of industry experience - in Land Systems, Maritime, Defence & Aerospace, and subsumes their valuable inputs and advice, for a comprehensive and a result-oriented approach. Our other core services include Regulations & Licensing (Industrial, Export and Import), Strategic Business Development, Market Entry for Defence manufacturing companies.

We at Sugosha, also publish a monthly magazine, DefInsights, featuring news focused on procurement for the Indian Armed Forces. DefInsights, a Sugosha Media presentation, enjoys a circulation of more than 3000 professionals worldwide. We have already received some excellent reviews.



**SOHIL PATEL, DIRECTOR**  
SOHILPATEL@SUGOSHA.COM  
+91 98868 12348  
WWW.SUGOSHA.COM



[WWW.SUGOSHA.COM](http://WWW.SUGOSHA.COM)



[WWW.SICCI.IN](http://WWW.SICCI.IN)



[WWW.SASPARTNERS.COM](http://WWW.SASPARTNERS.COM)