Indian Defense: Procurement Process and Policy

Report created by Feedback Business Consulting Services Pvt. Ltd. for the Virginia Economic Development Partnership

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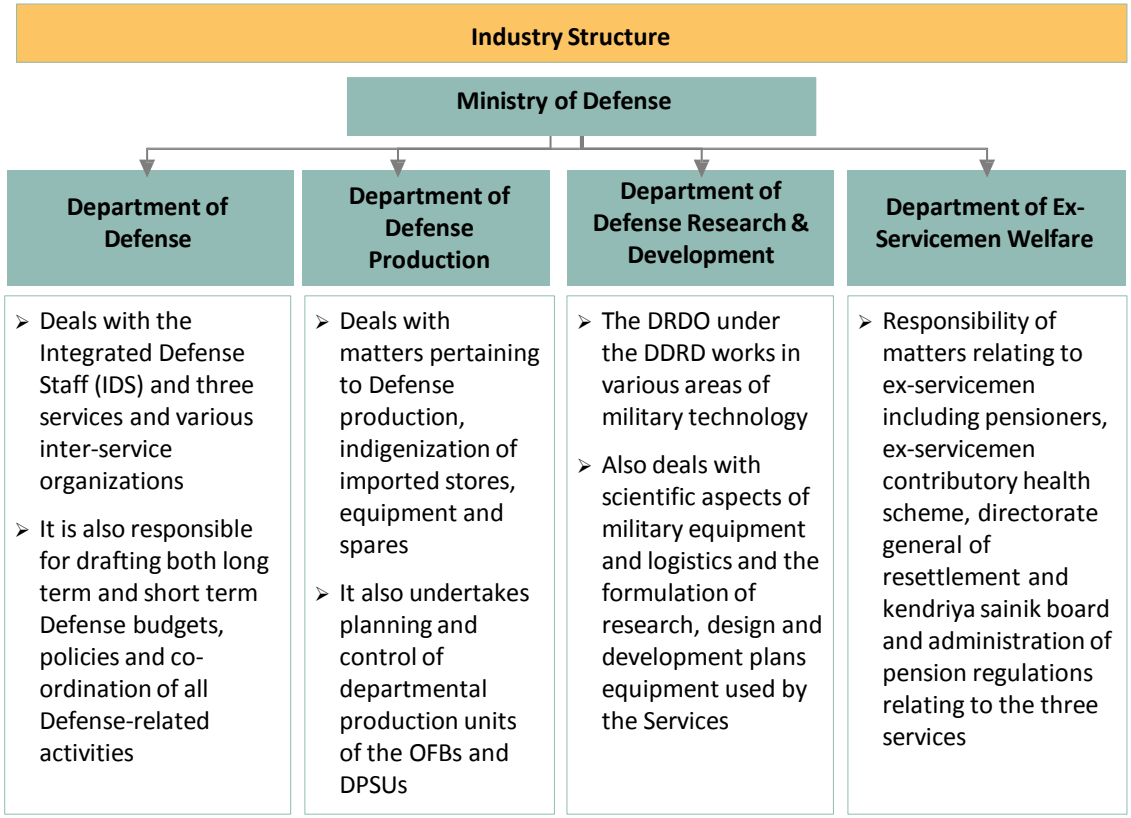
Abbreviations

- AHSP – Authority Holding Sealed Particulars
- SQAE – Senior Quality Assurance Establishment
- QAE – Quality Assurance Engineer
- SAAR – Supplier Assessment Application Registration Form
- SQSR – Supplier Quality System Requirements
- DGQA – Directorate General of Aeronautical Quality Assurance
- QR – Quality Report
- RFP – Request for Proposal
- MoD – Ministry of Defence
- DOFA – Defence Offset Facilitation Agency
- SHQ – Service Headquarters
- SCAPCHC – Service Capital Acquisition Plan Categorization Committee
- DRDO – Defence Research & Development Organization
- DAC – Defence Acquisition Council
- DPB – Defence Procurement Board
- TEC – Technical Evaluation Committee

Industry Overview

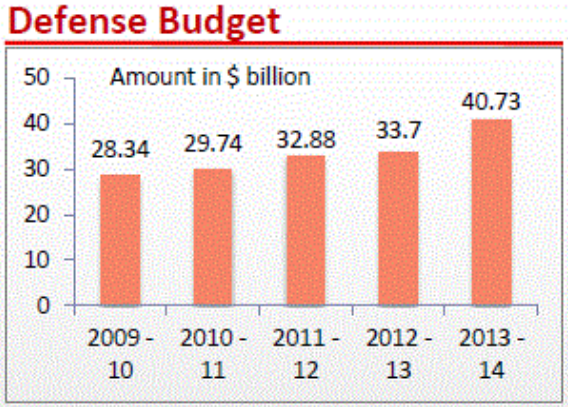
Indian Defense: Industry Overview

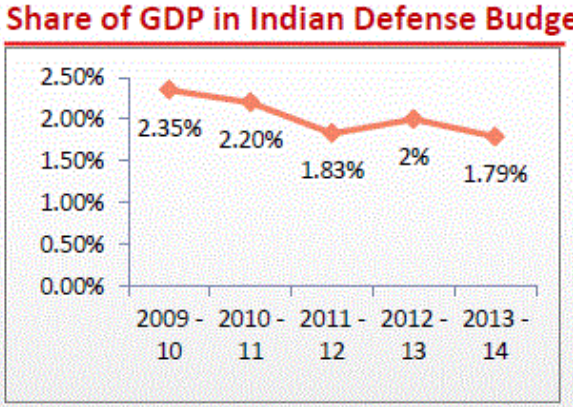
- India is the 3rd largest armed forces and 10th largest Defence spender in the world
- India spends around 2 % of its GDP to Defence
- In FY 2013, the Budget for Defence has increased by almost 10% to reach US$ 41 billion from FY 2010
- India spends 40% of its total Defence budget on capital acquisitions
- India currently procures approx 70% of its equipment needs from abroad.
- The sector has attracted a meager investment of US$ 3.72 million from 2001 to 2011
- India, with its Defence spending & Civil Aviation market growth rate of (CAGR) 18%, would put the country, in very near future, among one of the top five Defence & Civil aviation markets
- FDI of 26% is allowed in the Industry

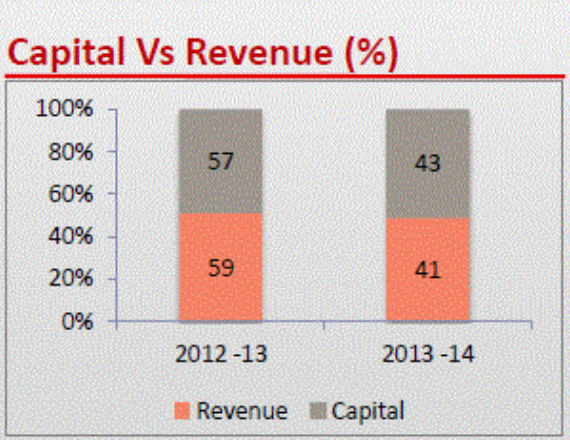


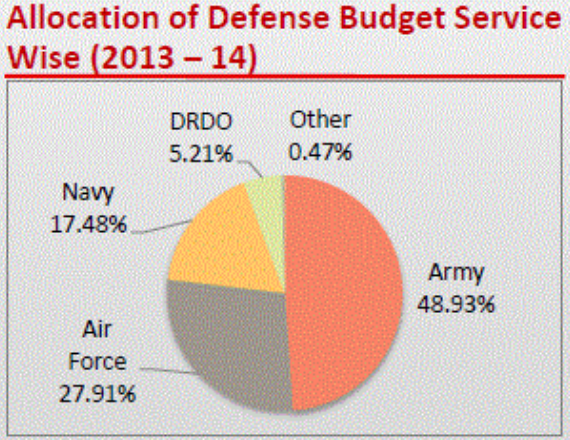
India's Defense Budget

India's Defense budget is barely 1.79% of the country's gross domestic product (GDP) which is a record low for India in at least three decades



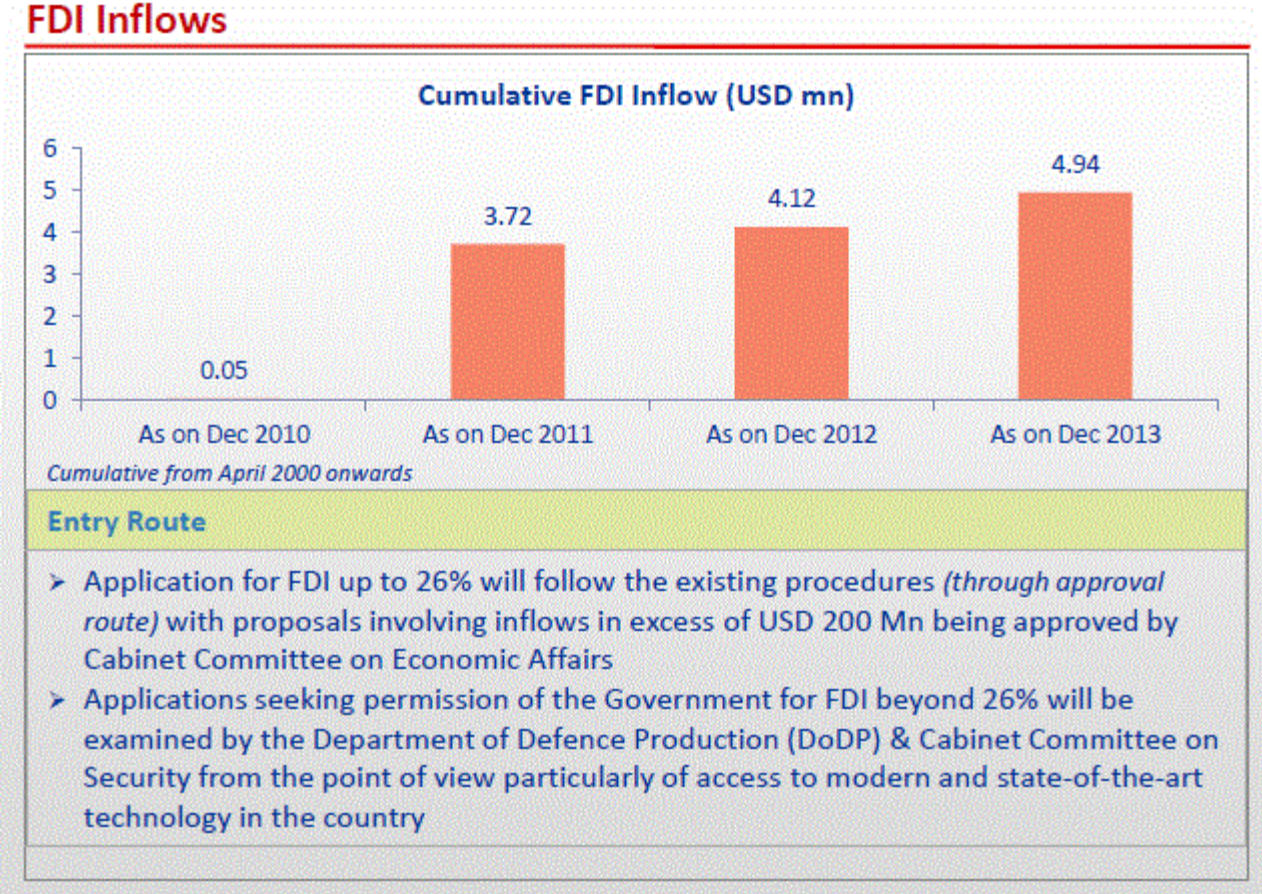






Foreign Direct Investment

26% of FDI through approval route *(where it required prior government approval)*



Source: DIPP

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Defense Procurement Process

Development in Defense Procurement Procedures

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2001
- Defense sector opened to private industry
- 26% FDI permitted

2002
- Defence Acquisition Council (DAC) created
- Buy category introduced

2003
- Buy & Make category with ToT introduced

2004
- Kelkar committee constituted for revision of DPP and participation of private sector

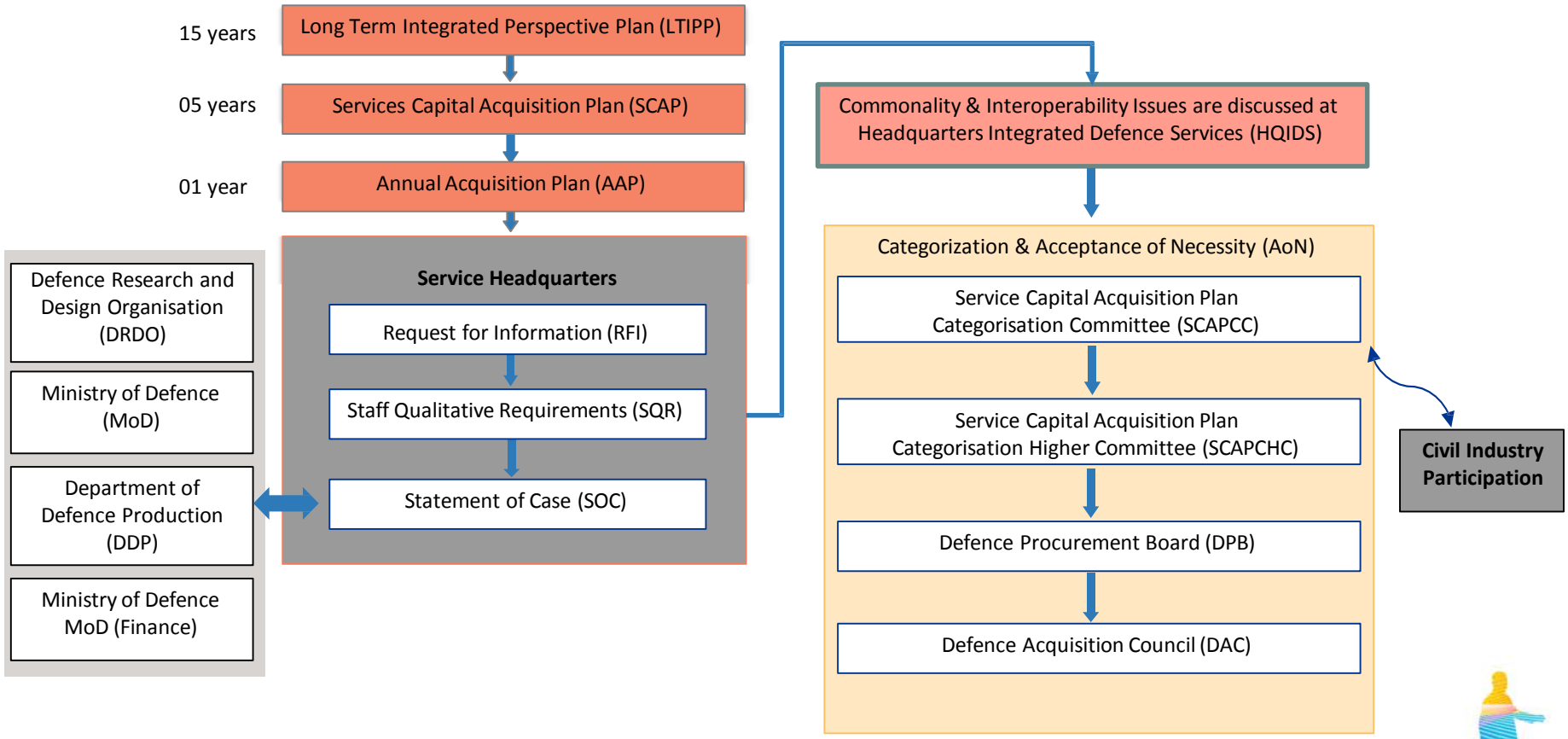
2005-09
- Defense offset policy formulated (2005) and Defence Offset Facilitation Agency (DOFA) created
- Make and Buy & Make Indian categories (2006 & 2008) introduced

2011
- Offset scope enhanced to include aerospace & internal security

2012
- Revised offset guidelines issued wherein ToT included in list of offsets

2013
- Preference to be given to indigenous production and public release of Long Term Integrated Perspective Plan (LTIPP)

Framework of Defense Procurement Procedure



Sanctioning Authorities

Sanctioning Authorities	
For Acceptance of Necessity (Aon)	
SCAPCHC	Upto USD 10 Mn
DPB	Upto USD 20 Mn
DAC	Beyond USD 20 Mn
For Award of Contract	
Vice/Deputy Chiefs/CISC/DG CG	USD 10 Mn
Defence Secretary	USD 15 Mn
Raksha Mantri	USD 100 Mn
Finance Minister	USD 200 Mn
Cabinet Committee on Security	Above USD 200 Mn

Defense Procurement

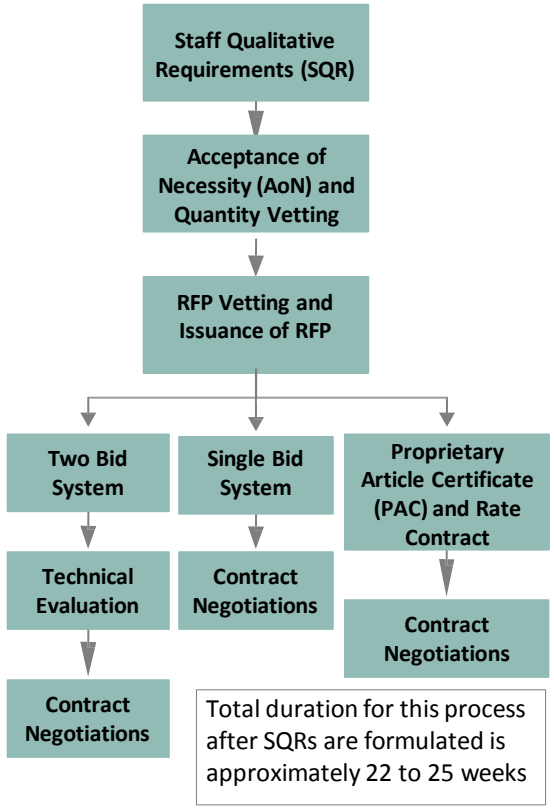
Defense Procurement Manual (DPM)

	DPP 2013	DPM 2009
1	For capital procurement	For revenue procurement
2	Only done by Service Headquarters and Ministry of Defence	Delegated to Command Headquarters up to unit level
3	Two bid system only	Procured under various methods
4	Only OEMs can participate	Agents/ Distributors/ Authorised Representatives can participate
5	Time duration longer	Time duration truncated

DPM Process

- Under New Management Strategy (NMS) Indian Government decentralised decision making
- Defence Procurement Manual (DPM) promulgated in 2009 and presently under revision
- As per Rule 91 of General Financial Rules 2005 following can be procured under DPM:-
  - Maintenance and Working expenses.
  - Renewals and Replacements.
  - Assemblies / Sub assemblies to maintain and operate already sanctioned assets

Contract Negotiations



Request for Proposal (RFP) Process

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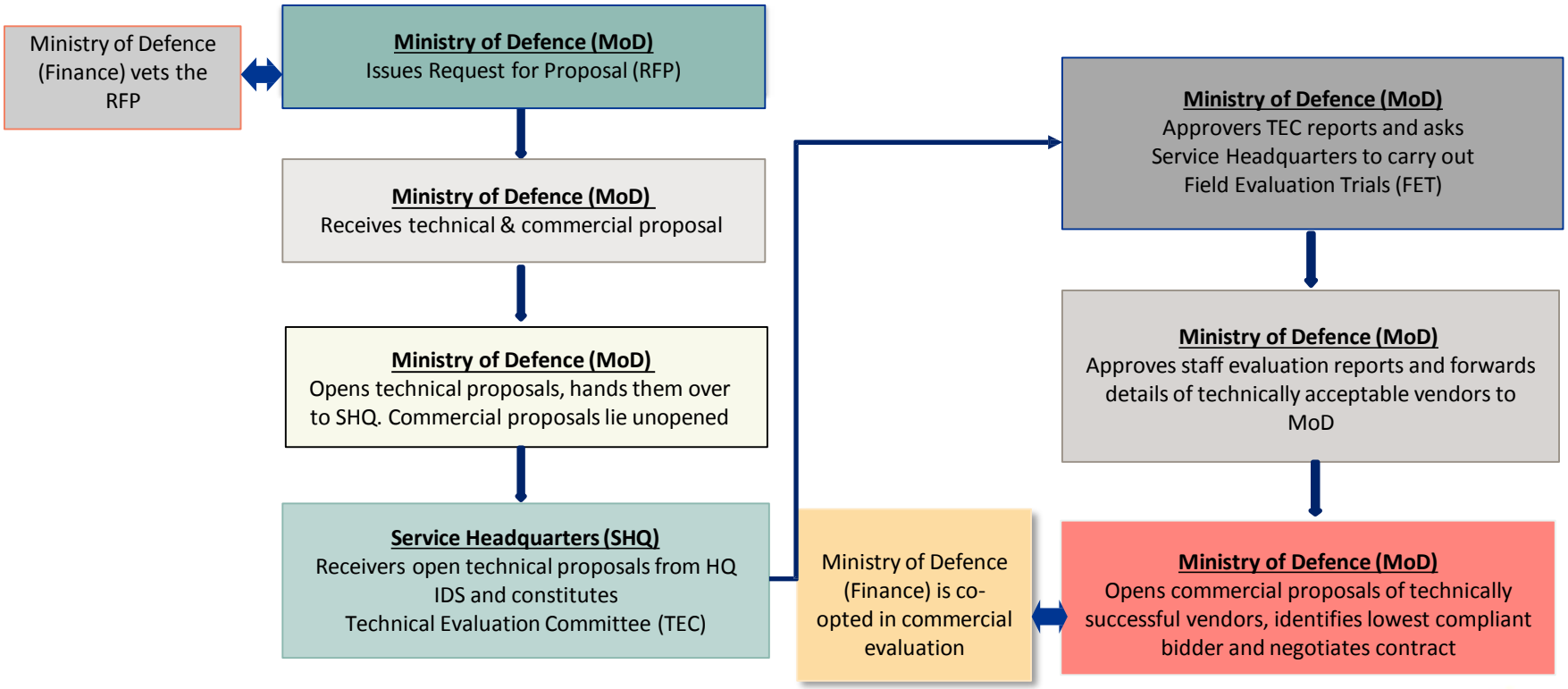
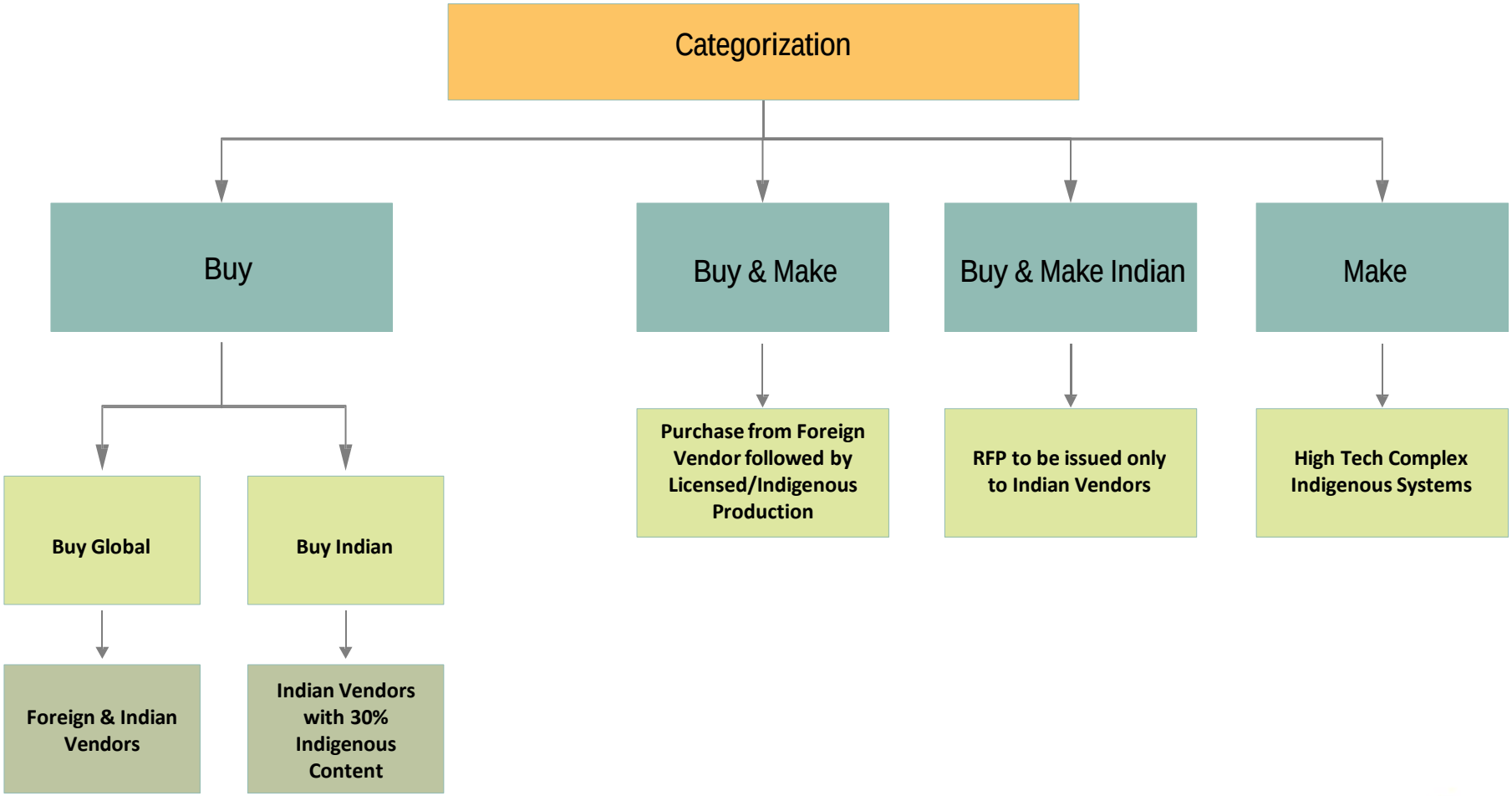


New Procurement Policy to Boost India's Self-reliance in Arms



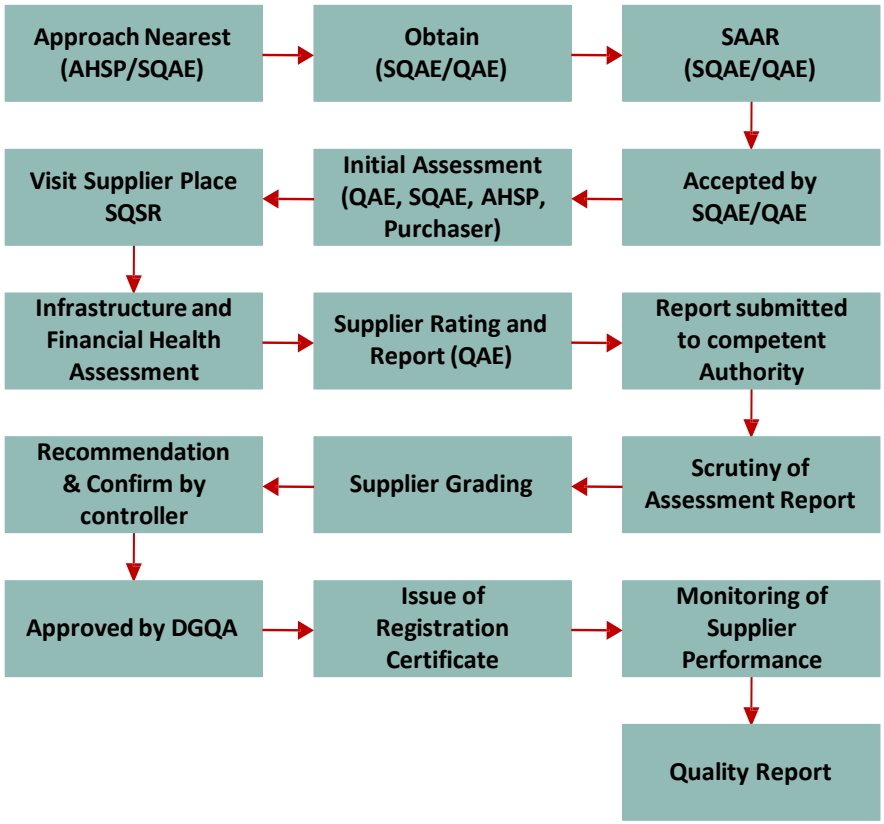
New Procurement Policy Brief

Parameter	Brief
Buy' Decision	"Buy" would mean an outright purchase of equipment. Based on the source of procurement, this category would be classified as "Buy (Indian)" and "Buy (Global)". "Indian" would mean Indian vendors only and "Global" would mean foreign as well as Indian vendors. "**Buy (Indian)" must have minimum 30% indigenous content on cost basis**. Apart from the overall indigenous content being at least 30% of the total contract value a minimum 30% indigenous content will also be required in ➢ Basic Cost of Equipment ➢ Cost of Manufacturers' Recommended List of Spares ➢ Cost of Special Maintenance Tools and Special Test Equipment taken together provided a minimum 30% indigenous content is ensured in the Basic cost of equipment at all stages of contract including the FET stage
'Buy & Make' Decision	Acquisitions covered under the 'Buy & Make' decision would mean purchase from a foreign vendor followed by licensed production/ indigenous manufacture in the country
'Buy & Make (Indian)' Decision	Acquisitions covered under the 'Buy & Make (Indian)' decision would mean purchase from an Indian vendor (including an Indian company forming joint venture/establishing production arrangement with OEM), followed by licensed production/indigenous manufacture in the country. '**Buy & Make (Indian)' must have minimum 50% indigenous content on cost basis** This implies that indigenous content in the total of ➢ Basic Cost of Equipment ➢ Cost of Manufacturers' Recommended List of Spares ➢ Cost of Special Maintenance Tools and Special Test Equipment must be at least 50% of the total contract value ➢ In addition, such cases require minimum 30% ➢ Indigenous Indian content in the first basic equipment made/assembled in India and in subsequent deliveries thereof
Make' Decision	Acquisitions covered under the 'Make' decisions would include high technology complex systems or critical components/equipment for any weapon system to be designed, developed and produced indigenously. A minimum 30% indigenous content on cost basis shall be required in such cases in the successful prototype

Procurement Timeline

Steps	Timelines	Authorities Involved	Actions Taken
Drafting of Service Quality Requirement; Acceptance of Necessity	1 Month	SHQ, HQ IDS, DPB, Acquisition Wing of MoD	➢ Commenced by the issue of RFI laying down only "Essential parameters" and not the "desirable parameters" ➢ SHQ compiles the comments of the DDP, DRDO, MOD (Finance), MOD (Admin) and forwards the same to the HQ IDS
Issue of RFPs	4 Months	SHQ - DAC, SCAPCHC -	➢ Lays down following requirements: ➢ Quantity, time frame, offset obligation, training, maintenance etc ➢ Technical parameters, field evaluation on No-Cost-No-Commitment basis ➢ Commercial aspects including payment terms, guarantee/warranty ➢ Criteria for evaluation and acceptance
Technical Evaluation/Field Trials	11 – 17 months	TEC, SHQ, DRDO, DGQA, Acquisition Wing of MoD	➢ Evaluation of proposals and preparation of TEC report ➢ Vetting of report by Technical Manager and acceptance by Directorate ➢ General Acquisition DG (Acq.) ➢ Field trials/ DGQA/ maintainability trials, preparation and approval of staff evaluation at SHQ and acceptance of the same by DG (Acq.)
Commercial Negotiations	4 – 11 months	Technical Oversight Committee Commercial Negotiation Committee Competent Financial Authority, MoD, MoF, Cabinet Committee on Security (CCS)	➢ Technical Oversight Committee involved for cases over INR 300 Cr. ➢ Opening of bids and determination of L1 ➢ Contracts Negotiation Committee (CNC) negotiations, finalisation of CNC report ➢ Approval of Competent Finance Authority (CFA) – MoD, MoF, CCS ➢ Evaluation of commercial offset offers
Contract Signing	**Thus the cumulative process takes around 20-34 months**		

Vendor Registration Guidelines



- Capacity assessment of a firm is necessary for the following purposes
  - To select and register Suppliers/suppliers for development, indigenization and bulk supply of specific products and to renew registrations periodically
  - To select and/or develop new design/technology for indigenisation and product improvement
  - To consider whether or not to continue placement of orders on Registered Suppliers
- Manufacturers with 3 years of experience in the industry will be considered for Assessment and Registration
- Whenever a Supplier approaches the nearest AHSP/SQAE, the Dept shall give necessary technical guidance/ assistance to the firm and supply the relevant application form
- Firms not eligible for registration – Traders /Dealers , Sole Selling/Authorised Agents , Sick units Sick units as defined in the "Sick Industrial companies (Special Provision) act 1985" and which have been declared sick by the competent Central/state Govt authority
- Value addition firms
  - A product/item not manufactured by the supplier but taken for processing in a finished product, having higher value is said to be value addition. For other categories of firms who are not actual manufactures, the principle of 'value addition' will be applied to decide whether they can be assessed for Registration as Defence Suppliers
- All firms on initial acceptance will remain registered for a period of three years unless and otherwise if removal from compendium of approved suppliers is processed
- Registration with one discipline of DGQA is valid for others
- The formal procedure for submitting all documents indicating details of technical infrastructure/facilities and the quality system may be modified by the approving authority
- The average turnover of the firm for the last three years will be taken as the monetary limit up to which order can be placed on the firm and this will be included in the assessment report
- All Suppliers will be graded and registered according to their quality system, technical facilities available with them and their financial status

80% and more marks	Grade I	Fit for Registration
60% to 80% marks	Grade II	Advice to Improve
Less than 60% marks	Grade III	Not Fit

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Laws & Tax

Laws to Abide

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Factories Act

- Under the Industries (Development and Regulation) Act, 1951 (the Act), an Industrial License is required to manufacture arms and ammunition and allied items of Defence equipment, parts and accessories.
- The license is granted under Rule 15(2) of the Registration and Licensing of Industrial Undertaking Rules, 1952. These rules have been issued under section 30 of the Act. This is also a mandatory requirement under the FDI policy for the Defence sector.
- The license applications are considered by the DIPP, Ministry of Commerce & Industry, in consultation with the MoD

EXIM Policy

- The Directorate General of Foreign Trade (DGFT) is the authority that regulates India's export policy. Under the Foreign Trade Policy (FTP), export of Defence equipment falls under the restrictive Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) list and requires an export license
- Similarly, an import license is required from the DGFT to import restricted items covered under the FTP.The license is granted for specific Defence items and comes with a fixed tenure
- An end-user certificate is mandatory for obtaining such a license

CPRF

- The Central Reserve Police Force is an armed Force of the Union of India, with the basic role of striking reserve to assist the State/Union Territories in Police operations to maintain law and order and contain insurgency

Tax Regime

Parameter	Particulars	Private sector	Foreign OEM	Brief
Buy global: The Indian private sector vis-à-vis foreign OEMs	Input transaction taxes	Added to the bid price as no exemption available	Likely refundable or exempt as finished goods are exported	Foreign OEMs are able to minimize the input cost on account of export benefits available in foreign countries. However, input taxes are added and loaded on bids for the domestic private sector as there are no exemptions to the sub-contractors
Buy Indian: The Indian private sector vis-à-vis DPSU	Input transaction taxes	Added to the bid price as no exemption available	Exempt	The sub-contractors for the Defence Public Sector Undertaking (DPSU) are entitled to customs duty exemption. Similarly, excise duty exemption is claimed in terms of customs and excise duty certification issued by the DPSUs. However, the excise duty exemptions claimed by sub-contractors are being disputed by the authorities on the basis that notifications do not specify sub-contractor as in customs regulations
Offset: Sourcing from India vis-à-vis manufacturing in India	Input transaction taxes	Refundable or exempt as finished goods are exported	Available as offset (credit) against output taxes	The present tax and duty structure treatment of offsets, limits offsets to supply of parts and systems by Indian industry to OEMs by way of physical exports and thus misses out on system integration/manufacture within the country As an Indian offset partner is entitled to export benefits on inputs and tax free export of goods, it becomes uneconomical to carry out system integration in India or deliver assemblies and sub-assemblies to OEMs in India.
Offset: Sourcing from India vis-à-vis manufacturing in India	Output transaction taxes	Exempt as exports	Applicable	

Role of DPSU

Defense Public Sector Undertakings (DPSU) Snapshot

Company	Sales (USD Mn)	Products/Services
Hindustan Aeronautics Limited (HAL)	2388	Design, development, manufacture, repair and overhaul of aircraft, helicopters, engines and their accessories
Bharat Electronics Limited (BEL)	1000	Design, development and manufacture of sophisticated state-or-the-art electronic equipment components for the use of the Defence services, para-military organisations and other government users
Bharat Earth Movers Ltd (BEML)	548	Multi-product company engaged in the design and manufacture of a wide range of equipment including specialised heavy vehicles for Defence and re-engineering solutions in automotive and aeronautics
Mazagon Dock Limited (MDL)	400	Submarines, missile boats, destroyers, frigates and corvettes for the Indian Navy
Garden Reach Shipbuilders & Engineers Ltd (GRSE)	267	Builds and repairs warships and auxiliary vessels for the Indian Navy and the Coast Guard
Bharat Dynamics Limited (BDL)	179	Missiles, torpedo counter measure system, counter measures dispensing system
Mishra Dhatu Nigam Limited (MIDHANI)	85*	Aeronautics, space, armaments, atomic energy, navy special products like molybdenum wires and plates, titanium and stainless steel tubes, alloys etc.
Goa Shipyard Ltd (GSL)	95	Builds a variety of medium size, special purpose ships for the Defence, Indian Coast Gaurd (ICG) and civil sectors

* FY 12 Sales

DPSU Role

The DPSUs continue to dominate domestic Defense production and R&D facilities in India

- The DPSUs enjoy significant tax and funding advantages
  - Currently, Indian Customs and Central Excise regimes prescribe significant exemptions or concessions from payment of Customs and Excise duties on supplies made to the Defence sector
  - The benefits are also extended to vendors/sub-contractors of DPSUs whereas they have not been extended to those of private sector firms supplying such goods to the Government
- DPSUs continue to hold an inherent advantage over private sector players as Government regularly invests in developing DPSU manufacturing capabilities and in-house research and development facilities
- The private sector seeks greater sharing of the DPSU's technology assets
  - Lack of access to the latest technologies is one of the greatest inhibitors to the growth and development of the private sector
    - While many technologies are available within the DPSUs, the private sector does not have access to these
- As the receivers of major government investment over many years and their consequent position as market leaders in the Indian Defence industry, the DPSUs share both advantage and responsibility in the development of the Defence industry in India
- While DPP encourages the private sector to enter into Defence production, Government continues to retain its own Defence research and development through the DRDO

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Case Study

Market Entry Strategy Adopted by Key Foreign Players

Company	Country of Origin	Year	Entry Strategy	Strategic Objectives
General Electric	US	2009	Formed a JV agreement with Wipro Infotech	To expand its security offerings in Indian market
SAAB	Sweden	2009	Established an office in New Delhi (India)	To market Defence products in India
Raytheon	US	2007	Entered into an agreement with Tata Power Strategic Electronics Division	To focus on India as a strategic partner and to forge partnerships with both private and public Indian companies. Since 2007, the company has continued to form strategic alliances with 8 other Indian companies
General Dynamics	US	2004	Acquired TriPoint Global Communications Inc.	To actively pursue government and Defence supply deals
Thales	Frances	2003	Established a wholly owned subsidiary "Thales India Private Ltd"	To establish direct presence in Indian market
BAE Systems	UK	1993	Established BAeHAL (JV with HAL)	To focus Aerospace, Defence, Transport & Engineering Industries (IT Solutions & Services)

Market Entry Strategy Adopted by Key Foreign Players

Company	Country of Origin	Year	Entry Strategy	Strategic Objectives
Lockheed Martin	US	1995	Inherited a office in India (as a result of corporate merger with Martin Marietta in 1995) Lockheed Martin and Tata Advanced Systems have formed a joint venture company in India	Providing Integrated platform management system, Low-level transportable radar, vessel traffic management system, Aegis weapon system, etc… to Indian Defence.
Rolls-Royce	UK	1956	Entered into license production with HAL. The two companies entered into a technical assistance agreement	To develop affordable aero engineering solutions, including engineering analysis and design and to use capabilities in Indian market

Joint Ventures and Partnerships

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Defense PSUs make better joint venture partners for foreign companies

JVs and partnerships between overseas Defence companies and DPSUs enjoy a 100% success rate

Indian Companies	Active JVs	Past JVs
Tata Group	Slkorsky Augusta Westland	Boeing Rhelnmetall Israel Aerospace Industries
Mahindra & Mahindra	Telephonics	WASS BAE Systems
Ashok Leyland	NA	KMW Chemring
HAL	Elta Elbit Sukhol Rolls-Royce BAE Systems	NA
BEL	Elbit Thales Rafael	NA

Source: News Articles

Case Study – Lockheed Martin hopes to secure deals worth USD 15 bn in the Indian Defense Industry in near future

- Lockheed Martin has maintained a presence in New Delhi for more than 20 years
- Today, Lockheed Martin's largest program in India is the C-130J Super Hercules. India has joined the growing list of first time C-130 operators with 72 countries now operating the aircraft.
- In addition, Lockheed Martin and Tata Advanced Systems have formed a joint venture company in India, Tata Lockheed Martin Aero structures, for manufacturing airframe components for the C-130J

Following are key alliances of Lockheed Martin Corporation in India

Alliance	Partner Company	Year	Product Focus
Joint Venture	Tata Advanced Systems Ltd.	2011	To make Aero Structures for Lockheed's C-130 Aircraft in India
Memorandum of Understanding	BEL	2007	Aerospace & Defence electronics requirement
Partnership	L&T	2007	Integrated platform management system
Joint Venture	HAL	2005	Technical assistance agreement related to the P-3 Orion maritime surveillance aircraft program (Design, Manufacturing & Overhaul)
Joint Venture	Mahindra Defence Systems	2003	Simulators for Indian Defence Forces

Viewpoint

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Defense procurement long drawn, local presence important

- United states the preferred partner/ vendor when it comes to defense procurement
- The overall defense procurement expected to increase
- The defense procurement process is long drawn and time consuming
- Need to be registered vendor to deal with defense, but once registered you can deal with agencies
- Local presence important to deal with the defense agencies in India,
- Most preferred form of local presence would be through a 'Local Partner'
- The local partner can represent the company and do the needful paperwork and meetings for the 'Vendor registration'
- The association with the partner can be short term, just to enter to India and post which can be extended if required

Annexure

Offset Policy

- Ministry of Defence, Government of India has announced the Offset Policy as part of the Defence Procurement Procedure (DPP)
- The Offset Policy mandates foreign companies selling products to the Indian Government to reinvest a portion from such earning in the country. Foreign companies can make such investments either on their own or through joint investments with Indian companies
- The latest Defence offset policy amendment in 2012 stipulates that any deal for Defence equipment to be supplied by a foreign company, worth over 55 million USD, would attract the offset clause under which 30 to 50 percent of the contract costs would have to be ploughed back into India.
- This amendment aims to promote and develop local Defence sourcing; translating into a total offset opportunity for the native commercial segment valued at 10 to 15 billion USD
- Offset contracts valued at more than 4.5 to 5 billion USD have been signed between Indian companies and foreign partners since 2005
- To promote investments in the Indian Defence industry and collaborations with Indian companies, the Defence offset Policy permits up to 49% foreign direct investment (FDI) by foreign Defence companies. This FDI requires approval by the Foreign Investment Promotion Board (FIPB) and is conditioned on the Indian partner receiving an industrial license from the Department of Industrial Policy and Promotion (DIIP)
- FDI has led to the development of a 10 billion USD native Defence industry with product and as well as component manufacturing capabilities. There have been more than 40 noteworthy joint ventures and partnerships between international firms and major Indian Defence players such as Tata, Mahindra & Mahindra and L&T. Technology collaborations in Indian Defence are also on the rise
- By August 2012, the MoD had signed 19 offset contacts valued at Rs. 25, 000 crore. Fourteen of these contracts pertain to the air force, and rest are meant for the navy.

Major Procurements by Service

Indian Army	Indian Air Force	Indian Navy
Major Procurements those are at various stages worth $ 3.56 billion are ➢ Assault Rifles for Infantry ➢ Modern Artillery Ammunition ➢ Light Utility Helicopters ➢ Tank Ammunition ➢ Bullet Proof Jackets/Helmets ➢ Tactical Communication System (TCS)	Major Procurements those are at various stages worth $ 7.71 billion are ➢ Medium Multi Role Combat Aircraft (MMRCA) ➢ Pilatus Basic Trainer Aircraft ➢ Light Utility Helicopters ➢ Installment for upgrade of Mirage 2000, C 130J, C17 ➢ Attack Helicopters ➢ Heavy Lift Helicopters	Major Procurements those are at various stages worth $ 4.68 billion are ➢ Multi Role Maritime Helicopters (MRH) ➢ Mine Counter Measure Vessels (MCMV) ➢ Light Utility Helicopters ➢ Project 75 Submarines ➢ Installments for Indigenous Aircraft Carrier (IAC) ➢ Installment for Advance Technology Vessels (ATV)

Major Procurements - Defense

Major Procurement	Cost
Anti missile Doppler radar for Indian Army	USD 70 Mn
Night vision sights for tanks and BMPs for Indian Army	USD 400 Mn
120 Naval Multi Role Helicopter (NMRH) for Indian Navy	USD 7 Bn
56 Medium lift transport aircraft for Indian Air Force	USD 2.4 Bn
Future Infantry Solider as a System (F – INSAS) for Indian Army	USD 1.1 Bn
05 Fleet Support Ships (FSS) for Indian Navy	RFI Issued
Mobile Communication System for Indian Army	USD 170 Mn
06 Project 75 I submarines for Indian Navy	USD 11 Bn
171 Light Strike Vehicles (LSV) for Para Special Forces of Indian Army and Indian Navy	USD 16 Mn

Major Procurement	Cost
04 Special Operations Vessels (SOV) for marine commandos of Indian Navy	USD 340 Mn
Relief and rescue equipment for Indian Air Force	USD 200 Mn
Light Machine Guns (LMG) for Indian Army	USD 105 Mn
3000 Light Support Vehicles for Indian Army	USD 300 Mn
3000 Hand Held Thermal Imagers (HHTI) for Indian Army	USD 160 Mn
02 Truck Scanners for Indian Army	USD 11 Mn
Anti Tank Guided Missiles for Indian Army	USD 3 Bn
2600 Future Infantry Combat Vehicles (FICV) for Indian Army	USD 1 Bn

Indian Army – Future Procurement

Tanks & Vehicles	Artillery	Missiles	Other
➢ Main Battle Tanks – 1500 ➢ FICV – 2600 ➢ Light Tanks – 300 ➢ Light Strike/BP Vehicles ➢ MPV – 600 ➢ Aerial Vehicles – 1000 ➢ Unmanned Combat Air Vehicles	➢ Artillery Rationalization Plan ➢ 155 mm Medium Gun ➢ ULH – 140 ➢ Towed Guns – 1500 ➢ SP Tracked and Wheeled 155 mm/52 Guns ➢ Mounted Gun System – 200 (totally 814) ➢ Precision Guided Munitions	➢ Replacement of Air Defence System ➢ ZU-23-2 Upgrade – 468 ➢ 40 mm Anti/A Gun – 115 ➢ Tracked MRSAM System – 100 ➢ Inf Anti-tank Guided Missiles – 5000 ➢ Anti-tank guided Missiles - 1000	➢ Future Infantry Soldier as a System (F-INSAS) Project ➢ Modern Assault Rifles – 400,000 ➢ CQB Carbine

Air Force – Future Procurement

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Fighter Aircraft	Helicopters	Transport & Other Aircraft	Missile Systems, UAVs & Others
➢ Medium Multi Role Combat Aircraft – 126 with an option for 64 – 74 more ➢ Su-30 MKI 80 ➢ LCA (Tejas) – 120 ➢ Fifth Generation Fighter Aircraft (FGFA) - 250	➢ Medium Lift Helicopters – 80 ➢ Combat and Heavy Lift Helicopters – Around 35+ ➢ Dhruv Helicopters – 245 ➢ Observation Helicopter - 187	➢ Multi-Role Tanker Transport – 6 ➢ Strategic Transports/Advanced Airlifters ➢ Hawk MK 132 Advanced Jet Trainer (66 + 57) ➢ Basic Trainer Jets (75 + 106 to be built indigenously) ➢ AEW&C (Embraer) aircrafts - 3	➢ Surface to Air Missile System (SRSAM, MRSAM, QRSAM) ➢ Israeli Harop 'Kiler' UAVs – 10 ➢ Airfields for Infrastructure Upgrade - 30

Navy – Future Procurement

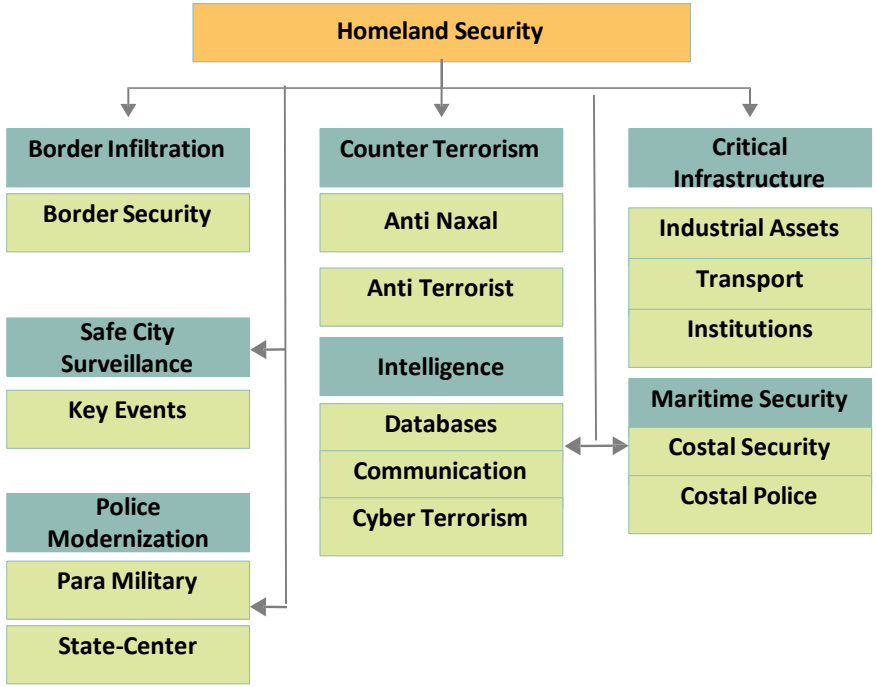
Warships	Naval Aviation	Helicopters	Submarines & Equipments
➢ ASW Corvettes – 8	➢ Fighters for IAC2 (New Generation Aircrafts)	➢ Advanced Light Helicopters – 47	➢ ATVs (Nuclear Submarines) – 6
➢ Guided Missiles Stealth Corvettes – 20	➢ MiG-29K – 29	➢ Light Utility Helicopters – 56	➢ Weapons Missiles
➢ Off-Shore Patrol Vessels – 6	➢ Maritime Patrol Aircraft Boeing P8-I – 20	➢ Multi Role Helicopters – 16 (44 follow on)	➢ Weapons –Torpedoes Heavy Weight – 98
➢ Sail Training Ship – 1	➢ Medium Range Maritime Reconnaissance Aircraft – 9	➢ Another 75 MRH	➢ Marine Engineering Equipment
➢ Landing Platform Docks – 4	➢ Short Range Maritime Reconnaissance Aircraft – 11	➢ Training Aircraft – 17	➢ Marine Engineering Equipment – Propulsion Systems
➢ Survey Vessels – 6	➢ Multi Mission Maritime Aircraft for Coast Guard – 6	➢ Advanced Jet Trainers – 17	➢ SSK/EKM Submarine Equipment
➢ Destroyers – 4	➢ Dornier for Coast Guard - 4	➢ Ship Borne Helicopters – 16 (Ship Based – 14)	
➢ Frigates – 7			
➢ Mine Counter Measures Vessels – 8			
➢ Mid-Life Upgrades of Frigates - 3 & Destroyers -5			

Electronics – Future Procurement

Land	Maritime	Aerospace
➢ Short/Medium Range Battlefield surveillance radars ➢ Weapon Locating Radars - Approx. 50 ➢ Hand-held Thermal Imaging Devices – 5000 ➢ Integrated Observation Equipment – 1200 ➢ Standalone infrared, seismic & Acoustic sensors ➢ Networked communications & modern strategic & tactical level command and control systems ➢ EW Systems ➢ Detection Devices, NBC system, Remotely operated robots & Micro-UAVs (DRDO)	➢ Various general electronics including 70 rectifiers and 35 rotary converters ➢ Radars – 130 ➢ Sonar ➢ Gyros – 100 ➢ Logs – 100 ➢ Echo Sounders – 40 ➢ Integration of various surveillance/Weapon delivery system - 25	➢ Upgrade of Chetak Helicopters ➢ Upgrade MiG-27s ➢ Upgrade of avionics in Sukhois ➢ Surface-to-air Guided Weapon System (SAGW) ➢ Surface to Air Missile Systems (MRSAM) ➢ Surface to Air Missile Systems (SRSAM) ➢ Air Defence Ground Environment System (ADGES) Modernization

Homeland Security

- India is projected to become one of the largest players in the global homeland security market by 2020
- About 6% of global procurement in the field of homeland security is expected to emanate from India, a 60% growth from its current expenditure estimate of 3.6%
- India offers large potential for firms wanting to take advantage of opportunities manifested in India on account of:
  - High GDP growth,
  - High spending on modernizing military capabilities and industrial infrastructure,
  - Aging and obsolete equipment
- Homeland Security in India is handled by a multitude of bodies with complex functional and reporting relationships. Law and order is a State subject and the State police are responsible for maintaining law and order internally



Virginia Economic Development Partnership -- International Trade offers a number of export-related services to Virginia businesses, including trade missions and market research by our Global Network of in-country consultants. These services are available to all Virginia exporters.

For more information, please visit our website: www.ExportVirginia.org