



सत्यमेव जयते

GOVERNMENT OF GUJARAT

Aerospace & Defence Sector Profile



ibrant
GUJARAT 10-13 Jan
2017

Connecting India to the World | **8th Global Summit**

India Scenario

The image features a white background with a series of overlapping, wavy, semi-transparent bands in shades of orange, yellow, and purple. These bands flow from the left side towards the right, creating a sense of movement and depth. The top portion of the image is a solid, vibrant orange color, which serves as a backdrop for the white text.

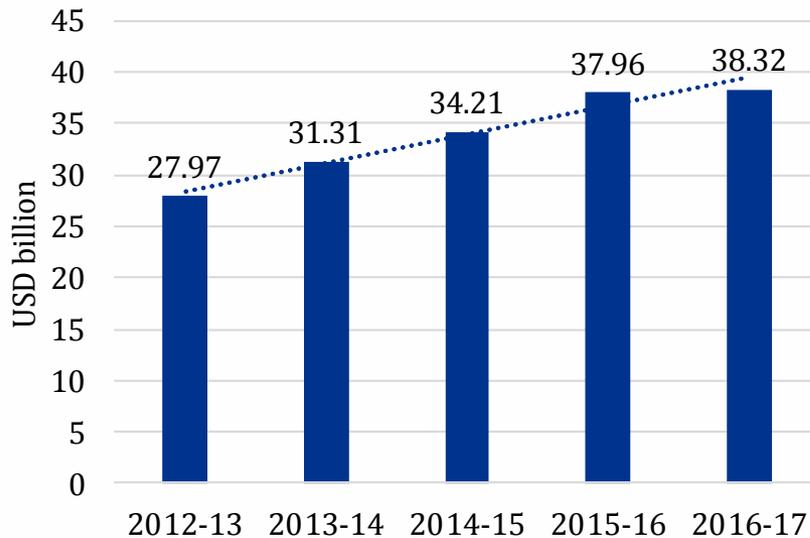


GOVERNMENT OF GUJARAT

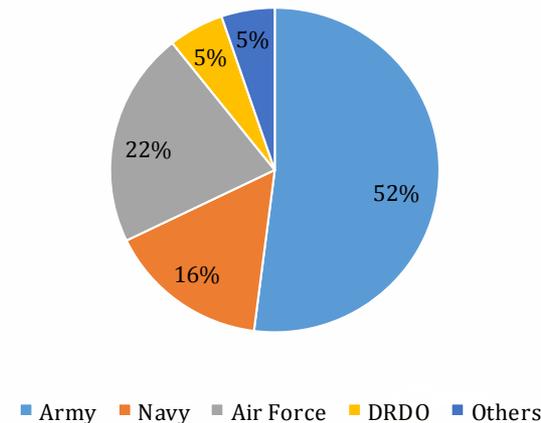
Overview

- India has the **3rd largest armed forces in the world**
- India is the world's largest arms importer
- India ranked 6th globally in military expenditure
- The sector has received FDI amounting to **INR 24.84 crores (USD 5.02 Million) from April 2000 to June 2015**
- India's Defence budget for 2016-17: **INR 2,49,099 crores (USD 38.32 billion)**

India's Defence Expenditure



Share of Indian Defence Services in the Defence Budget 2016-17



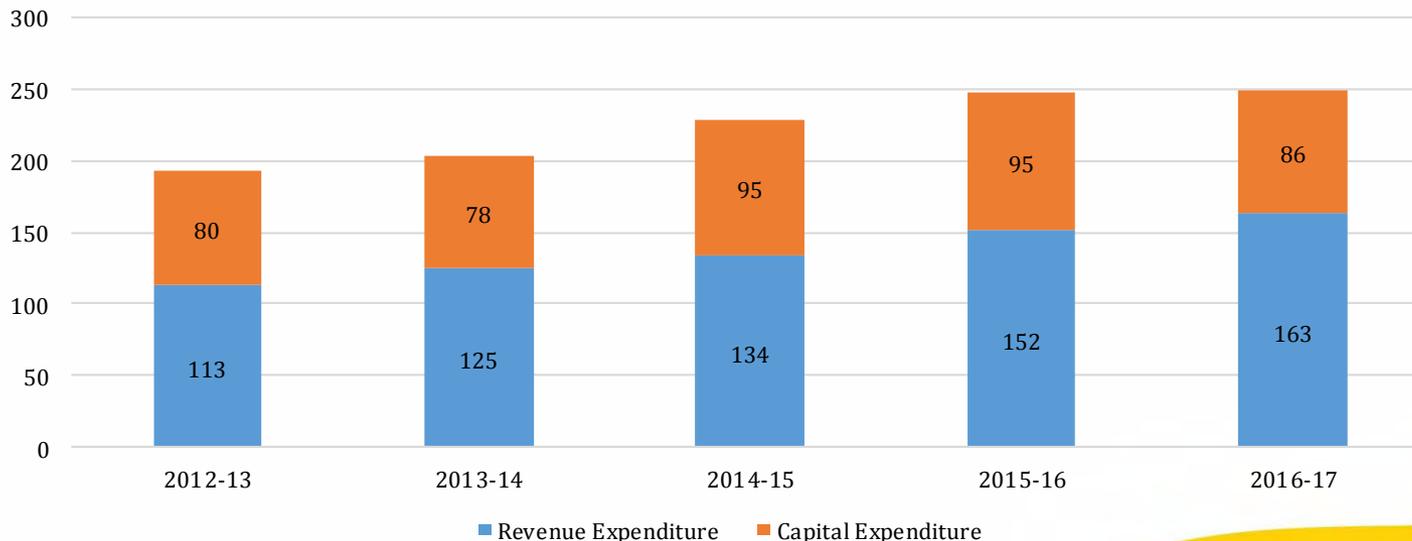
Army receives the largest allocation of the Indian Defence budget

Overview



- India's Defence procurement: **60% from foreign sources; 40% from indigenous sources**
- Government of India is seeking to expand procurement through indigenous sources, from the current 40% to the target 70% over the next decade
- India allocates about **31.5% of its defence budget to capital acquisitions**
- Of the total defence allocation for 2016-17, INR 86,340 crore (USD 13.28 billion) has been allocated for capital expenditure

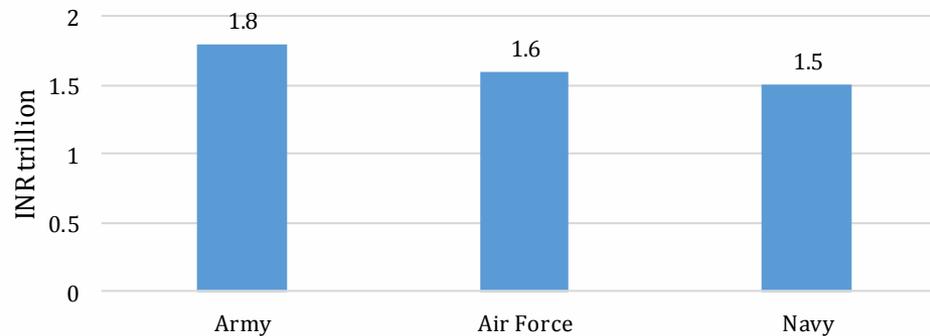
Indian Defence Budget (INR '000 Crores)



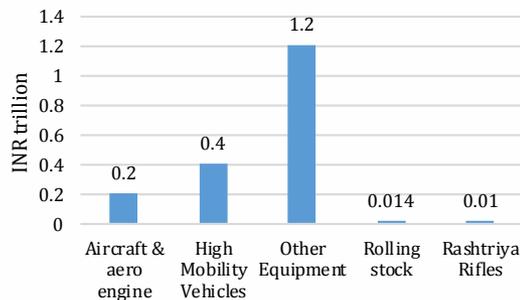
Overview

- Total defence capital spending is estimated at INR 4.9 trillion (USD 75.38 billion) between FY 2017 and FY 2020

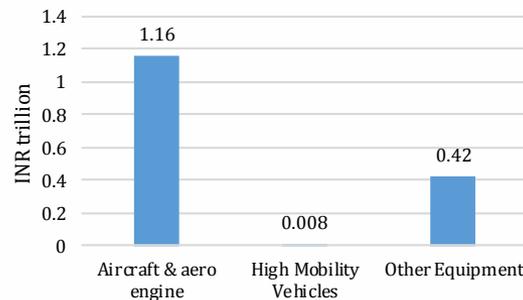
Capital Spending (FY17-FY20)



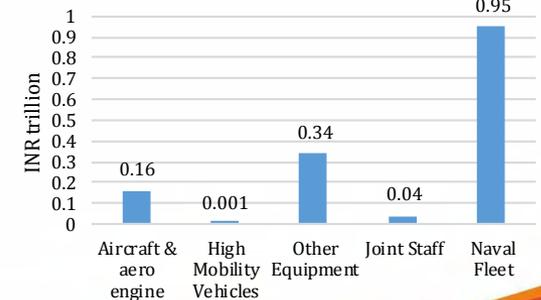
Army Expenditure



Air Force Expenditure



Navy Expenditure



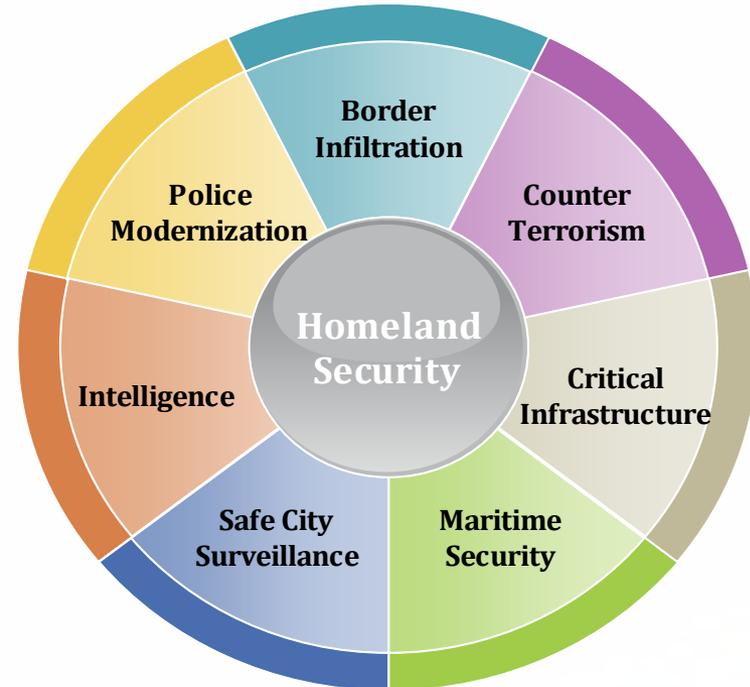
Homeland Security

- Homeland Security market in India is spread across Central & State government spending and private security business
- Government of India intends to leverage the capabilities of the private industry in IT and engineering design to meet the needs of homeland security

The Home Land Security market (capital spend from government, private sector and some part of export demand) is expected to grow to ~ USD 16 billion by 2018

The country's budget for homeland security is expected to be USD 65.1 billion for the period 2016-2020

Total Transport Security spending in India is expected to be over USD 5 billion by 2016



'Make in India' Initiative



- The “**MAKE IN INDIA**” concept is the cornerstone of the acquisition plans and defence production policy
- INR 65,000 crore – Value of Equipment and platforms to be acquired through the “Make in India” or “Buy & Make” route
- The MAKE procedure, which aims to promote R&D in the industry with support from the government and the placement of orders (if R&D effort is successful), is also being revised to make it more attractive and unambiguous for the private sector

Technological Advancements



INR 100 crore allocated to set up a Technology Development Fund to encourage R&D of new Defence systems that enhance cutting-edge technology capability

Two Advanced Early Warning and Control (AEW&C) aircrafts fitted with the indigenous radars and other equipment

ASTRA-BVR (Beyond Visual Range) Air-to-Air Missile tested successfully from Su-30 MKI demonstrating interception of an electronically-simulated target at long range

A **Long Range Surface-to-Air Missile (LRSAM)** was successfully tested against a flying target in Israel

The Indian Navy successfully conducted the flight test of **BrahMos** from the indigenously-built INS Kolkata, the lead ship of the Project 15A class of Destroyers

Indigenously developed **Prithvi-II** surface-to-surface missile was successfully test-fired from a test range at Chandipur as part of user trials

The Indian Navy successfully test-fired indigenously developed ship-launched ballistic missile '**Dhanush**' for the first time during the night from a warship INS Subhadra anchored about 45 km offshore Puri and Paradip

Technological Advancements



Successful trials of **Helina**, a “Lock-On Before Launch (Fire & Forget)” third generation Anti-tank Guided Missile

Advanced Parachute System – Meeting stringent requirements of Human Space Program (HSP-II)

Two static tests of Home-on-Target (HOT) semi-verification rocket motor were conducted successfully as pre-requisite to HOT trials

AGNI-4: The first user trial of 4,000 km range road mobile ballistic missile

AGNI-1 & AGNI-2 missiles successfully test fired from Wheeler Island, off the Odisha coast

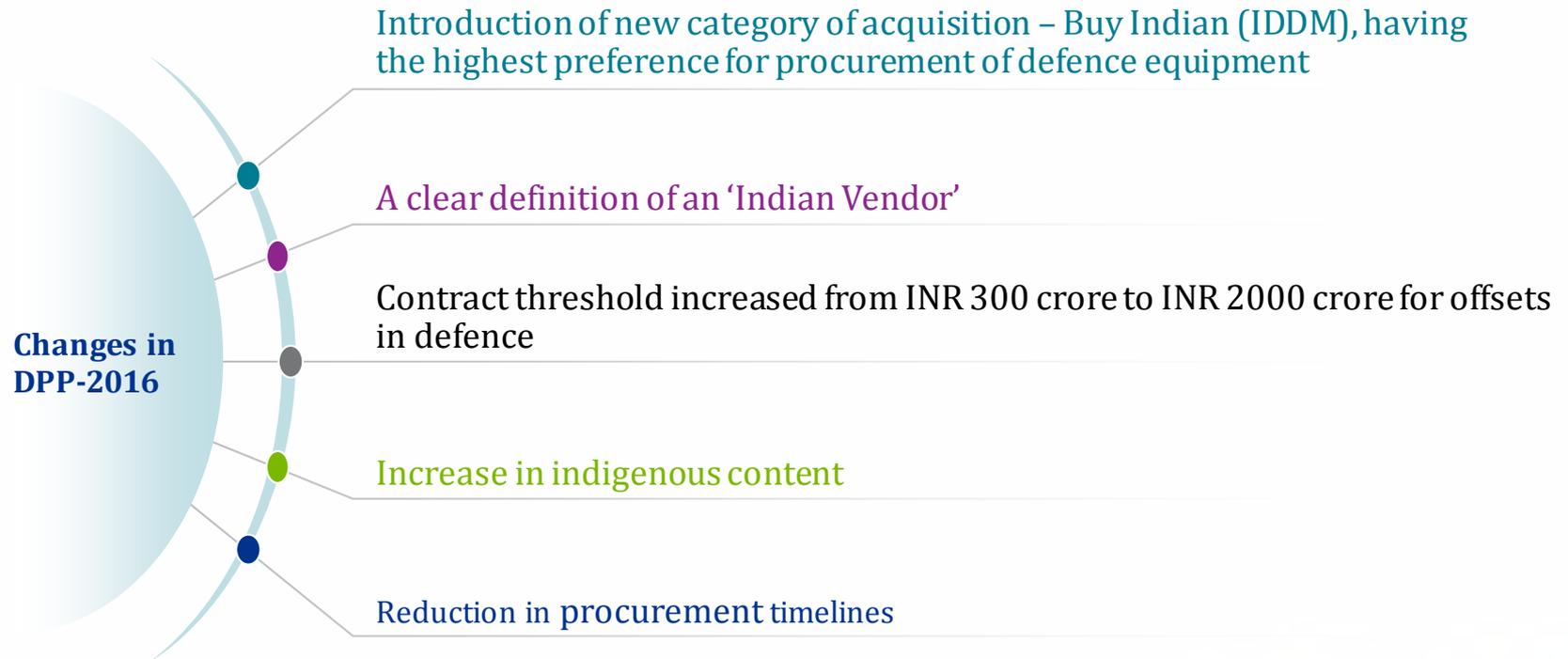
A wheeled version of Nishant UAV named “Panchi” has been realized and performed its maiden flight after a series of high speed taxi trials

Successful trials of Akash missiles, the medium range air defence system with multi-target, multi-directional capability were conducted

Defence Procurement Procedure-2016



The Defence Procurement Procedure 2016 aims to ensure timely procurement of military equipment, systems, and platforms as required by the Armed Forces in terms of performance capabilities and quality standards, through optimum utilization of allocated budgetary resources



Government of India – Policy Intervention



Defence Procurement Procedure (DPP) and offset guidelines

- Defence procurement is governed by the DPP
- The DPP governs all Capital Acquisitions undertaken by the MoD, Defence Services and Indian Coast Guard
- Its aims to ensure timely procurement of military equipment, systems, and platforms as required by the Armed Forces in terms of performance capabilities and quality standards, through optimum utilization of allocated budgetary resources

Offset policy

- The offset policy is a part of the DPP and has undergone revisions with the DPP
- The policy stipulates a mandatory offset requirement of a minimum 30% for procurement of Defence equipment in excess of INR 3 billion (USD 46.15 million)

Industrial licensing policy

- Under the Industries (Development and Regulation) Act 1951, an industrial license (IL) is required for manufacturing Defence equipment
- The applicant must be an Indian company or partnership and has to apply to the Department of Industrial Policy and Promotion (DIPP)

Foreign Direct Investment (FDI) policy

- FDI over 49% allowed through Government of India approval in **'modern technology'**
- FDI up to 49% via automatic route in manufacturing of small arms and ammunition
- 100% FDI in brownfield airport projects under automatic route

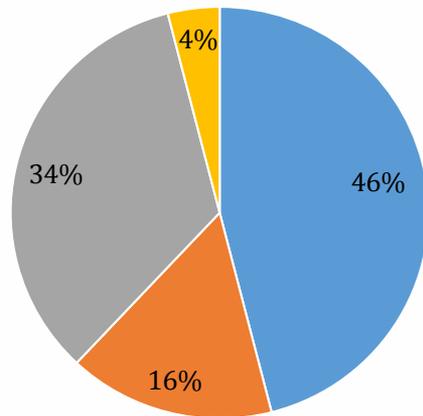
Foreign trade policy

- The import and export of Defence equipment is governed by the Director General of Foreign Trade (DGFT) in the Department of Commerce
- Barring some specific items, Defence equipment can be exported either after obtaining a license from the DGFT for items in the SCOMET list or after obtaining a NOC from the Ministry of Defence

Offset Contracts

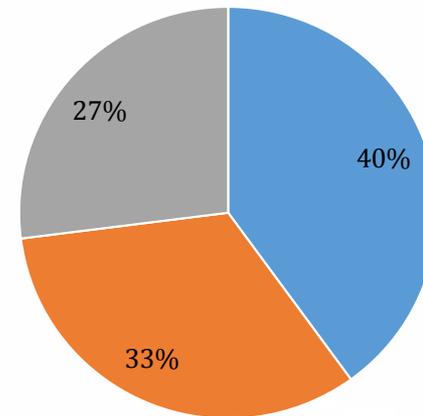
- The offset policy was introduced in 2005 and the first offset contract was signed in 2007
- **Offset contracts worth USD 5 billion** have been signed with Indian offset industry
- The offsets opportunity is expected to be worth USD 15 billion within the next 10-15 years

Offset Contracts – Region spread



■ USA ■ Russia ■ Europe ■ Israel

Offset contracts – Sector spread



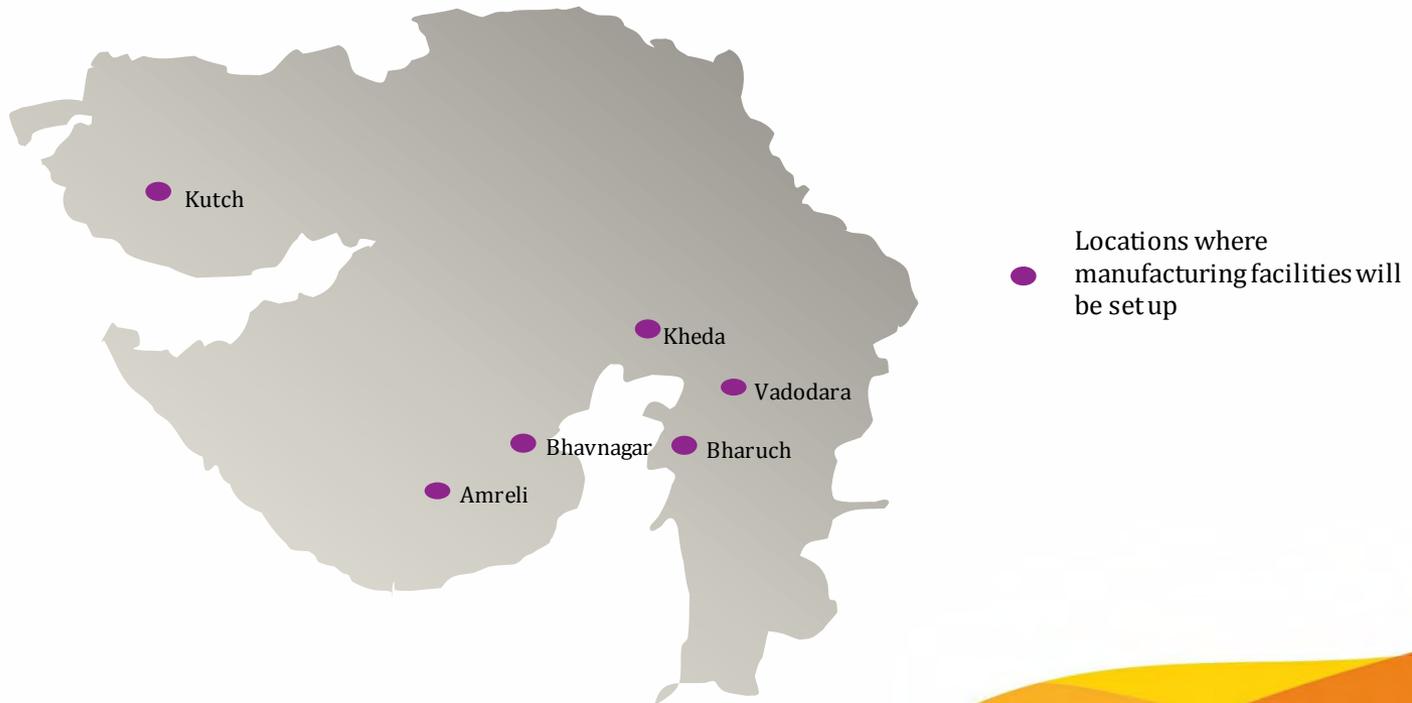
■ Defence PSUs ■ Large Industries ■ SMEs

Gujarat Scenario

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Overview

- As a part of its “Make in India” programme and to promote defence manufacturing sector, the central government granted 121 defence manufacturing licenses to various private sector companies.
- **Gujarat has received 20 licenses since May 2014. Gujarat, to benefit further %from the FDI norms relaxation**
- The companies would set up the defence manufacturing bases in districts such as Kutch, Bhavnagar, Amreli, Kheda, Vadodara, Bharuch, etc.



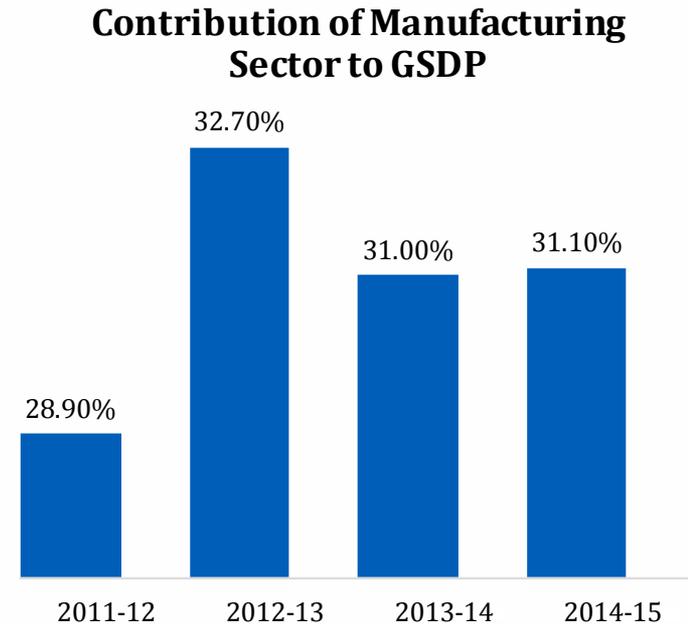
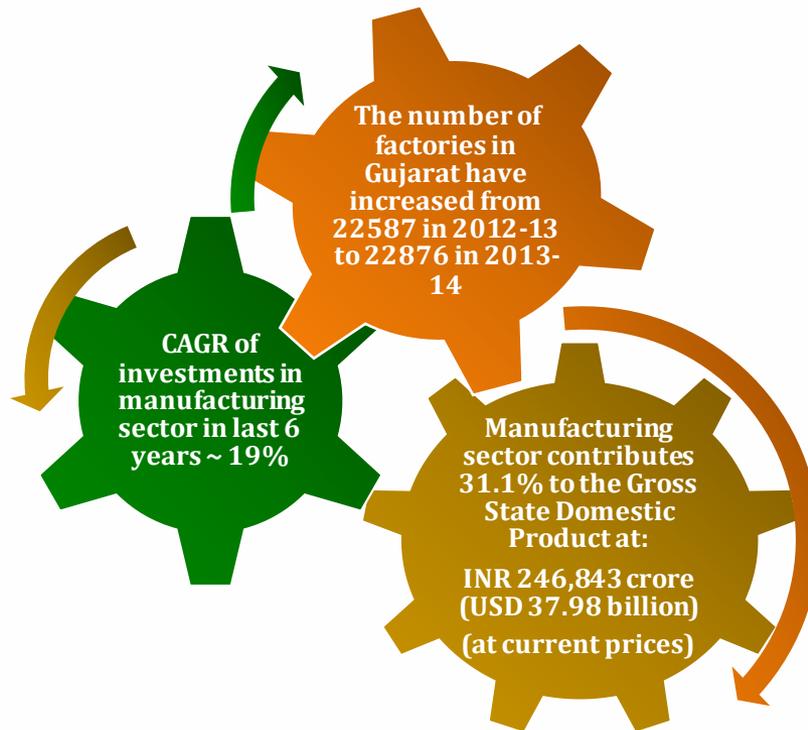
Growth Drivers

- With skilled intensive manufacturing capabilities and a robust infrastructure, Gujarat has the right ingredients to become a key link in the Indian Defence supply chain



A Manufacturing Hub

- Gujarat has a plethora of companies manufacturing precision engineering goods which can be further aligned with the Defence offset sector's requirement
- Gujarat aims to target 35% of the possible Defence Offsets to be sourced from India



Engineering Industry



- To capitalize on the emerging opportunities and for providing a thrust to the defence sector in Gujarat, the state government is planning to set up an exclusive SEZ for defence supply industries
- 52 Skill Up gradation Centers have been constructed to impart training in various GIDC estates in different sectors
- Government of Gujarat has sanctioned to establish Siemens Center of Excellence in Aerospace & Defence at L D College of Engineering, Ahmedabad by signing a MoU in 2013
- Gujarat has a significant presence across the entire value chain in the engineering industry with major players such as Thermax, L&T, Tata Motors, Ford, General Motors, Maruti Suzuki, Essar, etc.

Role of MSME's

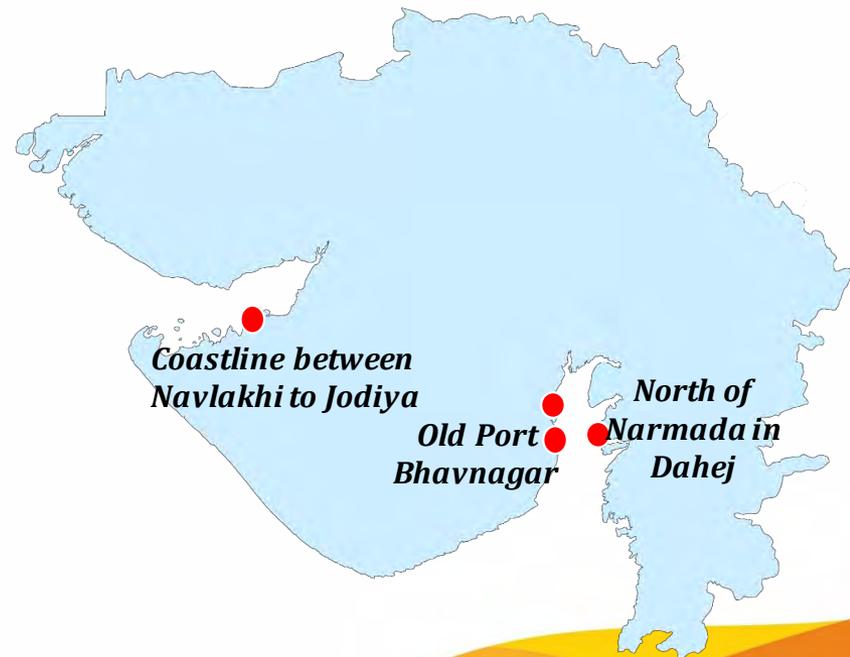


- **MSME's play a vital role in various areas of the Defence Sector such as R&D, MRO, Software Development, Casting, forging and metal works, Naval and Land systems, subsystems and accessories, etc.**
- The required boost has been provided by the Ministry of Defence by setting a goal of sourcing 70% of all equipment from Indian companies by 2020
- Gujarat's fundamental strength in the Aerospace and Defence sector exists due to the presence of a large number of MSME's along with 83 identified MSME clusters
- Gujarat stands 1st in terms of the asset base of the MSME sector, according to the Fourth Census of MSME's
- Collaboration of large business houses with Gujarat's SME's and MSME's, can help transform Indian Aerospace & Defence ecosystem

Role of Ports

- Gujarat is strongly emerging as a new shipbuilding destination in South Asia with many projects in pipeline
- Alang located on the western coast of Gulf of Cambay, in the western part of India, is the largest ship-recycling yard in the world accounting for almost 30% of global share in ship recycling
- Gujarat Maritime Board (GMB) is promoting Marine Shipbuilding Parks (MSP) at multiple locations with private player participation
- Gujarat boasts of 89% share of the Indian shipbuilding order book (by DWT) and is targeting a capacity of 3 million DWT
- Presently, Gujarat has nine shipbuilding yards in operation, and fifteen more under various stages of development

Locations of Marine Shipbuilding Parks (MSP)



Homeland Security



- The homeland security equipment manufacturing offers a great opportunity for the State based SMEs ready to align themselves with the latest technologies
- Gujarat can utilize its expertise of Technical Textiles, and Science & Technology and can contribute immensely in emerging defence and homeland security areas like:
 - Textile technology
 - Nanotechnology, composite material and metal research
 - Electronic miniaturization
 - Defensive systems in satellites
 - Cyber warfare
- Raksha Shakti University has been established with an aim to impart customised education to the youth of the country in all vital aspects of internal security to ensure specialized and trained personnel available for employment in various security agencies like police force, defense, private security, etc.

Opportunities

- A significant market opportunity exists in several domains comprising of the larger Homeland Security sector such as police modernization, critical infrastructure protection and counter-terrorism activities
- Biometric identification systems and similar smart ID documents

Infrastructure



India's first Aviation Park to come up in Gujarat

- Gujarat State Aviation Infrastructure Company Ltd (GUJSAIL) has recently identified a piece of land near Bagodara village for its feasibility study
- To be developed on a PPP model, the park is expected to have facilities such as an airstrip, a training school, a helipad and a space for setting up small manufacturing units
- It would serve as a one-stop destination in the avenues of aerospace training, research, recreation and manufacturing

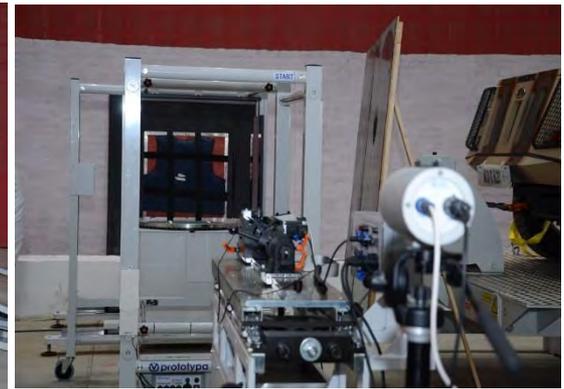
Regional National Security Guard (NSG) hub to be set up in Gujarat

- The Gujarat Government allotted land near Randesan village in Gandhinagar to set up a regional hub of National Security Guard (NSG)

Gujarat Forensic Sciences University



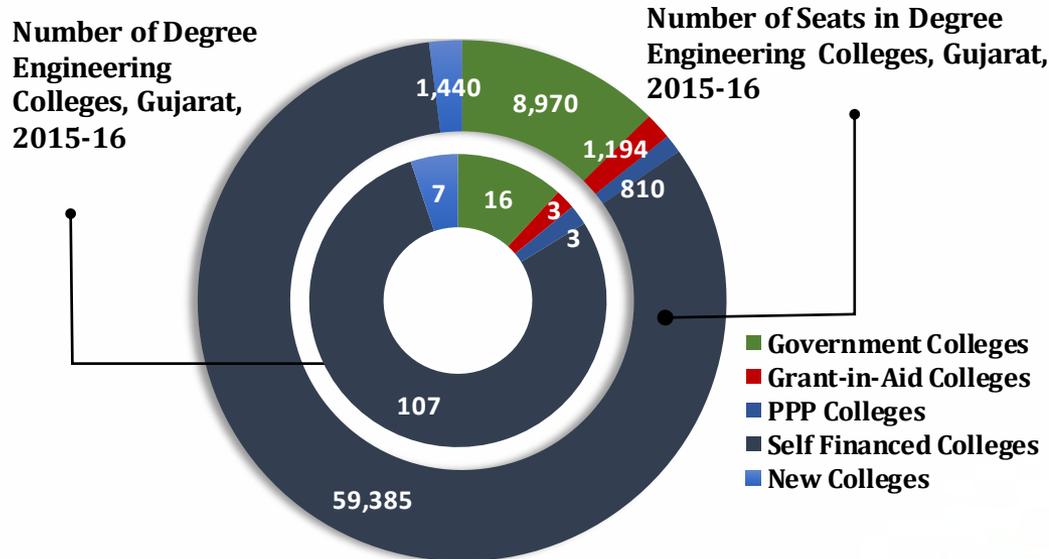
- A state-of-the-art Ballistic Armored Materials Testing Range and Research Centre has been inaugurated at Gujarat Forensic Sciences University
- A first of its kind indoor testing range in Asia involving academics and research in the area of forensic ballistics, houses the comprehensive solution for testing of various armor materials such as motorized and simple mechanical systems i.e. Armored Vehicles, Helmets, Jackets, Panels, etc.



Educational infrastructure



- Gujarat has the required educational infrastructure in place for the Aerospace & Defence sector to flourish
- In 2015-16, Gujarat provides intake capacity of 71799 degree students in engineering
- 1440 seats have been added in 2015-16 alone along with 7 new engineering colleges and institutions
- Seats offered in the indicated six major branches increased ~53.5% during 2011-14



Utilize the automotive capabilities of Gujarat to supply auto related components to the defence forces or to discharge offset obligations by sourcing from the manufacturers



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Industries and Mines Department

<http://www.imd-gujarat.gov.in/>

Industries Commissionerate

<http://www.ic.gujarat.gov.in>

iNDEXTb -Industrial Extension Bureau

<http://www.indextb.com>

Gujarat Industrial Development Corporation

<http://www.gidc.gov.in>

Gujarat Infrastructure Development Board

<http://www.gidb.org>



THANK YOU

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