



# Defense Services



Indian Defence

INDIA

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**FIGURES**

1.1: CONTRIBUTION OF INDIAN FIRMS TOWARDS DEFENSE MARKET

1.2: AIRCRAFT STRENGTH BY COUNTRY

1.3: INDIAN DEFENSE EXPENDITURE (US \$ BILLION)

1.4: INDIAN EXPENDITURE FOR ARMY (US \$ BILLION)

1.5: KEY PLAYERS & THEIR OPERATIONS IN INDIAN DEFENSE INDUSTRY



1.6 INCREASING ARMS' EXPORT FROM THE US TO INDIAN DEFENSE

Sectoral Snapshot

## Report: Defense Services in India

The Indian Armed Forces, the military forces of India are comprised of Indian Army, Indian Navy, and Indian Air Force. Supported further by the Indian Coast Guard and paramilitary organizations, institutions such as the Strategic Forces Command, the Andaman and Nicobar Command, and the Integrated Defense Staff, the IAF is governed by the Ministry of Defence (MoD) of the Government of India, with The President of India as the Supreme Commander.

fig 1.1

MADE IN INDIA	
	<b>RELIANCE AEROSPACE</b>   Weapon launchers for combat aircraft, flight control system
<b>TATA ADVANCED SYSTEMS</b>   Parts of aircraft, spacecraft	<b>BHARAT FORGE</b>   Guns and Howitzer, armoured vehicles, electronic surveillance systems 
<b>MAHINDRA</b>   Aircraft parts, communication system	<b>PUNJ LLOYD</b>   Anti-tank weapons, rocket launchers, armoured fighting and combat vehicles, torpedoes

Source: *INDIANDEFENSE NEWS*: Contribution of Indian firms towards defense market

Various industry giants like Reliance, Tata, Bharat, Mahindra, and Lloyd are participating towards enriching Indian defense through ventures in spacecraft, aircrafts, ammunitions, etc. India stands third (fig. 1.2), in terms of Aircraft strength after USA and China, with a total aircraft strength of 1,785.



fig 1.2

Serial no.	Country	Aircraft Strength
1	United states	13,683
2	China	2,788
3	India	1,785
4	Japan	1,595
5	France	1,203
6	United Kingdom	908
7	Pakistan	847
8	Brazil	748
9	Germany	710
10	Bangladesh	153

Source: nrjol.com

fig 1.3

Country	CAGR (2005–2010)	CAGR (2011–2016)	Budget in 2010 (US\$ billions)
US	4%	-1%	722
China	20%	10%	78
UK	-5%	2%	51
France	-1%	2%	56
Japan	6%	3%	53
Germany	5%	0%	42
Saudi Arabia	9%	5%	42
Russia	17%	10%	50
Italy	5%	0%	27
India	13%	13%	33
Brazil	19%	8%	33
Australia	11%	1%	23
Israel	4%	4%	13

Source: ICD Research analysis

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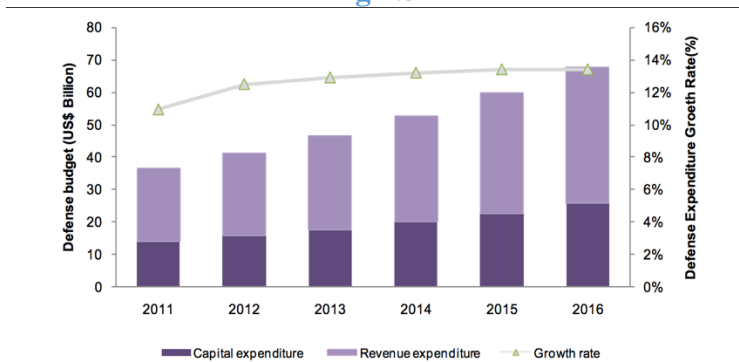
Benchmarking with Key Markets, Review Period vs Forecast Period

Source: zbop.sk

- With more than 1,325,000 military personnel actively safeguarding the nation round-the-clock, India is marginally behind the USA in terms of active military.
- Indian has strong ties with Russia and the two countries are working together to build a stronger defense system. According to a recent report, Russian company Rostec State Corporation is soon going to strike a deal with India for building six conventional submarines for the country.
- With a fast growing and internationally competitive manufacturing sector, India is on its path to becoming the manufacturing hub for world corporations.
- Organizations like BEL, BDL, MIDHANI, BEML, OFB, and BRAHMOS are dedicated to strengthening the defense system of India by using state-of-the-art technologies and research laboratories.

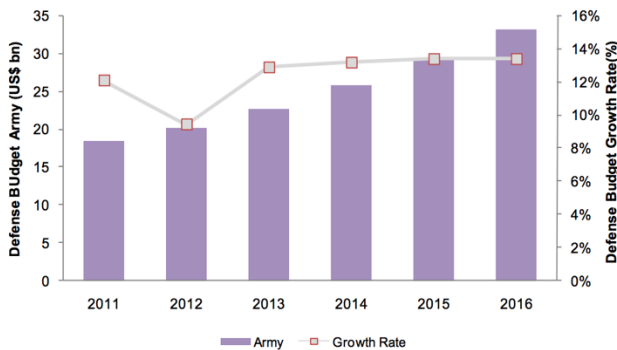


fig 1.3



Source: Indian Ministry of Defense and ICD Research analysis © ICD Research  
 Source: *zbop.sk*: Indian Defense Expenditure (US \$ Billion) 2011-2016

fig 1.4



Source: Indian Ministry of Defense and ICD Research analysis © ICD Research

Source: *zbop.sk*: Indian Expenditure for Army (US \$ Billion) 2011-2016

fig 1.5

Company	Supplies from Overseas	In Joint Venture or Alliance with Indian Firm	Manufacturing or Outsourcing Base in India	
			Presently has	Expected to setup
BAE Systems	✓	✓		✓
EADS	✓	✓		
Lockheed Martin	✓	✓		✓
Thales	✓	✓		
SAAB	✓	✓		✓
GE	✓	✓		✓
Rolls Royce	✓	✓		✓
Honeywell	✓	✓		✓
Ness Technology				✓

Source: ICD Research analysis © ICD Research

Source: *zbop.sk*: Key Players & their operations in Indian Defense Industry

- The Indian Aerospace industry is also growing at a tremendous rate. Hindustan Aeronautics Limited (HAL), controlled by the government of India, is ranked 34<sup>th</sup> in the list of world’s top 100 defense companies. It’s also a major partner with the Indian Space Research Organization (ISRO) and has a dedicated Aerospace division for manufacturing the structures and assemblies for the launch vehicles and satellites.
- Defence Research Development Organization (DRDO) is a network of 52 defense laboratories dedicated to the R&D in defense technologies for aeronautics, armaments, missiles, naval systems, etc.
- A Bengaluru based startup team named ‘Indus’ is the only Indian entry in the ‘Google Lunar XPRIZE’ competition for \$30 million.
- With a mix of young and experienced scientific minds, Team Indus has successfully completed the pre-requisites of the competition and has developed a Lunar rover named ‘Indie’, which weights 10 kgs and can transmit HD images from the Moon back to the Earth.



**fig 1.6**  
**India-U.S. Defense Trade**

INDIA'S TOP SOURCES OF ARMS IMPORTS

1999-2003	2004-2008	2009-2013
1. Russia	1. Russia	1. Russia
2. Israel	2. Israel	2. U.S. (7.4%)
3. Uzbekistan	3. U.K.	3. Israel
4. Germany	4. Poland	4. U.K.
5. Ukraine	5. France	5. Uzbekistan
6. Poland	6. U.S. (1.9%)	6. Italy
7. France	7. Uzbekistan	7. Ukraine
8. Netherlands	8. Ukraine	8. Germany
9. Kyrgyzstan	9. Netherlands	9. France
10. U.K.	10. Germany	10. South Africa
14. U.S. (0.2%)		

India-U.S. defense trade stands at about \$12 billion and is expected to reach \$14 billion next year.

Source: SIPRI, U.S.-India Business Council

Tarini Madan, The Brookings Institution

Source: *brookings.edu*: Increasing arms' export from the US to Indian defense

**Resources**

Indian Armed Forces. (n.d.). Retrieved from [https://en.wikipedia.org/wiki/Indian\\_Armed\\_Forces](https://en.wikipedia.org/wiki/Indian_Armed_Forces)

India Military Strength. (n.d.). Retrieved from [http://www.globalfirepower.com/country-military-strength-detail.asp?country\\_id=India](http://www.globalfirepower.com/country-military-strength-detail.asp?country_id=India)

India vs United States Military Stats Compared. (n.d.). Retrieved from <http://www.nationmaster.com/country-info/compare/India/United-States/Military>

Indian Defence statistics. (n.d.). Retrieved from <http://www.nriol.com/india-statistics/defence.asp>

Global Firepower 2016. (n.d.). Retrieved from <http://www.globalfirepower.com/>

Top defence deals to be signed during India-Russia and BRICS summits. (2016, October 14). Retrieved from [http://economictimes.indiatimes.com/news/defence/top-defence-deals-to-be-signed-during-india-russia-and-brics-summits/articleshow/54852633.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://economictimes.indiatimes.com/news/defence/top-defence-deals-to-be-signed-during-india-russia-and-brics-summits/articleshow/54852633.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)

Aerospace Industry In India. (n.d.). Retrieved from <http://www.defense-aerospace.com/articles-view/feature/5/102287/quick-overview-of-india-s-aerospace-industry.html>

The Indian Defense Industry Market Opportunities, Entry Strategies, Analyses and Forecasts to 2016. (n.d.). Retrieved from <http://www.zbop.sk/files/The-Indian-Defence-Industry.pdf>

Meet 'Indie', a Made-In-India Lunar Rover headed to the Moon in 2017. (2016, October 27). Retrieved from <http://www.defencenews.in/article/Meet-Indie,-a-Made-In-India-Lunar-Rover-headed-to-the-Moon-in-2017-28920>

Madan, T. (2014). India-U.S. Relations in 14 Charts and Graphics. Retrieved from <https://www.brookings.edu/blog/up-front/2014/09/26/india-u-s-relations-in-14-charts-and-graphics/>

U.S.-India Security and Defense Cooperation. (n.d.). Retrieved from <https://www.csis.org/programs/wadhvani-chair-us-india-policy-studies/past-india-chair-projects/us-india-security-and/rss.xml>

- Bilateral partnership between the US & India has strengthened over the last decade, especially after signing the New Framework for Defense Cooperation in 2005.
- India conducts more military exercises with the U.S. than any nation. The U.S. Army, Marines, Navy, and Air Force too have participated in a lot of exercises with India.
- A recent agreement, the Logistics Exchange Memorandum of Agreement (LEMOA), signed by the two countries will allow them to use each other's military services to keep in check, the growing influence of China in Asia, and growing terrorist activities. In addition, their armed forces can operate from each other's bases.
- Among other agreements to be finalized among them are Communications Interoperability and Security Memorandum of Agreement (CISMOA) and Basic Exchange and Cooperation Agreement for Geo-Spatial Cooperation (BECA).