

GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
DEPARTMENT OF DEFENCE PRODUCTION
LOK SABHA
UNSTARRED QUESTION NO. 3873
TO BE ANSWERED ON 25TH MARCH, 2022

PRODUCTION OF DEFENCE EQUIPMENT

3873. SHRI NAMA NAGESWARA RAO:

Will the Minister of Defence be pleased to state:

- (a) the total production of defence equipment by defence Public Sector Units (PSUs) in the last three years and the targets fixed by them for the next three years;
- (b) whether defence PSUs have tied-up with private players for production of a wide range of defence equipment within the country and if so, the details thereof;
- (c) the defence equipment proposed to be manufactured under the 'Make in India' Scheme;
- (d) whether the production of defence equipment has started in the country under this scheme and if so, the details thereof; and
- (e) if not, the reasons therefor and the steps taken by the Government to ensure that production starts without further delay?

A N S W E R

MINISTER OF STATE
IN THE MINISTRY OF DEFENCE

(SHRI AJAY BHATT)

(a): The total value of production of defence equipment by defence Public Sector Units (PSUs) in the last three years are as under:

(in Rs. Crore)

2018-19	2019-20	2020-21
45458	47539.46	59278.13

Further, the production target of each DPSU is fixed annually after detailed deliberations between Ministry of Defence (MoD), Department of Public Enterprises (DPE) and the DPSU concerned based on factors such as performance in previous years and the order book position. The production target is specified as a parameter in the annual MoU signed between MoD and the DPE.

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(b): Defence PSU wise details of tie-ups with private players for production of a wide range of defence equipment within the country are as per **Annexure**.

(c) to (e): The Government, in the last three years i.e. from 2018-19 to 2020-21 and in the current year till December 2021, has accorded Acceptance of Necessity (AoN) to 150 proposals approximately worth Rs. 2,47,515 Crore under various categories of Capital procurement which promote domestic manufacturing. In addition, during the last three years i.e. from 2018-19 to 2020-21 and in the current year till January 2022, out of total 191 Capital acquisition contracts signed, 121 have been signed with Indian vendors for capital procurement of defence equipment for Armed Forces.

The Government has taken several policy initiatives in the past few years and brought in reforms to encourage indigenous design, development and manufacture of defence equipment in the country, thereby ensuring delivery of modern defence hardware to Indian Armed Forces. These initiatives, inter-alia, include according priority to procurement of capital items from domestic sources under Defence Acquisition Procedure (DAP)-2020; Announcement of 18 major defence platforms for industry led design & development; Notification of two 'Positive Indigenisation Lists' of total 209 items of Services and one 'Positive Indigenisation List' of total 2851 items of Defence Public Sector Undertakings(DPSUs), for which there would be an embargo on the import beyond the timelines indicated against them; Simplification of Industrial licensing process with longer validity period; Liberalisation of Foreign Direct Investment(FDI) policy allowing 74% FDI under automatic route; Simplification of Make Procedure; Launch of Innovations for Defence Excellence (iDEX) scheme involving startups & Micro, Small and Medium Enterprises (MSMEs); Implementation of Public Procurement (Preference to Make in India) Order 2017; Launch of an indigenization portal namely SRIJAN to facilitate indigenisation by Indian Industry including MSMEs; Reforms in Offset policy with thrust on attracting investment and Transfer of Technology for Defence manufacturing by assigning higher multipliers; and Establishment of two Defence Industrial Corridors, one each in Uttar Pradesh and Tamil Nadu.

Many significant products including 155mm Artillery Gun system 'Dhanush', Light Combat Aircraft 'Tejas', Surface to Air Missile system 'Akash', Main Battle Tank 'Arjun', T-90 Tank, T-72 tank, BMP-II/I/K, Su-30 MK1, Cheetah helicopter, Advanced Light Helicopter, Dornier Do-228, High mobility Trucks, INS Kalvari, INS Khanderi, INS Chennai, Anti-Submarine Warfare Corvette (ASWC), Arjun Armoured Repair and Recovery Vehicle, Bridge Laying Tank, Bi-Modular Charge System (BMCS) for 155mm Ammunition, Medium Bullet Proof Vehicle (MBPV), Weapon Locating Radar (WLR), Integrated Air Command and Control System (IACCS), Software Defined Radios (SDR), Lakshya Parachute for Pilotless Target Aircraft, Opto Electronic Sights for battle tanks, Water Jet Fast Attack Craft, Inshore Patrol Vessel, Offshore Patrol Vessel, Fast Interceptor Boat, Landing Craft Utility, 25 T Tugs, etc. have been produced in the country during the last few years which are being used by the Indian Armed Forces.

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF LOK SABHA UNSTARRED QUESTION NO. 3873 FOR ANSWER ON 25.03.2022 REGARDING ‘PRODUCTION OF DEFENCE EQUIPMENT’:

Hindustan Aeronautics Limited (HAL): In all major HAL programs for manufacturing of Defence equipment in the country, Indian Private Companies are part of HAL supply chain. HAL has been outsourcing nearly 30% of workload to boost defence manufacturing in the country. HAL had outsourced several critical work packages such as Fuselage, Wing, Air Intakes, control surfaces, other structural assemblies, gears, critical machine components etc. of major platforms like LCA, SU-30 etc. for manufacturing to Indian private sector including MSMEs and has various ongoing agreements for supply of the same. The vendor base of HAL has grown over 7250 registered vendors (including over 2050 MSMEs). Over 80% of registered vendors are of Indian Origin. During last 5 years, some of the major work packages for defence equipment manufacturing undertaken by our domestic supply chain partners i.e. Indian private companies are as follows:

Platform	Item
Su-30 MKI	Structural packages
	Rudder and Flaperon
	Air Intake
LCA-Tejas	Centre Fuselage
	Rear Fuselage
	Wings
	Front Fuselage
	Air Intake assemblies
ALH	MGB Housing
	Gears
	Harness

HAL also successfully engages private organisations (including MSMEs) in Design and Development of Defence products and technologies. Some of the major products successfully developed through such partnership with Indian Private Companies are as below:

Platform	System
LUH	Smart Cockpit Display System Hardware
LCH	Control and Display Unit
	Data Interface Unit
	Multi-Function Display Hardware
Jaguar DARIN III	Data Transfer System
Su-30 MKI	Solid State Flight Data Recorder
	Integrated Standby Instrument System

Bharat Electronics Limited (BEL): BEL has entered in the tie-ups with many private players (Indian and foreign) for the indigenous production of defence equipment by way of outsourcing as well as Technology Transfers. BEL has as many as 19700 including 3600 MSMEs in the company's Approved Vendor Directory for sourcing input material/services for the production of Defence equipment. The details of agreements signed with private players for major projects in the recent past for manufacturing defence products in India are furnished below:

Sl. No.	Company/ Country	Project	Details
1.	API Microwave, UK	GaN based S-Band Dual TR Module & S-Band Dual Receive Module	Technical Collaboration Agreement (TCA) for Co-Development of GaN based S-Band DTRM and Dual Receive Module (DRM)
2.	Reshef, Israel	Electronic Fuzes	TCA for the Manufacture of Percussion, Time & Proximity FuzeSetter for Artillery Ammunition
3.	Sagem, France	Advanced Land Navigation System (ALNS)	TCA for manufacture of ALNS for Guns (High Accuracy) through Joint Development of Prototype with DRDO.

BEML Ltd.: BEML is continuously putting all-out efforts for indigenous production of equipment required by Armed Forces and to increase the 'Make in India' content in Defence production. In this direction, BEML has engaged with private players for executing various projects as mentioned below:

Sl. No	Project	Private Industry
1.	Arjun Armoured Recovery & Repair Vehicle (Arjun ARR V)	M/s. Bhaskara Dynamics, Bangalore. M/s. Hitech Engineering, Chennai. M/s. Hitech Fluid Power Systems, Bangalore. M/s. Pricol, Coimbatore. M/s. Tractor India Ltd, Kolkata. M/s. Canara Hydraulics, Bangalore.
2.	Medium Bullet Proof Vehicle (MBPV)	M/s. Allison Transmission India Pvt. Ltd, Kanchipuram (TN). M/s. VE Commercials, Pitampura. M/s. Magtorq, Hosur.

3.	Vehicles for Mounted Gun System (MGS) Dhanush	M/s. Hitech Fluid Power Systems, Bangalore. M/s. Wipro Enterprises Limited, Bangalore. M/s.3D Concept Analysis, Bangalore. M/s. Precision Machines & Equipment, Chennai.
4.	AI based Medical Health Care Diagnostics System (MHDS)	M/s. Prognosys Healthcare (India) Pvt. Ltd., Bangalore.
5.	Mobile Stand by command post vehicle (MSCPV)	M/s. VG Defence Systems Private Limited, Faridabad. M/s. VE Commercial Vehicles Limited, Dhar (MP).
6.	Sarvatra Bridge System	M/s. L&T, Talegaon, Pune. M/s. Dantal Hydraulics, Bangalore. M/s. Oscar Equipment Pvt. Ltd. Kolkata.
7.	Mine Field Marking Equipment (MFME)	M/s. Accurate Engineering Company Pvt. Ltd. Pune. M/s. Dynalog India, Pune. M/s. Adroit Systems, Pune. M/s. Electro Pneumatics & Hydraulics (India) Pvt Ltd, Pune.

Mazagaon Dock Shipbuilders Limited (MDL):

Sl. No.	Company/ Country	Project	Details
1.	Fincantieri, Italy	Project 17A	Technical advice for construction of seven stealth frigates with modular technique and enhanced capabilities
2.	M/s Shoft Shipyard Pvt. Ltd and M/s Chowgule	-	Undertaking part of outsourced activities in the on-going warship projects
3.	M/s Naval Group, France	Project-75	Licensed construction of six Scorpene class Submarine

Garden Reach Shipbuilders & Engineers Limited (GRSE): The Shipyard has forayed into Public Private Partnership (PPP) in shipbuilding industry w.e.f. 2020, wherein experience & design capability of GRSE has been synergised with available infrastructure (Berth/dry-dock/material handling) of private shipyards for faster construction of vessels.

Sl. No.	Company/ Country	Project	Details
1.	M/s. L&T, Chennai	Survey Vessel Large (SVL) Project and Anti-Submarine Warfare Swallow Water Craft (ASW-SWC) project	Partial construction of 07 ships
2.	M/s. Titagarh Wagons Limited, Kolkata	Fast Patrol Vessel (FPV) and Ocean Going Vessel (OGV)	Partial construction of 01 FPV for Indian Coast Guard and construction of 01 OGV for Govt. of Guyana

Goa Shipyard Limited (GSL): GSL uses Private Vendors as Tier I, Tier II, Tier III Suppliers/ Sub-contractors.

Hindustan Shipyard Limited (HSL): HSL has tied up with Indian Private players and indigenised the following equipment/systems for the ongoing projects i.e.2 Nos. Diving Support Vessels & 1 No. Semi-submersible Pontoon for Indian Navy: -

Sl. No.	Item Name	Probable Vendors
1.	WT/GT Fire class door	M/s Godrej Boyce Pvt. Ltd
2	Incinerator	M/s HAAT Incinerators India Pvt. Ltd
3	Flight Data recorder	M/s Elcome Integrated solutions, Mumbai
4	HVAC System	M/s Johnson Control, Mumbai
5	PN 300 Bar High pressure valves for HP Air system	M/s Vanaz valves, Pune
6	CAP 437 Heli Deck	M/s SOLAS Marine, Mumbai
7	RF Film for mitigation of EMI/EMC Effect	Through IDEX, M/s AG Flex technologies

Munitions India Limited (MIL): Munitions India Limited has signed MoUs with the following private player for development and manufacture of defense equipment within the country. The details are given below:

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Sl.No	Firm Name
1.	M/s VEM Technologies Pvt. Ltd. Hyderabad
2.	M/s HBL Power Systems Limited, Hyderabad
3.	M/s Micron Instruments Pvt. Ltd. New Delhi
4.	M/s Bharat Forge Limited, Pune

Advanced Weapon and Equipment India Limited (AWEIL): Advanced Weapon and Equipment India Limited has tied up with private companies for major sub-assembly of 155mmx45Cal Dhanush Gun, Up-gunned 130mm to 155mmx45Cal Sharang Gun & AK630 Naval Gun.

Armoured Vehicle Nigam Limited (AVNL): Armoured Vehicle Nigam Limited has tied up with the following Indian Private Companies for manufacturing LPTA and Stallion vehicle.

Sl. No.	Private Company	Product
1.	Tata Motors	LPTA and its variants
2.	Ashok Leyland	Stallion and its variants

Yantra India Limited (YIL): Yantra India Limited has entered into agreement with industries in private sector for development of 155mm Terminally Guided Munition.

India Optel Limited (IOL): India Optel Limited has tied up with Indian Private Industry on major scale and placed Make-II orders for 13 systems indigenously.
