

MINISTRY OF DEFENCE

PREPAREDNESS OF ARMED FORCES- DEFENCE PRODUCTION AND PROCUREMENT

[Action taken by Government on the Recommendations contained in Twenty-
Ninth Report (Sixteenth Lok Sabha) of the Committee on Estimates]

COMMITTEE ON ESTIMATES (2020-21)

FOURTH REPORT

(SEVENTEENTH LOK SABHA)



LOK SABHA SECRETARIAT
NEW DELHI

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(Presented to Lok Sabha on 23 September, 2020)



LOK SABHA SECRETARIAT
NEW DELHI
September, 2020/ Bhadrapada, 1942 (Saka)

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COMPOSITION OF THE COMMITTEE ON ESTIMATES (2020-21)

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4. Shri Rajender Singh Negi - Deputy Secretary
5. Shri Nelojit Mayengbam - Committee Officer

INTRODUCTION

I, the Chairperson of the Committee on Estimates (2020-21) having been authorized by the Committee to submit the Report on their behalf, do present this Fourth Report on the action taken by the Government on the Observations/Recommendations contained in the Twenty-Ninth Report (16th Lok Sabha) of the Committee on the subject 'Preparedness of Armed Forces - Defence Production and Procurement' pertaining to the Ministry of Defence.

2. The Twenty-Ninth Report (16th Lok Sabha) of the Committee on Estimates was presented to Lok Sabha on 25 July, 2018. Action Taken Notes on the Observations/Recommendations were received from the Ministry on 7th October, 2019 and 17th December, 2019. Moreover, ATNs in respect of Recommendation Nos. 10, 11, 13 and 25 were sent to the Chairperson directly by the Ministry. The draft Report was considered and adopted by the Committee at their sitting held on **21st September, 2020**.

3. An analysis of the action taken by the Government on the Observations/Recommendations contained in the Twenty-Ninth Report of the Committee is given in Appendix-II.

**NEW DELHI;
22 September, 2020
Bhadrapada 31, 1942 (Saka)**

**GIRISH BHALCHANDRA BAPAT,
CHAIRPERSON,
ESTIMATES COMMITTEE.**

CHAPTER - I

This Report of the Committee deals with the action taken by the Government on the Recommendations/Observations contained in the 29th Report (16th Lok Sabha) of the Committee on Estimates on the subject 'Preparedness of Armed Forces: Defence Production and Procurement' pertaining to the Ministry of Defence.

1.2 The 29th Report (16th Lok Sabha) of the Committee on Estimates (2018-19) on the subject 'Preparedness of Armed Forces : Defence Production and Procurement' was presented to Lok Sabha on 25th September, 2018. It contained 30 Recommendations/Observations. Action Taken Notes in respect of all the Recommendations/Observations, except ATN in respect of Recommendation no. 26 were received from the Ministry of Defence on 7th October, 2019. The ATN in respect of Recommendation no. 26 was received on 17th December, 2019. Further ATNs in respect of Recommendation Nos. 10,11,13 and 25 were sent to Chairperson directly by the Ministry.

1.3 Replies to the Recommendations/Observations contained in the Report have broadly been categorized as under:-

(i) Recommendations/Observations which have been accepted by the Government:

Sl. Nos 3 to 5, 7, 9, 14 to 16, 18, 20, 21, 22, 23, 26, 27, 28 and 29

Total = 17
(Chapter II)

(ii) Recommendations/Observations which the Committee do not desire to pursue in view of the Government's reply:

Sl. Nos. 6, 8, 10 to 13,17and 25

Total = 8
(Chapter III)

(iii) Recommendations/Observations in respect of which the Government's replies have not been accepted by the Committee:

Sl. Nos. 1, 2, and 19

Total = 3
(Chapter IV)

(iv) Recommendations/ Observations in respect of which final replies of the Government are still awaited:

Sl. Nos. 24 and 30

Total = 2
(Chapter V)

1.4 The Committee desire that final replies to the Recommendation No. 24 and 30 and response to comments contained in Chapter I of this Report should be furnished expeditiously.

1.5 The Committee will now deal with the action taken by Government on some of their Recommendations in the succeeding paragraphs.

Observation/Recommendation No. 1-2

Increasing the Expenditure on Defence Services

1.6 The Committee had noted that India needed its Defence preparedness to be kept consistently at the highest level on account of its strategic location, having a coastline of about 7500 kms and land borders of 15000 kms coupled with the fact that its western, north-western, northern and north-eastern borders are volatile because of historical as well as strategic reasons. The Committee had also noted that the percentage of Defence expenditure, when compared to Central Government expenditure, had declined from 13.15 during 2014-15 to 12.20 during 2017-18. Defence expenditure when analysed as a percentage of GDP, ranged between 2.06 per cent (2014-15) to 1.56 per cent (2017-18). As per an analysis in a Stockholm International Peace Research Institute (SIPRI) study, defence expenditure as a share of GDP of

China and France had remained the same, increased in case of Saudi Arabia and Russia and decreased in case of USA and UK in the last decade (2007-2017). However, keeping in view the scale of GDP of the developed countries, the decrease of defence expenditure as percentage of GDP in India, as per Government data, seems more noticeable. The Committee had further noted that the defence expenditure at 1.56% of GDP was at the lowest level since 1962 when the India-China war was fought. In the current geo-political scenario, a country of the size of India could not afford complacency when it was a question of defence preparedness as our preparedness had to be for a two-front war and retaining our dominance in the Indian Ocean at the same time. The Committee had therefore, strongly emphasized that allocation of adequate financial resources for defence preparedness both for the current needs and future expansion and modernization plans should be accorded highest priority to enable the Armed Forces to meet the challenges concerning safety and security of the Country.

1.7 The Ministry, in its reply has stated as under :

“ It may not be always appropriate to think about Defence spending in terms of national economic output. If the economy grows at a faster rate, spending decreases as a percentage of GDP. There is also a worldwide trend of decline in defence expenditure w.r.t. GDP as can be seen from the table as under:-

Country	China	US	Brazil	France	Germany	Italy	Spain	UK	Japan
In 1960 (in 1990)	2.5%	8.6%	2.7%	6.5%	4.0%	3.1%	2.3%	6.3%	1.1%
In 2016	1.9%	3.3%	1.3%	2.3%	1.2%	1.5%	1.2%	1.9%	1.0%

*Source: SIPRI/Times of India Article dated 26th March, 2018.

Therefore, it doesn't mean that the level of spending has fallen, or has even become inadequate. Looking at spending as a percentage of GDP thus creates an illusion of declined spending by ignoring the size of the economy. As per SIPRI military expenditure database, India is better compared to China in terms of percentage of defence expenditure vis-à-vis GDP. In 2016 and 2017, China spent 1.9% of their GDP on defence, whereas India spent 2.5% of its GDP on defence.

(2). Total Defence Expenditure (including Miscellaneous and Pension) as a percentage of Central Government Expenditure was 17.14% in 2014-15. In 2017-18 also, it is 17.14%. In real terms defence expenditure has grown by ₹ 1,19,260.71 crore as the Central Government Expenditure increased from ₹ 16,63,673 crore in 2014-15 to ₹ 24,42,213 crore in 2017-18.

(3) The Ministry, therefore suggests that it would be more prudent to look at Defence expenditure as percentage of total Central Government Expenditure on the Central Government Capital Expenditure. This question was also examined in detail by the Kargil Review Committee. It too, did not recommend a specific, targeted percentage of the GDP to be earmarked for defence. It exhorted the need to extract the maximum value from each defence rupee, inter-alia through rigorous prioritisation, restructuring of the defence forces, integration with defence production and focusing resources in areas likely to enhance the effectiveness of the defence forces. The Armed Forces are accorded the highest possible consideration for allocation of budget. Requirement of funds will be assessed and provision of additional funds will be made as the need arises based on pace of expenditure”.

1.8 While taking note that in the current geo-political scenario, our country cannot afford complacency when it was a question of defence preparedness, the Committee had strongly emphasized for allocation of adequate financial resources for defence preparedness. The Committee are constrained to note the reply of the Ministry wherein they have inter-alia stated that there is also a worldwide trend of decline in defence expenditure w.r.t. to GDP and cited examples of declining GDP to defence expenditure ratio in respect of other major

countries. The Committee strongly feel that India faces constant threats at all its land borders and our defence preparedness should not suffer on account of lack of financial resources. Moreover, there is great disparity in the defence expenditure incurred by China and by India, although admittedly Chinese economy is much larger compared to India. The Committee, therefore, reiterate their recommendation that there should be adequate financial resources made available for defence preparedness both for the current needs as well as expansion and modernization plans and should be accorded highest priority to enable the Armed Forces to meet the challenges concerning safety and security of the country.

Observation/Recommendation No. 3-4

Increasing the proportion of Capital Procurement Budget within the Defence Budget

1.9 The Committee had noted that the share of Capital Expenditure as a percentage of total Defence Services Expenditure was abysmally low and continuously declining over the years. From 39% in the year 2012-13, the share of capital expenditure came down to 34% in 2018-19. As a result, the procurement had to be adjusted as per the budgetary allocations made by the Government which were not as per the requirements projected as per Long Term Integrated Perspective Plan (LTIPP). It had an adverse impact on modernisation process of our Armed Forces and tantamount to compromising safety and security of our Country. The Committee strongly felt that in view of the intensity and complexity of our security challenges due to current geopolitical environment, India could not afford to be lagging behind in defence preparedness. Noting the urgent need to replace the obsolete armaments with state-of-the-art weapon systems, the Committee had recommended that the capital procurement Budget should be in consonance with the projections made by the Armed Forces as per LTIPP.

1.10. Further, analysis of the data with regard to budgetary allocations for capital procurement for Services indicated variations in BE, RE and Actuals during various years and the Committee had noted that the allocations made at Budgetary Estimates

stage had been consistently reduced at RE level. Further, even the reduced allocations could not be utilized fully during the years 2014-15 and 2015-16. The Committee were apprised by the Secretary, Defence Acquisition, that the requirement of the Armed Forces was very high and the fund allocations to that extent was not there. The Committee, therefore, while recommending for adequate allocations for defence production, had asked the Department to analyse the reasons and take all the corrective actions to ensure that the resources allocated were fully utilized which would help in getting further higher allocations in the coming years.

1.11 In its reply, the Ministry has stated as under :

"Details of projections made and fund allocated in Budget Estimate, Revised Estimates, Modified Appropriation and Actual expenditure during the last five years and the current year are as following:-

(₹. in Crore)

Year	BE Projected	BE Allocated	RE	MA (Final Grant)	Actual Expenditure
2013-14	134070.26	86740.71	78872.23	78872.23	79125.05
2014-15	145091.29	94587.95	81965.24	81965.24	81886.98
2015-16	117955.42	94588.00	81400.00	79483.28	79958.98
2016-17	121929.80	86340.00	79370.29	81747.26	86367.29
2017-18	146113.54	86488.01	86488.01	86488.01	90460.26
2018-19	172203.30	93982.13	93982.13	93965.45	94893.27

(2) Defence Budget is peculiar in nature and is different from budget of other Civil Ministries. No set trend could be seen in the expenditure pattern of Defence Budget especially under Capital Head. This is basically due to the fact that many of the projects

being handled in Defence Ministry involve large payments spread across years. Due to this fact there is a possibility that some years may see large expenditure whereas the succeeding year may see fall in expenditure. Though all aspects are taken into account while projecting/allocating funds, it may not be possible to accurately predict the expenditure as it depends on various facts like necessary approvals, meeting the milestones/time-lines, delays in delivering of items, slippages, etc.

(3) It may also be added that the progress of capital acquisition expenditure is monitored regularly by the Acquisition Wing which is tasked with the responsibility of defence capital procurement. Acquisition Wing, being a specialist organization created on the basis of the Kargil Committee Report and recommendations of the Group of Ministers, not only monitors capital expenditure, but also looks after all capital acquisition projects from inception to finality. In addition, the Defence Procurement Board, which is chaired by Defence Secretary and The Defence Acquisition Council headed by Raksha Mantri comprising of all stakeholders, monitors adherence to broad timelines in Defence Procurement.

(4) Necessary instructions are being issued from time to time for adherence to financial propriety and avoidance of under-utilization of funds/wasteful expenditure. The trend in under-utilization of Budget has been reversed in FY 16-17 and 17-18. In FY 2017-18 under Capital Head, allocations at RE, and MA (Final Grant) stage remained the same as at BE stage i.e. ₹ 86,488.01 Crore and Expenditure incurred is ₹. 90,460.26 Crore. In FY 2018-19, an amount of ₹ 93,982.13 Crore has been allocated for Defence Services Estimates under Capital Budget i.e. an increase of ₹ 7494.12 Cr. over RE/BE of 2017-18. Out of the allocated funds in 2018-19, an amount of ₹ 74,091.65 crore has been incurred as expenditure upto December, 2018 i.e. 78.84%.

(5) The total Capital Budget (Defence Services Estimates+MoD (Miscellaneous) of Ministry of Defence for 2018-19 is ₹ 99,563.86 crores, which is an increase of ₹ 7984.16 crores (8.72%) over Capital Budget of 2017-18 (₹ 91,579.70 crores). Further, Capital Budget of Ministry of Defence is approximately 33% of the total Capital expenditure of the Central Government".

1.12 The Committee note the fact that the expenditure, specially under Capital head, in the Ministry of Defence is different from other Ministries and there is likelihood of expenditure spreading across years. The Committee also appreciate that there are institutional arrangements like Defence Procurement Board and Defence Acquisition Council to monitor the defence procurement. With such institutional mechanisms in place, the Committee opine that inordinate delays are avoidable on that account. Further, it is seen that the Ministry has not responded to the observation that allocations are not being made as per LTIPP. The Committee may be apprised of the reasons thereof.

Observation/Recommendation No. 15

Ordnance Factory Board - Their role and contribution to preparedness of Armed Forces

1.13 Noting that the major challenges/constraints before the OFBs were Non-Uniform demand from Armed Forces and Security Forces, uneconomic quantities to be produced to meet strategic needs, difficulties in entering into long term agreement with dedicated vendors and low scale of production which did not attract the vendors to respond to LTE/OTE and that there were quality issues on the part of the Services with regard to the armaments produced by the Ordnance Factories, the Committee had emphasized for better coordinating mechanisms between the OFBs and the Services. The Committee had held that there was an urgent need on the part of the Services to place the orders for various armaments well in advance keeping in view the complexities and the long period required for production of armaments so as to sustain the viability of these Factories. The Committee had observed that the draft Defence Production Policy 2018-19 had talked of active participation of private sector in the defence production and OFBs needed to work more professionally and increase their competence to remain viable. Modernisation and upgradation of technology in Ordnance Factories were to be accorded top priority.

1.14 The Ministry has submitted as under :

"Demand from the Armed Forces is based on their operational requirements which are dynamic in nature. However, to provide adequate workload to the Ordnance Factories, various interactive meetings are being held with the Armed Forces and OFB to finalise the mutually agreed targets. Besides, OFB also caters to the demands of other indentors like Paramilitary Forces and State Police Forces.

A budgetary allocation of ₹ 11742.42 crore (BE 2018-19) has been made to OFB for Army supplies. However, the allocation has been stated to be inclusive of GST and all applicable taxes/overheads. Including GST in the total budgetary allocation will bring down the total budget for supplies to the Army significantly and will also adversely impact the manufacturing activities of Ordnance Factories. As per the system in vogue, the budgetary allocation for Defence supplies does not include the applicable taxes. Matter has been taken up at the appropriate level for exclusion of GST from budgetary allocation.

OFB has been geared up to make up for the reduced/fluctuating demand from Army by focusing on the export market. Adequate thrust has been given to export of Arms and Ammunition by way of re-structuring export governance in OFB. Potential markets abroad are being proactively identified for expansion of export and thereby increasing the scale of production in OFB.

Qualitative issues raised by Indentors are being regularly monitored and addressed in association with Indentors. The Ministry constituted a Committee to look into certain issues on quality processes in the Ordnance Factories, their relation with DGQA establishment, quality issues related to ToT, licensed production and structural changes required to make the Ordnance Factory Board move to six sigma status. A pilot project in selected Ordnance Factories has been implemented wherein the modified roles of Finance and Accounts and DGQA and OFB have been implemented with the objective of studying effect of single agency responsibility for quality of manufacture of a product.

Towards greater customer engagement, the Ammunition Group of OFB has initiated visits of Ordnance Depots and had interactions with the Depot Heads for the purpose of getting feedback on deficiency in supply of ammunition (if any), quality of ammunition, packaging & handling, storage conditions and other aspects. Corrective actions have been taken/are being taken by OFB on all feedback. Also, interactive meetings are being held regularly with the concerned Line Directorates of Services and Operating Divisions of OFB to resolve various issues. Further, periodic reviews are being done with all the stakeholders at Ministry level to address specific cases of delay in supplies to Armed Forces.

In order to enable OFB to work professionally, a revised OFB Procurement Manual-2018 which deals with procurement of input materials/stores by OFB has come into effect from 01.09.2018. There has been enhancement of delegation of financial powers to OFB for procurement of stores and Plant & Machinery. Further, Approval-in-Principle (AIP) has been accorded for 10 proposals of OFB for procurement of Plant & Machinery during the year 2018-19 with an estimated cost of approx. ₹ 706 crore.

The Ministry is committed to create, maintain and modernize capital assets of OFB with appropriate contemporary technology at par with global standards for enhancing productivity, quality and quantity to provide state-of-the-art Battlefield Equipment to the Services".

1.15 The Committee appreciate the steps taken by the Ministry in a bid to make the OFBs run on professional lines and also to modernize and upgrade their factories. The Committee also express their satisfaction that a coordinating mechanism between the OFBs and the Armed Forces has been set up which would go a long way in removing production bottlenecks and creating better products by OFBs at a faster pace. The Committee have noted the concern raised by the Ministry regarding inclusion of GST in the budgetary allocation to the OFBs. Since the Ministry has already initiated efforts to resolve this issue, the Committee would like to be apprised of the outcome of the same.

Observation/Recommendation No. 19

1.16 The Committee had noted that the existing Procurement system for advanced weapons involved three stages of which second and third stage, *i.e.*, the stage of field trials and contract negotiation stage took considerable time. The Committee further noted that procurement and acquisition of defence hardware was a long drawn process where there was involvement of a large number of stakeholders resulting in coordination issues leading to avoidable delays. The Committee felt that with proper advance planning, the time for first and second stage could be substantially reduced, which would address the issue of shortage of required defence hardware with the defence forces. In certain instances, the decision to buy advanced weapon systems had also resulted in controversies being created on the ground of payment of kickbacks and commissions. The Committee felt that such delays were avoidable as ultimately it was the defence preparedness of the Country that had suffered. In the above context, the Committee had recommended that the Ministry might take appropriate steps to constitute an integrated institutional mechanism with adequate in-built transparency consisting of all key stakeholders in order to reduce delays in procurement process.

1.17 In their Action Taken Notes, the Ministry has replied as under :

“ There are a number of changes that have been introduced in DPP to expedite procurement process and ensure transparency.

- i. Single stage collegiate vetting of RFP.
- ii. Approval of Retractions/Foreclosure of RFPs delegated to DG(Acq)/Vice Chiefs for reasons other than change in operational requirements.
- iii. Approval of TEC at SHQ level if all vendors are compliant with RFP.
- iv. Commencement of Benchmark modeling immediately after receipt of trial report by SHQ to save time at CNC stage.
- v. No negotiation to be done with DPSU vendor, where Costing Committee of DDP has already determined basic price of defence equipment/platform.

- vi. Concurrent vetting of draft contract at CNC stage.
- vii. IEMs details in RFP.
- viii. Complaint Redressal Mechanism".

1.18 The Committee had recommended for an integrated institutional mechanism with adequate in-built transparency consisting of all key stakeholders in order to reduce delays in procurement process so that the Armed Forces could get the hardware without any delay. It had identified lack of proper coordination and advance planning leading to avoidable delays in the second and third stages. However, in their reply, the Ministry has remained silent on the issue of setting up of an integrated institutional mechanism consisting of all key stakeholders. The Committee, therefore would like to prevail upon the Ministry with their view that such a mechanism appears to be necessary in the context of inordinate delays occurring in procurement of defence hardware. The Committee, accordingly, reiterate their earlier recommendation regarding setting up of an integrated institutional mechanism consisting of all key stakeholders.

Observation/Recommendation No. 22

Encouraging MSMEs in Defence sector

1.19 The Committee had noted that for encouraging Small and Medium Enterprises (MSME), Government of India had issued a notification whereby 20% of orders were to be placed with MSME sector and had decided to formulate a scheme for providing financial assistance to these enterprises for taking up design and development work in the defence production. The Committee had also noted that the Technology Development Fund (TDF) was established to encourage participation of public/private industries specially MSMEs. Under the TDF, funding was covered through grants to industry that might work in collaboration with academia or research institutions to carry out innovation, research and development. The Committee had desired that the Ministry should ensure that the financial assistance as envisaged under the Scheme was provided to the MSME sector and adequate orders were placed with them to fully utilise

their potential. The Committee had also urged the Government to examine the feasibility of inserting a provision in the defence offset policy mandating setting up of defence production facilities in the MSME sector in order to expand domestic production base and promote 'Make in India' initiative.

1.20 The reply of the Ministry is as under :

"Since the launch of 'Make in India' in September 2014, several measures have been taken by the Government to promote indigenous design, development and manufacture of defence & aerospace equipment in the country under 'Make in India' by harnessing the capabilities of the public and private sector especially MSMEs. These measures, *inter alia*, include:

- i. Separate procedure for 'Make-II' sub-category has been notified wherein a number of industry friendly provisions such as relaxation of eligibility criterion, minimal documentation, provision for considering proposals suggested suo-moto by industry/individual etc., have been introduced. So far, 33 proposals have been accorded 'Approval in Principle', out of which EoI has been issued for 6 projects. In order to encourage the participation of MSMEs and Startups, under Make-II procedure, no separate technical/ financial criteria have been defined for the projects with estimated cost of prototype development phase not exceeding ₹ 3 crore.
- ii. Defence Investor Cell has been created in the Ministry to provide all necessary information including addressing queries related to investment opportunities, procedures and regulatory requirements for investment in the sector.
- iii. The process for export clearance has been streamlined and made transparent and online.
- iv. Defence Procurement Procedure (DPP) has been revised in 2016 wherein specific provisions have been introduced for stimulating growth of the domestic defence industry.

- v. A new category of procurement 'Buy {Indian-IDD (Indigenously Designed, Developed and Manufactured)}' has been introduced in DPP-2016 to promote indigenous design and development of defence equipment. It has been accorded top most priority for procurement of capital equipment. Besides this, preference has been accorded to 'Buy (Indian)' and 'Buy and Make (Indian)' categories of capital acquisition over 'Buy (Global)' & 'Buy & Make (Global)' categories. As a result, during the last four financial years (2014-15, 2015-16, 2016-17 and 2017-18) Defence Acquisition Council (DAC) has accorded approval of 211 capital procurement cases at an estimated cost of ₹ 4,44,597 crores, out of which 156 cases involving ₹ 2,75,391 crore are under the 'Buy(Indian-IDD), 'Buy(Indian)', 'Buy & Make (Indian) and 'Make' categories.
- vi. The 'Make' Procedure has been simplified with provisions for funding of 90% of development cost by the Government to Indian industry and reserving projects not exceeding development cost of ₹ 10 Crore (Government funded) and ₹ 3 Crore (Industry funded) for MSMEs.
- vii. Government has decided to set up two Defence Production Corridors, one each, in Tamil Nadu and Uttar Pradesh. Five nodal points in Tamil Nadu namely Chennai, Coimbatore, Hosur, Salem and Tiruchirappalli and Six nodal points in Uttar Pradesh, namely Aligarh, Agra, Chitrakoot, Jhansi, Kanpur and Lucknow have been identified for these corridors. Setting up of these corridors would catalyse indigenous production of defence and aerospace related items thereby reducing our reliance on imports and will also enable export of these items to other countries. This will lead to generation of employment opportunities and promote the growth of private domestic manufacturers, MSMEs and start-ups.
- viii. MoD has launched the Innovations for Defence Excellence (iDEX) initiative, primarily aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes and academia and provide them grants/funding and other support to carry out R&D which has good potential for future adoption for Indian defence and aerospace needs. Deserving

MSME units be provided hand-holding and technical guidance within the iDEX framework.

- ix. Industrial licensing regime for Indian manufacturers under IDR {Industries (Development and Regulation)} Act, 1951 has been liberalised and most of the components/ parts/ sub-systems have been taken out from the list of defence products requiring Industrial Licence. This has reduced entry barriers for new entrants in this sector, particularly MSMEs.
- x. For promoting Ease of Doing Business and efficiency in procurement, Ministry has decided to de-reserve 275 items which are regularly procured by the Armed Forces, and upload on the GeM portal.
- xi. Government of India has notified the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 under which a minimum of 20% of the total annual procurement is made mandatory from Micro & Small Enterprises by Central Ministries / Departments / Public Sector Undertakings w.e.f. 1st April 2015.
 - a. The aforesaid policy mandates that all the Micro and Small Enterprises registered with bodies designated/ specified by Ministry of MSME or having the Udyog Aadhaar Memorandum (UAM) will be issued tender set free of cost and exempted from payment of Earnest money, and will also be allowed to bring down their price to L1 level provided it has bid in the price band of L1+15%, by the Central Ministries/ Departments/ Central Public Sector Undertakings. In addition, 358 items are reserved for exclusive procurement from MSEs.
 - b. To monitor the effective implementation of the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 within the Ministry, a Committee under the chairmanship of JS (P&C) was formed. The Committee regularly reviews the progress made and furthers the objectives laid down in the Policy.
 - c. Additionally, Ministry of MSME has issued a circular dated 10 Mar 2016 which mandated that relaxation may be given by Central Ministries / Departments /

Central Public Sector Undertakings in prior experience / prior turnover criteria to MSEs. The Defence PSUs, which are under DDP, have been accordingly directed to implement the above relaxations, and the same has been extended to MSEs by Defence PSUs. xii. In order to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment, Department of Industrial Policy and Promotion (DIPP) has notified the Public procurement (Preference to Make in India), Order 2017 on 15th June 2017. Based on this mandate, DDP has issued 04 notifications for 111 items procured by Ordnance Factories (OFB) and Defence Public Sector undertakings (DPSUs) with the stipulated percentages of local content of eligibility vide orders dated 29th June 2018, 26th July 2018, 27th August 2018 and 16th November 2018. The status of procurement under Public Procurement (Preference to Make in India), Order,2017 by DPSUs/OFB till 30th November, 2018 are as follows: -

S No	Name of DPSUs/ OFB	Procurement under PPP(MII) Order, 2017 (₹ in Lakhs)
1	HAL	59.48
2	BEL	999.00
3	GRSE	44.45
4	BDL	2191.00
5	MIDHANI	329.00
	TOTAL	3622.93

xiii. Trade Receivables Discounting System (TReDS) is a platform established by D/o Financial Services to facilitate financing of Trade receivables of MSMEs. The

objective of the TReDS is to facilitate financing of invoices / bills of MSMEs drawn on Government Departments and PSUs, by way of discounting by financiers. To enable this, the TReDS has to put in place suitable mechanism whereby the invoice/ bill is converted into "factoring unit" (which would be a standard nomenclature used in the TReDS for an invoice or a bill on the system) on TReDS.

a) In the first phase, the TReDS would facilitate the discounting of these factoring units by the financiers (refers to a bank as well as an NBFC factor participating in the TReDS and who accepts the factoring unit for financing purpose) resulting in flow of funds to the MSME with the final payment of the factoring unit being made by the buyer to the financier on due date. In the second phase, the TReDS would enable further discounting/ re-discounting of the discounted factoring units by the financiers, thus resulting in its assignment in favour of other financiers.

b) The status of DPSUs regarding registration and implementation of TReDS is placed at **Annexure-I**.

(2). The capability and viability of the defence and aerospace industry is built on the strength of supply chains, in which the MSMEs are intricately intertwined. There are substantially large number of MSMEs across the country supplying components and sub-assemblies and systems to the Defence Public Sector Undertakings, Ordnance Factories, Defence Research and Development Organisation and private industries. Vendor development meets help to sensitize the MSMEs about their products and method of registration etc.

(3). Ministry of Defence regularly conduct conferences and discussions through Annual seminars with an aim to strengthen long term plans and industry capability in defence procurement. Regular interaction with interested vendors / indigenous developers, including MSME units, through collegiate mechanism of procurement committee and pre-bid meetings are scheduled for clarification on various aspects of the procurement process".

1.21 The Committee appreciate the efforts of the Government to encourage the participation of MSMEs in the Defence Sector. Such measures, if properly implemented, will go a long way in integrating MSMEs in the defence hardware supply chain. However, the Ministry has not specifically responded to the observation of the Committee regarding examining the feasibility of inserting a provision in the defence offset policy mandating setting up of defence production facilities in the MSME sector. The Committee would like to be apprised in this regard.

Observation/Recommendation No. 24

Leveraging Our Capabilities in Space and Information Technology for R&D in Defence

1.22 The Committee had referred to the vision statement of Draft Defence Procurement Policy (DPP) 2018 which stated about making India among the top five countries of the world in Aerospace and Defence industries, with active participation of public and private sector. The Committee had also noted that there were institutions like ISRO in the field of research, in cutting edge technologies, in the field of missile and space technology which could be leveraged for self reliance in defence hardware as well as in India becoming a major exporter. For forging partnership and collaboration between organisations such as ISRO, DRDO and the DPSUs the Committee had recommended for the formation of an inter-ministerial group.

1.23. In their Action Taken Notes, the Ministry has stated as follows :

"In order to tap the potential available with the space and nuclear establishments in the country, the draft Defence Production Policy 2018 proposes the following:

Department of Defence Production (DDP) will consult all stakeholders and explore possibility of setting up an autonomous National Aeronautical Commission, in line with Nuclear or Space Commissions to bring focus to following important areas:

- a) Leverage mutually beneficial links between military and civil aviation for expansion and, importantly, indigenisation.
- b) Bring together diverse agencies for synergies in technology development, basic and fundamental research and production.
- c) Create a scenario in which the benefits of a competitive environment are felt in all areas of the economy as a whole and the defence economy in particular.

Furthermore, DDP has initiated action towards the formation of an Inter-Ministerial Group to facilitate collaboration between ISRO, DRDO and DPSUs to leverage the nation's capabilities in space and nuclear technology not only for self reliance in defence hardware but also to become a major exporter".

1.24 The Committee are happy to note that the Ministry has initiated action towards the formation of an Inter-Ministerial Group to facilitate collaboration between ISRO, DRDO and DPSUs. As opined earlier, this would not only help in leveraging our capabilities in space and nuclear technology to become self reliant but also help in becoming a major exporter in the world by supplying defence hardware to friendly countries. The Committee would like to be informed about further progress in the matter including the terms of reference of this Inter-Ministerial group.

Observation/Recommendation No. 29

1.25 The Committee had noted that the Country had talented scientists and there was a possibility of their exit from premier research institutions such as DRDO to foreign based companies which offered attractive salary and other benefits. This could prove to be detrimental to our interests. The Committee had also noted that technical manpower in the DPSUs such as HAL, were concerned about their future because of lack of orders from the Government. Same situation could be prevalent in other DPSUs also. The Committee had, accordingly, recommended that the manpower possessing valuable knowledge, experience and expertise ought to be retained in the Country by providing

better work environment, research infrastructure and recognition including appropriate financial incentives. The Government needed to ensure that there was no anxiety among the technical personnel about their future.

1.26 In their response, the following submissions have been made by the Ministry:

" Ordnance Factory Board:-

The initial sanctioned strength of the Ordnance Factories Organization was 1,63,103. A manpower rationalization exercise was suggested by Ministry in the year 2015. Accordingly, a Committee was constituted for submitting a report on rationalization of manpower in the Ordnance Factories. The main objective of the Committee was to assess and rationalize the manpower requirement for the Ordnance Factories in relation to the anticipated production and supporting activities on long-term basis i.e. up to the year 2024-25 and also to examine other issue(s) relevant to this. The Committee based thereon, recommended revised sanctioned strength of 1,45,503 in respect of various categories of employees. However, Ministry has sanctioned the operating strength of OFB at 1.1 lakh, meaning thereby that at no point of time there is requirement of more strength, and OFB is working with the operating strength of 1.1 lakh as on date.

Hindustan Aeronautics Limited :

The attrition rate among the Executives in HAL has been less than 2% during the last 5 years. However, a sizeable quantum of the current order book of the company will be completed in the next 2-3 years with major manufacturing programs like Hawk, Su-30MKI already completed/getting completed shortly. A robust order book is a must for avoiding idling of facilities as well as, for retention and growth of the trained technical talent pool of any company. The Company has taken up the following major initiatives to retain the trained manpower:

a. HAL continuously endeavors to create a learning culture wherein Officers are nominated for various Post Graduate Courses in Technical and Non –Technical

Disciplines to Institutes of repute (both inland & abroad). Over 200 officers have been nominated for various Sponsorship programmes during the last 5 years.

b. A Leadership Development initiative, in the form of a Leadership Development Programme of one year, has been institutionalized for Officers in the Senior Management Cadre and the Middle Management Cadre. 3 batches consisting of a total of 90 Officers each in the Senior Management Cadre have undergone the Programme. One more batch of 30 Officers is currently undergoing the Programme. 95 Officers in the Middle Management Cadre have also undergone the Programme.

c. HAL has a Scheme for Fast Track Promotion viz. Internal Merit Selection (IMS) in respect of Executives. Officers with excellent track record in performance during the preceding 3 years are considered for promotion to the next higher Grade.

d. Naini Aerospace Limited (NAeL) is a subsidiary of HAL. The employees of NAeL have undergone phase-wise theoretical as well as on-the-job training at Bangalore and Transport Aircraft Division (TAD), Kanpur to get technical expertise in connection with manufacturing of looms of ALH & LCA as well as structure of ALH. These trainings were organised at LCA, Helicopter and TAD-Kanpur divisions etc as well as at Technical Training Institute (TTI), Bangalore wherein the employees participated in skill up-gradation program on Aircraft/ Helicopter Structural Assembly, Aircraft/ Helicopter Looms and Aircraft Loom Fabrication & Assembly.

e. HAL Management Academy (HMA) focuses on training programs to meet the internal Learning & Development requirements of its Executives. It conducts training programs for various levels within the organization ranging from entry level to the senior most Executives. Several refresher courses are conducted by HMA for its officers at its dedicated campus in Bangalore such as Refresher Training Program for Technical & Non-Technical Officers, Middle Management Program, Specialized Technical Training Program, Senior Executive Refresher Program etc. The role of HMA is to be a nodal agency to align the companies' officers to the evolving business needs and enhance their capabilities to meet the strategic vision of the organization.

Bharat Electronics Limited:-

BEL provides excellent working environment with freedom for innovation, empowerment, challenging work assignments etc. As a result, all the executives are self-motivated and the overall attrition rate in BEL is less than 2% in the past ten years.

All executives are covered under the BEL Conduct Discipline & Appeal Rules and in accordance with the said rules, no Functional Director (including CMD), Executive Director's & GMs, who have retired/resigned from the services of the Company, shall accept any appointment or post in any foreign company/Govt., with whom BEL has business dealings, within 1 year of their resignation/superannuation, without prior permission of the Government. A Service Bond to this effect is executed by the concerned Officer. Further, Officers working on specific R&D projects are required to execute a Deed of Assignment or Non-disclosure agreements barring them from disclosing any information pertaining to the project during their service in BEL or on resignation from BEL.

Bharat Earth Movers Limited:-

BEML is very much concerned about the anxiety and discontentment of its technical personnel. BEML is striving hard to even further ameliorate their working conditions and making all out effort to secure more orders to dispel the anxiety of its experienced and expert technical personnels.

Bharat Dynamics Limited:-

The order book position of BDL is depleting year after year and in such a scenario it is becoming difficult for the organization to retain manpower. In the absence of a growing order book, it is very difficult to retain talented executives.

BDL is putting all out efforts to improve order book position so that all production units are fully loaded with optimal utilization of men & machines.

BDL takes good care of its employees & their welfare. BDL sends its employees for enhancing knowledge to premier Management & Technology Institutes like IIMs, IITs, XLIRs. etc.

BDL recognizes talent & hard work by way of merit awards, which are distributed every year on 15th August & 26 January.

Mazagon Dock Shipbuilders Limited (MDL):-

While MDL is concerned with the loss of skill-set due to lack of order visibility in future, presently MDL does not face this kind of situation of forcing large scale exodus of executives.

MDL has a professional management structure & healthy working environment, where scope for personal development and recognition is supported by robust, and generous HR policies.

Garden Reach Shipbuilders & Engineers Limited (GRSE):-

The Company has sufficient orders which are to be executed in next few years. Accordingly emphasis has been given for retention of talents for which different initiatives have been taken towards improvement of work environment, creating different facilities, recognition to the employees for exemplary / innovative performance as given below:-

- i. Improvement of work environment
- ii. Establishment of Research Infrastructure.
- iii. Recognition including appropriate financial incentive.

Goa Shipyard Limited (GSL):-

GSL is the first Indian shipyard to have an in-house R&D unit recognized by the Department of Scientific and Industrial Research (DSIR), Government of India. The R&D initiatives have not only helped in attaining self reliance but also earned significant

foreign earning. As part of GSLs initiative to be market ready for future, the R&D department is working on future advance vessels which are required by Indian Navy and Coast Guard. Thus, GSL provides ample opportunities to its technical personnel to showcase their expertise in R&D.

Mishra Dhatu Nigam Limited (MIDHANI):-

The attrition rate of MIDHANI is almost negligible and the significant retention policies/ strategies prevailing in MIDHANI are mentioned as under:

MIDHANI has excellent policies in place to retain its employees and the workplace environment is exceedingly cohesive and cordial. Policies are reviewed periodically and amended from time to time as per requirement.

In addition to salaries, MIDHANI also pays 'Performance Related Pay (PRP)' to employees based on their annual performances.

As per 3rd PRC Recommendations, the Executives and Non-Unionized supervisors' pay revision has been implemented successfully w.e.f. 01- Jan-2017 and the arrears are also disbursed.

The Executives and Non-Unionized Supervisors' Promotion Policy is recently revised and it has been amended in a manner that provides higher weightage to annual performance of employees. Weightage is also given to qualification and experience along with attendance & punctuality.

MIDHANI also identifies and nominates individuals/groups to participate in various Training Programmes/Workshops/Seminars, Leadership Programs etc. within the country and even abroad so as to expose them to global standards and develop them.

In order to encourage managerial excellence among young managers and bring out their hidden talents/ ideas/Concepts, MIDHANI organizes annual competition named as "Dr Tamhankar's Trophy for Young Managers" where the team with the best project is awarded with cash prize and are also sent to attend international/national conferences.

Best Executive/ NUS/ Non-Executive/ Women of the Year Award are also given annually in MIDHANI to encourage all-round performances.

MIDHANI also organizes various cultural programs, sports & games activities to bring all the employees together and create a sense of belongingness and engagement amongst them.

MIDHANI has excellent employee wellness and medical scheme in place for existing as well as retired employees and also provides good quality education facilities to employee's children".

1.27 The Committee appreciate that the Defence PSUs are aware of this crucial issue and are taking all necessary steps to address it. In respect of Ordinance Factory Boards (OFB), however, the response forwarded by the Ministry appears to be out of place. The response mentions about the strength of the OFBs and deals with the issue whether it is adequate or inadequate. It does not mention about the steps taken/being taken for retaining talented scientists in the organization. Moreover, the reply in respect of OFBs appear to be a replica of the response given by the OFB in respect of recommendation no. 28 which relates to 'Human Resources of DPSUs and other Defence Production Institutions'. The Committee express their unhappiness at the lackadaisical manner in which the Ministry has chosen to respond to its recommendation on such an important point and urge that an appropriate reply be furnished at the earliest.

Observation/Recommendation 30

1.28 The Committee had taken note of a written submission by HAL suggesting creation of an additional post of Director (Corporate Planning & Business Development). Besides, the attention of the Committee was also drawn to the need for upgradation of pay scales of officers of the company at par with PSUs like BHEL/NTPC based on the recommendations of an Expert Group constituted by the Government under the Chairmanship of Shri B. K. Chaturvedi for restructuring and strengthening of HAL. The

Committee had wanted the Ministry of Defence to consider the proposals submitted by HAL positively in view of interest of the organization

1.29 In response to the above, the Ministry has stated as under :

"(1) With the approval of Hon'ble Prime Minister, an Expert Group under the Chairmanship of Shri B.K. Chaturvedi, Former Cabinet Secretary and Member, Planning Commission was constituted in 2011 for restructuring and strengthening of Hindustan Aeronautics Limited (HAL). The Expert Group submitted its report to Government in September, 2012. As per one of the recommendations of the Expert Group, the Board of HAL was to be reconstituted as a 14 Members Board with 5 Functional Directors including CMD, 2 Government Directors and 7 Independent Directors:

(2) The proposal for reconstitution of the Board of Directors of HAL was considered by PESB in consultation with DPE. While considering the proposal, PESB vide its O.M dated 04.11.2013 was of the view that Administrative Ministry may consider retaining the post of Director (CP&M) and desirability of creating an additional post of Director (Operations) depending upon the reporting/ supervisory mechanism between proposed CEOs and HAL Board.

(3) The view of the PESB was considered by this Department and it was felt that creation of an additional post of Director would also require appointment of an additional Independent Director to comply with the SEBI guidelines. This would have taken the strength of HAL's Board to 16 as against the recommendation of the Expert Group for downsizing it to 14 from the then size of 17. Therefore, the same was not agreed to.

(4) In view of above decision, the proposal for reconstitution of the Board of Directors of HAL was sent to DPE for obtaining concurrence of PESB. In this regard, DPE vide its O.M dated 29.01.2014 had intimated that the proposal was considered in consultation with PESB and the same was concurred into. They had requested this Department to process the proposal further and to obtain the approval of ACC in this regard.

(5) In the light of directions of DPE, the proposal for reconstruction of HAL Board was sent to ACC for approval in March, 2014. ACC vide its communication dated 25.11.2014 had accorded approval for reconstitution of the Board of Directors of HAL, in which inter-alia, it was decided to discontinue the post of Director (CP&M) and creation of a re-designated post of Director (Operations) in lieu thereof.

(6) HAL had again initiated the proposal for creation of the post of Director (Corporate Planning and Business Development) in August, 2017 and the same was examined in the Department. Since the reason for discontinuation of Dir (CP&M) remains the same, the proposal of HAL was not agreed to.

(7) Pay Scales of Executives and Non-unionised Supervisors of CPSEs is notified by the Dept. of Public Enterprises (DPE) from time to time. HAL has been adopting the Pay Scales as notified by the DPE. However, PSUs like ONGC, NTPC, BHEL, GAIL etc. had been adopting superior Pay Scales which are two levels above that adopted in HAL, including at the entry level for fresh Engineering Graduates, etc. The entry level pay scales of HAL in comparison with other big PSUs are as below:

HAL		BHEL		NTPC	
Grade	Scale	Grade	Scale	Grade	Scale
I	12600-32500	E-1	20600-46500	E-1	20600-46500

(8) The Govt. vide MoD letter dated 21/10/11 had constituted an Expert Group under the Chairmanship of Shri B.K. Chaturvedi, Former Cabinet Secretary and Member, Planning Commission, to carry out a comprehensive review of the working and restructuring of HAL. Amongst others, the Group had noted that the Pay Scales and Salary Structure for Executives of HAL are much lower compared to other Navaratna

PSUs in the manufacturing Sector; and had recommended that HAL's Pay Scales & salary structure needs to be brought at par with CPSUs like BHEL/NTPC.

(9) While communicating acceptance of the Government of the various recommendations of the Expert Group, MoD vide its letter dated 25/04/13 had intimated HAL that the proposal to upgrade the Pay Scales of Executives, on par with the Pay Scales in BHEL/NTPC, be examined internally; and on obtaining approval of the Board of Directors, be forwarded to the Ministry for consideration and approval.

(10) Accordingly, proposal for upgradation of the Pay Scales was considered by the HAL Board during March 2014. The Board had approved upgradation of the Pay Scales by one level w.e.f 01.04.2014; and by one more level w.e.f 01.01.2017, to bring them on par with BHEL. On approval by the Board, HAL vide its letter dated 18.03.2014 had forwarded the proposal to this Ministry to consider upgradation of Pay Scales, within the then prevailing 2007 Pay Scales notified by the DPE.

(11) In June, 2017, with the approval of competent authority, a Note was moved for consideration and approval of CCS on the proposal for upgradation of pay scales in respect of Executives in HAL. PMO vide their ID dated 19.07.2017 had conveyed that the Cabinet Secretary may constitute an expert committee to take a holistic view on rationalization of pay scales in all public sector enterprises in consultation with relevant stakeholders. After the report of the expert committee is finalized, the Department of Public Enterprises (DPE) may be the nodal Department to take further necessary action on the committee's recommendations. Thereafter, no further communication has been received in this regard".

1.30 The Committee take note of the reply of the Ministry that the issue of creation of a post of Director (CP&BD) was not agreed to by the Ministry in the light of cited reasons. With reference to upgradation of pay scales, the Committee urge the Ministry to pursue the matter with the concerned authorities and inform the Committee about the outcome in the matter as it is an issue in the interest of the organization that may affect the morale and motivation of HAL employees.

CHAPTER II

RECOMMENDATIONS/OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

Observation/Recommendation No. 3-4

Increasing the proportion of Capital Procurement Budget within the Defence Budget

3. The Committee express their unhappiness that the share of Capital Expenditure as a percentage of total Defence Services Expenditure is abysmally low and is continuously declining over the years. In the years 2012-13 and 2013-14, the share of capital expenditure was 39% in each year, which in the year 2017-18 and 2018-19 came down to 33% and 34%, respectively. What is more worrisome is the situation whereby the procurement has to be adjusted as per the budgetary allocations made by the Government which are not as per the requirements projected as per LTIPP. The Committee observe that allocations under the Capital head are made for procurements for our Services which include defence equipments, weaponry, aircrafts, naval ships, constructing roads and bridges in border areas, etc. and any decrease in capital expenditure has an adverse impact on modernisation process of our forces and tantamount to compromising safety and security of our Country. The Committee strongly feel that in view of the intensity and complexity of our security challenges due to current geopolitical environment, India cannot afford to be lagging behind in defence preparedness. There is an urgent need, therefore, to replace the obsolete armaments with state of the art weapon systems for which substantial increase in capital budget is essential. The Committee find the present situation unacceptable whereby the allocations are not being made as per the LTIPP, thereby defeating the purpose of having long term defence plans. The Committee, therefore, recommend that the capital procurement Budget should be in consonance with the projections made by the services as per LTIPP.

4. The analysis of the data with regard to budgetary allocations for capital procurement for services indicates variation in BE, RE and Actuals during various years. The allocations made at Budgetary Estimates stage have been consistently reduced at RE level, and even the reduced allocations could not be utilized fully during the years 2014-15 and 2015-16. In this scenario, the Committee are not able to appreciate the remarks of the Secretary, Defence Acquisition, during the course of deposition that they hear from the Department of Defence that the requirement of the forces is very high and the fund allocation to that extent is not there. The Committee, therefore, while recommending for adequate allocations for defence production would like the Department to analyse the reasons and take all the corrective actions to ensure that the resources allocated are fully utilized which would help in getting further higher allocations in the coming years.

Reply of the Government

Details of projections made and fund allocated in Budget Estimate, Revised Estimates, Modified Appropriation and Actual expenditure during the last five years and the current year are as following:-

(Rs. in Crore)

Year	BE Projected	BE Allocated	RE	MA (Final Grant)	Actual Expenditure
2013-14	134070.26	86740.71	78872.23	78872.23	79125.05
2014-15	145091.29	94587.95	81965.24	81965.24	81886.98
2015-16	117955.42	94588.00	81400.00	79483.28	79958.98
2016-17	121929.80	86340.00	79370.29	81747.26	86367.29
2017-18	146113.54	86488.01	86488.01	86488.01	90460.26
2018-19	172203.30	93982.13	93982.13	93965.45	94893.27

2. Defence Budget is peculiar in nature and is different from budget of other Civil Ministries. No set trend could be seen in the expenditure pattern of Defence Budget especially under Capital Head. This basically due to the fact that many of the projects being handled in Defence Ministry involve large payments spread across years. Due to this fact there is a possibility that some years may see large expenditure whereas the succeeding year may see fall in expenditure. Though all aspect are taken into account while projecting/allocating funds, it may not be possible to accurately predict the expenditure as it depends on various facts like necessary approvals, meeting the milestones/time-lines, delays in delivering of items, slippages, etc.

3. It may also be added that the progress of capital acquisition expenditure is monitored regularly by the Acquisition Wing which is tasked with the responsibility of defence capital procurement. Acquisition Wing, being a specialist organization created on the basis of the Kargil Committee Report and recommendations of the Group of Ministers, not only monitors capital expenditure, but also looks after all capital acquisition projects from inception to finality. In addition, the Defence Procurement Board, which is chaired by Defence Secretary and The Defence Acquisition Council headed by Raksha Mantri comprising of all stakeholders, monitors adherence to broad timelines in Defence Procurement.

4. Necessary instructions are being issued from time to time for adherence to financial propriety and avoidance of underutilization of funds/wasteful expenditure. The trend in underutilization of Budget has been reversed in FY 16-17 and 17-18. In FY 2017-18 under Capital Head, allocations at RE, and MA (Final Grant) stage remained the same as at BE stage i.e. Rs. 86,488.01 Crore and Expenditure incurred is Rs. 90,460.26 Crore. In FY 2018-19, an amount of Rs. 93,982.13 Crore has been allocated for Defence Services Estimates under Capital Budget i.e. an increase of Rs. 7494.12 Cr. over RE/BE of 2017-18. Out of the allocated funds in 2018-19, an amount of Rs. 74,091.65 crore has been incurred as expenditure up to December, 2018 i.e. 78.84%.

5. The total Capital Budget (Defence Services Estimates +MoD (Miscellaneous) of Ministry of Defence for 2018-19 is Rs. 99,563.86 crores, which is an increase of Rs. 7984.16 crores (8.72%) over Capital Budget of 2017-18 (Rs. 91,579.70 crores). Further, Capital Budget of Ministry of Defence is approximately 33% of the total Capital expenditure of the Central Government.

**Comments of the Committee
(Please see para no. 1.12 of Chapter I)**

Observation/Recommendation No. 5

Self Reliance in Defence

The Committee note that the Preamble of the Defence Production Policy 2018 states India as one of largest importer of defence goods and services in the world. It has specifically been mentioned that despite some salient achievements of our defence production ecosystem, a significant part of our defence requirements continue to be dependent on imports. During the course of examination, the Committee have been apprised by the Department of Defence Production that out of total defence production around 40 per cent is produced indigenously and 60 per cent is imported. The Committee while expressing serious concern over the prevailing situation observe that dependence on foreign suppliers particularly for military hardware not only results in huge expenditure

on import of defence equipments but makes the security of the Country vulnerable as during emergency situations the supplier may not provide us the required weapons or spare parts. The Committee are concerned to note that the indigenization level in the Defence Sector is increasing at a very slow rate. Nothing concrete has been done for implementation of the strategic partnership model unveiled by the Government in May, 2017 which envisaged private players playing a key role in building military platforms like submarine and fighter jets in India in partnership with major global defence companies.

The Committee find that the draft Defence Production Policy 2018 aims at making India one of the world's top five defence producers by 2025 with self-reliance in 13 areas covering almost the entire range of weapons and systems. The Committee while noting the vision document of DPP 2018, would like the Government to take urgent and immediate initiatives in the desired sectors so that India's dependence on imports is decreased thereby improving our defence preparedness. In this regard, the Committee would like to emphasize that increasing local content in defence platforms and hardware will have a multiplier effect in the sense that it will result in a strong manufacturing sector, generate substantial number of jobs and also save the financial resources. Clear-cut road map should, therefore, be drawn up with effective monitoring to achieve the level of self-reliance envisaged as per the vision document of the draft policy. The Committee may be apprised of the specific steps being taken to that end.

Reply of the Government

The following steps have been taken for ensuring that the country becomes self-reliant in production of defence equipments.

- I. Defence Production in India is led by Ordnance Factories and Defence Public Sector Undertakings which have played a huge role in making our country a defence production hub. There are 41 Ordnance Factories and 9 DPSUs in our country contributing to more than Rs.58,000 crores approx. in defence production every year. Government provides support to Defence

Public Sector Undertakings and Ordnance Factories to expand their activities.

- II. Government has issued 439 licenses covering 264 companies till March, 2019. Industrial Licenses are issued for manufacturing of tanks and other armored fighting vehicles, defence aircraft, space craft and parts thereof, warship, arms and ammunition and allied items of defence equipment, parts and accessories thereof. In addition, for a large number of defence components, no license is required.
 - III. An innovation ecosystem for Defence titled Innovations for Defence Excellence (iDEX) has been launched in April, 2018. iDEX is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, Start-ups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D which has potential for future adoption for Indian defence and aerospace needs. Under iDEX, innovative solutions have been successfully identified for 14 problem areas pertaining to national defence requirements. More than 600 startups have been engaged in the process and 44 different solutions have been identified for the problem statements by the innovators.
 - IV. In order to expand the manufacturing infrastructure, Government has decided to establish two defence industrial corridors to serve as an engine of economic development and growth of defence industrial base in the country. These are spanning across Chennai, Hosur, Coimbatore, Salem and Tiruchirappalli in Tamil Nadu and spanning across Aligarh, Agra, Jhansi, Kanpur, Chitrakoot and Lucknow in Uttar Pradesh (UP)
2. In addition, the following steps have also been taken: -
- i. Defence Procurement Procedure (DPP) has been revised in 2016 wherein specific provisions have been introduced for stimulating growth of the domestic defence industry.

- ii.** A new category of procurement 'Buy {Indian-IDDM (Indigenously Designed, Developed and Manufactured)}' has been introduced in DPP-2016 to promote indigenous design and development of defence equipment. It has been accorded top most priority for procurement of capital equipment. Besides this, preference has been accorded to 'Buy (Indian)', 'Buy and Make (Indian)' & 'Make' categories of capital acquisition over 'Buy (Global)' & 'Buy & Make (Global)' categories.
- iii.** Government has notified the 'Strategic Partnership (SP)' Model which envisages establishment of long-term strategic partnerships with Indian entities through a transparent and competitive process, wherein they would tie up with global Original Equipment Manufacturers (OEMs) to seek technology transfers to set up domestic manufacturing infrastructure and supply chains.
- iv.** The 'Make' Procedure has been simplified with provisions for funding of 90 % of development cost by the Government to Indian industry and reserving projects not exceeding development cost of Rs.10 Crore (Government funded) and Rs.3 Crore (Industry funded) for MSMEs.
- v.** Separate procedure for 'Make-II' sub-category has been notified wherein a number of industry friendly provisions such as relaxation of eligibility criterion, minimal documentation, provision for considering proposals suggested by industry/individual etc., have been introduced. Till August, 2019 36 proposals for development by industry have been given 'in-principle' approval under Make-II.
- vi.** FDI Policy has been revised and under the revised policy, FDI is allowed under automatic route upto 49% and beyond 49% through Government route wherever it is likely to result in access to modern technology or for other reasons to be recorded.
- vii.** The Defence Products List for the purpose of issuing Industrial Licenses (ILs) under IDR Act has been revised and most of the components, parts, sub-systems, testing equipment and production equipment have been removed from the list, so as to reduce the entry barriers for the industry, particularly

small & medium segment. The initial validity of the Industrial License granted under the IDR Act

has been increased from 03 years to 15 years with a provision to further extend it by 03 years on a case-to-case basis. So far, the process for export clearance has been streamlined and made transparent & online.

- viii.** Offset guidelines have been made flexible by allowing change of Indian Offset Partners (IOPs) and offset components, even in signed contracts. Foreign Original Equipment Manufacturers (OEMs) are now not required to indicate the details of IOPs and products at the time of signing of contracts. 'Services' as an avenue of offset have been re-instated.
- ix.** Government has set up the Technology Development Fund (TDF) to encourage participation of public/private industries especially MSMEs, through provision of grants, so as to create an eco-system for enhancing cutting edge technology capability for defence applications.
- x.** The Ministry has instituted a new framework titled 'Mission Raksha Gyan Shakti' which aims to provide boost to the IPR culture in indigenous defence industry.
- xi.** Government has notified a Policy for indigenization of components and spares used in Defence Platforms in March, 2019 with the objective to create an industry ecosystem which is able to indigenize the imported components (including alloys & special materials) and sub-assemblies for defence equipment and platform manufactured in India
- xii.** Defence Investor Cell has been created in the Ministry to provide all necessary information including addressing queries related to investment opportunities, procedures and regulatory requirements for investment in the sector

3. Inter Government Agreement (IGA) between India and Russia has been signed on 18 Feb 2019 for production of AK series Assault Rifles including AK-203 and other small arms in India through a Joint Venture (M/s Indo-Russian Rifle Private Limited (IRRPL)) of OFB and Joint Stock Company Rosoboronexport (JSC ROE) and Joint

Stock Company Concern Kalashnikov (JSC CK). The JV company will manufacture at least 7,50,000 Nos. of Assault Rifles @ 75,000 Nos. per annum to meet the requirement of the Services and MHA etc.

Observation/Recommendation No. 7

Shortage of Ammunitions in the Armed Forces

The Committee during the course of examination have been apprised by the Ministry of Defence that the shortage strictly in the totality is not there yet there are 10-15 ammunitions where there is shortage and some of them of a critical nature.

The Committee find that the OFBs/DPSUs have achieved some expertise in armaments/weapon manufacturing although dependency on imported parts and systems is the area of concern. So far as the production of armaments by Ordnance Factories is concerned, the Committee note that the dependency on import with regard to heavy equipment range, has considerably decreased. In respect of T-90 Tanks, the dependency on import has decreased from 40% to 13% as stated by the representative of MoD during the course of evidence. The Committee still feel that more need to be done to reduce our dependency on imports. In the aforesaid scenario, the Committee recommends that adequate allocations should be provided under the Revenue Head for meeting the shortage of armaments with the Services besides upgrading the manufacturing capacity of OFBs and DPSUs serving to the Services in this regard.

Reply of the Government:

The projection of funds for various activities/items/projects is made by the Services/Departments. The projections made by the Services are forwarded to Ministry of Finance for favourable consideration. Ministry of Finance allocates funds based on which service-wise allocations are sent to Services/Departments.

Details of manufacturing capacity of Ordnance Factory Board (OFB) and Defence Public Sector Undertakings (DPSUs) are as under:-

Ordnance Factory Board (OFB):OFB manufactures 91 types of ammunition for supply to Army. In this regard, Army has intimated that most ammunition which have been traditionally produced by OFB have attained higher stocking level.

Accordingly, demands of Army for several ammunition have been considerably reduced. However, capacity constraints exist for 30mm & 125mm ammunition, for which capacity augmentation is under progress.

As far as armament is concerned, OFB is making efforts to further improve indigenization levels. In addition, T-90 Engine is now fully indigenized. Efforts have also been made for indigenization of other aggregates of T-90 Tanks. The indigenous content of supplies ex-Ordnance Factories (i.e. value of indigenous content to value of supply) is 90.06%.

The Ministry is continuously working towards improving ammunition manufacturing in Ordnance Factories. A monthly review is done in the Ministry with the Ammunition and Explosives Group of OFB along with MGO and DGQA to resolve quality and timely supply issue of ammunition for Army. Further, interaction of OFB officers with the Depot Heads for the purpose of getting first hand feedback has resulted in addressing the deficiencies in supply and quality of ammunition immediately.

Towards upgrading the manufacturing capacity of OFB, there has been enhancement of delegation of financial powers to OFB for procurement of stores and Plant & Machinery. Approval-in-Principle (AIP) has been accorded for 14 proposals of OFB for procurement of Plant & Machinery and Stores during the year 2018-19 with an estimated cost of approx. Rs. 845 crore.

Bharat Electronics Limited (BEL): BEL is engaged in the design, development, manufacture, supply & maintenance of strategic electronic equipment/systems in the areas of Radars & Weapon Systems, Sonars & Fire Control Systems, Communication, Electronic Warfare & Avionics, Network Centric Systems, Electro-Optics and Tank Electronics/Gun Upgrades, Homeland Security etc., primarily for Indian Defence forces (around 85% of turnover). Also, BEL manufactures and supplies Electronic Fuses for Artillery Shells.

Dependence on Imports: BEL generally does not import fully finished Defence equipment. For the design, manufacture & supply of Defence equipment, the company resorts to imports only for some of the special Components/Raw materials, proprietary items/sub-systems etc., (input material) that are not being manufactured in the country. However, BEL continuously strives to minimize import of these items through consistent efforts on

indigenization, outsourcing from domestic industry, vendor development, collaborative R&D process involving Indian Private industries including MSMEs etc. Major portion of BEL's turnover (89%) is generated from products based on indigenous technology.

Augmentation of Manufacturing Capacity: BEL spends around Rs.600 crores annually on CAPEX towards capacity augmentation/modernization. BEL recognizes the need for continuous modernization & up-gradation of its facilities in order to have state-of-the-art set ups towards capacity augmentation and to be in tune with the changing needs of the technology/products to offer the best in class products/systems to the Defence Services. Some of the major facilities established in recent past include Establishment of Shock & High Temperature Test Facilities, Advanced EMC Testing Facilities having Anechoic Chamber, High level Shock Testing Facility, State-of-the-art Electronic Artillery Fuse manufacturing etc.

Bharat Dynamics Limited (BDL): The following are the major products/ Weapons Systems being currently manufactured and supplied by BDL to Armed Forces.

- (a) Akash Weapons Systems (Indigenous developed by DRDO)
- (b) Invar – ATGM (Under ToT from OEM, Russia)
- (c) Konkurs-M (ATGM)- (Under ToT from OEM, Russia)
- (d) Torpedoes (LWT) – (Under ToT from DRDO, NSTL)

The above weapons are being manufactured by BDL and are being supplied in desired quantities (as per Indent & delivery schedule) to Armed Forces. However, sometimes there is delay in supplying to Forces due to non-availability of imports in time & also due to technical issues of parts going into missile integration. In order to reduce the dependency on foreign imports BDL has taken the following steps:

- (i) **Thrust on indigenization:** BDL is putting up determined efforts towards indigenization of ATGMs with the objective of increasing self-reliance, reduction of Foreign Exchange (FE) outflow. Indigenization of products like Konkurs-M, Invar, Milan-2T has been achieved upto 90%, 78.6% and 71% respectively. Efforts are being made to indigenize the items for 100% self-reliance. In this direction, BDL is developing alternate sources of supplies by imparting training & assistance to qualified vendors.

As per the directions of MoD all imported items have been kept in BDL site for indigenous development by prospective vendors.

(ii) **Reduction in Direct Imports (DI):** Due to sustained indigenization efforts by BDL, the DI as a percentage of Value of Production (VoP) has decreased from 14.5% in 2015-16 and 7.89% in 2017-18.

Mazagon Dock Shipbuilders Limited (MDL): Mazagon Dock Shipbuilders Limited (MDL) had successfully completed the augmentation of its infrastructure through Mazdock Modernization Project (MMP) which comprises of a new Wet Basin, Heavy Duty 300 Ton capacity Goliath Crane, Module Workshop, Cradle Assembly Shop, Store Building and associated ancillary structures. Introduction of these facilities will augment the capacity & effectively reduce construction period of warships/Submarines. These Infrastructure facilities have been created with funds from Naval Projects and internal accruals.

MDL has constructed, the Submarine Section Assembly (SSA) Workshop as second assembly line for submarines which can accommodate construction of five submarines

Goa Shipyard Limited (GSL): It has adopted comprehensive 'Make in India (Outsourcing, Long Term Procurement, Vendor Development and indigenization Policy' which provides purchase preference to Indian

manufacturers with over 30% indigenous content (later increased to 50% in line with DPP 16). The list of items identified for indigenization has been uploaded on GSL's website.

The indigenous content is increased from 62% on recently concluded 6 CGOPVs project (last ship delivered in October 2017) to over 70% on current 05 CG OPV project under construction.

GSL, with the technical expertise available with it, has been continuing its efforts to further enhance self-reliance in Defence Shipbuilding through indigenization of critical ship borne equipment's/ products, wherever technologically feasible and economically viable. GSL has created perceptible footmarks in indigenizing the niche technology areas by entering into technical collaboration with prominent global firms.

Mishra Dhatu Nigam Limited (MIDHANI)

Indigenization of materials needed for arms & ammunitions:

- ✓ MIDHANI has indigenously developed & manufactured the following materials for production of armaments by Ordnance Factories.
- ✓ Armoured steel and composite for use in Tank T-90, T-72, BMPs and for other armoured vehicles.
- ✓ Forged products have been developed to meet critical deficiency of vital parts of various Artillery systems.
- ✓ MIDHANI has also developed & supplied light eight body armour products (BhabhaKavach; ToT from BARC Mumbai) to armed forces & police personnel.

Import substitution for items imported in India: MIDHANI is putting its best efforts in maximizing the indigenization in the area where certain materials are not available in India and are being imported such as:

- Tungsten Metal Powders
- Manufacturing of Metal Powders
- Production of Carbon Fiber technology and setting up a high end Aluminum alloy manufacturing plant.

Garden Reach Shipbuilders and Engineers Limited: Ship design & construction is being done by GRSE using in house/indigenous resources. ASW Corvettes and Landing Craft Utility Vessels which are under construction in GRSE have an indigenous content of over 90%. All yard material fittings and commonly used equipment & systems are also sourced indigenously. Some equipment/systems are nominated by the customers (Indian Navy/Indian Coast Guard) and GRSE's role is limited to that of an "integrator". Most of the procurement in GRSE is done indigenously, if available. The variation in import content is caused due to customer nominated equipments that are imported for strategic need of Indian Navy and Indian Coast Guard.

It has implemented the "Make-in-India and Indigenization" policy whereby indigenous vendors are encouraged to quote with maximum indigenization content through Licensed Production with collaboration, Licensed production with Transfer of Technology (TOT) Co-production, Assembling, Design and Manufacture in India with TOT.

For non-buyer nominated equipment and yard material, the existing procurement policy is followed wherein procurement is done mostly through indigenous sources. Further, to boost up the indigenization, GRSE is tying up with many foreign companies and also has signed agreements with them. Towards upgradation of facilities, GRSE has set up a virtual Reality Lab and Data Centre of Central Design office during 2018-19.

Hindustan Shipyard Limited(HSL): HSL has initiated following measures for reducing the import component and to encourage MSEs & other private sector players:-

- (i) Inclusion of the provisions contained in 'Public Procurement (Preference to Make in India), Order 2017' issued by Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry in Purchase manual and its effective implementation.
- (ii) Assurance of orders for future requirement in 5 years on the same Indian firm which executed import substitute order successfully.
- (iii) Relaxation of norms (prior experience and prior turnover) for MSEs and Startups in all public procurements, subject to meeting quality and technical specifications.
- (iv) Alignment of payment terms i.e. provision of advance payment to MSEs.
- (v) Deemed registration of vendors (vendors registered in other Defence PSUs are to be considered as Deemed Registered).

Indigenous content as a % of VoP achieved has been steadily increasing during the last 4 years as tabulated below:

Details of Indigenous content as % of VoP achieved in last five years

Year	VoP (Rs Cr)	Direct Import (Rs Cr)	Value of Import content from domestic suppliers (Rs Cr)	Indigenou s Content (Rs Cr)	Indigenous content as a % of VoP
2013-14	453.40	123.10	--	330.30	72.85%
2014-15	294.16	99.51	--	194.65	66.17%

2015-16	593.29	159.63	--	433.66	73.09%
2016-17	629.04	65.18	19.04	544.82	86.61%
2017-18	644.77	72.84	0.93	571.00	88.56%

Status of upgradation of facilities: Presently, the first phase of the modernization i.e. the Refurbishment and Replacement of Machineries and Infrastructure (RRMI) is under progress with financial support from Government of India. As part of infrastructure upgradation, implementation of SAP ERP Solution along with PLM is in progress. The SAP ERP system is expected to 'GO LIVE' in current fiscal.

Observation/Recommendation No 9

The Committee further note that comprehensive upgrade programme for various aircraft have been undertaken/are being undertaken which include Mirage 2000, MiG-29 aircraft, DARIN III, An-32, IL-76/78 fleet, Mi-17 helicopters. The Committee while noting the upgradation process would like to emphasize for replacement of the aircraft which have completed their life.

Reply of the Government.

The IAF inventory is a mix of legacy and new equipment. Ageing of equipment is a natural process and is dealt with through proper maintenance, obsolescence management, upgrades and acquisition of new equipment without compromising safety. Defence equipment are phased out on completion of Total Technical Life (TTL)/ Total Calendar Life (TLC) and replaced with suitable equipment to maintain operational edge over adversary.

MiG-29, Mirage-2000, Jaguar DARIN III, and Mi-17/Mi-17 1V helicopters are being upgraded in a phased manner.

The issue of drawdown in the strength of the fighter squadron in the IAF is being given due emphasis. Induction of the balance of 272 x Su-30 MKI aircraft from HAL is under process and will be completed by 2020-21. Induction of 40 x LCA into the IAF has commenced. Till date nine LCA aircraft have been inducted. Induction of Rafale aircraft

will commence from September 2019. The procurement case for 83 x LCA Mk1A has been initiated and the RFP was issued in December 2017. Further, the Government of India plans to procure Fighter aircraft under 'Make in India' initiative, and also examining other suitable options. Towards this, a case for procurement of approximately 110 fighter aircraft is being progressed under Strategic Partnership model.

Besides this, the planned inductions include Apache Attack Helicopters, Chinook Heavy Lift Helicopters and Light Combat Helicopters. IAF is also enhancing its combat potential with procurement of Combat Support Elements viz Airborne Warning and Control System (AWACS), AEW&C Flight Refuelling Aircraft etc.

Observation/Recommendation no. 14

Shortage of Night Vision Equipment

As per the status of Night Vision Equipment as stated by the Ministry of Defence in respect of Indian Army, as on date the holdings of night vision equipment vis-à-vis authorization are ranging from 70% to 80%. The deficiencies are due to routine discard for which procurement cases are actively being processed. The Committee have further been apprised that a contract for procurement of night vision Goggles for C-130 Aircraft has been signed on 16.09.2016. The Committee also find that third generation night vision devices like Electro Optical Fire Control System (EON-51) and Stabilized Optronic Pedestals (SOP) have been fitted on Indian Navy Ships. The Committee while taking note of the importance of Night Vision Equipment for military operations, would like to stress for taking all the desired initiatives to meet the deficiencies.

Reply of the Government.

Capital procurement of defence equipment is a continuous activity undertaken in accordance with the extant Defence Procurement Procedure (DPP-2016) which contains timelines for completion of procurement cases.

In last one year, supply orders for Qty 6,834 Night Vision Devices (NVD) of various types have been placed and deliveries are in progress. Further, procurement of different

varieties of Night Vision Devices is under progress. These procurements would reduce the deficiencies of Night Vision equipment in Indian Army considerably.

Observation/Recommendation No. 15

Ordnance Factory Board - Their role and contribution to preparedness of Armed Forces.

The Committee note that 41 Ordnance Factories function under Ordnance Factory Board (OFB) and their core competence include small, medium and large calibre weapons, mortar equipment, signalling and related stores, rockets & aerial bombs, fuses, explosives, chemicals & propellants, trucks, tanks & its variants, night and day vision sights & instruments, brake parachutes, tentage, clothings etc. The turnover of the OFBs during 2015-16 was Rs.14158 crore which is proposed to be increased to Rs. 20,000 crore in three years. With regard to modernization of OFB, the Committee find that Rs. 2956 crore were spent during 11th Plan and during 12th Plan, the amount spent on modernization increased to Rs. 8635 crore, i.e. which is nearly three times increase from the spending during the 11th Plan. So far as achievements of OFB are concerned, it *inter alia* include developing and supply of first NBC vehicle to Indian Army, participation in RFP of upgunning of 130mm Gun to 155 mm x 45 Calibre Gun, development of MOD-II Chaff launcher system, 7.62 x 39 mm Assault rifle "GHAATAK", Bi-Modular Charge System (BMCS) and 155 x 45 Calibre Fund "Dhanush".

The Committee during the course of examination have been apprised about the major challenges/constraints before the OFBs like Non-Uniform demand from Armed Forces & Security Forces, uneconomic quantities to be produced to meet strategic needs, difficulties in entering into long term agreement with dedicated vendors and low scale of production which does not attract the vendors to respond to LTE/OTE. The Committee understand that there are quality issues on the part of the Services with regard to the armaments produced by the Ordnance Factories. The Committee while taking note of the achievements and the constraints of Ordnance Factories would like to emphasize for better coordinating mechanisms between the OFBs and the Services.

There is an urgent need on the part of the Services to place the orders for various armaments well in advance keeping in view the complexities and the long period required for production of armaments so as to sustain the viability of these Factories. Now when the draft Defence Production Policy 2018-19 talks of active participation of private sector in the defence production, OFBs need to work more professionally and increase their competence. As mentioned earlier, modernisation and upgradation of technology in Ordnance Factories should be given top priority.

Reply of the Government

Demand from the Armed Forces is based on their operational requirements which are dynamic in nature. However, to provide adequate workload to the Ordnance Factories, various interactive meetings are being held with the Armed Forces and OFB to finalise the mutually agreed targets. Besides, OFB also caters to the demands of other indentors like Paramilitary Forces and State Police Forces.

A budgetary allocation of Rs. 11742.42 crore (BE 2018-19) has been made to OFB for Army supplies. However, the allocation has been stated to be inclusive of GST and all applicable taxes/overheads. Including GST in the total budgetary allocation will bring down the total budget for supplies to the Army significantly and will also adversely impact the manufacturing activities of Ordnance Factories. As per the system in vogue, the budgetary allocation for Defence supplies does not include the applicable taxes. Matter has been taken up at the appropriate level for exclusion of GST from budgetary allocation.

OFB has been geared up to make up for the reduced/fluctuating demand from Army by focussing on the export market. Adequate thrust has been given to export of Arms and Ammunition by way of re-structuring export governance in OFB. Potential markets abroad are being proactively identified for expansion of export and thereby increasing the scale of production in OFB.

Qualitative issues raised by Indentors are being regularly monitored and addressed in association with Indentors. The Ministry constituted a Committee to look into certain issues on quality processes in the Ordnance Factories, their relation with DGQA

establishment, quality issues related to ToT, licensed production and structural changes required to make the Ordnance Factory Board move to six sigma status. A pilot project in selected Ordnance Factories has been implemented wherein the modified roles of Finance and Accounts and DGQA and OFB have been implemented with the objective of studying effect of single agency responsibility for quality of manufacture of a product.

Towards greater customer engagement, the Ammunition Group of OFB has initiated visits of Ordnance Depots and had interactions with the Depot Heads for the purpose of getting feedback on deficiency in supply of ammunition (if any), quality of ammunition, packaging & handling, storage conditions and other aspects. Corrective actions have been taken/are being taken by OFB on all feedback. Also, interactive meetings are being held regularly with the concerned Line Directorates of Services and Operating Divisions of OFB to resolve various issues. Further, periodic reviews are being done with all the stakeholders at Ministry level to address specific cases of delay in supplies to Armed Forces.

In order to enable OFB to work professionally, a revised OFB Procurement Manual-2018 which deals with procurement of input materials/stores by OFB has come into effect from 01.09.2018. There has been enhancement of delegation of financial powers to OFB for procurement of stores and Plant & Machinery. Further, Approval-in-Principle (AIP) has been accorded for 10 proposals of OFB for procurement of Plant & Machinery during the year 2018-19 with an estimated cost of approx. Rs. 706 crore.

The Ministry is committed to create, maintain and modernize capital assets of OFB with appropriate contemporary technology at par with global standards for enhancing productivity, quality and quantity to provide state-of-the-art Battlefield Equipment to the Services.

**Comments of the Committee
(Please see para no. 1.15 of Chapter I)**

Observation/Recommendation No. 16

Strengthening DPSUs

With the objective of achieving self-reliance in defence production, the DPSUs which include the Ordnance Factories have been continuously modernizing & upgrading their capabilities and expanding their product range. The Committee also note that DPSUs, through in-house R&D initiatives, have developed a large number of products in addition to a number of products/equipment being produced through Transfer of Technology. The Committee are however, concerned that due to high dependence on external content, low percentage of value addition in the DPSUs, low labour productivity and high production cost, the DPSUs have not been able to meet the defence requirements of the Country. Moreover, delays on the part of foreign suppliers also lead to cost and time overrun in development of weapon systems. To quote an example, the manufacturing of warships and submarines in Mazagaon Dockyard Limited, in the past, got delayed because the foreign supplier did not supply vital components in time. The Committee also note that the DPSUs take long time in the acquisition/production of weapon systems due to a number of other factors including changes sought in weapon specification by the Armed forces, delay in availability of know-how from external sources. The Committee feel that the DPSUs have, over the years, accumulated experience and technically skilled manpower to deliver high value and high volume projects. About Mazagaon Dockyards Limited, the Committee have been informed that to overcome the shortcomings observed during the earlier built ships and also to improve the productivity and reduce the build periods, development of weapons and sensors is being expedited through DRDO and DPSUs through various routes such as 'Buy and make', 'Buy and make (Indian)' and 'Make' acquisition process. Moreover, indigenisation of warship building steel is being undertaken through DPSU and private industries and large scale outsourcing is being resorted to for parallel construction of part of ships at different geographical locations.

The Committee feel that optimum utilisation of potential of the DPSUs is essential for their strengthening. For this they have to be enabled to produce not only for our own requirements but also be able to export their products. In this regard, the Committee feel that platforms such as Defexpo are ideally suited to project the capabilities of DPSUs. The Committee, accordingly, recommend that DPSUs may be given adequate autonomy and resources to enable them to operate on commercial basis and sell their products to the global customers without depending continuously on the Government.

However, the Committee feel it necessary to underline that in case of conflict, the demands of the national armed forces have to be given primacy.

Reply of the Government

Initiatives of Department of Defence Production toward following issues are as under:

✓ **Export-Institutional/Governance**

To promote optimum utilisation of potential of the DPSUs, Department of Defence Production has taken several initiatives to promote Defence export as well to achieve the targets within specified time lines. Accordingly export action plans have been formulated by them so that they are able to achieve the assigned targets and become global suppliers by integrating themselves with global supply chain of major international defence OEMs. DPSUs/OFB have been asked to undertake market research to identify potential target countries and formulate differentiated product development strategies suiting the requirements of the host country. Initiatives taken by the department are listed below:-

1. DPSUs/OFB have been directed to aim at achieving 25% of turnover through export in the next 5 years. Their action plans are attached.
2. To enhance their participation in international tenders, powers have been delegated to Secretary DRDO and CMD DPSUs/OFB for issuing authorizations for participation in tenders/exhibitions and for submission of techno-commercial proposals for items in their production lines.
3. Rationalisation of simplification of Standard Operating Procedures for providing export authorization.
4. DPSUs/OFB are re-examining their export pricing strategies for penetrating various markets.
5. A new Online system for processing of export authorization applications has been launched for streamlining Export Licensing applications on 29.10.2018. The entire process made paper less right from filing of application by the industry to issue to export authorization, including consultation with stakeholders.

6. Defence Exports scheme for promotion of Defence Exports notified. The scheme will provide an opportunity to the prospective exporters an option to get their product certified by the Government.
7. Defence Attaches in Indian Embassies asked to provide support for defence export promotion. Scheme for funding DAs to promote export is under approval. Workshop with foreign Defence Attaches was organized.
8. An Export Booklet has been published which showcases India's capabilities in Defence for Export and sent to Indian Embassies across the globe for further distribution.
9. Award from Ministry of Defence proposed for Best Defence Exporter (from Industry).
10. In Def Expo India (Chennai, April 2018), for the first time, India's defence manufacturing capabilities were projected to the world.
11. To showcase India's defence manufacturing capabilities, visits by foreign delegations are being arranged to Indian industry, in addition to DPSUs.
12. Single Window Point Of Contact (POC) in US and Russia has been provided by the respective countries to promote export.

✓ **Export Action Plan of DPSUs /OFB**

GRSE: GRSE is exploring the export opportunities through:

- (a) Participation in Exhibitions both Domestic and International, various Tender Sites, International and Domestic Journals; through interactions with Defence Attaches / Naval Attaches and Indian Embassies Abroad at various locations; ensuring follow up visits wherever some interactions have happened either through exhibitions or visit of delegations.
- (b) Exploring possibilities of outsourcing the design capabilities which are acquired by the GRSE over the long period of its operations. GRSE forwarded letter on its capability & proposal to MoD for undertaking de-novo design, through G 2 G Channels (DTTI agenda)
- (c) GRSE is exploring exports of:
 - i. Portable Steel Bridge (Bailey Type) to some neighboring countries like Nepal, Bhutan, Myanmar, Lagos, Cambodia etc.

- ii. Supply of different classes of warships to Egypt and Morocco.
- (d) Increased marketing emphasis on the countries under GOI consideration for defence Line of Credit.
- (e) Initiating for finalization of Joint ventures for tender participation, wherever feasible.

MIDHANI: MIDHANI's has taken following initiatives for exports:

- a). Through directly interacting with OEM/end-user; export agents appointed, traders/stockiest.
- b). Targeting price competitiveness for high-end products such as Titanium and Super alloys.
- c). Exploring opportunities not only in Defence but also Non-Defence areas such as Oil, Gas and Energy sectors.
- d). Stocking of MIDHANI Products outside India.
- e). Attending /Participating in Exhibitions and trade shows in targeted Segments
- f). Developing a steady customer base of 100 Customers who will provide regular RFQ /Enquires for MIDHANI Products.
- g). Promotion of MIDHANI Brand name to International Customers to create Brand Awareness including on Social media.
- h). Appointed export agents in India and offshore for Oman, USA, Canada, Mexico.

HSL: HSL has taken following initiatives for exports:

- a). Participate in Global Design tenders to undertake all stages of design (Concept to Detailed)
- b). Participate in Global shipbuilding tenders for OPV's, IPV's Tugs and Bulk Carriers.
- c). HSL is exploring export opportunities in Bangladesh, Sri Lanka, Myanmar, Indonesia, Turkey, Malaysia, Philippines, UAE and Kuwait.
- d). HSL is in the process of identification of global shipbuilding tender details through tender portals. Efforts are being made to respond to tenders which meets existing shipyards capabilities and product profile.
- e). Establishing contacts with global firms to gather news on various shipbuilding and ship repair tenders floated in various countries

GSL: GSL has taken following initiatives for exports:

- a). GSL's Export Pricing Strategy is set up, on a case to case basis. The pricing of each project is decided as per the opportunity available in the overseas country and other factors such as competition existing for the project, clients

paying capacity, Line of Credit available for the project and Exim bank credit terms, etc.

- b). Countries are identified and targeted for export of GSL products based on suitability of the product and requisite demand in that country, market research, information from Indian Embassies in respective country, enquiries received from potential customers etc.
- c). Promotion/ Marketing of Product is carried out through participation in trade shows where international buyers are present, well designed website to showcase its latest products and offerings.
- d). Marketing Representatives of GSL are appointed in various countries to identify potential markets outside India and to promote and assist GSL in selling its products and services.
- e). GSL has plan to appoint local or international Consultant to jointly work with GSL for submission of bids and if required during execution of project.
- f). GSL is exploring ToT for mid-sized platforms such as OPVs and FACs which are in much demand with the South East Asian, African and Middle East countries.
- g). GSL is in negotiation with MTU for local manufacturing of 8000 series diesel engines in the range of 07 to 10 MW which has potential for indigenisation content upto 60%, with sourcing of items/ sub-assemblies from indigenous sources. These items once indigenized can also be potential export.

BEML: BEML has taken following initiatives for exports:

- a). Appointed Distributor in 10 Countries
- b). Target opportunities through Line of credit and Global Tenders
- c). Avail services of Trading PSU for exports
- d). Collaboration with other DPSUs / Indian companies having overseas operation
- e). Participation in Exhibitions.

MDL: MDL has taken following initiatives for exports:

- a). Adopting product pricing strategies viz: Market Oriented pricing, Market penetration pricing to enter export market.
- b). Participating in trade shows both in India and abroad to reach the international buyers.
- c). Appointing agent to facilitate export orders in target countries.
- d). Corporate Brand Strategy for positioning MDL in the potential market will be adopted for advertorial in the relevant print media. A consultant or agent to

facilitate MDL's footprint in the import market of target countries is being explored.

- e). Based on market research, MDL is promoting auxiliary support vessels and commercial vessels for the countries who are not in financial position to acquire major warships.

HAL: HAL has taken following initiatives for exports:

- a). Establish Global contacts/ identify to prospective customers by
 1. Identifying target countries for export.
 2. Marketing efforts to reach out prospective customers through participation in International air show/ exhibitions considering the business opportunities in the region.
 3. Inviting Defence delegation from friendly countries to HAL to experience demo flight on HAL Aircraft platforms.
 4. Deputing Technical/ Marketing teams to identified potential countries for actively pursuing the export of aircraft platform.
- b). Establish long term supply chain relationship with Global OEMs for offset business by
 1. Identify available Offset Business.
 2. Approach OEMs for considering HAL as Tier-1 supplier for their ongoing projects as part of Offset obligation.
 3. HAL manufactured equipment to be considered for fitment in all future aircraft procurement programme of Gol.

- c). Pursue international certification:-

Pursue International Civil Certification for Dhruv helicopters so as to enter Civil market.

- d). Strategy to facilitate exports to countries with Line of Credit.
 1. Identify the requirement for products similar to HAL's platforms in target countries and compile list of available Line of Credits in these countries.
 2. Export HAL products /services by utilizing the existing Gol, Lines of Credit.

BEL: BEL has taken following initiatives for exports:

- a). In order to have close interactions with customers, BEL has set up Representative marketing office in Vietnam and planned to open 05 more offices in Myanmar, Sri Lanka, Oman, New York & Singapore.

- b). BEL is targeting opportunities mostly in SE Asia, Africa, South America and CIS countries.
- c). Offer Build to Print and Build to Spec Components, Modules, Sub-systems and Systems to Global OEMs and Establishing long-term supply chain relationships with global OEMs.
- d). Establishing long-term supply chain relationships with global OEMs for Offsets
- e). Appointment of local Agents to market BEL's products and systems.
- f). Direct participating in tenders floated by overseas customers and interactions with Foreign DAs in New Delhi and Indian DAs abroad on a regular basis.

BDL: BDL has taken following initiatives for exports:

- a). Exploring international Markets for BDL specific products.
- b). Examining pricing policy for a competitive international environment.
- c). Product promotion and branding through participation in international defence shows/exhibitions and visits
- d). Exploring avenues for engaging agents to promote BDL products in friendly foreign South Asian Countries
- e). Tying up with potential foreign OEMs with offset obligations in using facilities created at BDL in the manufacture of products targeted to potential buyers across globe.
- f). Exploring ToT avenues with leading missile manufacturers of the world under Make II and targeting the products for export in the world market.

OFB: OFB has taken following initiatives for exports

- a). Approaching international agencies involved in market research of defence products for assessing the market potential and identification of target countries. Further, OFB is also exploring the potential market for its identified exportable products with the help of Defence Attache, agents and other interested buyers in the environment thereby enhancing their participation in the International tenders.
- b). Approached various foreign OEMs for meeting their requirement towards offset. viz. BAE systems, Dassault aviations, BTC Sweden
- c). Pricing the export products as per guidelines issued by DDP and has also forwarded the proposal for modifying the methodology of pricing for exportable items to DDP..
- d). Targeting export to Middle East – UAE, Turkey ; South Asia – Myanmar, Bangladesh, Nepal; South East Asia – Thailand, Malaysia, Indonesia, Vietnam; Central Asia – Uzbekistan ; Africa – Botswana, Kenya, Nigeria, Egypt; USA

✓ **Indigenization Policy for DPSUs & OFB**

The objective of Indigenization Policy is to create an Industry ecosystem which is able to indigenize the imported components (including alloys & special materials) and sub-assemblies for defence equipment and platform manufactured in India and leverage the said capability to create components export market.

Several strategies have been envisaged in the Draft Indigenization Policy to meet the above objective. Defence PSUs and OFB are to give preference to indigenous components. Each DPSUs and OFB is to identify 10 to 20 items, which constitute highest value of import and take up a campaign for Indigenization. Where there is requirement of development of technological capabilities, government will provide support. Three key areas have been identified, viz. Engine technology, Material technology (Special materials & super alloys) and Semiconductor fab technology. DDP will examine feasibility of acquiring offshore assets for obtaining these technologies and materials. Policy envisages setting up Defence Innovation Hubs with participation from industry and support from iDEX, for items required in small numbers, not allowing economically viable scale of manufacturing facilities.

Policy also has strategies to support domestic industry in the efforts of indigenization, viz. facilitation & priority of testing of indigenized products at No Cost No Commitment (NCNC) basis, developing testing infrastructure, long term orders, adoption of Make-II process in DPSUs and OFB, Intellectual Property for indigenized products, setting up Indigenization fund, Indigenization portal and encourage export market for indigenized items.

Thus, Draft Indigenization Policy aims at reducing dependence on import and bringing self-reliance in defence production.

It may be noted that the Draft Indigenization Policy has been approved by the Hon'ble Raksha Mantri on 6th March, 2019 and notified on 8th March, 2019.

✓ **'Make-II' Procedure**

A new separate 'Make-II (Industry Funded)' procedure' was notified by the Government in Feb 2018, with primarily focus upon development of equipment/system/platform or their upgrades or their subsystems/sub-assembly/assemblies/components and import substitution. Under this procedure, no Government funding is envisaged for prototype development purposes but there is an assurance of orders on successful prototype development.

This procedure has number of industry friendly provisions such as relaxation of eligibility criterion, minimal documentation, reduced timelines, and provision for consideration of Suo-moto proposals by industry/individuals, etc.

So far, 35 proposals have been accorded 'Approval in principle', out of which Project Sanction Orders has been issued for 05 projects.

Intellectual Property Right Facilitation Cell/Design Capability

Introduction:

1. It was decided in the Meeting held on 13 Feb 2018 under chairmanship of Secy (DP) that an Intellectual Property Facilitation Cell shall be set up in the DGQA. Accordingly, IPF Cell under DGQA established.
2. A number of Ordnance Factories, Defence PSUs and even the individual officials of these organizations have been carrying out innovative research leading to the development of certain materials, components/sub-assemblies/assemblies that result in performance up gradation of this existing systems/platforms and simultaneously reducing India's dependence on imports. Such innovation may be treated as Intellectual Properties and need to be protected by way of filing of patents for which the concerned organizations/individuals make their own isolated efforts. Need is felt to create a structured mechanism to facilitate and encourage innovative activities with a primary objective to "Boost IP culture" which would enhance the Intellectual capital that is vital for encouraging in-house R&D in such organizations.
3. Role and Responsibility:
 - (a) To provide general advisory about IPRs, such as patents, trademarks, designs and copyrights etc.
 - (b) To provide services such as IP Protection, IP awareness & training and counseling & advisory services.
 - (c) To enable organizations/individuals in understanding, identifying & using intellectual property.
 - (d) To provide services related to patent searches, patent drafting, patent prosecution facilitation in commercialization of inventions, trademarks prosecution matters, etc.,
 - (e) To follow up the applications submitted for patents with various government agencies.

- (f) Keep the above organizations abreast of the latest amendments, if any, in the Indian patents Act 1970 and Indian Patent Rules 2003 promulgated by the Government.
- (g) To create IP news tracker for latest news.
- (h) To hand hold organizations/individuals for identifying IP in their day to day functioning & leverage it for Business Excellences.
- (i) To create a delivery mechanism for comprehensive awareness & training in IPR to all stake holders of IP in the corresponding technological fields.
- (j) To organize patent workshops at different locations.
- (k) To have an arrangement with NRDC to seek their advice and to share their experiences.
- (l) To identify a panel of professional IP attorneys/IP consultants and fix a fee structure for consulting them for professional services, so that the DPSUs/OFs can refer specific cases to them directly for professional expertise.

4. Training

A training calendar has been prepared by IPF Cell i.e., approx. 10,000 personnel (less HAL) have been trained till Mar 2019.

5. IPR Data

During 2018-19, total 179 IPR filed by the DPSUs and OFB upto Nov. 2018.

✓ **Line of credit**

Hon'ble Prime Minister in a meeting dated 05.11.2018 stressed that CPSEs should not work in silos and should work in tandem with policies of government.

He further directed that the existing mechanism of extending Line of Credit (LoC) by India to other countries should be streamlined to ensure that CPSEs taken advantage of this mechanism for expanding their global outreach. Accordingly, DPSUs have suggested that LOC to friendly countries may also be identified for Defence Projects.

Ordnance Factory Board:-

The internal system of OFB has been strengthened to bring in more focus on exports. The matter is being periodically monitored in the Ministry.

Hindustan Aeronautics Limited :

Defence forces are the primary customers of HAL and around 80% of the flying fleet of Services is being supported by HAL. At the same time export is a thrust area at HAL with an export footprint in over 20 countries. The export product spectrum of HAL include platforms such as Do-228, ALH Dhruv, Cheetah/Chetak/Cheetal as well as structural work packages, avionics and accessories, forgings, castings, rolled rings etc are being exported to various countries. A specific exports strategy has been formulated to enhance the export performance, which focuses on platform-wise export performance of the company.

HAL participates in international airshows and exhibitions such as Aero India, Paris Airshow, Farnborough Airshow, MAKS airshow, Bahrain Airshow etc and showcases the products and activities of the company. The state-of-the-art indigenous combat aircraft LCA Tejas was showcased during last Bahrain airshow in January, 2016 evincing keen interest from international audience. HAL was also lead partner in organising the DefExpo-2018 held at Tiruvidanthai, Kancheepuram district near Chennai in April 2018 and showcased its capabilities and contributions under "Make in India" in aviation and aerospace. While continuous efforts are on to up the export related sales, serving the needs of Indian Defence customers is of utmost priority to the company which is never compromised. For instance, the annual production capacity of LCA Tejas aircraft is being enhanced from 8 to 16 aircraft per annum to meet the demands of Indian Air Force.

Bharat Electronics Limited:-

Being a leading supplier of Defence electronics in India, more than 85% of BEL's turnover is generated through supply of products/systems through indigenous design/knowhow to Defence thus contributing to the country's requirements in Strategic Electronics. The dependence on foreign knowhow is around 15%.

As regards, timely supply to Defence, it is pertinent to mention here that the on-time delivery of BEL on an average is around 80%. The improvement initiatives like implementation of SAP (Enterprise Resource Planning application), usage of latest Project Management tools, Process improvements, structured review mechanism etc., ensure thrust on timely delivery. However, many of the complex projects involving concurrent engineering gets delayed. Such delays are also attributable to factors like change in user requirement, specifications to incorporate additional features, accord of Bulk Production Clearance (BPC), site readiness etc.

It is also observed that in the case of first time inducted project, the development & productionization of first system gets delayed while the subsequent batches and overall project is delivered within the overall timelines.

As part of BEL's review mechanism to monitor Time & Cost overrun status of the projects, the milestones are defined at the time of initiating Project Sanction file. These milestones are monitored and reviewed by Development & Engineering heads periodically to take corrective action if required.

Apart from these reviews, Preliminary Design Reviews, Critical Design Reviews, Final Design Reviews are conducted as per the project needs by a cross function team which consists of representatives from Design, Production (Fabrication, assembly & testing), Quality assurance department. Projects are reviewed Monthly and Quarterly and report generated for taking corrective measures, wherever required.

It may also be noted, that On-time Delivery is one of the annual performance parameters of the Memorandum of Understanding (MoU) signed between BEL and Ministry.

Bharat Earth Movers Limited:-

BEML will be able to operate on commercial basis and sell its product to global customer without being continuously dependent on Government if it is given adequate autonomy and resources.

Bharat Dynamics Limited:-

- ✓ The following are the major products / Weapons Systems being currently supplied by BDL to Armed Forces.
 - Akash Weapons Systems
 - Invar – ATGM
 - Konkurs-M (ATGM)

- ✓ The Torpedoes being produced by BDL is TAL – Torpedo (Underwater equipment) [ToT with NSTL]

The above weapons are being produced by BDL and being supplied to Armed Forces. However, sometimes, there is delay in supplying to Forces due to non-availability of foreign inputs in time & also to criticality of parts going into missile manufacture. In order to solve the issues BDL has taken the following steps:-

Thrust on Indigenisation

BDL is putting up determined efforts towards indigenization of ATGMs with the objective of increasing self-reliance, reduction of Foreign Exchange (FE) out flow and achieving cost reduction. Indigenisation of products like Konkurs-M, Invar, Milan 2T has been achieved upto 90%, 78.6% and 71% respectively.

Thrust on Exports:

Light Weight Torpedo: Two New Contracts for Export of Light Weight Torpedo (LWT-XP) to a friendly neighbouring country have been signed and the same is under execution.

Mazagon Dock Shipbuilders Limited (MDL):-

1. Considering the time taken in building ships and submarines and the requirement of particular equipment/items as per the PERT/construction schedule, it is generally difficult to indigenize the items, during the project execution period. However, it is possible to undertake indigenization of items in the subsequent projects.
2. The shipyards can play a very significant role in enhancing the indigenous content. Public Procurement Policy 2017 'Preference to make in India' clause has been made applicable to all purchases by MDL, so as to further reduce the import dependence.

Garden Reach Shipbuilders & Engineers Limited (GRSE):-

GRSE has started Modernization of its infrastructure, enhancement of Technology and R&D in both design and construction of warships. GRSE is progressing with its ambitious plans of revitalization and refurbishment of Raja Bagan Dockyard. After revitalization and augmentation of facilities at RBD, the shipbuilding capacity of GRSE will increase to 20 ships concurrently (i.e. 08 large ships & 12 small ships). The Integrated Construction Technology adopted by GRSE, would result in significant reduction in build period of ships and also improve quality.

GRSE produce the most modern warships for the country through indigenization aimed at self-reliance. GRSE has achieved the unique distinction of supplying 97 warships to Indian Navy/Coast Guard.

GRSE has a proven track record on design development, construction, supply and post-delivery support to major warships like Frigate, Anti-

Submarine Warfare Corvettes, Missile Corvette, Fleet Replenishment Tanker, Landing Ship Tank, Fast Attack Craft, Inshore Patrol Vessel, Offshore Patrol Vessel, Landing Craft utility and other ships like Survey Vessels, Dredgers, Bulk Carriers, Research Vessels, Fire Floats, Fishing Trawlers, Tugs & Towing Vessels, Fast Interceptor Boats, Passenger Ferries, RO – RO Ferries etc.

Brief on major indigenisation successes:-

GRSE has Board approved Vendor Development Policy, Procurement Policy and Outsourcing Policy which comply with the Governmental directives & guidelines. GRSE has implemented the “Make in India and Indigenisation” policy whereby indigenous vendors are encouraged to quote with maximum indigenisation content through Licensed production with collaboration, Licensed production with Transfer of Technology (TOT), Co-production, Assembling, Design and Manufacture in India. GRSE has its Vendor Policy & Procurement Policy in line with Government directives to increase vendor base, outsourcing & support to Micro & Small Enterprises (MSE).

With strategic focus on the Make in India drive of the Govt. of India, GRSE has achieved over 90% indigenous equipment fit on board for ASW Corvettes and LCUs. Over 70% indigenous content has also been achieved on the WJFACs.

Rail Less Helo Traversing System: -

GRSE has a License Agreement for 10 years with M/s MacTeggart, Scott & Co. Ltd. UK regarding indigenization and supply of Rail Less Helo Traversing System for Warships and other ships. GRSE achieved over 72% Indigenization till date on supply of Rail Less Helo Traversing System through collaboration with M/s MacTeggart, Scott & Co. Ltd. UK.

Marine Diesel Engine:

GRSE has signed a License Agreement with M/s MTU Friedrichshafen GmbH, Germany on 04th Mar 2017 for Indigenization of MTU 12V/16V4000M90 Diesel Engines. The agreement is valid for 10 years and is for Overhauling, Assembly & Testing of MTU, Germany make 12V/16V4000M90 Diesel Engines from Semi Knocked Down (SKD) to Completely Built Unit (CBU).

Diesel Alternator: -

The Memorandum of Understanding (MoU) regarding development of engines for marine applications was signed between GRSE and M/s Cooper

Corporation Pvt. Ltd., Satara, India on 16th Oct 2017. The scope of collaboration is to manufacture Diesel Alternators of the Range 50-500 KW with an aim towards self-reliance, to promote 'Make in India' initiatives and to meet the requirements of Indian Navy & Indian Coast Guard.

High Strength Steel: -

Prior to advent of ASW Corvette under P-28, the special grade of high strength steel required for construction of warships were always imported by the country. GRSE got associated with development of this steel by DMRL Hyderabad and subsequent TOT to SAIL for commercial production of steel. Subsequently, GRSE also had a major role to play in developing the weld consumables and welding processes in consultation with WRI Trichy. GRSE took an active role in indigenization of DMR 249 A grade steel considered to be an advance grade Steel for Warship construction. At present DMR 249 A grade steel is utilized for Hull of warships constructed of Indian Naval Ships.

Export (Sales) Performance of GRSE

Financia l year	Defence Export		Civil Export		Total Value of Export (Rs. in Crore)
	Exporte d To (Country)	Value of Export (Rs. Crore)	of Exported To (Country) in	Value of Export (Rs. in Crore)	
2013-14	-	-	Bhutan	4.69	4.69
2014-15	Mauritiu s	336.87	Bhutan	-	336.87
2015-16	-	-	Bhutan	0.02	0.02
2016-17	-	-	Bhutan	0.26	0.26
2017-18	-	-	Bhutan	3.89	3.89
2018-19 (As on 31 st Jul	-	-	Nepal	1.3624	1.3624

2018)					
<p>GRSE is the first Indian Shipyard to export warship (Mauritius Coast Guard Ship Barracuda) to Mauritius Government.</p> <p><i>Mauritius Offshore Patrol Vessel (MOPV) CGS Barracuda was delivered by GRSE on 12 Dec 2014 and was commissioned on 12 Mar 2015.</i></p> <p>Export Order in hand as on 31st Jul 2018 is Rs. 74.86 Lakh.</p>					

Goa Shipyard Limited (GSL):-

GSL projects are at fixed price with scheduled delivery dates and there have been no time and cost overrun in the execution of these projects for the past 5 years. GSL has 65-70 indigenous content in its products.

GSL has delivered six 105M Offshore Patrol Vessels (OPVs) to Indian Coast Guard, one Damage Control Simulator and four 1000 T Fuel Barges to Indian Navy. GSL has also exported two Offshore Patrol Vessels (OPV) to Sri Lanka Navy, two Fast Patrol Vessels & 11 Fast interceptor Boats for Government of Mauritius, one Damage Control Simulator for Myanmar Navy in last three years and current year, all ahead of contractual schedule.

GSL with the approval of GOI has undertaken planned modernisation and which has enabled increase in capacity by nearly three times. GSL has sufficient spare capacity to undertake additional orders, to utilise the capacity to nearly 100%.

GSL as a DPSU under MoD has been given adequate autonomy and resources to market its products to the global customers however keeping in view the requirement of Indian Navy/ Cost Guard with first preference.

Mishra Dhatu Nigam Limited (MIDHANI):-

MIDHANI deals with the strategic materials such as Special Steels, Superalloys and Titanium alloys. Initially, the special metals and alloys are developed with the help of Technology Transfer. Presently, MIDHANI is able to develop new alloys with home

grown R&D. The requirements of services are met by MIDHANI in time and to cater to the future demand, equipments have been modernized and upgraded such as Melting Furnace, Forge Press and Wide Plate Mill. Further, for supply to export market, MIDHANI has identified and is developing low cost Super alloys for Oil and Gas Sectors.

Observation/Recommendation No. 18

The Committee further find that the percentage achievement with regard to supply of ammunition to Army by the OFB has been stated by the Ministry as 93, 98 and 91 percent during the years 2014-15, 2015-16 and 2016-17 respectively. However, the overall data of indent for 2014-19 has been stated to be Rs.26,475 crore against which the delivery made till March, 2017 has been shown as Rs.12,919 crore which do not commensurate to the percentage achievement which has been stated as more than 90 percent as stated above. The Department has furnished the detailed data with regard to order received, delivery made and delivery due by OFB and DPSUs with regard to various items indented by the forces which indicated that in some of the cases the delivery has yet not started even though a substantial period has lapsed since the contract was made. For example, in case of HAL, LCA Tejas (FOC configuration) contract was made during December, 2010 by IAF and delivery is yet to start. Again in case of MDL, the contracts for Project P75 Submarines (6); Project P15B Destroyers (4) and Project 17A Stealth Frigate (4) were made during October, 2005, January, 2011 and February, 2015 respectively, but the deliveries are yet to start. There are similar cases in case of other DPSUs too, where the delivery is yet to start or most of delivery is due. One of the expert has drawn the attention of the Committee towards long time taken for production of destroyers in MDL which take almost five years whereas the same kind of vessels can be produced in 2-2.5 years in Asia and globally. In this context, the Department of Defence Production has apprised the Committee that due to the several productivity measures taken recently by MDL, the average build period is expected to come down from earlier 88 months (P15A Destroyers) to 72 months (P15B Destroyers).

The Committee note from the aforesaid scenario that there is a huge gap between the orders received, targeted deliveries and deliveries made. The Committee strongly feel that there is need for synergy between the Services and DPSUs which is absolutely essential for defence preparedness of the country for which some hand-holding on the part of armed forces of the DPSUs is required and both need to work in the spirit of partnership. In the opinion of the Committee, such lack of coordination is detrimental to our national interests. The Committee, therefore, recommend that the Ministry may constitute an institutional mechanism consisting of representatives of both the parties to facilitate synergy between them. The Committee may be apprised of steps taken in this regard.

Reply of the Government

Ordnance Factory Board:-

OFB supplies equipments to Services based on mutually agreed target every year prioritizing the urgent requirement to meet the defence preparedness. The percentage achievement figures with regard to supply of ammunition to Army by OFB during the years 2014-15, 2015-16 & 2016-17 are correct. This is in terms of mutually agreed targets based on annual budget given by the User to OFB for first three years of the Roll-on-Indent which covers requirements of five years from 2014-15 to 2018-19.

Hindustan Aeronautics Limited :

HAL has been putting in all efforts to ensure timely production and supplies of various deliverables. The project execution is regularly reviewed at multiple levels to ensure early identification of potential issues and timely risk mitigation is undertaken. Institutional mechanisms like Steering Committees, Empowered Committee etc consisting of representatives of customer/MoD at senior levels are in place to monitor project execution/strategies and to facilitate synergy between the Customer (Armed forces) and developer /manufacturer (DPSU).

The example of LCA – Final Operational Clearance (FOC) contract signed in Dec 2010 and deliveries not yet started may be seen in conjunction with the certification of the aircraft which is still awaited.

HAL has orders for:

- 20 aircraft (16 fighters and 4 trainers) of FOC configuration for which contract signed in Dec 2010 and FOC clearance is still awaited.

The Standard of Preparation (SOP) for trainer version (8 aircraft) in both IOC and FOC configuration is yet to be released by Aeronautical Development Agency (ADA). In the absence of SOP of trainer aircraft and to avoid any production break, the production activities for the 16 fighter aircraft of FOC configuration have been initiated by HAL. However, the final acceptance and delivery of FOC fighter will depend on FOC clearance by ADA.

Bharat Electronics Limited:-

BEL maintains synergy with its Defence customers towards meeting the delivery requirements as well as to ensure customer satisfaction. Some of the measures in place for ensuring customer satisfaction are listed below:

- A separate Product Support group has been established under General Manager (Product Support) to facilitate a clear focus on all Product Support issues from all our Customers.
- Toll Free telephone number facility established for registering customer complaints, which has been functioning since Dec 2011.
- Customer interaction meetings like Institutional Meetings, PPR meetings, etc are being held at the senior management levels, on a regular basis, to discuss & resolve various issues related to product performance.

It is noteworthy to mention here that as part of our endeavour to enhance the customer satisfaction level, the company has been conducting Customer Satisfaction Surveys (CSS) every year through an independent professional body. The study is to evaluate Customer Satisfaction index based on major attributes viz., Product performance,

Maintenance, Service and Overall perception and the responses are rated in a 10-point scale. A report indicating the areas of weakness and possible actions needed to improve the ratings is submitted for necessary actions. Based on CSS reports, interactions with customers at various levels, Project Performance Review meetings with armed forces, etc., indicate that BEL supplied equipment/systems meet the required performance levels. The customer satisfaction index is found to be around 85% during the last three years.

Bharat Earth Movers Limited:-

BEML gladly accepts the recommendations of the committee for constitution of an institutional mechanism consisting of recommendations of both the parties i.e. DPSUs and Armed Forces. This would surely result in better coordination and synergy between the services and DPSUs.

Mazagon Dock Shipbuilders Limited (MDL):-

Warship design is telescopic in nature. Unavoidable modifications by customer, for improving operational capability, after commencement of production leads to rework and delays.

The ancillary industry in the country was in its nascent stages & took much longer than the anticipated time for developing equipment / systems.

Delay in receipt of vital weapons, sensors and certain propulsion machinery from suppliers abroad cause cascading delays in the project. These equipments are not available indigenously.

The delay in the ship's delivery schedule is due to non-receipt of equipment as per the contractual schedule. The delay in receipt of these equipments will subsequently affect the delivery of the other three ships of Project.

Reason for the delay in delivery of P15B :- Late receipt of Gas Turbine Generator and DA with respect to contractual requirements by 42 and 52 months respectively. Delay in other Russian items such as Shafting by 47 months.

Following measures have been taken by MDL to improve the productivity and reduce the build periods:-

New technology for shipbuilding such as integrated construction has been incorporated in new projects. M/s. Fincantieri, Italy have been appointed as a Know How Provider for Technology up-gradation and Capability Enhancement (KHP for TUCE) to guide MDL on integrated construction.

P17A is to be constructed resorting to Integrated Construction. Build period is expected to be 66 months for first ship and is expected to reduce to 60 months for 2nd, 3rd and 4thship which is comparable to global standards.

Development of most of weapons and sensors is being expedited through DRDO and DPSUs through various routes such as 'Buy and Make', 'Buy and Make (Indian)' and 'Make' acquisition processes.

MDL has also successfully completed the augmentation of its infrastructure through Mazdock Modernisation Project (MMP) which comprises of a new Wet Basin, a Heavy Duty Goliath Crane, a Module Workshop, a Cradle Assembly Shop, Store Building, Submarine Sub Assembly shop and associated ancillary structures.

MDL has developed new parallel lines of construction of Submarines and also another warship construction facility at Alcock & Nhava Yards.

In addition, large scale outsourcing is being resorted to for parallel construction of part of ships and submarines at different geographical locations.

Regular follow ups are being undertaken for availability of balance material as per revised schedule indicated by Naval Group and Task force formed to focus and expedite the outfitting phase of the boats in order to mitigate the delays on account of delayed delivery of MPM items.

Indian Navy has been requested to reduce the number of BFE & BNE items and freeze the design before the commencement of production.

Garden Reach Shipbuilders & Engineers Limited (GRSE):-

GRSE has so far been building ships using conventional method of making the blocks in workshops followed by outfitting at ship construction sites in Building Berths & Dry docks. This was a cumbersome process which resulted in prolonged construction time for ships thereby delaying the delivery of ships.

It may be mentioned that the major modernisation programme of the company was completed in Jun 2013 at a cost of Rs. 605 Cr. through which the shipbuilding capacity has almost doubled. After modernisation of facilities at Main Yard, GRSE is working on a strategy to implement Integrated Construction Technology which will result in considerable reduction in build period of ships. In this regard, the shipyard is working on an innovative approach to optimally utilize modernized facilities and effectively implement Integrated Construction concept on P17A and other future warships. These ships will be built in the form of units/blocks/mega blocks at different locations.

The mega blocks will be constructed at various other selected shipyards. However, integration will be done at GRSE Main Works. This will enable the shipyard to improve quality and reduce build period, thereby meeting the stiff timelines as being achieved by leading global players in shipbuilding industry. It is also planned to adopt this technology in all future projects of GRSE.

Synergy between Indian Navy/ Indian Coast Guard:

The productivity enhancement measures taken by GRSE will reduce the build period, Indian Navy, Indian Coast Guard and GRSE has been constantly building up the synergy. Besides the top level meeting of CWP&A's progress review meeting, there is regular interaction between GRSE and Indian Navy & Indian Coast Guard through Working Level Meeting (WLM) and also with their local representatives in Warship Overseeing Team (IN) and Coast Guard Refit Program Team (CGRPT).

Goa Shipyard Limited (GSL):-

In the last four years, GSL has consistently delivered 23 ships, which amounts to more than 32000 gross tonnage, not only on time, but ahead of contractual delivery schedule.

In the last year, the Shipyard delivered 04 Offshore Patrol Vessels (OPV), 01 Fast Patrol Vessel (FPV), 02 Fuel Barges and 01 Damage Control Simulator (DCS) amounting to 12000 gross tonnage.

Observation/Recommendation No. 20

Partnership with Private Sector

India has become one of the largest importer of defence goods and services in the world. As per Stockholm International Peace Research Institute (SIPRI) data, India's share in global arms imports during 2012-16 is 12.8%. The Committee also note that in order to achieve maximum extent of self-reliance in defence sector, the Government has provided incentives to private sector under the Make in India Programme. It has allowed 100% FDI in defence sector while up to 49% FDI will be under automatic route, FDI above 49% will be through Government route where it is likely to result in access to modern technology. Further as per the draft DPP Policy 2018, FDI regime in defence would further be liberalized and FDI up to 74% under automatic route would be allowed in niche technology areas. There are other initiatives also taken to promote the involvement of private sector and MSMEs in defence sector.

While noting that harnessing available potential in private sector, using its management, scientific and technological skills may be key to achieving total self-reliance, the Committee find that there is no existing mechanism to facilitate public-private partnership in the defence sector. Moreover, the strategic partnership model formulated for defence production does not specify a clear role for major defence PSUs. There seems to be a total lack of coordination among Government agencies in so far as integrated approach to public-private partnership in defence sector is concerned. The Committee are of the opinion that given long history of weapons manufacturing in India, there is a skill set and trained man power existing in the Country, particularly in the DPSUs which can be leveraged for further growth. However, to make private sector-public sector partnership meaningful, the DPSUs have to extend necessary assistance to private sector. Such partnership will not only result in substantial savings of money but also create jobs in the country. Such partnership will be able to combine the capabilities existing in the private

sector with experience of public sector and prove to be a win-win situation for both and will result in overall betterment of the Country. The Committee, therefore, recommend that appropriate steps may be taken to institutionalize public-private participation in defence sector. The Committee may be informed of the steps taken in this regard.

Reply of the Government

1 As far as public private participation and providing necessary assistance to private sector is concerned there is supply chain of Private vendors supplementing the manufacturing capacity of OFB and DPSUs. The total value of outsourcing for 2018-19 is Rs. 22333 Crore and outsourcing as percentage of value of production is 38.74%. As on 31.03.2019, total number of Vendors (*all vendors*) and MSME Vendors of OFB and DPSUs are 42,617 and 8,643 respectively supplying various items to them.

2. In Feb 2019 Govt. has promulgated a framework for implementation of Make-II framework for OFB and DPSUs wherein DPSUs are being asked to identify items which are being perpetually imported to be developed under Make-II. Industry has to be facilitated by the DPSUs and OFB with the specifications etc. All the DPSUs and OFB have been asked by the Ministry to work in a time bound manner.

3. In order to facilitate private sector in early development of the products required by the Armed forces, Govt. test facilities have been opened up for the private sector . Even the Govt. proof ranges have been offered to the private vendors based on their requirement.

4. To promote greater indigenization by Defence PSUs and Ordnance Factories, Department of Defence Production has issued 5 notifications under the Public Procurement (Preference to Make in India), Order, 2017 of the Department of Industrial Policy & Promotion. These notifications were issued on 29.06.2018, 26.07.2018, 27.08.2018, 16.11.2018 and 01.05.2019. These notifications cover 112 items being procured by Defence PSUs and Ordnance Factories. As a result of these notifications, it has become essential for these Defence PSUs to provide preference to domestic manufacturers over imported suppliers, in terms of the said policy.

5. Policy for indigenization of components and spares used in defence platforms for DPSUs and OFB promulgated by the department in March 2019 will also go long way in promoting public private partnership in defence production.

Observation/Recommendation No. 21

The Committee observes that defence is highly sensitive area and utmost care need to be taken to maintain the confidentiality/secretcy about our data/technology/capabilities. While taking initiatives to liberalize FDI and Private sector partnership in defence production, the Committee would like the Government to take all the requisite precautions to ensure that our defence capabilities are not compromised at any cost.

Reply of the Government

1. The Government has put in place a Security manual for private companies in defence manufacturing sector. As per conditions of licenses, the Licensed Defence Companies are required to follow detailed security guidelines applicable to them as per security instructions/architectures prescribed in 'Security manual for License Defence Industries' based on their categorization. The manual provides detailed guidelines on physical security/ materials security/documents security/information security etc.
2. The companies are also subjected to external security audit by Intelligence Agencies once in two years and cyber security audit by CERT-IN empanelled auditors once every year. The Chief Security Officer (CSO) of the investee/joint venture company should be resident Indian citizen.

Observation/Recommendation No 22

Encouraging MSMEs in Defence sector

The Committee note that for encouraging Small and Medium Enterprises (MSME), Government of India has come out with notification whereby 20% of orders are to be placed with MSME sector. The Government has also decided to formulate a scheme

for providing financial assistance to these enterprises to take up design and development work in the defence production. The Committee also note that the Technology Development Fund (TDF) has been established to encourage participation in public/private industries specially MSMEs so as to create an ecosystem for enhancing cutting edge technology and capability for defence application. Under the TDF Scheme, funding is covered through grants to industry that may work in collaboration with academia or research institutions to carry out innovation, research and development. The Committee desire that the Ministry should ensure that the financial assistance as envisaged under the Scheme is provided to the MSME sector and adequate orders are placed with them to fully utilise their potential. The Committee would also like the Government to examine the feasibility of inserting a provision in the defence offset policy mandating setting up of defence production facilities in the MSME sector in order to expand domestic production base and promote 'Make in India' initiative.

Reply of the Government

Since the launch of 'Make in India' in September 2014, several measures have been taken by the Government to promote indigenous design, development and manufacture of defence & aerospace equipment in the country under 'Make in India' by harnessing the capabilities of the public and private sector especially MSMEs. These measures, *inter alia*, include:

- i. Separate procedure for 'Make-II' sub-category has been notified wherein a number of industry friendly provisions such as relaxation of eligibility criterion, minimal documentation, provision for considering proposals suggested Suo-moto by industry/individual etc., have been introduced. So far, 33 proposals have been accorded 'Approval in Principle', out of which EoI has been issued for 6 projects. In order to encourage the participation of MSMEs and Startups, under Make-II procedure, no separate technical/ financial criteria have been defined for the projects with estimated cost of prototype development phase not exceeding Rs 3 crore.

- ii. Defence Investor Cell has been created in the Ministry to provide all necessary information including addressing queries related to investment opportunities, procedures and regulatory requirements for investment in the sector.
- iii. The process for export clearance has been streamlined and made transparent & online.
- iv. Defence Procurement Procedure (DPP) has been revised in 2016 wherein specific provisions have been introduced for stimulating growth of the domestic defence industry.
- v. A new category of procurement 'Buy {Indian-IDD (Indigenously Designed, Developed and Manufactured)}' has been introduced in DPP-2016 to promote indigenous design and development of defence equipment. It has been accorded top most priority for procurement of capital equipment. Besides this, preference has been accorded to 'Buy (Indian)' and 'Buy and Make (Indian)' categories of capital acquisition over 'Buy (Global)' & 'Buy & Make (Global)' categories. As a result, during the last four financial years (2014-15, 2015-16, 2016-17 and 2017-18) Defence Acquisition Council (DAC) has accorded approval of 211 capital procurement cases at an estimated cost of Rs 4,44,597 crores, out of which 156 cases involving Rs 2,75,391 crore are under the 'Buy(Indian-IDD), 'Buy(Indian)', 'Buy & Make (Indian) and 'Make' categories.
- vi. The 'Make' Procedure has been simplified with provisions for funding of 90% of development cost by the Government to Indian industry and reserving projects not exceeding development cost of Rs.10 Crore (Government funded) and Rs.3 Crore (Industry funded) for MSMEs.
- vii. Government has decided to set up two Defence Production Corridors, one each, in Tamil Nadu and Uttar Pradesh. Five nodal points in Tamil Nadu namely Chennai, Coimbatore, Hosur, Salem and Tiruchirappalli and Six nodal points in Uttar Pradesh, namely Aligarh, Agra, Chitrakoot, Jhansi, Kanpur and Lucknow have been identified for these corridors. Setting up of these corridors would catalyse indigenous production of defence and aerospace

- related items thereby reducing our reliance on imports and will also enable export of these items to other countries. This will lead to generation of employment opportunities and promote the growth of private domestic manufacturers, MSMEs and start-ups.
- viii. MoD has launched the Innovations for Defence Excellence (iDEX) initiative, primarily aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes and academia and provide them grants/funding and other support to carry out R&D which has good potential for future adoption for Indian defence and aerospace needs. Deserving MSME units be provided handholding and technical guidance within the iDEX framework.
 - ix. Industrial licencing regime for Indian manufacturers under IDR {Industries (Development and Regulation)} Act, 1951 has been liberalised and most of the components/ parts/ sub-systems have been taken out from the list of defence products requiring Industrial Licence. This has reduced entry barriers for new entrants in this sector, particularly MSMEs.
 - x. For promoting Ease of Doing Business and efficiency in procurement, Ministry has decided to de-reserve 275 items which are regularly procured by the Armed Forces, and upload on the GeM portal.
 - xi. Government of India has notified the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 under which a minimum of 20% of the total annual procurement is made mandatory from Micro & Small Enterprises by Central Ministries / Departments / Public Sector Undertakings w.e.f. 1st April 2015.
 - a) The aforesaid policy mandates that all the Micro and Small Enterprises registered with bodies designated/ specified by Ministry of MSME or having the Udyog Aadhaar Memorandum (UAM) will be issued tender set free of cost and exempted from payment of Earnest money, and will also be allowed to bring down their price to L1 level provided it has bid in the price band of L1+15%, by the

Central Ministries/ Departments/ Central Public Sector Undertakings. In addition, 358 items are reserved for exclusive procurement from MSEs.

- b) To monitor the effective implementation of the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 within the Ministry, a Committee under the chairmanship of JS (P&C) was formed. The Committee regularly reviews the progress made and furthers the objectives laid down in the Policy.
- c) Additionally, Ministry of MSME has issued a circular dated 10 Mar 2016 which mandated that relaxation may be given by Central Ministries / Departments / Central Public Sector Undertakings in prior experience / prior turnover criteria to MSEs. The Defence PSUs, which are under DDP, have been accordingly directed to implement the above relaxations, and the same has been extended to MSEs by Defence PSUs.

xii. In order to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment, Department of Industrial Policy and Promotion (DIPP) has notified the Public procurement (Preference to Make in India), Order 2017 on 15th June 2017. Based on this mandate DDP has issued 04 notifications for 111 items procured by Ordnance Factories (OFB) and Defence Public Sector undertakings (DPSUs) with the stipulated percentages of local content of eligibility vide orders dated 29th June 2018, 26th July 2018, 27th August 2018 and 16th November 2018. The status of procurement under Public Procurement (Preference to Make in India), Order,2017 by DPSUs/OFB till 30th November, 2018 are as follows: -

S No	Name of DPSUs/ OFB	Procurement under PPP(MII) Order, 2017 (Rs in Lakhs)
1	HAL	59.48
2	BEL	999.00
3	GRSE	44.45
4	BDL	2191.00
5	MIDHANI	329.00
	TOTAL	3622.93

xiii. Trade Receivables Discounting System (TReDS) is a platform established by D/o Financial Services to facilitate financing of Trade receivables of MSMEs. The objective of the TReDS is to facilitate financing of invoices / bills of MSMEs drawn on Government Departments and PSUs, by way of discounting by financiers. To enable this, the TReDS has to put in place suitable mechanism whereby the invoice/ bill is converted into "factoring unit" (which would be a standard nomenclature used in the TReDS for an invoice or a bill on the system) on TReDS.

a) In the first phase, the TReDS would facilitate the discounting of these factoring units by the financiers (refers to a bank as well as an NBFC factor participating in the TReDS and who accepts the factoring unit for financing purpose) resulting in flow of funds to the MSME with the final payment of the factoring unit being made by the buyer to the financier on due date. In the second phase, the TReDS would enable further discounting/ re-discounting of the discounted factoring units by the financiers, thus resulting in its assignment in favour of other financiers.

b) The status of DPSUs regarding registration and implementation of TReDS is placed at **Annexure-I**.

2. The capability and viability of the defence and aerospace industry is built on the strength of supply chains, in which the MSMEs are intricately intertwined. There are substantially large number of MSMEs across the country supplying components and sub-assemblies and systems to the Defence Public Sector Undertakings, Ordnance Factories, Defence Research and Development Organisation and private industries. Vendor development meets help to sensitize the MSMEs about their products and method of registration etc.

3. Ministry of Defence regularly conduct conferences and discussions through Annual seminars with an aim to strengthen long term plans and industry capability in defence procurement. Regular interaction with interested vendors / indigenous developers, including MSME units, through collegiate mechanism of procurement committee and pre-bid meetings are scheduled for clarification on various aspects of the procurement process.

**Comments of the Committee
(Please see para no. 1.21 of Chapter I)**

Observation/Recommendation No. 23

Performance of Defence Research and Development Organisation (DRDO).

The Committee note that the Defence Research and Development Organisation is the premier institution in defence research in the Country with more than 50 laboratories, 5000 scientists and 20,000 other scientific, technical and supporting personnel and a budget of about Rs. 13600 crore which is about 5.5% of total defence budget. (DRDO) is Country's leading organisation involved in design and development of indigenous Defence systems. DRDO is engaged in developing defence technologies covering aeronautics, armaments, electronics, combat vehicles, engineering systems, instrumentation, missiles, advanced computing and simulation, special materials, naval systems, life sciences, training, information systems and agriculture. The Committee also note that the DRDO and the DPSUs are expected to be storehouses of strategic know how in the development of missiles, armaments, light combat aircrafts, radars,

electronic warfare systems and other defence hardware. In this background, the Committee are surprised to note that the Country has to depend on foreign suppliers not just for sophisticated weapons but also for basic defence armaments and that DRDO has not been able to meet nation's expectations. The Committee note from the 2015 report of C&AG that an examination of 14 mission mode projects, carried out by DRDO laboratories, revealed that all projects failed to achieve their timelines and the probable date of completion (PDC) was extended many a times. These mission mode projects include the crucial S-band surveillance system 'Rohini' radars, secure video and fax communication between airborne platforms and ground station 'Meghdoot' and electronic warfare suit for the modified MIG-29 fighters. Further, the Committee also note that a high power Committee constituted by the Ministry of Defence which reviewed the functioning of DRDO had said that at least 11 laboratories of the DRDO need to be closed down or amalgamated and its "non-core" research activities stopped. The high powered committee also said that DRDO needs to work with "clearly defined" objectives to develop "weapon systems and platforms". The committee felt that end-users —the three services — must be consulted on areas of research and development of weapon systems. The Committee are of the view that the functioning of DRDO needs a major overhaul and its contribution in the context of country's requirements need to be re-examined. The Committee would also like the Government to examine various reports coming out in media/blogs about non development of seeker technology for development of Short-Range Surface to Air Missiles (SRSAM).

Reply of the Governemnt

DRDO has played a major role behind the development of state-of-the-art platforms, sensors and weapon systems. DRDO systems are contemporary and DRDO products worth more than Rs. 2.6 lakh Crore have been inducted or are in the process of induction in the Services. This has also contributed immensely towards the development and upgradation of Defence industry base. List of some of the major systems developed by DRDO and accepted/ inducted by Armed Forces during the last three years are attached herewith as Appendix 'A'.

It is true that some of the projects have taken longer than expected to complete. However, various steps have been taken/are being taken by DRDO for strengthening the functioning of DRDO and expediting the completion of defence projects. Some of these are:

- Revised Procedures for Project Formulation and Management (PPFM-2016) has been launched with mandatory focus on pre-project activity including completion of preliminary/configuration design and procurement plan before project sanction. This will help in proper planning & then cut down on time delays.
- More stringent review mechanisms in place - various high level committees including, Steering Committees, Advisory Committees and Monitoring Boards
- Involvement of Services & Production Partners during development process and reviews - To know their views in advance including finalisation of General Staff Qualitative Requirements (GSQRs).
- Synergy among stakeholders – Regular interactions

DRDO today actively involves the users right from the conceptualization of the project through peer reviews, design reviews, all three levels of project monitoring as per DRDO procedure, upto trials and evaluation for all Mission Mode projects undertaken by DRDO. Such projects are normally initially based on the user requirements (LTIPP, Collegiate meetings, IN-DRDO Synergy etc.) with the request of the concerned user Service. It is also to be noted that all Mission Mode (MM) projects and high value Technology Demonstration (TD) projects are taken up invariably in consultation with Users. While formulating the XIII Five Year Plan (2017-22) Projections, a concerted effort was made to evolve the plan, especially the MM projects of DRDO, through mutual consultation and consensus between the DRDO and the three Services. For the first time, MM projects have been duly factored-in to the integrated plan of the MoD, lending much needed synergy to the plan formulation process.

Research Centre Imarat (RCI), a DRDO Lab has developed Indigenous Ku-Band Seeker for ASTRA, AKASH-1S and Quick Reaction Surface to Air Missile

(QRSAM) missile programs. The seeker has been successfully flight tested in the year, 2017 in ASTRA and AKASH-1S missiles. M/s Bharat Electronics Limited (BEL) team has been trained in RCI throughout the development of Ku-band Seeker and at present these seekers are under production through M/s BEL, Bengaluru. It is proposed to implement certain design modifications/ adaptations in this seeker to meet the requirements of SRSAM system.

All accepted recommendations of the Rama Rao Committee which were under the purview of DRDO have been implemented. Status of implementation of the recommendations is tabulated below:

1	2	3	4	6	7
Name of the Task Force/ High Level Committee (HLC)	Year of composition and tenure	Composition	Purpose of constituting the Task Force	The major decisions/ outcomes	Status of implementation of the decision/ outcomes
Rama Rao Committee (RRC)	RRC originally constituted in Feb 2007	Chairman: Prof. Rama Rao Members: i) Air Marshal Ajit Bhavnani, Former VCAS ii) Lt. Gen. C S Chima, Former DG AAD Indian Army iii) Sh. A K. Ghosh, Former FA (DS) iv) Sh. T. K. Ghoshal, Prof. Jadavpur University v) Vice Admiral P. Jaitly, Former Chief of	Enhancing effectiveness of DRDO	i) Decentralisation into seven technological domains each under a DG. ii) Establishment of Defence Technology Commission (DTC) and a commercial arm iii) Creation of Integrated Financial	Sl. No. i), iii) & iv) [mentioned in Column 6] has been implemented and Sl. No. ii) [mentioned in Column 6] has been deferred.

		Materials, Naval HQ vi) Sh. C. G. Krishnadas Nair, Former Chairman HAL vii) Sh. Satish K. Kaura, CMD, Samtel Colour Limited, Chairman Industry Council, CII viii) Dr. K Sekhar, Outstanding Scientist, DRDO, Member Secretary		Advice (IFA) scheme iv) Renaming DG (DRDO) as Chairman DRDO.	
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Observation/Recommendation No. 26

International Cooperation in Defence

The Committee noted that cooperation in defence sector among friendly countries was an integral element of defence preparedness. The geographical location of the Country made it incumbent to seek partnership in defence sector with friendly countries. The Committee felt that the architecture of such a partnership might be based on shared values and interests. The Committee, accordingly, recommended that the Government took adequate steps to ensure that regional and global partnership with friendly countries in defence sector was fully integrated into our Defence Preparedness architecture. The Committee might be informed of the steps taken in this regard.

Reply of the Government

In all the engagements with Friendly Foreign Countries (FFCs), Strengthening of regional and global partnership forms the central theme, integrated into our Defence Preparedness architecture. Various bilateral and multilateral activities like Joint Exercises Service level Staff Talks, subject-matter exchanges, mutual logistic support arrangement etc. are regularly held with FFCs, which ensures sustained robustness of our defence preparedness architecture’.

Observation/Recommendation no. 27

Contract writing relating to Defence Hardware Procurement

The Committee note that entering into contract with foreign Governments and foreign defence suppliers is a highly specialized job. The Committee have been apprised by the Ministry of Defence that as per standard composition of Contract Negotiation Committee(CNC), Acquisition Manager, Technical Manager, Finance Manager, Advisor Cost alongwith representatives of DGQA/DGAQA/DGNAI, user department and SHQs are nominated in CNC. The expert who deposed before the Committee brought their attention to lack of expertise in writing contracts due to which the foreign suppliers are able to take advantage of loopholes and maximize their profits and at the same time adversely affect our interest. Moreover, in the absence of stringent conditions, they may also go back on their commitment to supply spares and transfer technological know how on one pretext or other during emergency. Although the Ministry of Defence in the written replies has stated that no incident has come to the notice of the Government where the Indian interests were adversely impacted due to lacunae/loopholes in contract writing, HAL, has requested for Government support to ensure that comprehensive ToT is provided to the Indian manufacturer. It has specifically been mentioned that when the aircraft is manufactured under ToT, OEMs do not provide ToT for critical and high end technology items. The aforesaid contention of HAL clearly indicates need for making our contract writing system more professional so as to fully protect the interest of Services/country. The Committee, therefore, feel that a dedicated team of personnel who have sufficient expertise in contract writing, particularly in defence acquisition , is the need of the hour. The Committee, accordingly, recommend that the Ministry may take steps to create a team of skilled personnel with adequate training for writing contracts in the defence acquisitions. The Committee also desire that services of senior qualified representatives of the armed forces may also be secured during contract finalization.

Reply of the Government

Capital procurement of defence equipment is undertaken in accordance with the extant Defence Procurement Procedure (DPP-2016). The Standard composition of Cost Negotiation Committee (CNC) is made as per DPP which comprises senior qualified

members/experts from various Departments of MoD including representatives of the Armed Forces, having adequate background and authority to take a decision. The vetting of draft contract is also done concurrently by the CNC and hence all the stakeholder in CNC are involved in vetting of the contract.

Further, to enhance the skill of the Officers associated with Procurement/acquisition cases, regular training course are undertaken at various institutes.

Observation/Recommendation No. 28

Miscellaneous- Human Resources of DPSUs and Other Defence Production Institutions.

The Committee note that a large number of people, including technical personnel are employed in the DPSUs, OFBs and organisations such as DRDO. So far as the Ordnance Factories are concerned, the Committee have been apprised that the existing strength of OFBs officers/industrial employees/non-industrial employees is 87474 out of total strength of 145503. Even when out of the sanctioned strength of 2981 Group A officers, the existing strength is 1804 officers which include engineers and non-technical officers who are on deputation. The Committee have been apprised that the sanctioned strength of ordnance factories is intended towards catering to peak load requirements of Indian Armed Forces while existing strength is maintained for meeting the current load of the Armed Forces on annual basis. The flexibility is required to help Indian Ordnance Factories to augment the manpower at a very short notice in times of exigency and to cater to the workload from time to time. The Committee are not able to comprehend why such a large number of officers and employees are to be kept as a cushion to meet the short notice exigencies. The Committee in this regard would like to recommend to review the manpower requirement of Ordnance Factories. Besides, the Committee would also like to emphasis to use the trained manpower in the OFBs/PSUs for the defence purposes.

Reply of the Government

Ordnance Factory Board:-

The initial sanctioned strength of the Ordnance Factories Organization was 1,63,103. A manpower rationalization exercise was suggested by Ministry in the year 2015. Accordingly, a Committee was constituted for submitting a report on rationalization of manpower in the Ordnance Factories. The main objective of the Committee was to assess and rationalize the manpower requirement for the Ordnance Factories in relation to the anticipated production and supporting activities on long-term basis i.e. up to the year 2024-25 and also to examine other issue(s) relevant to this. The Committee based thereon, recommended revised sanctioned strength of 1,45,503 in respect of various categories of employees. However, Ministry has sanctioned the operating strength of OFB at 1.1 lakh, meaning thereby that at no point of time there is requirement of more strength, and OFB is working with the operating strength of 1.1 lakh as on date.

Hindustan Aeronautics Limited :

The induction of manpower in Hindustan Aeronautics Limited (HAL) is done with reference to the Overall Sanctioned Strength (OSS) of Manpower which is the Maximum Strength within which the various Divisions / Offices of the Company are required to operate.

A comparison of the Overall Sanctioned Strength and the Existing Strength as on 31st July 2018 is indicated below:

Category	Overall Sanctioned Strength (2017-18)	Existing Strength (31.7.18)
Officers	9270	8671
Workmen	23563	20080
Total	32833	28751

Apart from above regular manpower, HAL has also introduced tenure based recruitment which will ensure optimal availability of manpower for the ongoing projects.

Bharat Electronics Limited:-

The listed information is pertaining to OFBs and not applicable to BEL. However, BEL is complying to the Committee's emphasis to use the trained manpower for all the business activities. BEL has stringent norms and criteria with reference to Qualifications and experience in the recruitment stage itself.

As part of skill development/knowledge up-gradation, BEL imparts adequate training on continuous basis across all levels to its manpower to cope up with the changing needs of Technology, customer requirements and enhance managerial capabilities. Training programs are organized in the area of Technology, Management & Behavioural aspects. Training needs are assessed through Annual Performance Appraisals & inputs from Department/Division Heads and customized programs catering to specific needs are organized.

In order to achieve the strategic objectives of the organization, a Behavioural Competency Model with 9 competencies have been developed. Based on the Competency Model, Online Development Centres (ODC) have been rolled out for junior to middle level executives and post ODCs, Competency Development Workshops have been carried out for addressing identified competencies. Competency Based 360 Degree Feedback & Leadership Development Workshops are conducted for senior level executives. Development Centres have been conducted for senior executives. Assessment Centres are being done for senior executives.

Being in the Technology forefront, it is imperative to build a learning organization. Technology programs are conducted in collaboration with DIAT/IITs and experts from various Technology organizations. Management Development Programs are organized at MDI/IIMs for various grade executives. General Managers are nominated for Advanced Management Programs (AMPs) through leading institutes like MDI/IIPA.

Customized programs are conducted on Change Management, Enterprise Risk Management, Strategy Building & Competitive Intelligence, Contracts Management, Women Leadership Development (DEEPSHIKHA), Gender Sensitization & POSH Act (SAMMAN), Finance for Non-Finance Executives, HR for Non-HR Executives, IPR,

Emotional Intelligence, etc. Quality related programs like ASQ Certification, Project Management, Six Sigma, Lean, 5 S, Quality Tools, Reliability & Maintainability, Business Excellence etc., are conducted by BEL Quality Institute. Besides, Skill Up-gradation & Development Programs are conducted for Non-Executives in various subjects.

It is pertinent to mention here that, the company has recently established BEL Academy of Excellence (BAE) - "Nalanda", at Bengaluru, Karnataka to address the training needs of BEL employees, customers & vendors/partners.

Bharat Earth Movers Limited:-

In BEML, the trained manpower is not idle. BEML is utilizing the services of trained manpower for Defence Production activities & the same would be further ramped up to increase production as and when the need arises.

Bharat Dynamics Limited:-

Over the past four decades BDL is having highly talented & trained manpower which is adept at manufacturing missiles and handling of Explosives. Also training is continuously imparted to fresh recruits / regular employees for excelling in their work area. Also whenever new technology is deployed for production purpose, training is imparted.

Mazagon Dock Shipbuilders Limited (MDL):-

The sanctioned strength of executives in MDL is 1231 and the existing strength is 1119. The gap is mainly because of retirement and resignations and due to non-availability of suitable candidates under reserved category. The current order position comprises 8 Warships and 5 Submarines. MDL expects further follow-on as well as new orders for Ships and Submarines in near future. The new Modular Shop for Integrated Construction and Submarine Section Assembly Workshop (SSA) has been built to augment the Shipyard Capacity.

Garden Reach Shipbuilders & Engineers Limited (GRSE):-

Sanctioned strength vis-à-vis employees are in position as on 01 Aug 18 is as under:-

Category	Category	Sanctioned Strength	In position as on 01 08 18
Officers		596	473
Non-Officers		4973	1682

Sanctioned strength mentioned above was derived in 2009 which is under review keeping in view the present dynamic business scenario. A manpower study has already been conducted by an outside Agency. The Agency has recommended following strength:-

Officers : 430

Other employees : 2589

(ii) Meanwhile GRSE has taken different steps to increase the content of indigenization, diversification and optimum utilization of available facilities and manpower. As a part of optimum utilization of manpower the skilled category work force are engaged in core and high technology areas. The Company has resorted to outsourcing of various noncore, low and medium technology areas to meet the manpower requirement in unskilled and semiskilled category of work force. In addition to the above initiatives automation and IT technology like ERP, Biometric Attendance, Digital payments, Data Management System, Business Intelligence solutions, etc. have been introduced.

(iii) Pending finalisation of revised sanctioned strength recruitment action is being undertaken on case to case basis depending upon business requirement.

Goa Shipyard Limited (GSL):-

GSL has maintained manpower as per the sanctioned strength and are effectively utilized on jobs. The additional/peak load requirements are met through Outsourcing and Fixed term employment on need basis. GSL has the flexibility of deputing its trained manpower for Defence purposes during the exigencies. The details of sanctioned manpower and actual manpower position in SL as on 01.09.2018 is as under:-

S.No.	Particulars	Sanctioned	MCMV	Total Sanction	Held
1	Executives*	249	51	300	256
2	Supervisors (including 4 fixed term)	1630	454- Regular 195-FTE	2279	185
3	Workmen (including 94 – fixed term, 84-ITI Trainees & 5- Diploma Trainee				1158
total		1879	700	2579	1599

*Excluding CMD, Directors & CVO, 21 Management Trainee and 11 Fixed term Officers. The manpower is utilised as per the sanctioned strength and also filled up progressively as per the progress of other projects of GSL.

Mishra Dhatu Nigam Limited (MIDHANI):-

The existing strength of Executives (below Board Level) is 261 out of the sanctioned strength of 276 in MIDHANI and the existing strength of other employees (Non-Unionized Supervisors and Non-Executives) is 557 out of the sanctioned strength of 1184. Non Core areas are being outsourced through Job/Work Contracts. MIDHANI is in the process of expanding its business and is coming up with two new Plants. However, MIDHANI does not have large cushion of employees and officers. Trained

manpower is being used in MIDHANI and proper training/skill development programmes are being conducted for the employees on need basis.

Observation/Recommendation No. 29

The Committee also note that many talented scientists exit from premier research institutions such as DRDO to find better opportunities in foreign based companies which is detrimental to our interests. Moreover, the Committee also find that technical manpower in the DPSUs such as HAL are concerned about their future because of lack of orders from the Government. Reportedly same situation prevails in other DPSUs also. The Committee, therefore, recommend that it is in our national interest to ensure that the manpower possessing valuable knowledge, experience and expertise are retained in the Country by providing better work environment, research infrastructure and recognition including appropriate financial incentives. The Government needs to ensure that there is no anxiety among the technical personnel about their future.

Reply of the Government

Ordnance Factory Board:-

The initial sanctioned strength of the Ordnance Factories Organization was 1,63,103. A manpower rationalization exercise was suggested by Ministry in the year 2015. Accordingly, a Committee was constituted for submitting a report on rationalization of manpower in the Ordnance Factories. The main objective of the Committee was to assess and rationalize the manpower requirement for the Ordnance Factories in relation to the anticipated production and supporting activities on long-term basis i.e. up to the year 2024-25 and also to examine other issue(s) relevant to this. The Committee based thereon, recommended revised sanctioned strength of 1,45,503 in respect of various categories of employees. However, Ministry has sanctioned the operating strength of OFB at 1.1 lakh, meaning thereby that at no point of time there is requirement of more strength, and OFB is working with the operating strength of 1.1 lakh as on date.

Hindustan Aeronautics Limited :

The attrition rate among the Executives in HAL has been less than 2% during the last 5 years. However, a sizeable quantum of the current order book of the company will be completed in the next 2-3 years with majors manufacturing programs like Hawk, Su-30MKI already completed/getting completed shortly. A robust order book is a must for avoiding idling of facilities as well as, for retention and growth of the trained technical talent pool of any company. The Company has taken up the following major initiatives to retain the trained manpower:

- a) HAL continuously endeavors to create a learning culture wherein Officers are nominated for various Post Graduate Courses in Technical and Non –Technical Disciplines to Institutes of repute (both inland & abroad). Over 200 officers have been nominated for various Sponsorship programmes during the last 5 years.
- b) A Leadership Development initiative, in the form of a Leadership Development Programme of one year, has been institutionalized for Officers in the Senior Management Cadre and the Middle Management Cadre. 3 batches consisting of a total of 90 Officers each in the Senior Management Cadre have undergone the Programme. One more batch of 30 Officers is currently undergoing the Programme. 95 Officers in the Middle Management Cadre have also undergone the Programme.
- c) HAL has a Scheme for Fast Track Promotion viz. Internal Merit Selection (IMS) in respect of Executives. Officers with excellent track record in performance during the preceding 3 years are considered for promotion to the next higher Grade.
- d) Naini Aerospace Limited (NAeL) is a subsidiary of HAL. The employees of NAeL have undergone phase-wise theoretical as well as on-the-job training at Bangalore and Transport Aircraft Division (TAD), Kanpur to get technical expertise in connection with manufacturing of looms of ALH & LCA as well as structure of ALH. These trainings were organised at LCA, Helicopter and TAD-

Kanpur divisions etc as well as at Technical Training Institute (TTI), Bangalore wherein the employees participated in skill up-gradation program on Aircraft/ Helicopter Structural Assembly, Aircraft/ Helicopter Looms and Aircraft Loom Fabrication & Assembly.

- e) HAL Management Academy (HMA) focuses on training programs to meet the internal Learning & Development requirements of its Executives. It conducts training programs for various levels within the organization ranging from entry level to the senior most Executives. Several refresher courses are conducted by HMA for its officers at its dedicated campus in Bangalore such as Refresher Training Program for Technical & Non-Technical Officers, Middle Management Program, Specialized Technical Training Program, Senior Executive Refresher Program etc. The role of HMA is to be a nodal agency to align the companies' officers to the evolving business needs and enhance their capabilities to meet the strategic vision of the organization.

Bharat Electronics Limited:-

BEL provides excellent working environment with freedom for innovation, empowerment, challenging work assignments etc. As a result, all the executives are self-motivated and the overall attrition rate in BEL is less than 2% in the past ten years.

All executives are covered under the BEL Conduct Discipline & Appeal Rules and in accordance with the said rules, no Functional Director (including CMD), Executive Director's & GMs, who have retired/resigned from the services of the Company, shall accept any appointment or post in any foreign company/Govt., with whom BEL has business dealings, within 1 year of their resignation/superannuation, without prior permission of the Government. A Service Bond to this effect is executed by the concerned Officer. Further, Officers working on specific R&D projects are required to execute a Deed of Assignment or Non-disclosure agreements barring them from disclosing any information pertaining to the project during their service in BEL or on resignation from BEL.

Bharat Earth Movers Limited:-

BEML is very much concerned about the anxiety and discontentment of its technical personnel. BEML is striving hard to even further ameliorate their working conditions and making all out effort to secure more orders to dispel the anxiety of its experienced and expert technical personnels.

Bharat Dynamics Limited:-

The order book position of BDL is depleting year after year and in such a scenario it is becoming difficult for the organization to retain manpower. In the absence of a growing order book, it is very difficult to retain talented executives.

BDL is putting all out efforts to improve order book position so that all production units are fully loaded with optimal utilization of men & machines.

BDL takes good care of its employees & their welfare. BDL sends its employees for enhancing knowledge to premier Management & Technology Institutes like IIMs, IITs, XLIRs. etc.

BDL recognizes talent & hard work by way of merit awards, which are distributed every year on 15th August & 26 January.

Mazagon Dock Shipbuilders Limited (MDL):-

While MDL is concerned with the loss of skill-set due to lack of order visibility in future, presently MDL does not face this kind of situation of forcing large scale exodus of executives.

MDL has a professional management structure & healthy working environment, where scope for personal development and recognition is supported by robust, and generous HR policies.

Garden Reach Shipbuilders & Engineers Limited (GRSE):-

The Company has sufficient orders which are to be executed in next few years. Accordingly emphasis has been given for retention of talents for which different

initiatives have been taken towards improvement of work environment, creating different facilities, recognition to the employees for exemplary / innovative performance as given below:-

- i. Improvement of work environment
- ii. Establishment of Research Infrastructure.
- iii. Recognition including appropriate financial incentive.

Goa Shipyard Limited (GSL):-

GSL is the first Indian shipyard to have an in-house R&D unit recognized by the Department of Scientific and Industrial Research (DSIR), Government of India. The R&D initiatives have not only helped in attaining self reliance but also earned significant foreign earning. As part of GSLs initiative to be market ready for future, the R&D department is working on future advance vessels which are required by Indian Navy and Coast Guard. Thus, GSL provides ample opportunities to its technical personnel to showcase their expertise in R&D.

Mishra Dhatu Nigam Limited (MIDHANI):-

The attrition rate of MIDHANI is almost negligible and the significant retention policies/ strategies prevailing in MIDHANI are mentioned as under:

MIDHANI has excellent policies in place to retain its employees and the workplace environment is exceedingly cohesive and cordial. Policies are reviewed periodically and amended from time to time as per requirement.

In addition to salaries, MIDHANI also pays 'Performance Related Pay (PRP)' to employees based on their annual performances.

As per 3rd PRC Recommendations, the Executives and Non-Unionized supervisors' pay revision has been implemented successfully w.e.f. 01- Jan-2017 and the arrears are also disbursed.

The Executives and Non-Unionized Supervisors' Promotion Policy is recently revised and it has been amended in a manner that provides higher weightage to annual

performance of employees. Weightage is also given to qualification and experience along with attendance & punctuality.

MIDHANI also identifies and nominates individuals/groups to participate in various Training Programmes/Workshops/Seminars, Leadership Programs etc. within the country and even abroad so as to expose them to global standards and develop them.

In order to encourage managerial excellence among young managers and bring out their hidden talents/ ideas/Concepts, MIDHANI organizes annual competition named as “Dr Tamhankar’s Trophy for Young Managers” where the team with the best project is awarded with cash prize and are also sent to attend international/national conferences.

Best Executive/ NUS/ Non-Executive/ Women of the Year Award are also given annually in MIDHANI to encourage all-round performances.

MIDHANI also organizes various cultural programs, sports & games activities to bring all the employees together and create a sense of belongingness and engagement amongst them.

MIDHANI has excellent employee wellness and medical scheme in place for existing as well as retired employees and also provides good quality education facilities to employee’s children.

**Comments of the Committee
(Please see para no. 1.27 of Chapter I)**

CHAPTER III

RECOMMENDATIONS/OBSERVATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF GOVERNMENT REPLIES

Observation/Recommendation No. 6

The Committee observe that our defence PSUs have travelled a long journey and have talent and expertise in manufacture of various defence equipments and as such the role for defence PSUs which have been producers of key military platforms should be included in the strategic partnership models so as to provide a level playing field to PSUs.

Reply of the Government:

The policy and procedures for the selection of private Indian entities as Strategic Partners (SP) was approved by the Defence Acquisition Council (DAC) and promulgated the same on 31.05.2017 as Chapter VII of Defence Procurement Procedure (DPP) 2016 as “Revitalising Defence Industrial Ecosystem through Strategic Partnerships”. The Policy is intended to encourage broader participation of the private sector, in addition to DPSUs/OFB, in manufacture of defence platforms and equipment. Strategic Partnerships seek to enhance indigenous defence manufacturing capabilities through the private sector over and above the existing production base. Keeping this broad objective in view, MoD may consider the role of DPSUs/OFB at the appropriate stage(s) keeping in view of the order book position, capacity and price competitiveness, and same has already been included in the strategic partnership model so as to provide a Level Playing Field to PSUs.

Observation/Recommendation No 8

Acquisition/ upgradation for IAF

The Committee understand that a large proportion of our defence hardware have served their useful life cycle and now need to be replaced urgently. From the information given in Annual Report 2016-17 of the Ministry of Defence, it is noted that IAF is on a trajectory of modernization and is transforming itself into a strategic

aerospace power with full-spectrum capability. The draft Defence Production Policy 2018, speaks about reducing current dependence on imports and to achieve self-reliance in development and manufacture of various weapon systems and platforms which includes fighter aircrafts, medium lift and utility helicopters. Further the procurement for various aircraft/ helicopters is underway, inter-Governmental Agreement for procurement of 36 Rafale Aircrafts from France has been signed on 23 September, 2016; C-130J has already been inducted and the delivery of balance aircraft is likely to be completed by July 2017; delivery of AH 64E Apache Attack Helicopters and Chinook Heavy Lift Helicopters is expected to be completed by March 2020. Besides Mirage 2000 and MIG-29 aircraft upgrade is under progress and few upgraded aircraft have already been operationalised in the IAF. The Committee note that air power has a very important role with regard to defence preparedness in the present security scenario and as such strongly emphasize the budgetary allocations should not come in the way of planned acquisitions of aircraft/helicopters so that the requisite capacities could be built. Besides the Government should follow the acquisition status with the countries from which imports are being made for timely delivery of the aircraft/helicopters.

Reply of the Government.

Procurement schemes are progressed as per the laid down DPP. The schemes are prioritised to ensure that urgent and critical capabilities are acquired. The Budget Estimates are projected based on the capabilities that are planned to be acquired. The acquisition status is regularly followed up with the respective countries for timely delivery of aircrafts/helicopters.

Observation/Recommendation No. 10

The Committee observe that as per the standard norm at any time there should be 70% serviceability of aircraft. But the Committee, during the course of evidence have been apprised that the availability/serviceability was 60%. The Committee in this regard would like to stress to address the issues with regard to maintenance and repair of aircraft to ensure serviceability level at any given time as per international norms.

Reply of the Government

“The reply contains information classified as CONFIDENTIAL and, therefore, the same is being sent directly to the Hon’ble Chairperson Committee on Estimates with a request that the contents of this may not be incorporated in the Report of the Committee”.

Observation/Recommendation No. 11

The Committee note from the Annual Report 2016-17 that current lot of Su30 MKI aircraft are being manufactured in HAL through transfer of technology. With regard to Tejas, the first fighter squadron of the IAF with LCA Tejas aircraft, has been formed on July 1, 2016. The Ministry of Defence has apprised that investment of around Rs.15000 crore is estimated to be made in the next five years towards enhancing production rate of LCA Tejas from 8 to 16 aircraft. One of the expert who deposed before the Committee was all in appreciation for the indigenous production of Tejas and was of the view that Tejas product can be the bulk aircraft for Indian Air Force. The Committee would like the Government to take all the desired initiatives for increasing the production rate of LCA Tejas by HAL not only for our Services but also for exports to other countries. The Committee observe that the induction of more and more indigenous product Tejas in IAF fleet would result in uniformity in the type of aircraft and would also address the issue of maintenance and repair to a great extent.

Reply of the Government

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Observation/Recommendation No. 12

The Committee note that on the one hand, the Secretary (Defence Production) during the course of deposition has stated that HAL have already got the orders of 40 Tejas and another 83 would be sufficient for next 25-26 years, HAL in response to

queries raised during the informal discussion with them during the study visit has stated that the firm order to HAL would be liquidated by 2020-21. The Committee would strongly like to emphasize that the Services should plan their orders for the long term and place firm orders with HAL well in advance particularly when the production cycle for aircraft build is very high of the order of 2-3 years.

Reply of the Government.

There have been delays in the delivery of Tejas aircraft. Contract was signed in March 2006 for procurement of 20 x LCA in Initial Operational Clearance (IOC) configuration. The IOC was achieved in December 2013 and only 09 aircraft have been delivered till date. Similarly, LCA in Final Operational Clearance (FOC) standard contract was signed on 23 December 2010 for procurement of 20 aircraft. The present status of FOC of LCA Mk 1A is mentioned below:

- (a) The Built Document (The document for manufacturing of LCA in Final Operational Clearance) of FOC for LCA was forwarded to HAL on 31st December, 2018 and the FOC has been formally announced during Aero-India 2019 at Bengaluru on 20 February, 2019.
- (b) The delivery of LCA in FOC configuration is likely to commence in the last quarter of the year 2019.
- (c) Fourteen aircraft in IOC Configuration have been delivered till date.

The procurement of 83xLCA Mk 1A is at costing & Contract Negotiation Committee (CNC) stage

Observation/Recommendation No. 13

Shortage of Trainer Aircraft/Accidents

The Committee note that IAF is using Pilatus PC-7 aircraft for basic training purpose and 75 of these aircraft are directly procured from OEM. Further requirement of basic training is proposed to be met by HAL's indigenously designed basic trainer aircraft HTT-40. Defence Acquisition Council (DAC) has cleared procurement for 70

aircraft for IAF. The production of these aircraft is expected to commence during 2019-20.

For the advance training purpose, IAF is using Hawk aircraft which is manufactured by HAL under Transfer of Technology from BAE System. HAL has so far supplied 82 Hawk aircraft to IAF and 17 Hawk aircraft to Indian Navy. Quotation has been submitted by HAL for additional requirement of 20 Hawks for IAF. Also, Navy has initiated action for 12 more Hawk aircraft for which HAL has submitted a budgetary quote.

The Committee have been apprised that design and development programmes for Intermediate Jet Trainer (IJT) and Basic Trainer Aircraft (HTT-40) are under way at HAL. The Committee during the course of examination have been apprised that in total 16 Dhruv helicopters have met with an accidents so far in India. The reasons for these accidents as brought out in the report of Court of Inquiry (CoI) have been mainly attributed to human error and environmental factors. The Committee in this regard strongly recommend to look into the issues related to training. Urgent steps should be taken for procurement of trainer aircraft to meet the needs of training. In this context, the Committee would like the Government/Services to consider taking the help of simulators and private companies which not only would compensate for the infrastructure gap but would also help in saving the capital expenditure. Environmental effects are to be remedied and this needs a special research programme. Committee would like that such a programme be initiated speedily by involving the ministries of Science and Technology and Environment, Forests and Climate Change.

Reply of the Government

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Observation/Recommendation No. 17

Gaps between orders received and delivery scheduled/made- Synergy between Armed Forces and DPSUs in Defence Hardware Production.

From the data made available, the Committee find that the overall value of production of 10 DPSUs which include OFB has increased from Rs.41,047.74 Crore during 2013-14 to Rs.54,132.36 Crore during 2016-17. However, the data of performance of individual DPSU indicates that in MDL and GRSE, the value of production has decreased from 4169.64 crore and Rs.1707 during the year 2015-16 to Rs.3510 crore and Rs.936.70 crore during 2016-17 respectively. The Committee would like to be apprised about the specific reasons for decline in value of production in these two DPSUs.

Reply of the Government

Bharat Earth Movers Limited:-

The value of production is on upward trend as shown in the following table:-

Sl. No.	FY	Value of Defence Production in Rs. In Crore (Net)
1	2013-14	143.41
2	2014-15	160.86
3	2015-16	329.60
4	2016-17	495.16
5	2017-18	539.01

Bharat Dynamics Limited:-

BDL has always strived to deliver quality products in time to the Customer. This is indicated by its performance in the last 3-4 years as given below:

(Rs. In Crore)

Years	2014-15	2015-16	2016-17	2017-18
VoP	2770	4160	5911.00	4641
VoS	2800	4298	4887	4588

The above trend indicates that there is an increase in VoP year after year.

Mazagon Dock Shipbuilders Limited (MDL):-

In the year 2015-16, MDL VoP was Rs 4106 Crore which was reduced to Rs 3524 Crore in 2016-17. The shortfall in FY 2016-17 was due to following reasons:-

In P15B, delay in the receipt of equipments resulted in shortfall of Rs 284 Crore. As a result, yard efforts of P15B resulted in shortfall of Rs 244 Crore due to non-receipt of equipments. Steel received from M/s SAIL for Project 17A has been not up to the mark and rejected, which resulted in the shortfall of VoP. Further, the VoP of MDL for FY 2017-18 has been increased to Rs 4399 Crore.

Garden Reach Shipbuilders & Engineers Limited (GRSE):-

The dip in VoP during FY 2016-17 is primarily due to the following reasons that remained beyond the control of the company:-

- The total Nos. of Ship planned for delivery during FY 2016-17 was 06 Nos., whereas, Ship delivered were 04 Nos. Thus Cascading Effect substantially reduced progress of other ships of the above projects. Further, Majority of Materials has already been booked on ships planned for delivery.
- Delay in delivery of 01 ship (3rd ASWC Kiltan) of major project ASWC & 03 ships (L-52, L-53 & L-54) of LCU project could not materialize due to reasons:-
 - Delay in delivery of Mk IV – LCUs (08 Nos) and
 - Delay in delivery of P-28 (3rd& 4th Ships)

Observation/Recommendation No. 25

Defence Preparedness for Future Wars

The Committee note that there has been a fundamental change in the nature of modern warfare. Apart from maintaining a massive conventional arsenal, countries also need to prepare for future wars. Future warfare is headed towards cyber warfare, drones, automated warfare systems, stealth technology and precision guidance. The foundation of such warfare systems are information technology and artificial intelligence. The Committee also note that preparedness for futuristic wars involve all three wings of armed forces and Country needs to have state-of-the-art technologies on all three fronts. The Committee, however, feel that preparation for futuristic warfare has to be undertaken without any compromise on conventional war preparedness. The Committee understand that the Government is seized of the importance of futuristic war technologies and through its R&D institutions, is working to develop them. However, the

Committee feel that the Country needs to invest more resources on getting ready for futuristic warfare and also leverage its capabilities in information technology for this. The Committee, therefore, recommend that the Government may take steps for constituting an institutional arrangement to oversee the state of preparedness of the country in futuristic warfare. Adequate flexibility should be introduced in the system to leverage our capabilities, including those existing in private sector, in other related sectors such as space technology, information technology and artificial intelligence for preparation relating to futuristic warfare.

Reply of the Government

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CHAPTER IV

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH GOVERNMENT'S REPLIES HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Observation/Recommendation No. 1-2

Increasing the Expenditure on Defence Services

The Committee note that India with its strategic location, having a coastline of about 7500 kms and land borders of 15000 kms of which 3323 kms are with Pakistan and 3380 kms with China, its western, north-western, northern and north-eastern borders remaining volatile because of historical as well as strategic reasons, and internal security threats, need Defence preparedness to be kept consistently at the highest level. From the data made available to the Committee, it is found that Defence expenditure has marginally increased since 2014-15 and when compared to Central Government expenditure, the percentage has declined from 13.15 during 2014-15 to 12.20 during 2017-18. Defence expenditure when analysed as a percentage of GDP, in the last few years it has ranged between 2.06 per cent (2014-15) to 1.56 per cent (2017-18). As per Stockholm International Peace Research Institute (SIPRI) study, defence expenditure as a share of GDP of China and France has remained the same, increased in case of Saudi Arabia and Russia and decreased in case of USA and UK in the last decade (2007-2017), however, keeping in view the scale of GDP the developed countries have, the decrease of defence expenditure as percentage of GDP in India, as per Government data, is more noticeable.

The Committee further note that the defence expenditure at 1.56% of GDP was at the lowest level since 1962 when India-China war was fought. In the current geo-political scenario, a country of the size of India cannot afford complacency when it is a question of defence preparedness even for a two-front war while retaining its dominance in the Indian Ocean. The Committee therefore, strongly emphasize that allocation of adequate financial resources for defence preparedness both for the current needs and expansion & modernization plans should be accorded highest priority to enable the services to meet the challenges concerning safety and security of the country.

Reply of the Government

It may not be always appropriate to think about Defence spending in terms of national economic output. If the economy grows at a faster rate, spending decreases as a percentage of GDP. There is also a worldwide trend of decline in defence expenditure w.r.t. GDP as can be seen from the table as under:-

Country	China	US	Brazil	France	Germany	Italy	Spain	UK	Japan
In 1960	2.5%	8.6%	2.7%	6.5%	4.0%	3.1%	2.3%	6.3%	1.1%
	(in 1990)								
In 2016	1.9%	3.3%	1.3%	2.3%	1.2%	1.5%	1.2%	1.9%	1.0%

*Source: SIPRI/Times of India Article dated 26th March, 2018.

Therefore, it doesn't mean that the level of spending has fallen, or has even become inadequate. Looking at spending as a percentage of GDP thus creates an illusion of declined spending by ignoring the size of the economy. As per SIPRI military expenditure database, India is better compared to China in terms of percentage of defence expenditure vis-à-vis GDP. In 2016 and 2017, China spent 1.9% of their GDP on defence, whereas India spent 2.5% of its GDP on defence.

2. Total Defence Expenditure (including Miscellaneous and Pension) as a percentage of Central Government Expenditure was 17.14% in 2014-15. In 2017-18 also, it is 17.14%. In real terms defence expenditure has grown by Rs. 1,19,260.71 crore as the Central Government Expenditure increased from Rs. 16,63,673 crore in 2014-15 to Rs. 24,42,213 crore in 2017-18.

3. The Ministry, therefore suggests that it would be more prudent to look at Defence expenditure as percentage of total Central Government Expenditure on the Central Government Capital Expenditure. This question was also examined in detail by the Kargil Review Committee. It too, did not recommend a specific, targeted percentage of

the GDP to be earmarked for defence. It exhorted the need to extract the maximum value from each defence rupee, inter-alia through rigorous prioritisation, restructuring of the defence forces, integration with defence production and focussing resources in areas likely to enhance the effectiveness of the defence forces. The Armed Forces are accorded the highest possible consideration for allocation of budget. Requirement of funds will be assessed and provision of additional funds will be made as the need arises based on pace of expenditure.

**Comments of the Committee
(Please see para no. 1.8 of Chapter I)**

Observation/Recommendation No. 19

The Committee note that the existing Procurement system for advanced weapons involves three stages. The first stage is the issue of Request for Proposal and second stage is that of field trials. The Committee have been informed that the second stage takes considerable time-sometimes upto two years for completion of trials. The third stage which requires caution and diligence is the most difficult stage of contract negotiation stage. The Committee further note that procurement and acquisition of defence hardware is a long drawn process where there is involvement of a large number of stakeholders. The coordination issues between such large number of stakeholders sometimes result in avoidable delays. The introduction of the DPP 2016 tries to redress the situation. The Committee feel that with proper advance planning the time for first and second stage can be substantially reduced which would address the issue of shortage of required defence hardware with the defence forces. Sometimes, the decision to buy advanced weapon systems also result in controversies being created on the ground of payment of kickbacks and commissions. The Committee feel that such delays are avoidable and ultimately, the defence preparedness of the Country suffers. The Committee, accordingly, recommend that Ministry may take appropriate steps to constitute an integrated institutional mechanism with adequate in-built transparency consisting of all key stakeholders in order to reduce delays in procurement process.

Reply of the Government

There are a number of changes that have been introduced in DPP to expedite procurement process and ensure transparency.

- (i) Single stage collegiate vetting of RFP.
- (ii) Approval of Retractions/Foreclosure of RFPs delegated to DG(Acq)/Vice Chiefs for reasons other than change in operational requirements.
- (iii) Approval of TEC at SHQ level if all vendors are compliant with RFP.
- (iv) Commencement of Benchmark modeling immediately after receipt of trial report by SHQ to save time at CNC stage.
- (v) No negotiation to be done with DPSU vendor, where Costing Committee of DDP has already determined basic price of defence equipment/platform.
- (vi) Concurrent vetting of draft contract at CNC stage.
- (vii) IEMs details in RFP.
- (viii) Complaint Redressal Mechanism.

**Comments of the Committee
(Please see para no. 1.18 of Chapter I)**

CHAPTER V

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

Observation/Recommendation No. 24

Leveraging Our Capabilities in Space and Information Technology for R&D in Defence

Vision statement of Draft DPP 2018 stated about making India among the top five countries of the world in Aerospace and Defence industries, with active participation of public and private sector, fulfilling the objective of self-reliance as well as demand of other friendly countries. The Committee noted that along with the DPSUs, the Country had institutions like ISRO in the field of research in cutting edge technologies in the field of missile and space technology. Performance of ISRO had been laudable and it had become a world leader in satellite launch vehicles. It was also offering its services on commercial basis to 102 other countries. The Committee felt that it was very important to leverage our capabilities in space and nuclear technology not only for self reliance in defence hardware but also to become a major exporter. For this, an attitude of partnership and collaboration needs to be developed between organisations such as ISRO, DRDO and the DPSUs. The Committee, therefore, recommended the formation of an inter-ministerial group to facilitate such collaboration. The Committee might be apprised of steps taken in this direction.

Reply of the Government:

In order to tap the potential available with the space and nuclear establishments in the country, the draft Defence Production Policy 2018 proposes the following:

Department of Defence Production (DDP) will consult all stakeholders and explore possibility of setting up an autonomous National Aeronautical Commission, in line with Nuclear or Space Commissions to bring focus to following important areas:

- a) Leverage mutually beneficial links between military and civil aviation for expansion and, importantly, indigenisation.
- b) Bring together diverse agencies for synergies in technology development, basic and fundamental research and production.
- c) Create a scenario in which the benefits of a competitive environment are felt in all areas of the economy as a whole and the defence economy in particular.

Furthermore, DDP has initiated action towards the formation of an Inter-Ministerial Group to facilitate collaboration between ISRO, DRDO and DPSUs to leverage the nation's capabilities in space and nuclear technology not only for self reliance in defence hardware but also to become a major exporter.

Comments of the Committee
(Please see para no. 1.24 of Chapter I)

Observation/Recommendation 30

HAL in a written submission before the Committee had made a suggestion for creation of additional post of Director (Corporate Planning and Business Development). Besides, the attention of the Committee had been drawn to the need for upgradation of pay scales of officers of the company on par with PSUs like BHEL/NTPC based on the recommendations of the Expert Group constituted by the Government under the Chairmanship of Shri B. K. Chaturvedi for restructuring and strengthening of HAL. The Committee would like the Ministry of Defence to consider the proposals submitted by HAL positively in view of interest of the organization

Reply of the Government :

1. With the approval of Hon'ble Prime Minister, an Expert Group under the Chairmanship of Shri B.K. "Chaturvedi, Former Cabinet Secretary and Member, Planning Commission was constituted in 2011 for restructuring and strengthening of Hindustan Aeronautics Limited (HAL). The Expert Group submitted its report to Government in September, 2012. As per one of the recommendations of the Expert Group, the Board of HAL was to be reconstituted as a 14 Members Board with 5

Functional Directors including CMD, 2 Government Directors and 7 Independent Directors:

2. The proposal for reconstitution of the Board of Directors of HAL was considered by PESB in consultation with DPE. While considering the proposal, PESB vide its O.M dated 04.11.2013 was of the view that Administrative Ministry may consider retaining the post of Director (CP&M) and desirability of creating an additional post of Director (Operations) depending upon the reporting/ supervisory mechanism between proposed CEOs and HAL Board.

3. The view of the PESB was considered by this Department and it was felt that creation of an additional post of Director would also require appointment of an additional Independent Director to comply with the SEBI guidelines. This would have taken the strength of HAL's Board to 16 as against the recommendation of the Expert Group for downsizing it to 14 from the then size of 17. Therefore, the same was not agreed to.

4. In view of above decision, the proposal for reconstitution of the Board of Directors of HAL was sent to DPE for obtaining concurrence of PESB. In this regard, DPE vide its O.M dated 29.01.2014 had intimated that the proposal was considered in consultation with PESB and the same was concurred into. They had requested this Department to process the proposal further and to obtain the approval of ACC in this regard.

5. In the light of directions of DPE, the proposal for reconstruction of HAL Board was sent to ACC for approval in March, 2014. ACC vide its communication dated 25.11.2014 had accorded approval for reconstitution of the Board of Directors of HAL, in which inter-alia, it was decided to discontinue the post of Director (CP&M) and creation of a re-designated post of Director (Operations) in lieu thereof.

6. HAL had again initiated the proposal for creation of the post of Director (Corporate Planning and Business Development) in August, 2017 and the same was examined in the Department. Since the reason for discontinuation of Dir (CP&M) remains the same, the proposal of HAL was not agreed to.

7. Pay Scales of Executives and Non-unionised Supervisors of CPSEs is notified by the Dept. of Public Enterprises (DPE) from time to time. HAL has been adopting the Pay Scales as notified by the DPE. However, PSUs like ONGC, NTPC, BHEL, GAIL etc. had been adopting superior Pay Scales which are two levels above that adopted in HAL, including at the entry level for fresh Engineering Graduates, etc. The entry level pay scales of HAL in comparison with other big PSUs are as below:

HAL		BHEL		NTPC	
Grade	Scale	Grade	Scale	Grade	Scale
I	12600-32500	E-1	20600-46500	E-1	20600-46500

8. The Govt. vide MoD letter dated 21/10/11 had constituted an Expert Group under the Chairmanship of Shri B.K. Chaturvedi, Former Cabinet Secretary and Member, Planning Commission, to carry out a comprehensive review of the working and restructuring of HAL. Amongst others, the Group had noted that the Pay Scales and Salary Structure for Executives of HAL are much lower compared to other Navaratna PSUs in the manufacturing Sector; and had recommended that HAL's Pay Scales & salary structure needs to be brought at par with CPSUs like BHEL/NTPC.

9. While communicating acceptance of the Government of the various recommendations of the Expert Group, MoD vide its letter dated 25/04/13 had intimated HAL that the proposal to upgrade the Pay Scales of Executives, on par with the Pay Scales. in BHEL/NTPC, be examined internally; and on obtaining approval of the Board of Directors, be forwarded to the Ministry for consideration and approval.

10. Accordingly, proposal for upgradation of the Pay Scales was considered by the HAL Board during March 2014. The Board had approved upgradation of the Pay Scales by one level w.e.f 01.04.2014; and by one more level w.e.f 01.01.2017, to bring them on

par with BHEL. On approval by the Board, HAL vide its letter dated 18.03.2014 had forwarded the proposal to this Ministry to consider upgradation of Pay Scales, within the then prevailing 2007 Pay Scales notified by the DPE.

11. In June, 2017, with the approval of competent authority, a Note was moved for consideration and approval of CCS on the proposal for upgradation of pay scales in respect of Executives in HAL. PMO vide their ID dated 19.07.2017 had conveyed that the Cabinet Secretary may constitute an expert committee to take a holistic view on rationalization of pay scales in all public sector enterprises in consultation with relevant stakeholders. After the report of the expert committee is finalized, the Department of Public Enterprises (DPE) may be the nodal Department to take further necessary action on the committee's recommendations. Thereafter, no further communication has been received in this regard.

Comments of the Committee
(Please see para no. 1.30 of Chapter I)

NEW DELHI;
22 September, 2020
Bhadrapada 31, 1942 (Saka)

GIRISH BHALCHANDRA BAPAT,
CHAIRPERSON,
ESTIMATES COMMITTEE.

Status of DPSUs regarding registration and implementation of TReDS:

Sl. No.	DPSU	Registered on TReDS Platform (Yes/No)	Status of implementation
1	HAL	Yes, RXIL & Mynd Solution Pvt. Ltd.	Started payment through TReDS. 2 No. of invoices worth ₹. 1.67 lakhs referred to the TReDS platform in the month of August.
2	BEL	Yes RXIL Member ID: BH0000157	'Nil' invoices referred to TReDS
3	MIDHANI	Yes A.TREDS Limited (JV of Axis Bank and mjunction): ARN: EHPIDDZE5V Entity (Account) Number: 1000001120.	'Nil' invoices referred to TReDS
4	BEML Ltd.	Yes RXIL, Mumbai, member Code of BEML Limited: BE0000187	--
5	BDL	Yes	--

		ATReDS. The ARN no. allotted for BDL is 1JOPH94DQ0.	
6	GSL	Yes RXIL, Member ID: GO0000186.	Started payment through TReDS. 1 No. of invoice worth ₹. 1,82,742 referred to the TReDS platform.
7	GRSE	Yes, A.TReDS. Registration No. is "5H58M936FB"	Started payment through TReDS. 21 no. of invoices worth ₹. 77,47,546.68 referred to the TReDS platform in the month of August. 22 No. of invoices worth ₹. 13,564,685.64 referred to the TReDS platform in the month of September.
8	MDL	Yes, A..TReDS	Started payment through TReDS. 1 no. of invoice worth ₹. 434,055 referred to the TReDS platform in the month of August. 4 no. of invoices worth ₹. 2,68,275 referred to the TReDS

			platform in the month of September.
9	HSL	Yes, RXIL/1120170152.	--

ANNEXURE II

Appendix - 'A'AoN approvals for Systems Developed by DRDO: 2015 - 2018

Major systems developed by DRDO where AoN has been accorded for induction in the Services during the last three years include:

S.N.	System/Equipment	Services	Qty	Cost (Cr)
1.	BrahMos System and Missiles for Delhi and Talwar Class Ships on 13 May 2015	IN	06 Brahmos Sys & 62 Brahmos Msl (Combat Missiles-52, Practice Missiles-10)	₹2703.00
2.	Advance Landing Ground Communication Terminals (ALGCTs) for ALGs under AOR of WAC&EAC on 13 May 2015	IAF	19	₹148.90
3.	Installation & Operationalisation of Telemedicine on 13 May 2015	IN	As per SoC	₹51.59
4.	10 M Short Span Bridge on 01 Sep 2015	IA	102	₹490.00
5.	Additional Seven Squadrons (14 Firing Units) of Indigenous Akash Missile System on 01 Sep 2015	IAF	07 Sqns (14 FUs)	₹4793.94
6.	Procurement of Ground Equipment Accessories, Spares, Buyer Furnished Equipment (BFE) and Ammunition for Six Pinaka Multiple Launch Rocket System (MLRS) Regt on 17 Dec 2015	IA	06	₹14633.42
7.	Procurement of Trawl Assembly for T-72/T-90 Tanks on 17 Dec 2015	IA	56	₹209.00
8.	The following sub-systems are approved to be developed by DRDO in "Nomination of Weapon and Sensors for P-17A Ship on Single Vendor Basis" on 11 Mar 2016:	IN		
	LRSAM and MF Star		07	₹ 8054.83
	Surface to Surface Missile System		07	₹ 960.12
	EW System Shakti with Nayan COMINT		07	₹ 1061.83

MINUTES OF 4th SITTING OF THE COMMITTEE ON ESTIMATES (2020-21)

The Committee sat on Monday, the 21st September, 2020 from 1200 hrs. to 1330 hrs. in Committee Room 'B', Parliament House Annexe, New Delhi.

PRESENT

Shri Girish Bhalchandra Bapat - Chairperson

Members

2. Kunwar Danish Ali
3. Shri Sudharshan Bhagat
4. Shri Ajay Bhatt
5. Shri P.P. Chaudhary
6. Shri P.C. Gaddigoudar
7. Shri Nihal Chand Chauhan
8. Shri Dharmendra Kumar Kashyap
9. Shri Mohanbhai Kalyanji Kundariya
10. Shri Dayanidhi Maran
11. Shri K. Muraleedharan
12. Dr. K.C. Patel
13. Col. Rajyavardhan Singh Rathore
14. Shri Rajiv Pratap Rudy
15. Shri Francisco Sardinha
16. Shri Prathap Simha
17. Smt. Sangeeta Kumari Singh Deo

SECRETARIAT

- | | | | |
|----|---------------------|---|---------------------|
| 1. | Dr. Kavita Prasad | - | Joint Secretary |
| 2. | Smt. B. Visala | - | Director |
| 3. | Smt. A. Jyothirmayi | - | Additional Director |
| 4. | Shri R.S. Negi | - | Deputy Secretary |

WITNESSES

- | | | | |
|----|-----|-----|-----|
| 1. | xxx | xxx | xxx |
| 2. | xxx | xxx | xxx |
| 3. | xxx | xxx | xxx |

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee and briefed them about the agenda of the sitting viz. (i) Consideration and adoption of the draft report(s) xxx xxx xxx xxx.

3. The Committee then took up for consideration and adoption of the following draft Reports:

(i) xxx xxx xxx xxx.

(ii) Action Taken Report on the Observations/Recommendations contained in the 29th Report (16th Lok Sabha) of the Committee on Estimates on the subject 'Preparedness of Armed Forces – Defence Production and Procurement' pertaining to the Ministry of Defence; and

(iii) xxx xxx xxx xxx.

4. The Committee after due deliberations adopted the above 03 draft Action Reports without any modifications and authorised the Chairperson to finalize them in the light of the factual verification by the concerned Ministry and present the same to Lok Sabha.

5. xxx xxx xxx xxx.

6. xxx xxx xxx xxx.

7. xxx xxx xxx xxx.

8. xxx xxx xxx xxx.

9. xxx xxx xxx xxx.

The Committee, thereafter, adjourned.

ANALYSIS OF THE ACTION TAKEN BY GOVERNMENT ON THE OBSERVATIONS/RECOMMENDATIONS CONTAINED IN THE TWENTY-THIRD REPORT OF THE COMMITTEE ON ESTIMATES (16th LOK SABHA)

(i)	Total number of recommendations/observations	30
(ii)	Recommendations/Observations which have been accepted by the Government	17
	(Sl.Nos. 3 to 5, 7,9, 14 to 16, 18, 20, 21, 22, 23, 26, 27, 28 and 29)	
	Percentage of total recommendations	56.67%
(iii)	Recommendation/Observation which the Committee do not desire to pursue in view of the Government's reply	8
	(Sl. No. 6, 8, 10 to 13, 17 and 25)	
	Percentage of total recommendations	26.67%
(iv)	Recommendations/Observations in respect of which Government's replies have not been accepted by the Committee	3
	(Sl. Nos. 1, 2 and 19)	
	Percentage of total recommendations	0.10%
(v)	Recommendation/Observation in respect of which final replies of Government is still awaited.	2
	(Sl. No. 24 and 30)	
	Percentage of total recommendations	6.67%