16

STANDING COMMITTEE ON DEFENCE (2020-21)

(SEVENTEENTH LOK SABHA)

MINISTRY OF DEFENCE

[Action taken by the Government on the Observations / Recommendations contained in the Eighth Report (Seventeenth Lok Sabha) on Demands for Grants of the Ministry of Defence for the year 2020-21 on 'Ordnance Factories, Defence Research and Development Organisation, Directorate General of Quality Assurance and National Cadet Corps (Demand Nos. 19 and 20)]'.

SIXTEENTH REPORT



LOK SABHA SECRETARIAT NEW DELHI

February, 2021/ Magha, 1942 (Saka)

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Presented to Lok Sabha on 12.02.2021

Laid in Rajya Sabha on 12.02.2021



LOK SABHA SECRETARIAT

NEW DELHI

February, 2021/ Magha, 1942 (Saka)

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COMPOSITION OF THE STANDING COMMITTEE ON DEFENCE (2020-21)

Shri Jual Oram (BJP) - Chairperson

Lok Sabha

2.	Shri Deepak (Dev) Adhikari
3.	Kunwar Danish Ali
4.	Shri Ajay Bhatt
5.	Shri Devusinh Jesingbhai Chauhan
6.	Shri Nitesh Ganga Deb
7.	Shri Rahul Gandhi
8.	Shri Annasaheb Shankar Jolle
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10.	Prof. (Dr.) Ram Shankar Katheria
11.	Smt. (Dr.) Rajashree Mallick
12.	Dr. T.R. Paarivendhar
13.	Shri Kapil Moreshwar Patil
14.	Shri Anumula Revanth Reddy
15.	Shri Jugal Kishore Sharma
16.	Dr. Shrikant Eknath Shinde
17.	Shri Prathap Simha
18.	Shri Brijendra Singh
19.	Shri Mahabali Singh
20.	Shri Kotagiri Sridhar
21.	Shri Durga Das Uikey

Rajya Sabha

22.	Dr. Ashok Bajpai
23.	Shri Prem Chand Gupta
24.	Shri Sharad Pawar
25.	Shri V. Lakshmikantha Rao
26.	Shri Sanjay Raut
27.	Shri Rajeev Satav
28.	Dr. Abhishek Manu Singhvi
29.	Shri Kamakhya Prasad Tasa
30.	Dr. Sudhanshu Trivedi
31.	Lt. Gen. Dr. D. P. Vats (Retd.)

SECRETARIAT

1. Smt Kalpana Sharma - Additional Secretary

2. Dr. Sanjeev Sharma - Director

3. Shri Rahul Singh - Deputy Secretary

4. Shri Rajesh Kumar - Assistant Executive Officer

INTRODUCTION

I, the Chairperson of the Standing Committee on Defence (2020-21), having been authorized by the Committee, present this Sixteenth Report of the Committee on 'Action Taken by the Government on the Observations/Recommendations contained in the Eighth Report (Seventeenth Lok Sabha) on Demands for Grants of the Ministry of Defence for the year 2020-

21 on 'Ordnance Factories, Defence Research and Development Organisation, Directorate

General of Quality Assurance and National Cadet Corps (Demand Nos. 19 and 20)'.

2. The Eighth Report was presented to Lok Sabha and laid in Rajya Sabha on 13 March, 2020. The Report contained 54 Observations/Recommendations. The Ministry of Defence furnished Action Taken Replies on all the Observations/Recommendations in July 2020.

3. The Report was considered and adopted by the Committee at their Sitting held on 09.02.2021.

4. For facility of reference and convenience, Observations/Recommendations of the Committee have been printed in bold letters in the Report.

5. An analysis of Action taken by the Government on the Observations/Recommendations contained in the Eighth Report (17th Lok Sabha) of the Standing Committee on Defence is given in Appendix II.

New Delhi 09 February, 2021 20 Magha, 1942 (Saka) Jual Oram Chairperson, Standing Committee on Defence

CHAPTER I

<u>REPORT</u>

This report of the Standing Committee on Defence deals with Action Taken by the Government on the observations/recommendations contained in the Eighth Report of Standing Committee on Defence (17th Lok Sabha) on 'Demands for Grants of the Ministry of Defence for the year 2020-21 on Ordnance Factories, Defence Research and Development Organisation, Directorate General of Quality Assurance (DGQA) and National Cadet Corps (NCC) (Demand No. 20)' which was presented to Lok Sabha and laid in Rajya Sabha on 13 March, 2020.

2. The Committee's Eighth Report (17th Lok Sabha) contained 54 observations/ recommendations on the following aspects:-

Para No.	Subject				
ORDNANCE FACTORIES					
1	Budgetary Provisions				
2 to 4	Order Book position				
5 to 7	Manpower				
8 to 10	Budget for modernization				
11 to 13	Delay in projects and supply to Armed Forces				
14	Quality Issues				
15 & 16	Export of Ordnance Factories Products				
18 & 19	Expenditure on Research & Development:				
20 to 22	Budgetary Provisions				
23 & 24	Development of New Technologies				
25	Manpower				
26	Role of DRDO in Selection Process of Officers				
27 & 28	Coordination in Research and Development with Private Sector				
29 to 31	Basic Research in Academia				
32 & 33	Products developed by DRDO (Coordination between DRDO and Service Users)				
34 & 35	Skill Development Training				
36 & 37	Closed Projects				
DIRE	DIRECTORATE GENERAL QUALITY ASSURANCE				
38-40	Budget				
41 & 42	Manpower and training				

43 & 44	43 & 44 Quality Check			
	NATIONAL CADET CORPS			
45 & 46	Budget			
47 & 48	Expansion of NCC and self-financing scheme			
49	49 CSR Policy for NCC Programmes			
50 to 54	Skill Development and Employability of Cadets			

- 3. Action Taken Replies have been received from the Government in respect of all the observations/recommendations contained in the Report. The replies have been examined and categorized as follows:-
 - (i) (a) Observations/Recommendations which have been accepted by the Government:

Para Nos. 1,2,3,4,13,14,15,16,17,18,19,23,24,26,29,32,33,34,35, 36,37,38,39,40,43,44,45,46,47,48,49,53,54

(33 Recommendations)

These are included in Chapter II of the Draft Report.

(b) Observations/Recommendations which have been accepted by The Government and are commented upon:

Para Nos. 5,6,7,8,9,10,11,12,20,21,22,25,27,28,30,31,41,42,50,51,52

(21 Recommendations)

These are included in Chapter II of the Draft Report.

(ii) Observations/Recommendations which the Committee do not desire to pursue in view of the replies received from the Government:

Para No. -Nil-

(00 Recommendations)

These are mentioned in Chapter III of the Draft Report.

(iii) Observations/Recommendations in respect of which replies of Government have not been accepted by the Committee which require reiteration and to be commented upon:

Para No. -Nil-

(00 Recommendations)

These are included in Chapter IV of the Draft Report.

(iv) Observations/recommendations in respect of which Government have furnished interim replies:

Para No. -Nil-

(00 Recommendations)

These are included in Chapter V of the Draft Report.

4. The Committee desire that the Ministry's response to their comments made in Chapter I should be furnished to them at the earliest and in any case not later than six months of the presentation of this Report.

ORDNANCE FACTORIES

A Manpower

Recommendation (Para Nos. No. 5 to 7)

5. The Committee had recommended as under:

'From the information provided to the Committee, they find that, the Sanctioned strength of Ordnance Factories is 1,45,503 while the held strength has been declining and in January 2020, it come down to 80,524. Out of this, the Technical strength is 67,321 against a sanctioning of 1,23,142 while Non-Technical strength is 13,203 against sanctioned post of 22,361.

The Committee observe that the existing strength is almost only half of the sanctioned strength. They were apprised that Ordnance Factory Board had recently concluded recruitment of 2668 Industrial employees. Moreover, recruitment of 378 'Non-industrial employees and 692 Charge-man is under process. In this respect, the Committee were further apprised that considering decline of orders from Army owing to declaration of non-core items, very limited recruitment is in

In light of the facts stated here, the Committee recommend that a revision of sanctioned strength must be conducted in Ordnance Factories reflecting a realistic scenario of requirement of manpower in various factories and offices of Ordnance Factory Board(OFB). Based on the outcome of such revision and keeping in view the issue of future exports, which is discussed in the succeeding paragraph, optimal manpower strength should be determined and inducted consequently. Besides, the trained existing manpower of Ordnance Factory Board(OFB) must be fully and optimally utilized in various activities of Ordnance Factories(OFs) to ensure that they achieve self-reliance model at the earliest'.

Reply of the Government

6. The Ministry in its action taken reply has stated as under:-

'In the year 2015, an exercise for rationalization of manpower was carried out by a committee constituted for the purpose. Based on its recommendation, the overall

sanctioned strength of the OFB organization has been reduced from 1,63,103 to 1,45,503 along with a direction that operational strength of OFB will not exceed 1,10,000.

Further, with the introduction of Core & Non-core items, there is a fundamental change in the policy as orders for non-core items will not be given to Ordnance Factories on nomination basis. This has affected the load position in certain Ordnance Factories engaged in manufacturing of clothing items. To realign with these policy changes, Ordnance Factories have taken up a program of re-skilling its manpower especially in the factories under Ordnance Equipment Factories (OEF) group, which are basically manufacturing the clothing items with the help of the Tailors'.

Comments of the Committee

7. Considering the fact that Ordnance Factories were working on almost half of the sanctioned manpower strength, the Committee had recommended for revision of sanctioned strength reflecting a realistic scenario of requirement of manpower in various factories and offices of Ordnance Factory Board (OFB). In the reply, it has been stated by the Ministry that a manpower rationalization exercise was conducted in 2015. It has also been stated that in view of the introduction of core & non-core items, there is a fundamental change in the policy as orders for non-core items will not be given to Ordnance Factories on nomination basis, therefore a programme of re-skilling of manpower is being undertaken which is appreciable.

The Committee desire that especially in view of a fundamental shift in the policy as pointed out by the Ministry, a fresh rationalization exercise for optimization of manpower may be taken up for a realistic assessment of manpower requirement as there has been a considerable time gap since 2015 when the exercise was last taken up by the Ministry. The Committee also opine that the re-skilling of existing manpower in Ordnance Equipment Factories (OEF) group should be further taken up more proactively in a time-bound manner to ensure optimal and qualitative utilization of manpower in the Ordnance Factories under intimation to the Committee.

B Budget for Modernization

Recommendations (Para Nos. 8 to 10)

8. The Committee had recommended as under:

'The Committee were given to understand that modernization of OFs is a continuous process. The outlay provided in respect of modernization is divided into three parts viz. Machine & equipment, Renewal and Replacement (RR) of Plant & Machinery (P&M) which are beyond economical repairs, Acquisition of P&M under capacity creation/Augmentation under New Capital and Development of Civil Works infrastructure.

The Committee note that allocation during last five years was Rs. 1913.19 crore while actual allocation was Rs. 1947.86 crore. The Committee also find that in case of works the allocation was Rs.1607.63 crore while expenditure Rs. 1582.66 crore. There was an under spending of Rs. 24.97 crore. In case of R&R the allocation was Rs. 2210.00 crore and expenditure Rs. 2100.50 crore. The Committee note when the Capital

allocation for 2020-21 is to the tune of Rs. 1268 crore, a surrender of Rs. 109.50 crore is not a negligible amount over a period of five years.

In this respect, the Committee recommend that necessary corrections are to be carried out and expenditure on modernization by Ordnance Factory Board(OFB) should exhibit seriousness'.

Reply of the Government

9. The Ministry in its action taken reply has stated as under:-

Expenditure during last 5 years is shown below:

(Rs. in crore)

Budget Head		2014-	2015-	2016-	2017-	2018-	Total	Shortfall
		15	16	17	18	19		
Renewal and	Allotment	450.00	425.00	450.00	460.00	400.00	2185.00	84.50
Replacement	Expenditure	441.87	385.73	451.77	422.80	398.33	2100.50	
(RR)								
New Capital	Allotment	489.00	305.00	364.61	486.58	332.00	1977.19	29.00
(NC)	Expenditure	485.75	312.30	368.62	488.92	292.27	1947.86	
Civil Works	Allotment	315.00	343.00	339.67	317.00	293.00	1607.67	25.38
(CW)	Expenditure	300.66	339.45	337.84	314.54	289.80	1582.29	

Net allotment in last 05 years was Rs. 5770 Crore and Rs. 109.50 Crore was surrendered (approximately 1.9%). Out of this Rs. 109.50 Crore, Rs. 84.50 Crore comes under the category of Renewal and Replacement (RR) which is a self-generated fund accumulated by the depreciation value of existing Plant & Machineries and is carried forward for subsequent year. Therefore, actual fund that could not be utilized and got surrendered was Rs. 54.38 Crore (approximately. 0.9%) spread over a period of five years.

Comments of the Committee

10. The Committee had expressed their concern on the under spending of allocated funds towards modernization of Ordnance Factories and had desired that given the pivotal importance of modernization measures more seriousness needs to be exhibited in this respect. In their reply, the Ministry has stated that the actual unutilized fund which was surrendered stands at Rs.54.38 crore spread over a period of five years.

Here, the Committee would like to reiterate that modernization is an extremely vital area which requires adequate allocation and optimal utilization of available funds. Stating the fact that even the total allocated funds under most of the heads as seen from the statement provided by the Ministry could not be spent fully is not acceptable and the Committee therefore, desire that corrective measures must be taken for proper assessment of requirement and optimal utilization of funds allocated for modernization to ensure maximum efficacy in this area.

C Delay of Projects

Recommendations (Para No. 11-12)

11. The Committee had recommended as under:

'The Committee were informed in the written replies about the various reasons for delay at the tendering, supply and erection and commissioning stages. They were further informed that when Detailed Project Report is prepared, a realistic timeline for the completion of the project is taken, taking all these aspects into consideration. Also regular review meetings are held to monitor progress. The Committee while recognizing that a few of these factors are beyond the control of the Ordnance Factories, observe that delays have been quite a part & parcel of Ordnance Factories projects which has also affected their pace of production. The Committee can infer that there is lot of slippage in the supply by Ordnance Factories to the Army, their main client, which have put extra burden on the exchequer also. The inordinate delays also adversely impact not only Indian supply but the export potential.

The Committee note with concern that only 49 per cent of the Budget Estimates that was predicted for the current financial year have been booked by the Ordnance Factories. The Committee recommend that this shortfall may be taken up at the highest level to take it to 100 percent and a time frame for achieving the same fixed under intimation to the Committee. The Committee is deeply concerned about the decreasing supply of products to the Army and the inability of the Ordnance Factories to meet their demands'.

Reply of the Government

12. The Ministry in its action taken reply has stated as under:-

'Indian Armed Forces are always the paramount priority for OFB and all efforts are made to ensure that there is least effect on the supplies to user in requisite quantity. Also, OFB is making all endeavors to continue the uninterrupted pace of production and supply the important armament stores timely to Indian Army.

OFB supplies items to the Armed Forces based on consultation by mutually agreed targets fixed on yearly basis. Further, efforts are being made to avoid/reduce delays through better planning, periodic reviews of progress, and enhanced interaction with Indian Armed Forces to facilitate addressing their concerns during the production process.

Also, regular review is being done in the Ministry with MGO and DGQA to resolve quality issues of OFB. Interaction of OFB officers with the Depot Heads for the purpose of getting first hand feedback has resulted in addressing the deficiencies in supply of quality ammunition immediately.

OFB has the VOP (Value of Production) for the FY 2019-20 as Rs. 9,213 Crore with respect to the Modified Appropriation (MA) sanctioned of Rs. 11,166 Crore (MA) i.e. 82.5%. This is excluding items worth Rs. 1,313 Crore which were under proof/inspection

and could not be issued due to country-wide lockdown on account of Covid-19 Pandemic, (All figures are excluding GST). If these stores could have been proved and issued before 31st March 2020, the issue figure would have been around 94% with respect to MA.

Prior to Lockdown due to Covid-19 pandemic, which unfortunately occurred in the month of March; (usually the month of final dispatches and maximum VOI), some other factors also led to lower the issue figures:

- (i) The foremost item-wise target was available only in February, 2019 in the form of Letter of Intent (LOI) targets, even that did not include the Targets for Capital Items and Repair Components e.g. Pinaka Rockets, ERA Panels for T-72, though it is a high value item.
- (ii) The item-wise targets for all items including Capital Items like Pinaka etc. were finally received in September, 2019. (This list was having total value as same as to the Budgeted amount catered for in LOI Target).
- (iii) Ideally, item wise targets should be received at least 9 months before start of financial year, considering the procurement lead time for input materials of around 6 months and the out turn time (Manufacturing/proof/inspection time) of around 3 months for OFB's products in general. In case of imported input materials, the lead time may be even higher. Delayed receipt of item wise target in September, 2019, especially for Ammunition items, which require passed proof components, has adversely affected the production plan of 2019-20'.

Comments of the Committee

13. The Committee had expressed their concern at the high rate of slippages in the supply by Ordnance Factories to the Army which adversely impacted the Indian supply as also the export potential. In its action taken reply, the Ministry has stated about the various mechanisms and measures being taken for ensuring uninterrupted pace of production and timely supply to the Indian Army.

The Committee while appreciating the robust consultation and review process being implemented to avoid delay in projects by ensuring uninterrupted supplies by the Ordnance Factory Board, also express their concern over the lack of real-time results undertaking these measures. The Committee desire that a review on the effectiveness of the current processes may be done at appropriate level and a time-bound action plan may be worked upon to bring down the slippages.

The Committee had expressed their concern over the lower percentage of the Budget Estimates being booked by the Ordnance Factories. The Committee recognise the country-wide lockdown on account of Covid-19 as one of the unavoidable impediments in the process as pointed out by the Ministry in its reply. The Committee, however, express their concern over other factors like delay in receipt of item-wise targets on various accounts for the shortfall and note that no clear justification or reasons have been stated for the same. The Committee desire that information on detailed reasons for the delays other than lockdown as well as corrective measures taken

to avoid such situation in future by the Ministry may be communicated invariably to them while furnishing further Action Taken Statements.

<u>DEFENCE RESEARCH DEVELOMENT ORGANISATION</u>

D Budget of DRDO

Recommendation (Para Nos. 20 to 22)

14. The Committee had recommended as under:

The Committee find that during the financial year 2020-21, the proposed BE allocation of DRDO was Rs. 23,457.40 Cr and the approved allocation is Rs. 19327.35 Cr. There is a shortfall of Rs. 4130.00 Cr. With regard to the budgetary requirements, the DRDO stated that keeping aside mandatory expenses for strategic schemes & pay & allowances, the amount left for R&D activities is meager. However, the Department manages within allocations by prioritizing project activities.

During the course of examination of Demands for Grants 2020-21, the Committee found that in 2019-20, the approved BE allocation for DRDO was Rs. 19,021.02 Cr, while the approved RE allocation was Rs. 17,730.78 Cr. The Committee note that the RE allocation is even lesser than the BE allocation by Rs. 1,280.22 Cr.

Further, in respect of the Budgetary grants, the Committee on glancing through the papers submitted by the Ministry of Defence, found that DRDO expenditure as percentage of total GDP has also plummeted over past years. In 2015-16, it was 0.098% which came down to 0.086% in 2020-21.

After taking into account the details stated above, the Committee observe that Defence R&D is imminent component of progress in country's Defence & also boost indigenisation efforts of the Government. In addition, it also enhances export potential of the Country. Therefore, adequate funding for R&D is essential, which is not being reflected in the status of budgetary grants as highlighted in above paras. More importantly, deduction in RE grant after allocating an amount in BE grant is not a healthy budgeting phenomena as it would lead to certain last minute prioritization and ad-hocism. It is a known fact that advanced countries spend substantial amount on Research and Development, therefore, the Committee are of the view that the percentage of defence R&D spending to total GDP shall, if not, at par with other leading countries of the world, be at least adequate for our future needs. The Committee, therefore, recommend that in light of the case presented here, Government should ensure provision of adequate funds to DRDO in additional/supplementary grants stages'.

15. The Ministry in its action taken reply has stated as under:-

"DRDO owes thanks to the Committee for its recommendation in regards to Funds. The details of FBE, Budget Allocations for the Deptt of Defence R&D at different Budgetary stages and actual expenditure w.e.f FY 2017-18 is mentioned in Table 1.

Table 1

(Rs in crore)

Year	BE Proposed	BE Approved	RE Approved	MA Approved
2017-18	19935.60	14818.74	15463.25	15399.25
2018-19	22203.74	17861.19	17610.38	17121.99
2019-20	22953.95	19021.02	17730.78	17730.78
2020-21	23457.40	19327.35		

The comparison of Defence Expenditure and DDR&D expenditure w.e.f FY 2017-18 is enumerated in Table 2.

Table 2

(Rs. in crore)

Year	Defence Expenditure	BE Proposed by DR&D	Budget allocated to R&D at BE stage	%age of Defence Expenditure
2017-18 (BE)	274114.00	19935.60	14818.74	5.41
2018-19 (BE)	295511.41	22203.74	17861.19	6.04
2019-20 (BE)	318931.22	22953.95	19021.02	5.96
2020-21 (BE)	337553.00	23457.40	19327.35	5.73

It may be noted that against the projection of Rs. 23457.40 Cr at BE stage during the FY2020-21, an amount of Rs 19327.35 Cr. has been allocated. However, it is a fact that budgetary allocations are much less than the projections made by the Department of Defence Research & Development (R&D) but the Department is managing within the allocations by re-prioritizing the project activities. Further, additional funds would be required to support various projects to be undertaken in futuristic areas.

Yes, it is a fact that BE approved for Department of Defence Research and Development DD(R&D) during the FY 2019-20 was Rs. 19021.02 Cr and the same was reduced to Rs 17730.78 Cr at RE stage. Thus there has been an overall reduction of Rs 1290.24 Cr.

A reduction of Rs 1760.65 Cr was imposed under Capital Head based on the expenditure trend during the FY 2019-20. However, an additional amount of Rs 470.41 Cr was also provided under Revenue Head during the FY at RE stage.

Defence (R&D) Expenditure as percentage of GDP w.e.f 2015-16 is given in Table 3.

Table 3

(Rs. in crore)

Year	TOTAL GDP	DD R&D Exp	DD R&D Exp as % of TOTAL GDP
2015-16	13682035.00	13540.11	0.098
2016-17	15183709.00	13501.00	0.088
2017-18	16847455.00	15399.25	0.091
2018-19	18840731.00	17121.99	0.090
2019-20(AE)	20442233.00	17730.78	0.086

Comments of the Committee

16. The Committee had stressed on the need for the adequate funding for Research & Development activities of DRDO especially in view of its being an imminent component of progress in country's defence, boost indigenisation efforts of the Government as also enhancing the export potential of the country. The Committee, therefore, would like to reiterate their earlier recommendation that all efforts may be made by the Ministry to ensure that provision of adequate funds to DRDO is made in additional/supplementary grants stage.

E Manpower

Recommendations (Para No. 25)

17. The Committee had recommended as under:

Presently authorized strength of scientists in DRDO is 7,353 while existing strength is 7,068. The percentage of scientist in DRDO is 30% of total strength of DRDO. Further, the Committee were apprised that since 2001, DRDO has been managing with same authorization inspite of more than 6 fold increase in outlay from IX to XIII plan. The Committee note that the current manpower is grossly insufficient for committed R&D projects. In 2010, Manpower Planning Board (MPB) had recommended for increasing manpower by 4966. Ministry of Finance (MoF) recommended 1316 posts. However, the case is pending with Cabinet Committee on Security (CCS). After a lapse of 10years since MPB recommended sanctioning of posts in 2010, there had been no addition in sanctioned strength, therefore, the Committee urge that Ministry of Defence shall make efforts to cadre review and revision of sanctioning of strength of scientists in DRDO, commensurate with increased number of projects/work. Also, the case of 436 posts already approved by Ministry of Finance (MoF) in phase-I and pending with CCS shall be expedited. The initiation done in this regard along with the probable date of induction be communicated to the Committee at the earliest'.

18. The Ministry in its action taken reply has stated as under:-

'The said case was expedited with the Department of Expenditure (DoE) and subsequently approval has been accorded for augmentation of manpower in DRDO by 436 posts (below JS level) on 24 Apr 2020.

MoF has also advised to take up a fresh case for approval of CCS for creation of two posts (above JS level) viz. Chief Executive and Chief Construction Engineer'.

Comments of the Committee

19. The Committee in their recommendation had pointed out the delay in increasing the manpower in DRDO adequately as well as the low percentage of scientists in relation to the total strength in the organization. The Committee are happy to note that approval of 436 posts have been accorded as well as creation of two posts viz. Chief Executive and Chief Construction Engineer are in the pipeline.

However, the Committee have not been clearly apprised of the progress made in the recommendation of Ministry of Finance for increasing manpower as well as the reasons for such a low percentage of scientists vis-a-vis the total strength of DRDO. The issue of augmentation of manpower especially of scientists in DRDO is of vital importance given that DRDO has been managing with same authorization inspite of more than 6 fold increase in outlay from IX to XIII plan. The Committee desire that more effective measures may be taken by the Ministry for augmentation of manpower in DRDO under intimation to the Committee.

F Coordination in Research and Development with Private Sector

Recommendations (Para Nos. 27 & 28)

20. The Committee had recommended as under:

The Committee note that DRDO has made rapid progress with the infusion of private sector involvement in the research related activities of DRDO. The Committee appreciate the large number of steps taken in this direction like opening of world class test facilities, MoUs with leading industry chambers, help rendered to the private industry by Transfer to Technology, providing patent to the Private Industry free of cost and launching of Technology Development Fund(TDF). The Committee are of the considered view that active private sector participation is the way forward and can act as a major impetus for the improvement in research related activities.

The Committee recommend that efforts may be intensified to ensure better collaboration between the public and private sector for improved results and given the sensitive nature of this work, due monitoring mechanism need to be developed to ensure that no leakage of data takes place regarding products being developed. The Committee also recommend that a regular impact assessment mechanism should be developed to

assess the overall impact of the enhanced involvement of private sector in the research related activities of DRDO'.

Reply of the Government

21. The Ministry in its action taken reply has stated as under:-

"DRDO is grateful to the Committee for appreciation of its efforts to facilitate and encourage industries through TDF, providing test facilities, engaging Industry Chambers, free of cost access to DRDO patents and funding under TDF.

It is to be mentioned that during development phase of product Life Cycle, necessary confidentiality measures are taken during signing of contract as per guidelines of Purchase Manual -2016(PM-2016). At the time of Transfer of Technology (ToT), all necessary confidentiality clauses are signed in Licensing Agreement for ToT (LAToT) with the industries'.

Comments of the Committee

22. The Committee in their report had pointed out about the need for a proper monitoring mechanism and also recommended for a regular impact assessment mechanism to assess the overall impact of the enhanced involvement of private sector in the research related activities of DRDO. The Ministry in its reply has stated that progress has been made and necessary confidentiality measures are being taken in this regard but it has not been mentioned in the reply about the action taken on the recommendation relating to the monitoring and impact assessment mechanism of the Committee.

The Committee would like to re-emphasize especially owing to the extremely sensitive nature of this work, the introduction of a monitoring and regular impact assessment mechanism for a proper assessment of the involvement of private sector in the research related activities of DRDO. The action taken in this regard may be intimated to the Committee.

G Basic Research in Academia

Recommendations (Para Nos. 30 & 31)

23. The Committee had recommended as under:

'The Committee are pleased to note that DRDO has established eight Centres of Excellence in advanced areas wherein professors and students from academic institutes like IIT Delhi, IIT Mumbai, IIT Chennai etc. are working in unison. It is also appreciable that DRDO has started scholarship schemes, financial support to organize conferences/seminars/ workshops in niche areas of technology of interest to DRDO at various academic institutions.

The Committee while putting on record its admiration for these initiatives by DRDO, recommend that DRDO should endeavor to open more such Centers of Excellence in various parts of the country as well as increase the number of financial assistance schemes which can play a major role in attracting the best talent for recruitment in DRDO to the benefit of the country'.

24. The Ministry in its action taken reply has stated as under:-

'DRDO acknowledges the Committee's admiration for having established Centres of Excellence/ Advanced Technology Centres in academic institutes of the country for development of defence related technologies.

DRDO has established the Centres of Excellence/ Advanced Technology Centres in the research institute based on the identified technology gaps and research faculty strength for development of defence technologies. This endeavor will continue as per the new emerging areas and needs of DRDO and accordingly financial assistance scheme would increase. DRDO acknowledges the Committee's admiration and will continue to expand the researcher engagement by establishment of more Centres of Excellence/ Advanced Technology Centres'.

Comments of the Committee

25. The Committee while appreciating the work being done by the eight Centres of Excellence in advanced areas had also recommended the opening up of more such Centres of Excellence in various other parts of the country.

The Committee observe that these eight Centres of Excellence have been established quite a long time back and reiterate their recommendation for proactive measures by DRDO to establish more such Centres of Excellence in other parts of the country as well as they would evidently play a major role in attracting the best talent for recruitment in DRDO to the benefit of the country. The action taken in this regard may also be intimated to the Committee.

DIRECTORATE OF GENERAL QUALITY ASSURANCE

H Manpower and Training (DGQA)

Recommendations (Para Nos. 41-42)

26. The Committee had recommended as under:

The committee, during examination Demands for Grants 2020-21 found that around 4448 number of technical personnel are involved in Quality Assurance activity for defence stores manufactured by Ordnance Factory Board / Defence Public Sector Undertakings, private Industry or import. Further, the committee also comes to know that around 19,000 quality check inspections are undertaken by the officials of DGQA in month time, which comes to approximately 5 inspections per technical person in one day.

The Committee are happy to learn that regular training is provided by DGQA to its technical manpower, which is essential to achieve fool proof mechanism of inspection. While noting this fact, the Committee would like to know whether these numbers are sufficient for operations of DGQA or they need extra manpower especially keeping in view the growing future role of Defence manufacturing sector in times yet to come. In the

opinion of the Committee, the "Make in India Policy" and manufacturing under "Defence Corridors" would definitely add to the responsibilities of DGQA. These policies are brought out in other parts of the Report pertaining to procurements'.

Reply of the Government

- 27. The Ministry in its action taken reply has stated as under:-
 - (a) 'It is submitted that over the years DGQA's role and responsibility has been dynamic with the change in technology and Govts initiative of 'Make in India' policy. With the aim to boost Foreign Direct Investment in the Defence Sector and impetus given for ease of doing business, as per Govt of India policies, number of schemes such as assessment and award of Green Channel Status, Self certification, Defence Export Promotion, allocation and coordination of proof ranges, registration, validation and monitoring of Third Party Inspectors have been launched by the MoD(DP) for which the responsibility to implement has been entrusted to DGQA. In addition, Defence Corridors have been proposed to give boost to defence manufacturing. Thus, overall DGQA role and involvement is progressively increasing in a diverse manner to meet the intended objectives.
 - (b) In addition to this, Indian Army is also modernizing its artillery and armament to meet their operational requirement. Induction of large caliber Artillery Guns of 155 mm such as 'M777 Ultra light Howitzer', '155/52mm K9 Vaja' and '155/45mm Dhanush' and 'Sharang' have already commenced. Induction and production of other state of the art artillery gun systems and armament such as 155/52mm Towed Gun System, indigenous 155/52mm ATAGAS, six more regiments of Pinaka Weapon System, Assault Rifle AK-203 and other Small Arm weapons are also planned. Consequent to these activities related to conduct of dynamic proof of weapon and ammunition at respective Proof Ranges is gradually increasing. In order to meet the futuristic increasing requirement for conduct of dynamic proof firing, DGQA is in the process of initiating a proposal for commissioning of New Proof Firing Range at Pokhran Field Firing Range (PFFR). Creation of additional facilities would entail allocation of additional technical manpower and resources.
 - (c) Moreover a large number of Private Industries have also shown keen interest in development of various guns & small arms systems, different kinds of ammunitions and their components, in India with the collaboration of established and well known arms and ammunition manufacturers of the world. Therefore, in order to provide close and fool proof mechanism of inspection and quality assurance for the various phases of conceptualization, development, production and exploitation, a large number of DGQA work force would be required.
 - (d) An increase of 20% technical manpower with respect to presently held strength would be required to meet the requirement of the future challenges as brought about by Hon'ble Committee Members in para 44 of subject report'.

Comments of the Committee

28. The Committee had pointed out that the emphasis on "Make in India Policy" as well as manufacturing under "Defence Corridors" would add-to-the responsibilities of DGQA. In this regard, the Committee had raised a query regarding the need for extra manpower in view of the growing future role of Defence manufacturing sector in times to come. In the action taken reply, the Ministry while endorsing the views of the Committee had opined about an increase of 20% technical manpower which would be required with respect to the presently held strength to meet the requirement of future challenges.

In this regard, the Committee would like to recommend that the process of augmentation of manpower in DGQA should be taken up pro-actively in order to ensure that the future programmes and assigned responsibilities of DGQA do not get hampered in any manner. The action taken in this regard may be intimated to the Committee.

NATIONAL CADET CORPS

I. Skill Development and Employability of Cadets

Recommendation (Para No. 50-52)

29. The Committee had recommended as under:

'The Committee note that every year about 5000 to 6000 cadets get selected in other ranks and about 8 to 10 percent as direct entry as Officers in Armed Forces.

The Committee appreciate the initiatives taken by the Ministry and introduction of certificate courses in adventure & sports – mountaineering, sailing, riding & scuba diving etc., training through National Disaster Response Force (NDRF), Red Cross, NCC Exchange Participants Association of India(EXPA) etc., increased focus on personality development, leadership, communication skills, training/coaching for Service Selection Board(SSB) through experts, Certification Course for Yoga through Ministry of Ayush, enhanced attachment with services units & Military Hospitals, Central Armed Police Forces(CAPFs), Aviation, Shipping, Railways and Forest like Defence Services and training of cadets through Skill India initiatives.

The Committee are happy that the potential of these cadets is being recognized and there is a favourable consideration to give them the same incentives as in any other security related service. However, the Committee recommend that efforts should be made to provide jobs to all the trained NCC candidates and to increase employability. Further, Non Governmental Organizations like EXPA which are giving training to the NCC cadets should be suitably rewarded monetarily'.

Reply of the Government

30. The Ministry in its action taken reply has stated as under:-

'Enabling the NCC cadets for selection in Armed Forces has been the key focus of NCC training. Concerted efforts have been taken to ensure full utilization of the allotted

vacancies to NCC. Through the concerted efforts, the selection percentage for the year 2019 has gone up to approximately 70%. Induction of cadets into armed forces continue to be a focus area of NCC.

Observations of the Committee are noted. Further, generation of employment avenues for the NCC Cadets other than armed forces has been taken up in a big way. Also Ministry of Home Affairs, Ministry of Railways, Ministry of Surface Transport and Ministry of Civil Aviation have been requested to introduce incentives for NCC Cadets in security related jobs, CAPFs and State Police, similar to the incentives existing in armed forces.

Ministry of Defence has taken up with Ministry of Home Affairs, Ministry of Railways, Ministry of Surface Transport and Ministry of Civil Aviation the matter of introduction of incentives for NCC Cadets in security related jobs, CAPFs and State Police,

Also, Skill Development and Personality Development has been taken up in a big way by NCC to enhance the employability of the NCC cadets. Services of NCC Exchange Participants Association of India (EXPA) has been suitably integrated in training of the Cadets. NCC is working as facilitator to facilitate NCC cadets to optimise the Skill Development training imparted by State Skill development agencies. Efforts are also being made through the state government to facilitate skill development of the cadets through Government scheme like Pradhan Mantri Kaushal Vikas Yojana (PMKVY), etc.

These measures are expected to help increasing employment avenues for NCC cadets in future'.

Comments of the Committee

31. The Committee appreciate the measures taken by the Ministry which has resulted in the selection percentage of NCC in the Armed Forces to go up to 70%. However, the Committee feel that more stringent measures i.e. training to NCC cadets to face SSB etc. may be taken to ensure 100% induction of NCC Cadets in the Armed Forces under intimation to the Committee.

The Committee appreciate the measures being taken by the Ministry to enhance the employment avenues of NCC Cadets in future by taking up the matter with various Ministries and also introducing various Skill Development and Personality Development programmes. However, the Ministry has not given any comments on the recommendation of the Committee that favourable conditions may be created for giving same incentives to the cadets in any other security related service.

CHAPTER II

(A) OBSERVATIONS/RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

BUDGETARY PROVISIONS

Recommendation (Para No. 1)

The budgetary projection for Ordnance Factories in BE 2020-21 was Rs.15,687 crores and the allocation is Rs.15,477.53 crore. After deduction of net receipts, the remaining Revenue budget of Ordnance Factory Board (OFB) is Rs.686.60 crore. The Capital Allocation is Rs.756.50 crore. Thus gross allocation including Revenue and Capital is Rs.1443.10 crore. The Revenue allocation is short of projections by Rs.210.47 crore. The Committee are happy to note that in case of Capital segment, there is no shortfall and the projection is fully provided.

Reply of the Government:

The observation made by the Committee is a matter of fact, hence no comments are offered.

Recommendation(Para Nos. 2 to 4)

The Committee, during deliberations on Demands for Grants 2020-21, found that Order Book position of Ordnance Factory Board (OFB) as on 31.12.2019 was Rs.58,165 crores for supply of ammunition, weapons, troops etc. This position is in form of Five Years Roll on indent mainly from Army and the order is subject to annual renewal depending upon availability of funds with the Service.

The Committee are of the view that Ordnance Factories are designed and dedicated for special purpose of fulfilling requirements of Indian Defence Forces, especially Army. On receiving of indent, the process of procurement of raw material and manufacturing procedures are commenced. However, after annual renewal, if there is withdrawal of order, the position of the Ordnance Factories become miserable. Therefore, the Committee desire that the Ministry of Defence should look for all alternative options so that reconciliation between Army and Ordnance Factories is established intending for mutual benefit of both the organizations which is also in the defence interests of the country per se.

The Committee also understand that the need of Ordnance Factories is of paramount importance during war-time scenario. It is for this reason Ordnance Factories have historically been keeping a surplus in terms of manpower and infrastructure. Hence, they recommend that sufficient orders are assured from time to time so that the manufacturing skills of OFs are retained and their capacity is fully utilized. The Committee also feel that Ministry of Defence is now in a gainful situation than before due to establishment of the new Department and new Chief of the Defence Staff. If all-out synchronized efforts are undertaken, then Ordnance Factories would continue to contribute to the defence needs of the country.

Order Book position of OFB as on 31-03-2020 was Rs. 52,303 crore.

OFB receives Order in the form of Five Years Roll-on Indent from Army for some Ammunition items to meet their war wastages as well as annual training requirement. In case of Armoured Vehicles, Artillery Guns and its spares fixed quantity Indents are received from time to time.

However, year wise targets are finalized by the Services during annual target fixation meetings based on availability of budget with Services, priority of the requirements and capacity of OFB. All the equipment including Ammunitions are supplied to Army as per mutually agreed annual targets. Institutionalized mechanisms exist for interaction between OFB and Indian Armed Forces.

Recommendation(Para No. 13)

The Committee desire that instead of giving reasons for delays, Ordnance Factories should strive to adhere to realistic time frame and timely delivery of products. The Ordnance Factory Board(OFB) need to function more professionally in this new competitive atmosphere and develop a target oriented approach. The Committee also recommend enhanced regular interactions between the Armed Forces and Ordnance Factories to resolve all issues amicably amongst themselves. The Committee would like to be apprised of the steps initiated and implemented in this regard at the time of furnishing of the Action Taken Replies to them.

Reply of the Government

OFB has institutionalized interaction mechanism with Indian Armed Forces. At apex level, MGO is permanent invitee to the board meetings of OFB. There is structured interaction system at various levels. OFB also has annual target fixation meetings with Armed Forces. In these meetings and interactions, ascertainment of realistic time frames for manufacture of various products is discussed. MGO, being a permanent invitee for attending Board meetings of OFB, issues related to supplies, priorities and constraints are discussed at highest level. Further, to improve the feedback from the User i.e. Army, a direct communication terminal (OFB intranet i.e. Comnet portal of OFB) has been established at MGO Branch in Sena Bhawan.

QUALITY ISSUES

Recommendation (Para No. 14)

In course of deliberations on Demands for Grants 2020-21, the Committee found that there have been certain issues with regard to cost and quality of the products developed by Ordnance Factories. The Committee wish that Ordnance Factory Board(OFB) shall endeavor to instill cost-effective measures in production processes and strive for developing products with 100% consumer satisfaction. The measures taken in this direction shall be brought to the knowledge of the Committee.

OFB is making sincere efforts to comprehend the need of Armed Forces and transform their needs into internal rearrangements to provide the desired satisfaction to customers. OFB has launched online Customer Complaint Monitoring System (CCMS) to create a bridge between Indian Army and OFB. OFB has focused on data management of quality data through a digital system NQDBMS (Network Quality Data Based Management System) and enhance the transparency and traceability of data. Efforts are also being made for automation in processes to ensure the consistency in quality.

Quality conscious human resource is one of the most important ingredients to deliver quality output and therefor OFB has started specific training courses on quality by top institutes like ISI, IIT etc. apart from regular training courses.

OFB is supplying all items to Armed Forces on cost basis. Ordnance Factories do not charge any profit/surplus on these items. Cost reduction is a continuous process and OFB is consistently making efforts for the same. With these efforts, Ordnance Factories are able to successfully ward off effect of inflation to a considerable extent.

EXPORT OF ORDNANCE FACTORIES PRODUCTS

Recommendation (Para Nos. 15 & 16)

During the examination of the General Defence Budget, the Committee were intimated that earlier the policy of the Government was to manufacture and import the arms but would not export them because they were thought to be weapons of destruction. However, the policy has since changed and the emphasis is now on the export promotion and the targets for the next three years are high. Various initiatives taken by the Government and as discussed in other Chapters, especially on Procurement Policy, are of paramount importance for Ordnance Factories. The Committee are not oblivious of the fact that Ministry are also contemplating to convert OFs as PSUs. Whatever legal title is given to them, it would be in the best interests for the OFs to explore export markets and develop their capabilities correspondingly.

The Committee are happy to note that Ordnance Factories have exported goods worth Rs. 330 crores in the financial year 2019-20. They see it as a humble beginning but would like to see a surge in this figure in the coming years. It is very pertinent to mention here that the value of products stood at Rs.10540.32 crore in the year 2018-19 and in comparison to that value, the figures of exports are not very encouraging. With as many as 52 factories operating under the purview of Ordnance Factory Board (OFB), there lies enormous export potential. The Committee recommend that ample steps are taken toward exploring markets for export of products manufactured by Ordnance Factory Board (OFB). At the same time, every measure shall be taken to ensure quality of goods and customer satisfaction. The Committee also desire that import percentage of Ordnance Factory products should also come down from present 10 percent.

OFB is a captive manufacturing organization dedicated for manufacturing Arms, Ammunitions, Artillery Guns, Tanks, Combat Vehicles, Troop Comfort items and other equipment for the Armed Forces. Now OFB is diversifying its product portfolio and expanding its base in the international market as well as domestic civil sector. OFB is making efforts to make an entry on the global platform. In last few years a greater thrust has been accorded to export and many steps are taken by OFB towards exploring export markets for export of products. These steps are listed below:

- OFB is participating in various international exhibitions to promote its products in foreign countries
- Nodal Officers have been nominated at factory level for improving export performance and identifying potential products which can be offered from the respective unit as per the market requirement.
- OFB has also started engagements with channel partners in foreign countries for boosting its exports.
- Indian Defence Attaché posted abroad and Defence Attaché of various countries posted in India are being contacted for assistance in boosting export.
- For targeted countries, OFB has also started preparing Bilingual product catalogues in English & country's local language.
- OFB has also started customization of products as per user requirements
- OFB has also invited various delegations from OEM and foreign countries for technical discussions to explore export potential.

Also, Ordnance Factories have received repeat orders for some ammunition and explosives, which is very encouraging and confirms faith of international customers on quality and price competitiveness of these products. OFB has targeted the following products & regions to boost the export realization in next few years:

- Large caliber ammunitions to Middle East, South East Asia & other countries.
- Medium & small caliber ammunitions to African, Middle East, South East Asia & other countries.
- Armored vehicle to Middle East, South East Asia & other countries.
- Troop comforts and other items to African, South East Asia, Central Asia & other countries.
- Propellant, Chemicals & Explosives to Africa, America, South East Asia & other countries

Recommendation(Para No. 17)

The Committee in this entire context desire and recommend that they be apprised of the initiation taken by OFs and the benefits accrued to them from Ministry's Export Promotion Cell, Defence Investor Cell and 'Make in India' initiative of the Government. They can foresee that based on the principles of self-sufficiency, transparency, competitiveness and self-dependence a time may come where OFs might have to compete in an open-market situation.

Reply of the Government

OFB has taken various steps for improving exports and have been benefitting from the initiatives taken by the Ministry:

- A separate post of Member/Export & Marketing has been created at OFB to review and monitor export activities.
- Nodal Officers have been nominated at Factory level for improving export performance and identifying potential products which can be offered from the respective unit as per the market requirement.
- OFB has been delegated adequate authority to quote prices for exports.
- OFB is making offers as per the Standard Operating Procedure on export to Foreign Friendly Countries against Line of Credit with an objective of gainfully utilizing the opportunity.
- OFB receives export leads forwarded by EPC (Export Promotion Cell) from various countries through online portal. EPC facilitate OFB's participation in various exhibitions.
- OFB is working on the guidelines issued by DIC from time to time for export promotion.
- OFB is modernizing its production technology and is using its spare capacities, where
 ever available, to meet the export requirements. Cost of production is being reviewed on
 regular basis with induction of latest manufacturing technology. Sincere efforts are done
 to achieve cost competitiveness in OFBs products with in-built quality.

To facilitate greater participation of Industry in the 'Make in India' process, continuous efforts are being made by Ordnance Factories to develop indigenous sources for imported stores. By this, OFB has achieved an indigenization level of approximately 90% of their Value of Issues. Also, OFB is making efforts to increase the level of indigenization through "Make-II Procedure" and "Long Term Orders (LTOs)" apart from existing system in vogue through inhouse efforts and source development open tenders.

OFB procures various input materials from Indian private industries. These input materials include raw material, component, sub-systems etc. Approximately 39% of total domestic

procurement made by OFB is from MSEs. In this regard, OFB has a comprehensive SOP for Vendor Registration. OFB does away ex-ante capacity verification. Capability of firm should be judged/ decided based on the documentary evidence. Capacity Verification by physical verification has been restricted to 84 direct items only.

Some of the major steps taken by OFB in this direction are enumerated below:

- (i) The vendor registration process has been made centralized. A particular vendor has got single Vendor Registration Code across the OFB Organization.
- (ii) Greater reliance on Self-declaration of capability by vendors for Vendor Registration.
- (iii) Elimination of system of physical assessment by OFB team in majority of the cases.
- (iv) System Integrator has been added to the category of the vendor to be considered for registration.
- (v) Time frame for completing the process of Vendor Registration introduced.
- (vi) Stricter norm of penalty for misrepresentation of facts by the vendor.
- (vii) Auto renewal of registration of vendors unless cancelled on account of administrative reason.
- (viii) Vendor Development Cell has been formed at each Ordnance Factory with Nodal Officer. Name of Nodal Officer and contact number has been displayed on OFB website.
- (ix) Representative Officers from factories concerned as well as OFB are participating in various Vendor Meets organized by CII, FICCI, MSME, various State Govt etc. to interact with vendors and encourage them to participate in source development Open Tender enquiries.

EXPENDITURE ON RESEARCH & DEVELOPMENT

Recommendation (Para Nos. 18 & 19)

The Committee learn that approximately 24.57% of output value of Ordnance Factory Board is developed through in-house Research & Development (R&D) by Ordnance Factory Board (OFB), R&D under Foreign Transfer of Technology (ToT) and Research & Development (R&D) with DRDO. Also, there had been a consistent increase in Research & Development (R&D) expenditure by Ordnance Factory Board during last year. In 2014-15 Rs. 55.32 crore were spent on Research and Development (R&D) which increased to Rs. 90.81 crore in 2018-19. The Committee applaud the initiatives taken by Ordnance Factory Board towards Research and Development (R&D) and almost doubling the expenditure in last five years. The Committee also found that Ordnance Factories had, been taking up collaboration with Government Academic Institutions for design & prototype development which is a positive initiative and would help in long run in development of new products.

The Committee recommend that efforts should also be made toward ensuring patent rights for the designs and prototype developed internally by Ordnance Factories. This will be beneficial in enhancing value of Ordnance Factory Board(OFB) and also boost the revenue generation.

Reply of the Government

OFB is encouraged by the observations of Hon'ble Committee. OFB is giving more and more emphasis on R&D activities to develop futuristic defence equipment/ weapon/ platform. OFB has entered into an agreement with Council of Scientific & Industrial Research (CSIR), a premier R&D organization of the country. As per this agreement, Ordnance Factories can collaborate with CSIR laboratories for taking particular project. OFB is also seeking project specific research assistance from academia like IITs, IISc., NITs and Government laboratories. These actions have been initiated by OFB to boost in-house R&D activities, which have resulted in development of 124 items so far. Out of these, 67 through in-house research in OFB, 26 based on DRDO technology and 31 by Indigenization of foreign ToT. OFB has also created a Centre of Excellence for Ammunition at IIT Chennai. The expenditure on R&D in the year 2014-15 was Rs. 55.82 crore which has increased to Rs. 90.81 core in 2018-19 which has further gone up to Rs. 92.68 crore in 2019-20.

In line with MRGS (Mission Raksha Gyan Shakti) action plan of Ministry of Defence, OFB has filed 267 Intellectual Property (IP) applications. 10 IP rights are under different categories (Design: 6, Trademark: 3, Copyright: 1) and one patent on Design (e.g. High Strength Low Alloy Steel) has been granted so far.

Development of New Technologies

Recommendation (Para Nos. 23 & 24)

The Committee are happy to note that DRDO is making all possible efforts towards R&D activities in three crucial technologies i.e. Propulsion, Material & Chip design and fabrication. The Committee also note that as stated during the oral evidence, in several areas like missiles, radar, torpedo, guns, ballistic missiles etc. technological excellence has been achieved, which is at par with other countries and efforts are also being made to achieve high standards in many new areas i.e. artificial intelligence, quantum technologies, asymmetric warfare, laser technology and 5.5 generation Aircraft which is appreciable.

The Committee seek to emphasize the importance of attaining self-reliance in the three crucial technologies where a lot of work still needs to be done and recommend that all out efforts are initiated in this regard. The Committee would like to be apprised of the R&D activities being undertaken towards this end.

Reply of the Government

DRDO is grateful to the Committee for its appreciation towards efforts made in R&D activities in three crucial technologies i.e. Propulsion, Material & Chip design and fabrication and

also technological excellence achieved in several critical areas like missiles, radar, torpedo, guns, ballistic missiles etc.

The R&D activities being carried out in three Crucial technologies viz propulsion, material & chip to gain self-reliance are as under:

R&D activities in Propulsion:

- Dry Kaveri derivative engine development of IUCAV-UHF20 with associated technologies has been taken up at a cost of Rs.1068.69 crore.
- Small Turbo Fan Engine for Missile application is under progress at a cost of Rs.72 crore.
- Turbo-charger for Main Battle Tank is under development at a cost of Rs.15.2 crore.
- R&D activities in this area are being pursued with academic institutes also.

R&D activities in Materials:

- DRDO laboratories are carrying out Research & Development activities on materials as well as indigenisation of existing materials required for defence applications.
- These materials include metallic alloys, ceramics, polymers, composite materials, semiconductors, high energy materials, nano-materials and smart materials. The application of these materials are in missiles, aero-structures and aero-engines, armour and armaments, ship and submarine hulls, NBC defence, stealth as well as sensors and actuators.
- The research on materials in DRDO laboratories is actively supported by academia through projects funded via ARDB, NRB, ARB and ER&IPR.
- The projects worth over 1000 Cr are currently underway for development of materials.

R&D activities in Chip design and fabrication

DRDO is developing various chips for applications in crucial Defence Technologies and also to make country self-reliance in this critical area. The following R&D activities are being pursued:

- Wafer fabrication, design and development of microelectronic chips for High frequency Transmitter/Receiver (T/R) modules, Infrared Imaging sensors, Laser Diodes, Tera Hertz sensors, System on Chip (SoC) etc.
- The research on chip design is also supported by academia through ER&IPR projects to various academic institutes like IISc, IITs & Universities.
- The fund allocated for the above R&D efforts in progress is worth over Rs 250 Cr (approx).

Role of DRDO in Selection Process of Officers

Recommendation(Para No. 26)

From the oral evidence, the Committee note that the Armed Forces were short of 10,000 officers and the Ministry still relied on old selection procedure for recruitment of officers despite the changes taking place in warfare strategies. The Committee, in this regard, recommend that recruitment process should be revamped in consonance with the changing requirements and it should be ensured that the entire exercise is completed within a fixed time frame under intimation to the Committee. The Committee also feel that any change in the recruitment procedure should also protect the interests of the existing officers in the Armed Forces.

Reply of the Government

DRDO develops the selection system for recruitment of Officers and Other Ranks(ORs) as per the needs of the Armed Forces (AF).AF use this selection system for selecting the candidates with various personality traits. The fixing of standard level lies with Armed Forces.

In 2018-19, a Tri-Services Committee conducted a comprehensive review of the entire officers' Selection System and it has been found that the system is robust and fully adequate to select the best of the officers.

Basic Research in Academia

Recommendation(Para No. 29)

The Committee took note of various collaboration efforts that DRDO is making with academic institutions at various levels and its role in encouraging younger generation towards R&D. The Committee recommend that these measures and activities shall be supported by appropriate incentivation so as to ensure continued interest of the fresh talent. Necessary budgetary support in this regard shall be provided by government for the purpose.

Reply of the Government

DRDO is mandated to effectively manage collaborative efforts with academic institutions at various levels to pursue the targets set under "Directed Research" in identified "Thrust Areas". Towards this end, Grants-in-Aid projects are being sanctioned to various academic institutions. In addition Eight Centers of Excellence have also been established, which function from the campuses of the reputed institutions. In order to promote and encourage younger talent, e.g. A Defence Young Scientist Laboratory (DYSL) working on Quantum technologies has been made functional at IIT Mumbai.

Products Developed by DRDO (Coordination between DRDO and Service Users)

Recommendation(Para No. 32)

The Committee observe from the written replies that DRDO has a robust mechanism of consultation with service users starting from the project conception till completion of the project. The Committee feel that coordination with service users is a very important area and recommend that the involvement of service users need to be further enhanced which can act as a deterrent to the early closure and failure of these projects and ensure quality check of the product at every stage of its development. The Committee also recommend that the coordination with service users at various levels should be in consonance with their technical competence and knowledge in that particular area and due care may be taken in this regard.

Reply of the Government

It has been rightly observed by the Committee that DRDO has a robust mechanism of consultation with Service Users starting from the project conception till completion of the project. This is a very important area. Involvement of users in these projects is being further enhanced. All projects undertaken for development based on Services' requirement, a service officer with requisite domain knowledge is being requested to be posted with the project team.

Recommendation(Para No. 33)

The Committee also recommend that a multi-level quality control mechanism, involving the end-user need to be developed to be implemented at every stage of the project which can lead to fixation of accountability in case of the user not suggesting corrective measures as also the product not being developed as per the General Staff Qualitative Requirement (GSQR) stipulations leading to wastage of money and human resources. However, they also desire that users should not change their GSQRs frequently and once they are finalized, there should no change be allowed and GSQRs should be freezed.

Reply of the Government

The recommendation given by the Committee is very valid and appreciated. In implementing this suggestion, it is informed that every Lab has its own Internal Quality Assurance Group which looks into the aspects of quality and reliability of the product being designed and developed right throughout its development and product life cycle. Besides the personnel from the HQ DRDO who are quality and reliability trained also associate during developmental trials. The End User is part of the project ab-initio and provides necessary inputs in all multi level developmental stages with the aim of suggesting corrective actions and freezing the GSQRs of the product.

Skill Development Training

Recommendation (Para No. 34)

The Committee during oral evidence were apprised about the move of the Government to establish two Defence industrial corridors to serve as an engine of economic development and growth of Defence industrial base in the country. They span across Chennai, Hosur, Coimbatore, Salem and Tiruchirappalli in Tamil Nadu and spanning across Aligarh, Agra, Jhansi, Kanpur, Chitrakoot and Lucknow in Uttar Pradesh (UP).

Reply of the Government

DRDO has signed the MoU for support to develop industrial corridor with TIDEL Park in Tamil Nadu and with Uttar Pradesh Expressways Industrial Development Authority (UPEIDA) in Uttar Pradesh respectively. DRDO is pursuing the work on both areas.

Recommendation (Para No. 35)

The Committee recommend that skill development training should be imparted to local youths to increase their employability in the above corridors.

Reply of the Government

In accordance with the recommendations of the Committee, the following steps have been taken by DRDO:

Activities undertaken by DRDO for Skill Development

(a) Internships to BTech Students:

Students pursuing graduate and post graduate courses from various institutions come to DRDO for their internship programmes. DRDO has over 52 laboratories where these students are provided the summer/winter internship programmes. During last three years the total interns intake in DRDO has been 2363 in 2016, 3065 in 2017, 3103 in 2018 and 2665 in 2019. Therefore, average annual intern intake for DRDO comes out to be 3000. By year 2024, DRDO would train 4x3000 = 12000 interns.

(b) Junior/ Senior Research Fellows:

The JRF/SRF scheme of DRDO has 1000 vacancies distributed to various labs. The scholars hired against these vacancies conduct their research work for a minimum tenure of two years which is further extendible two years and three years for PhD students.

At any point of time DRDO holds 1000 JRF/SRFs, whereby by year 2024 a minimum of 2000 and more 4000 JRF/SRF will be skilled.

(c) Apprentices under Apprenticeship Act 1961:

The apprenticeship is governed by Apprentices Act 1961 and Apprentices Rules 1992 and subsequent amendments. The Act is a statutory requirement and obligatory in specified industries to engage apprentices in designated trades to impart apprentice training on the job in the industry.

DRDO with such training infrastructure in its 27 labs has been providing training apprentices in various trades. The annual turnout is about 2000 trained apprentices.

(d) Others:

In addition, DRDO annually sponsors various projects in academic institutions, conducts extramural research, has opened centers of excellence in various institutions, thereby imparting and promulgating skill development.

Closed Projects

Recommendation (Para No. 36)

The Committee noted with concern that during the last three years, 113 projects at a total cost of Rs 13468.25 Cr were closed. DRDO have also given some reasons for the closing of these projects which depicts the possibility of closure of such projects in light of the research activity being an open-ended programme. However, the Committee feel that these closing of projects on which a huge expenditure have been incurred is a colossal waste of public funds and need to be severely discouraged but for exceptional circumstances.

Reply of the Government

The expenditure incurred on the execution of the projects cannot be termed waste of public funds as closure of a project in DRDO indicates a stage, where all the objectives have been achieved. All the projects in DRDO are taken up to achieve pre-defined objectives within the sanctioned time and cost. Each of the project is a stand-alone set of activities. The objectives of the projects are to develop scientific knowledge, technologies, components, processes and systems for Defence applications.

Completion of activities and meeting the objectives is the culmination of a particular project. The output of a project is typical in terms of a component, product, process or system. The first three i.e. component, product and process feed into a system and the systems are taken up for induction with Services. In addition, the knowledge and expertise gained during any project is a Capital asset and is useful in many other projects & activities. DRDO projects after successfully achieving the desired objectives set-in are taken up for closure; Closure of a project is an administrative step as all these projects are initiated for pre-defined objectives to be completed within the approved timeline and cost.

In all of the above 113 projects, the desired objectives achieved within the timeline were satisfactorily demonstrated. All these projects were also reviewed periodically and finally after achieving all objectives were considered successfully completed. Accordingly, the projects were closed for administrative purposes.

The reply of the recommendation may please be seen in light of the above mentioned facts.

Recommendation (Para No. 37)

The Committee recommend that the projects should be stringently evaluated in regard to their feasibility at the very inception to prevent such wasteful expenditure. All mandatory and precautionary scientific, technical and concurrent audit of every ongoing project preferably by an independent agency need to be meticulously planned out in the beginning of the project itself. DRDO need to exercise great caution and care in undertaking research oriented programmes and no project should be closed without a well-laid out re-evaluation procedure involving domain experts. The Committee recommend to be apprised on the steps taken by DRDO on this very important issue.

Reply of the Government

DRDO agrees to the recommendation of the Committee for re-evaluation by external experts prior to closure of a project and proposing changes in its project guideline document, "Procedure for Project Formulation & Management (PPFM-2020) wherein an external committee will be evaluating the outcomes of the project with respect to its objectives and scope as in sanction letter and the reasons for not achieving them.

Recommendation(Para Nos. 38-40)

After gleaning through all the information submitted to the Committee in regard to Directorate General of Quality Assurance, the Committee found that though the Budgetary allocation of DGQA is relatively meagre in comparison to the entire Defence Budget which stands at Rs. 4,71,378.00 crore, yet it has been assigned with very arduous task of ensuring the quality of the products manufactured/imported and supplied to the Forces. It is also a matter of satisfaction for the Committee to note that the estimates of DGQA under revenue segment remains more or less constant during the last five years which is not the case for other Heads of the Defence Budget, which has already been brought out in the First Report on General Defence Budget 2020-21.

The Committee find that in BE 2020-21, a total budgetary projection made by DGQA was Rs. 1,317.70 crore whereas the allocation was Rs. 1,266.70 crore for both Revenue & Capital Heads. The projection under Revenue Head was Rs. 1,297.70 crore and the allocation Rs. 1,254.63 crore. In case of Capital Head, the allocation is Rs. 12.06 crore against a projection of Rs. 20.00 crore. Since the allocation for the Capital Head is short by almost Rs. 8 crore, the Committee would like to know the reasons for the same and also whether at the stage of

Revised Estimates, the same would be adjusted in order to enable DGQA to undertake works of capital nature. Such capital works build the backbone of the organization to support it in dispensing its functions effectively in the long run.

The Capital allocation is only about 60 per cent of the projection. The Capital allocation reflects inclination towards modernisation and upgradation of assets for carrying out inspection. The Committee observe that being a technical service, constant upgradation of technological advancements taking place globally has to be regularly included in the training curriculum of DGQA also. The role of DGQA is also expanding as it has been assigned with enhancing Intellectual Property Rights(IPR) cases in defence production and Green Channel Policy. The Committee desire that adequate allocations to DGQA shall be made keeping in mind the huge responsibility it has for inspections of stores where criticality it holds for performance of all defence contributors/stakeholders depend.

Reply of the Government

In RE 2019-20, Rs 15.96 Crore has been allocated to DGQA under Capital Head i.e. an increase of Rs. 5 Crore over BE 2019-20. Under Revenue Head, DGQA has been allocated Rs. 1,286.70 Crore (Gross) in RE 2019-20 which is an increase of Rs. 84Crore over BE 2019-20.

- 2. In BE 2020-21, Rs. 1,266.69 Crore (Gross) (i.e. Rs. 1,254.63 Crore [Gross] under Revenue Head and Rs. 12.06 Crore under Capital Head) has been allocated to DGQA.
- 3. Additional funds to DGQA at Supplementary/RE stage will be projected to Ministry of Finance based on pace of expenditure and further requirement.

Quality Check

Recommendation (Para Nos. 43 & 44)

The Committee note that DGQA is responsible for quality assurance of all defence equipments and weapon systems such as arms, ammunition, clothing etc. In this regard, the Committee recommend that while carrying out inspection at various stages of production it should be ensured that inventory which reaches in hands of user should be zero defect so they can believe in the armament being used. The DGQA should also consolidate its role in ensuring zero-defect on the environment. The methodologies involved in production stages and transportations shall be scrutinized ensuring minimal affect on the environment. It shall also ensure that the industries / manufacturing units adopt best available practices / guidelines for production activities and waste disposal by putting in place state-of-art waste disposal system. It is needless to say that old methodologies should be replaced with the new ones in due course of time.

The Committee learn that although no vendor has been black-listed due to the issues relating to quality, yet they would like to be apprised in no uncertain words of the nature of defects noted and raised by DGQA during each of the last three years and consequently rectified by the manufacturers. They would also like to know about the cases, if any, whether

after such rectification, the loss still occurred to the Forces due to non-performance or failure of the assets during actual use.

Reply of the Government

- (a) DGQA Organisation is entrusted the responsibility of 'Defect Investigation' of defence stores. It is ensured by DGQA that defects noticed at manufacture's premises are rectified & replaced before the "Final Acceptance Inspection of Equipment" (FAI) by DGQA. The cause of defects is addressed in the manufacturing/ assembly by manufacturer to arrest recurrence. The defects noticed in the field by users are investigated, root cause analysis of the same is carried out and remedial measures are suggested by DGQA, which are implemented.
- (b) The nature of defects noticed, which are rectifiable by manufacturers are:-
 - (i) <u>Inherent Design inadequacies.</u> The latent design flaws if any in an equipment, sometimes do not surface during technical evaluation. The same is revealed in field conditions and during extensive usage by user. Though there are very few such design flaws but they are corrected / rectified by manufacturer on recommendation of DGQA and implemented in assembly/ manufacturing line.
 - (ii) <u>Defects Related to Manufacturing</u>. These are operational defects noticed by users, which are rectifiable in field. These are usually loosing of bolts, loss of signals/commands, unwanted noises& squeaks etc. Such defects are rectified in-situ by manufacturers under warranty provisions.
 - (iii) <u>Defects related toMaintenance and exploitation of equipment</u>. These defects are attributed to user related issues while carrying out routine maintenance and also due to exploitation of equipment without adhering to laid down procedure.
- (c) The defective components / parts noticed during field defect investigations are replaced / rectified free of cost by manufacturers if it is established as manufacturing flaw.
- (d) It is submitted that no loss to the state is reported by user due to non-implementation of remedial measures.

Recommendation (Para No. 45)

The Committee take note of the fact that, in Budget Estimate 2020-21, the total projection is Rs. 2023.20 crore against which there is an allocation of Rs. 1688.60 crore thereby registering a shortfall of Rs. 334.60 crore. Out of the total budget projection Revenue budget was Rs. 1968.20 crore and allocation Rs. 1661.50 crore, whereas in case of Capital budget, the projection was Rs. 55.00 crore and allocation Rs. 27.10 crore. There is a deficit of Rs. 306.70 crore and Rs. 27.90 crore in Revenue and Capital budgets respectively. The Committee are of

the view that no Revenue Expenditure includes pay and allowances of Personnel and Capital Expenditure for the procurement of durable assets, any cut in the Budget would slow down the activities of NCC. Also keeping in mind the vast network of NCC across the length & breadth of the Country, the Committee urge that Ministry of Defence should lays down appropriate financial provisions for NCC in future allocations, especially at the Supplementary stage.

Reply of the Government

No compromises have been made during last five financial years as the expenditure was within allocated budget. The current Financial Year allocations of Rs. 1661.50 crore under Revenue head and Rs. 27.10 crore under Capital head implies an increase of Rs. 54.22 crore and Rs. 2.46 crore respectively over B.E. 2019-20 allocations. Additional requirement of funds will be projected at appropriate stage.

As regards recommendation of the Committee regarding laying down appropriate financial provisions in future allocations, especially at supplementary; same has been noted.

Recommendation (Para No. 46)

While recommending for additional allocations for NCC, the Committee would also like to highlight that during the year 2019, the actual expenditure of NCC was lower than the revised allocations. The Committee would like to know the reasons for the same and also in unequivocal terms state that in this current fiscal, NCC should leave no stone unturned to utilize the final allocations made for them with an equal pace of expenditure throughout the year.

Reply of the Government

As per NCC, the expenditure status as on 28 February, 2020 is Rs 1525.39 crore vis-avis RE 2019-20 amounting to Rs 1667.92 crore resulting in a balance amount of Rs. 142.53 crore. The expenditure was lower than anticipated because of less expenditure occurred in Sub heads - Pay & Allowances (Service Personnel), Stores and Works.

Further, out of balance amount of Rs. 142.53 crore, only Rs 36.54 crore was surrendered, keeping the balance towards anticipated booking of the last month of F.Y. 2019-20, i.e., March, 2020.

For the FY 2020-21, the directions of the Committee have been noted and will be adhered to.

Expansion of NCC and Fully Self Financing System (FSFS)

Recommendation (Para No. 47)

The Committee note that at present 5862 schools & 3040 colleges are there in the waiting list and the Government has introduced Fully Self Financing System (FSFS) under which an Educational institution willing to bear the cost of running NCC training under the

guidance of nearest NCC unit can apply for NCC under this Scheme. The Committee also understand that about one lakh vacancies have been approved for Senior Division/Senior Wing cadets by Ministry of Defence for allotment to private colleges under FSFS. During the Oral Evidence, the hiring of Ex-servicemen as instructors by private schools also figured. In this regard, the Committee desire that while granting the permission to do so, quality of training be strictly maintained and proper monitoring mechanism to oversee the training process should be done by the nearest NCC Unit.

Reply of the Government

The implementation instructions issued have already considered this aspect and Commanding Officer of the Battalions have been assigned the role of supervising the training so that training standards are not diluted and the institutes are fully committed towards provisioning of requisite infrastructure and follow the guideline issued by HQ DGNCC.

The orientation training of the ex-servicemen prior to conduct of the training of the cadets is planned by the State Directorate under the supervision of NCC staff and an effective monitoring mechanism is being followed.

Recommendation (Para No. 48)

For this initiative, the Committee will like to put on record their appreciation and believe that this programme can help in minimizing the waiting period in schools and colleges and provide a disciplined youth to the Nation.

Reply of the Government

Observations of the Committee are noted. Further, the vacancies have been sub-allotted to the Dtes and enrolment of cadets in Private Schools under this scheme will start once the new education session commences. The scheme has been disseminated to the lowest level to make it successful.

CSR Policy for NCC Programmes

Recommendation (Para No. 49)

During the deliberations before that Committee, the issue of taking advantage of CSR policy of PSUs for NCC for its sustainability and expansion came up and it came to the notice of the Committee that the said policy is under examination. The Committee desire that CSR policy for NCC programmes including participation of NCC cadets in international games should be expedited and the steps initiated/taken in this regard be intimated to the Committee within three months of the presentation of this Report.

Reply of the Government

The CSR Policy for NCC programme is under examination. The suggestion/directions of the Committee are noted for compliance.

Recommendation (Para No. 53)

The Committee also note that NCC has initiated pilot courses/capsules towards skill development in two State Departments, namely, Bihar & Jharkhand Departments. While appreciating this initiative by NCC, the Committee desire that such innovative courses towards skill development may also be undertaken in other State Departments. In this regard, State NCC departments may also explore all avenues of training of Cadets in Skill Development Centres.

Reply of the Government

All State Directorates have been pursuing with various Skill Development Centres and organizations within States to hone the skill of the cadets in diverse fields which will open employment avenues for the Cadets.

Recommendation (Para No. 54)

The Committee learnt that two Defence corridors have been started by the Government in Uttar Pradesh and Tamil Nadu. The Defence Production Sector have seen growth in interest from the private industries including multinational companies and investors helped by the ambitious 'Make in India' project of the Government opening up possibilities for India to be a leading country in Defence Production. This in turn will create the need for suitable trained and skilled manpower. The Committee feel that this opens up a great opportunity for the NCC Cadets, especially those Cadets failing to make it to the armed forces, who can be imparted suitable technical training towards this end to serve the Defence Production Sector both in public and private defence production organizations. The Committee recommend that all efforts may be made to provide suitable technical training to NCC Cadets in the field of Defence Production Sector which can open up possibilities for their gainful employment in this sector. In this way, more students will be attracted to join NCC in future.

Reply of the Government

The recommendations of the Committee are noted.

(B) OBSERVATIONS/RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT AND ARE COMMENTED UPON

MANPOWER

Recommendation (Para Nos. 5 to 7)

From the information provided to the Committee, they find that, the Sanctioned strength of Ordnance Factories is 1,45,503 while the held strength has been declining and in January 2020, it come down to 80,524. Out of this, the Technical strength is 67,321 against a sanctioning of 1,23,142 while Non-Technical strength is 13,203 against sanctioned post of 22,361.

The Committee observe that the existing strength is almost only half of the sanctioned strength. They were apprised that Ordnance Factory Board had recently concluded recruitment of 2668 Industrial employees. Moreover, recruitment of 378 'Non-industrial employees and 692 Charge-man is under process. In this respect, the Committee were further apprised that considering decline of orders from Army owing to declaration of non-core items, very limited recruitment is in process.

In light of the facts stated here, the Committee recommend that a revision of sanctioned strength must be conducted in Ordnance Factories reflecting a realistic scenario of requirement of manpower in various factories and offices of Ordnance Factory Board(OFB). Based on the outcome of such revision and keeping in view the issue of future exports, which is discussed in the succeeding paragraph, optimal manpower strength should be determined and inducted consequently. Besides, the trained existing manpower of Ordnance Factory Board(OFB) must be fully and optimally utilized in various activities of Ordnance Factories(OFs) to ensure that they achieve self-reliance model at the earliest.

Reply of the Government

In the year 2015, an exercise for rationalization of manpower was carried out by a committee constituted for the purpose. Based on its recommendation, the overall sanctioned strength of the OFB organization has been reduced from 1,63,103 to 1,45,503 along with a direction that operational strength of OFB will not exceed 1,10,000.

Further, with the introduction of Core & Non-core items, there is a fundamental change in the policy as orders for non-core items will not be given to Ordnance Factories on nomination basis. This has affected the load position in certain Ordnance Factories engaged in manufacturing of clothing items. To realign with these policy changes, Ordnance Factories have taken up a program of re-skilling its manpower especially in the factories under Ordnance Equipment Factories (OEF) group, which are basically manufacturing the clothing items with the help of the Tailors.

BUDGET FOR MODERNIZATION

Recommendation (Para Nos. 8 to 10)

The Committee were given to understand that modernization of OFs is a continuous process. The outlay provided in respect of modernization is divided into three parts viz. Machine & equipment, Renewal and Replacement (RR) of Plant & Machinery (P&M) which are beyond economical repairs, Acquisition of P&M under capacity creation/Augmentation under New Capital and Development of Civil Works infrastructure.

The Committee note that allocation during last five years was Rs. 1913.19 crore while actual allocation was Rs. 1947.86 crore. The Committee also find that in case of works the allocation was Rs.1607.63 crore while expenditure Rs. 1582.66 crore. There was an under spending of Rs. 24.97 crore. In case of R&R the allocation was Rs. 2210.00 crore and expenditure Rs. 2100.50 crore. The Committee note when the Capital allocation for 2020-21 is to the tune of Rs. 1268 crore, a surrender of Rs. 109.50 crore is not a negligible amount over a period of five years.

In this respect, the Committee recommend that necessary corrections are to be carried out and expenditure on modernization by Ordnance Factory Board(OFB) should exhibit seriousness.

Reply of the Government

Expenditure during last 5 years is shown below:

(Rs. in crore)

Budget Head		2014-	2015-	2016-	2017-	2018-	Total	Shortfall
		15	16	17	18	19		
Renewal and	Allotment	450.00	425.00	450.00	460.00	400.00	2185.00	84.50
Replacement	Expenditure	441.87	385.73	451.77	422.80	398.33	2100.50	
(RR)								
New Capital	Allotment	489.00	305.00	364.61	486.58	332.00	1977.19	29.00
(NC)	Expenditure	485.75	312.30	368.62	488.92	292.27	1947.86	
Civil Works	Allotment	315.00	343.00	339.67	317.00	293.00	1607.67	25.38
(CW)	Expenditure	300.66	339.45	337.84	314.54	289.80	1582.29	

Net allotment in last 05 years was Rs. 5770 crore and Rs. 109.50 crore was surrendered (approximately 1.9%). Out of this Rs. 109.50 crore, Rs. 84.50 crore comes under the category of Renewal and Replacement (RR) which is a self-generated fund accumulated by the depreciation value of existing Plant & Machineries and is carried forward for subsequent year. Therefore, actual fund that could not be utilized and got surrendered was Rs. 54.38 crore (approximately. 0.9%) spread over a period of five years.

DELAY IN PROJECTS

Recommendation (Para No. 11)

The Committee were informed in the written replies about the various reasons for delay at the tendering, supply and erection and commissioning stages. They were further informed that when Detailed Project Report is prepared, a realistic timeline for the completion of the project is taken, taking all these aspects into consideration. Also regular review meetings are held to monitor progress. The Committee while recognizing that a few of these factors are beyond the control of the Ordnance Factories, observe that delays have been quite a part & parcel of Ordnance Factories projects which has also affected their pace of production. The Committee can infer that there is lot of slippage in the supply by Ordnance Factories to the Army, their main client, which have put extra burden on the exchequer also. The inordinate delays also adversely impact not only Indian supply but the export potential.

Reply of the Government

Indian Armed Forces are always the paramount priority for OFB and all efforts are made to ensure that there is least effect on the supplies to user in requisite quantity. Also, OFB is making all endeavors to continue the uninterrupted pace of production and supply the important armament stores timely to Indian Army.

OFB supplies items to the Armed Forces based on consultation by mutually agreed targets fixed on yearly basis. Further, efforts are being made to avoid/reduce delays through better planning, periodic reviews of progress, and enhanced interaction with Indian Armed Forces to facilitate addressing their concerns during the production process.

Also, regular review is being done in the Ministry with MGO and DGQA to resolve quality issues of OFB. Interaction of OFB officers with the Depot Heads for the purpose of getting first hand feedback has resulted in addressing the deficiencies in supply of quality ammunition immediately.

Recommendation (Para No. 12)

The Committee note with concern that only 49 per cent of the Budget Estimates that was predicted for the current financial year have been booked by the Ordnance Factories. The Committee recommend that this shortfall may be taken up at the highest level to take it to 100 percent and a time frame for achieving the same fixed under intimation to the Committee. The Committee is deeply concerned about the decreasing supply of products to the Army and the inability of the Ordnance Factories to meet their demands.

Reply of the Government

OFB has the VOP (Value of Production) for the FY 2019-20 as Rs. 9,213 crore with respect to the Modified Appropriation (MA) sanctioned of Rs. 11,166 crore (MA) i.e. 82.5%. This is excluding items worth Rs. 1,313 crore which were under proof/inspection and could not be issued due to country-wide lockdown on account of Covid-19 Pandemic, (All figures are

excluding GST). If these stores could have been proved and issued before 31st March 2020, the issue figure would have been around 94% with respect to MA.

Prior to Lockdown due to Covid-19 pandemic, which unfortunately occurred in the month of March; (usually the month of final dispatches and maximum VOI), some other factors also led to lower the issue figures:

- (i) The foremost item-wise target was available only in February, 2019 in the form of Letter of Intent (LOI) targets, even that did not include the Targets for Capital Items and Repair Components e.g. Pinaka Rockets, ERA Panels for T-72, though it is a high value item.
- (ii) The item-wise targets for all items including Capital Items like Pinaka etc. were finally received in September, 2019. (This list was having total value as same as to the Budgeted amount catered for in LOI Target).
- (iii) Ideally, item wise targets should be received at least 9 months before start of financial year, considering the procurement lead time for input materials of around 6 months and the out turn time (Manufacturing/proof/inspection time) of around 3 months for OFB's products in general. In case of imported input materials, the lead time may be even higher. Delayed receipt of item wise target in September, 2019, especially for Ammunition items, which require passed proof components, has adversely affected the production plan of 2019-20.

DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION

Budget

Recommendation (Para Nos. 20 to 22)

The Committee find that during the financial year 2020-21, the proposed BE allocation of DRDO was Rs. 23,457.40 Cr and the approved allocation is Rs. 19327.35 Cr. There is a shortfall of Rs. 4130.00 Cr. With regard to the budgetary requirements, the DRDO stated that keeping aside mandatory expenses for strategic schemes & pay & allowances, the amount left for R&D activities is meager. However, the Department manages within allocations by prioritizing project activities.

During the course of examination of Demands for Grants 2020-21, the Committee found that in 2019-20, the approved BE allocation for DRDO was Rs. 19,021.02 Cr, while the approved RE allocation was Rs. 17,730.78 Cr. The Committee note that the RE allocation is even lesser than the BE allocation by Rs. 1,280.22 Cr.

Further, in respect of the Budgetary grants, the Committee on glancing through the papers submitted by the Ministry of Defence, found that DRDO expenditure as percentage of

total GDP has also plummeted over past years. In 2015-16, it was 0.098% which came down to 0.086% in 2020-21.

After taking into account the details stated above, the Committee observe that Defence R&D is imminent component of progress in country's Defence & also boost indigenisation efforts of the Government. In addition, it also enhances export potential of the Country. Therefore, adequate funding for R&D is essential, which is not being reflected in the status of budgetary grants as highlighted in above paras. More importantly, deduction in RE grant after allocating an amount in BE grant is not a healthy budgeting phenomena as it would lead to certain last minute prioritization and ad-hocism. It is a known fact that advanced countries spend substantial amount on Research and Development, therefore, the Committee are of the view that the percentage of defence R&D spending to total GDP shall, if not, at par with other leading countries of the world, be at least adequate for our future needs. The Committee, therefore, recommend that in light of the case presented here, Government should ensure provision of adequate funds to DRDO in additional/supplementary grants stages.

Reply of the Government

DRDO owes thanks to the Committee for its recommendation in regards to Funds. The details of FBE, Budget Allocations for the Deptt of Defence R&D at different Budgetary stages and actual expenditure w.e.f FY 2017-18 is mentioned in Table 1.

Table 1

(Rs in crore)

				(
Year	BE	BE	RE	MA
	Proposed	Approved	Approved	Approved
2017-18	19935.60	14818.74	15463.25	15399.25
2018-19	22203.74	17861.19	17610.38	17121.99
2019-20	22953.95	19021.02	17730.78	17730.78
2020-21	23457.40	19327.35		

The comparison of Defence Expenditure and DDR&D expenditure w.e.f FY 2017-18 is enumerated in Table 2.

Table 2

(Rs in crore)

Year	Defence Expenditure	BE Proposed by DR&D	Budget allocated to R&D at BE stage	%age of Defence Expenditure
2017-18 (BE)	274114.00	19935.60	14818.74	5.41
2018-19 (BE)	295511.41	22203.74	17861.19	6.04
2019-20 (BE)	318931.22	22953.95	19021.02	5.96
2020-21 (BE)	337553.00	23457.40	19327.35	5.73

It may be noted that against the projection of Rs. 23457.40 Cr at BE stage during the F.Y. 2020-21, an amount of Rs 19327.35 Cr. has been allocated. However, it is a fact that budgetary allocations are much less than the projections made by the Department of Defence Research & Development (R&D) but the Department is managing within the allocations by re-prioritizing the project activities. Further, additional funds would be required to support various projects to be undertaken in futuristic areas.

Yes, it is a fact that BE approved for Department of Defence Research and Development DD(R&D) during the FY 2019-20 was Rs. 19021.02 Cr and the same was reduced to Rs 17730.78 Cr at RE stage. Thus there has been an overall reduction of Rs 1290.24 Cr.

A reduction of Rs 1760.65 Cr was imposed under Capital Head based on the expenditure trend during the FY 2019-20. However, an additional amount of Rs 470.41 Cr was also provided under Revenue Head during the FY at RE stage.

Defence (R&D) Expenditure as percentage of GDP w.e.f 2015-16 is given in Table 3.

Table 3 (Rs. in crore)

Year	TOTAL GDP	DD R&D Exp	DD R&D Exp as % of TOTAL GDP
2015-16	13682035.00	13540.11	0.098
2016-17	15183709.00	13501.00	0.088
2017-18	16847455.00	15399.25	0.091
2018-19	18840731.00	17121.99	0.090
2019-20(AE)	20442233.00	17730.78	0.086

Manpower

Recommendation (Para No. 25)

Presently authorized strength of scientists in DRDO is 7,353 while existing strength is 7,068. The percentage of scientist in DRDO is 30% of total strength of DRDO. Further, the Committee were apprised that since 2001, DRDO has been managing with same authorization inspite of more than 6 fold increase in outlay from IX to XIII plan. The Committee note that the current manpower is grossly insufficient for committed R&D projects. In 2010, Manpower Planning Board (MPB) had recommended for increasing manpower by 4966. Ministry of Finance (MoF) recommended 1316 posts. However, the case is pending with Cabinet Committee on Security (CCS). After a lapse of 10years since MPB recommended sanctioning of posts in 2010, there had been no addition in sanctioned strength, therefore, the Committee urge that Ministry of Defence shall make efforts to cadre review and revision of sanctioning of strength of scientists in DRDO, commensurate with increased number of projects/work. Also, the case of 436 posts already approved by Ministry of Finance (MoF) in phase-I and pending with CCS shall be expedited. The initiation done in this regard along with the probable date of induction be communicated to the Committee at the earliest.

Reply of the Government

The said case was expedited with the Department of Expenditure (DoE) and subsequently approval has been accorded for augmentation of manpower in DRDO by 436 posts (below JS level) on 24 Apr 2020.

MoF has also advised to take up a fresh case for approval of CCS for creation of two posts (above JS level) viz. Chief Executive and Chief Construction Engineer.

Coordination in Research and Development with Private Sector

Recommendation (Para Nos. 27 & 28)

The Committee note that DRDO has made rapid progress with the infusion of private sector involvement in the research related activities of DRDO. The Committee appreciate the large number of steps taken in this direction like opening of world class test facilities, MoUs with leading industry chambers, help rendered to the private industry by Transfer to Technology, providing patent to the Private Industry free of cost and launching of Technology Development Fund(TDF). The Committee are of the considered view that active private sector participation is the way forward and can act as a major impetus for the improvement in research related activities.

The Committee recommend that efforts may be intensified to ensure better collaboration between the public and private sector for improved results and given the sensitive nature of this work, due monitoring mechanism need to be developed to ensure that no leakage of data takes place regarding products being developed. The Committee also recommend that a regular impact assessment mechanism should be developed to assess the overall impact of the enhanced involvement of private sector in the research related activities of DRDO.

Reply of the Government

DRDO is grateful to the Committee for appreciation of its efforts to facilitate and encourage industries through TDF, providing test facilities, engaging Industry Chambers, free of cost access to DRDO patents and funding under TDF.

It is to be mentioned that during development phase of product Life Cycle, necessary confidentiality measures are taken during signing of contract as per guidelines of Purchase Manual -2016(PM-2016). At the time of Transfer of Technology (ToT), all necessary confidentiality clauses are signed in Licensing Agreement for ToT (LAToT) with the industries.

Recommendation (Para Nos. 30 & 31)

The Committee are pleased to note that DRDO has established eight Centres of Excellence in advanced areas wherein professors and students from academic institutes like IIT Delhi, IIT Mumbai, IIT Chennai etc. are working in unison. It is also appreciable that DRDO has started scholarship schemes, financial support to organize conferences/seminars/ workshops in niche areas of technology of interest to DRDO at various academic institutions.

The Committee while putting on record its admiration for these initiatives by DRDO, recommend that DRDO should endeavor to open more such Centers of Excellence in various parts of the country as well as increase the number of financial assistance schemes which can play a major role in attracting the best talent for recruitment in DRDO to the benefit of the country.

Reply of the Government

DRDO acknowledges the Committee's admiration for having established Centres of Excellence/ Advanced Technology Centres in academic institutes of the country for development of defence related technologies.

DRDO has established the Centres of Excellence/ Advanced Technology Centres in the research institute based on the identified technology gaps and research faculty strength for development of defence technologies. This endeavor will continue as per the new emerging areas and needs of DRDO and accordingly financial assistance scheme would increase. DRDO acknowledges the Committee's admiration and will continue to expand the researcher engagement by establishment of more Centres of Excellence/ Advanced Technology Centres.

Manpower and Training

Recommendation (Para Nos. 41 & 42)

The committee, during examination Demands for Grants 2020-21 found that around 4448 number of technical personnel are involved in Quality Assurance activity for defence stores manufactured by Ordnance Factory Board / Defence Public Sector Undertakings, private Industry or import. Further, the committee also comes to know that around 19,000 quality check inspections are undertaken by the officials of DGQA in month time, which comes to approximately 5 inspections per technical person in one day.

The Committee are happy to learn that regular training is provided by DGQA to its technical manpower, which is essential to achieve fool proof mechanism of inspection. While noting this fact, the Committee would like to know whether these numbers are sufficient for operations of DGQA or they need extra manpower especially keeping in view the growing future role of Defence manufacturing sector in times yet to come. In the opinion of the Committee, the "Make in India Policy" and manufacturing under "Defence Corridors" would definitely add to the responsibilities of DGQA. These policies are brought out in other parts of the Report pertaining to procurements.

Reply of the Government

Manpower and Training

- (a) It is submitted that over the years DGQA's role and responsibility has been dynamic with the change in technology and Governments initiative of 'Make in India' policy. With the aim to boost Foreign Direct Investment in the Defence Sector and impetus given for ease of doing business, as per Government of India policies, number of schemes such as assessment and award of Green Channel Status, Self certification, Defence Export Promotion, allocation and coordination of proof ranges, registration, validation and monitoring of Third Party Inspectors have been launched by the MoD(DP) for which the responsibility to implement has been entrusted to DGQA. In addition, Defence Corridors have been proposed to give boost to defence manufacturing. Thus, overall DGQA role and involvement is progressively increasing in a diverse manner to meet the intended objectives.
- (b) In addition to this, Indian Army is also modernizing its artillery and armament to meet their operational requirement. Induction of large caliber Artillery Guns of 155 mm such as 'M777 Ultra light Howitzer', '155/52mm K9 Vaja' and '155/45mm Dhanush' and 'Sharang' have already commenced. Induction and production of other state of the art artillery gun systems and armament such as 155/52mm Towed Gun System, indigenous 155/52mm ATAGAS, six more regiments of Pinaka Weapon System, Assault Rifle AK-203 and other Small Arm weapons are also planned. Consequent to these activities related to conduct of dynamic proof of weapon and ammunition at respective Proof Ranges is gradually increasing. In order to meet the futuristic increasing requirement for conduct of dynamic proof firing, DGQA is in the process of initiating a proposal for commissioning of New Proof Firing Range at Pokhran Field Firing Range (PFFR). Creation of additional facilities would entail allocation of additional technical manpower and resources.
- (c) Moreover a large number of Private Industries have also shown keen interest in development of various guns & small arms systems, different kinds of ammunitions and their components, in India with the collaboration of established and well known arms and ammunition manufacturers of the world. Therefore, in order to provide close and fool proof mechanism of inspection and quality assurance for the various phases of conceptualization, development, production and exploitation, a large number of DGQA work force would be required.
- (d) An increase of 20% technical manpower with respect to presently held strength would be required to meet the requirement of the future challenges as brought about by Hon'ble Committee members in para 44 of subject report.

Skill Development and Employability of Cadets

Recommendation(Para No. 50)

The Committee note that every year about 5000 to 6000 cadets get selected in other ranks and about 8 to 10 percent as direct entry as Officers in Armed Forces.

Reply of the Government

Enabling the NCC cadets for selection in Armed Forces has been the key focus of NCC training. Concerted efforts have been taken to ensure full utilization of the allotted vacancies to NCC. Through the concerted efforts, the selection percentage for the year 2019 has gone up to approximately 70%. Induction of cadets into armed forces continue to be a focus area of NCC.

Recommendation (Para No. 51)

The Committee appreciate the initiatives taken by the Ministry and introduction of certificate courses in adventure & sports – mountaineering, sailing, riding & scuba diving etc., training through National Disaster Response Force (NDRF), Red Cross, NCC Exchange Participants Association of India(EXPA) etc., increased focus on personality development, leadership, communication skills, training/coaching for Service Selection Board(SSB) through experts, Certification Course for Yoga through Ministry of Ayush, enhanced attachment with services units & Military Hospitals, Central Armed Police Forces(CAPFs), Aviation, Shipping, Railways and Forest like Defence Services and training of cadets through Skill India initiatives.

Reply of the Government

Observations of the Committee are noted. Further, generation of employment avenues for the NCC Cadets other than armed forces has been taken up in a big way. Also Ministry of Home Affairs, Ministry of Railways, Ministry of Surface Transport and Ministry of Civil Aviation have been requested to introduce incentives for NCC Cadets in security related jobs, CAPFs and State Police, similar to the incentives existing in armed forces.

Recommendation (Para No. 52)

The Committee are happy that the potential of these cadets is being recognized and there is a favourable consideration to give them the same incentives as in any other security related service. However, the Committee recommend that efforts should be made to provide jobs to all the trained NCC candidates and to increase employability. Further, Non Governmental Organizations like EXPA which are giving training to the NCC cadets should be suitably rewarded monetarily.

Reply of the Government

Ministry of Defence has taken up with Ministry of Home Affairs, Ministry of Railways, Ministry of Surface Transport and Ministry of Civil Aviation the matter of introduction of incentives for NCC Cadets in security related jobs, CAPFs and State Police,

Also, Skill Development and Personality Development has been taken up in a big way by NCC to enhance the employability of the NCC cadets. Services of NCC Exchange Participants Association of India (EXPA) has been suitably integrated in training of the Cadets. NCC is working as facilitator to facilitate NCC cadets to optimise the Skill Development training imparted by State Skill development agencies. Efforts are also being made through the state government to facilitate skill development of the cadets through Government scheme like Pradhan Mantri Kaushal Vikas Yojana (PMKVY), etc.

These measures are expected to help increasing employment avenues for NCC cadets in future.

CHAPTER III

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

-NIL-

CHAPTER IV

OBSERVATIONS/RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE WHICH REQUIRE REITERATION AND TO BE COMMENTED UPON

-NIL-

CHAPTER V

OBSERVATIONS/RECOMMENDATIONS IN RESPECT OF WHICH GOVERNMENT HAVE FURNISHED INTERIM REPLIES:

-NIL-

New Delhi 09 February, 2021 20 Magha, 1942 (Saka)

Jual Oram Chairperson, Standing Committee on Defence

APPENDIX I

STANDING COMMITTEE ON DEFENCE (2020-21)

MINUTES OF THE THIRD SITTING OF THE STANDING COMMITTEE ON DEFENCE (2020-21)

The Committee sat on Tuesday, the 9th February, 2021 from 1530 hrs. to 1600 hrs. in Committee Room No. 2, Block A, Extension to Parliament House Annexe (EPHA), New Delhi.

PRESENT

Shri Jual Oram - Chairperson

MEMBERS

Lok Sabha

2.	Kunwar Danish Ali
3.	Shri Ajay Bhatt
4.	Shri Nitesh Ganga Deb
5.	Shri Annasaheb Shankar Jolle
6.	Choudhary Mehboob Ali Kaiser
7.	Smt. (Dr.) Rajashree Mallick
8.	Dr. T.R. Paarivendhar
9.	Shri Kapil Moreshwar Patil
10	Shri Jugal Kishore Sharma
11.	Shri Prathap Simha
12.	Shri Brijendra Singh
13.	Shri Durga Das Uikey

Rajya Sabha

14.	Dr. Ashok Bajpai
15.	Shri V. Lakshmikantha Rao
16.	Shri Sanjay Raut
17.	Shri Kamakhya Prasad Tasa
18.	Dr. Sudhanshu Trivedi
19.	Lt. Gen. Dr. D. P. Vats (Retd.)

SECRETARIAT

1. Smt. Kalpana Sharma - Additional Secretary

2. Dr. Sanjeev Sharma - Director

3. Shri Rahul Singh - Deputy Secretary

- 2. At the outset, the Chairperson welcomed the Members of the Committee and informed them about the agenda for the Sitting. The Committee then took up for consideration the following draft Action Taken Reports:
 - i. Action Taken by the Government on the Observations/Recommendations contained in the Twenty-third Report (16th Lok Sabha) of the Standing Committee on Defence on the subject 'Proxy and Postal Voting by Defence Services Personnel in General Elections an Evaluation';
 - ii. Action Taken by the Government on the Observations/Recommendations contained in the Fiftieth Report (16th Lok Sabha) of the Standing Committee on Defence on the subject 'Provision of all weather road connectivity under Border Roads Organisation (BRO) and other agencies up to International Borders as well as the strategic areas including approach roads-an appraisal';
 - iii. Action Taken by the Government on the Observations/ Recommendations contained in the First Report (17th Lok Sabha) on Demands for Grants of the Ministry of Defence for the year 2019-20 on 'General Defence Budget, Border Roads Organisation, Indian Coast Guard, Military Engineer Services, Directorate General Defence Estates, Defence Public Sector Undertakings, Canteen Stores Department, Welfare of Ex-Servicemen, Ex-Servicemen Contributory Health Scheme, Defence Pensions, Sainik Schools (Demand Nos. 18 and 21)';
 - iv. Action Taken by the Government on the Observations/Recommendations contained in the Second Report (17th Lok Sabha) on Demands for Grants of the Ministry of Defence for the year 2019-20 on 'Army, Navy, Air Force and Joint Staff (Demand Nos. 19 and 20)';
 - v. Action Taken by the Government on the Observations/Recommendations contained in the Fourth Report (17th Lok Sabha) on Demands for Grants of the Ministry of Defence for the year 2019-20 on 'Ordnance Factories, Defence Research and Development Organisation, Directorate General of Quality Assurance and National Cadet Corps (Demand No. 19 and 20)';
 - vi. Action Taken by the Government on the Observations/Recommendations contained in the Fifth Report (17th Lok Sabha) on Demands for Grants of the Ministry of Defence for the year 2020-21 on 'General Defence Budget, Border Roads Organisation, Indian Coast Guard, Military Engineer Services, Directorate General Defence Estates, Defence Public Sector Undertakings, Canteen Stores

- Department, Welfare of Ex-Servicemen, Ex-Servicemen Contributory Health Scheme, Defence Pensions, Sainik Schools (Demand Nos. 18, 19, 20 and 21)';
- vii. Action Taken by the Government on the Observations/Recommendations contained in the Sixth Report (17th Lok Sabha) on Demands for Grants of the Ministry of Defence for the year 2020-21 on 'Army, Navy, Air Force and Joint Staff (Demand Nos. 19 and 20)'; and
- viii. Action Taken by the Government on the Observations/Recommendations contained in the Eighth Report (17th Lok Sabha) on Demands for Grants of the Ministry of Defence for the year 2020-21 on 'Ordnance Factories, Defence Research and Development Organisation, Directorate General of Quality Assurance and National Cadet Corps (Demand Nos. 19 and 20)'.
- 3. After some deliberations, the Committee adopted the above reports without any modifications.
- 4. The Committee, then, authorized the Chairperson to finalise the above draft Reports and present the same to the House on a date convenient to him.
- 5. *****Does not pertain to the Reports*****

The Committee then adjourned.

APPENDIX II

ANALYSIS OF THE ACTION TAKEN BY THE GOVERNMENT ON THE OBSERVATIONS/ RECOMMENDATIONS CONTAINED IN THE EIGHTH REPORT OF STANDING COMMITTEE ON DEFENCE (17TH LOK SABHA) ON 'DEMANDS FOR GRANTS OF THE MINISTRY OF DEFENCE FOR THE YEAR 2020-21 ON ORDNANCE FACTORIES, DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION, DIRECTORATE GENERAL OF QUALITY ASSURANCE (DGQA) AND NATIONAL CADET CORPS (NCC) (DEMAND NO. 20)'

1. Total number of recommendations

54

2. Observations/Recommendations which have been accepted by the Government (please see Chapter II A):

Recommendation Nos. 1,2,3,4,13,14,15,16,17,18,19,23,24,26,29,32,33,34,35, 36,37,41,42,43,44,45,46,47,48,49,53,54

Total: 33

Percentage: 61%

Observations/Recommendations which have been accepted by the Government and are commented upon (please see Chapter II B):

Recommendation Nos. ,6,7,8,9,10,11,12,20,21,22,25,27,28,30,31,41,42,50,51,52

Total: 21

Percentage: 39%

4. Observations/Recommendations which the Committee do not desire to pursue in view of the replies received from the Government(please see Chapter III):

Recommendation No. -Nil-

Total: 00

Percentage: 00

5. Observations/Recommendations in respect of which replies of Government have not been accepted by the Committee which require reiteration and to be commented upon (please see Chapter IV):

Recommendation Nos. -Nil-

Total: 00

Percentage: 00

6. Observations / recommendations in respect of which Government have furnished interim replies (please see Chapter V):

Recommendation Nos. -Nil-

Total: 00

Percentage: 00