

**PROVISIONING, PROCUREMENT AND ISSUE OF
HIGH ALTITUDE, CLOTHING, EQUIPMENT,
RATION AND HOUSING**

**PUBLIC ACCOUNTS COMMITTEE
(2022-23)**

FIFTY-FIFTH REPORT

SEVENTEENTH LOK SABHA



**LOK SABHA SECRETARIAT
NEW DELHI**

PAC NO. 2284

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PUBLIC ACCOUNTS COMMITTEE **(2022-23)**

(SEVENTEENTH LOK SABHA)

PROVISIONING, PROCUREMENT AND ISSUE OF HIGH ALTITUDE, CLOTHING, EQUIPMENT, RATION AND HOUSING



सत्यमेव जयते

Presented to Lok Sabha on: 14.12.2022

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**LOK SABHA SECRETARIAT
NEW DELHI**

December, 2022 /Agrahayana, 1944 (Saka)

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COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE
(2022-23)

Shri Adhir Ranjan Chowdhury - Chairperson

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3. Shri Bhartruhari Mahtab
4. Shri Jagdambika Pal
5. Shri Vishnu Dayal Ram
6. Shri Pratap Chandra Sarangi
7. Shri Rahul Ramesh Shewale
8. Shri Gowdar Mallikarjunappa Siddeshwara
9. Shri Brijendra Singh
10. Shri Rajiv Ranjan Singh alias Lalan Singh
11. Dr. Satya Pal Singh
12. Shri Jayant Sinha
13. Shri Balashowry Vallabbhaneni
14. Shri Ram Kripal Yadav
15. Shri Shyam Singh Yadav

RAJYA SABHA

16. Shri Shaktisinh Gohil
17. Shri Bhubaneswar Kalita
18. Dr. Amar Patnaik
19. Dr. C. M. Ramesh
20. Vacant*
21. Dr. M Thambidurai
22. Dr. Sudhanshu Trivedi

SECRETARIAT

1. Shri T. G. Chandrasekhar - Additional Secretary
2. Shri Tirthankar Das - Director
3. Ms. Malvika Mehta - Under Secretary

* Shri V. Vijayasai Reddy ceased to be a Member of Committee consequent upon his retirement from Rajya Sabha on 21 June, 2022.

COMPOSITION OF PUBLIC ACCOUNTS COMMITTEE (2021-22)

Shri Adhir Ranjan Chowdhury - Chairperson

MEMBERS LOK SABHA

2. Shri T. R. Baalu
3. Shri Subhash Chandra Baheria
4. Shri Sudheer Gupta
5. Shri Bhartruhari Mahtab
6. Shri Jagdambika Pal
7. Shri Vishnu Dayal Ram
8. Shri Pratap Chandra Sarangi¹
9. Shri Rahul Ramesh Shewale
10. Shri Gowdar Mallikarjunappa Siddeshwara²
11. Shri Rajiv Ranjan Singh alias Lalan Singh
12. Dr. Satya Pal Singh
13. Shri Jayant Sinha
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16. Shri Shaktisinh Gohil
17. Shri Bhubaneswar Kalita
18. Dr. C.M. Ramesh
19. Shri Sukhendu Sekhar Ray
20. Shri V. Vijayasai Reddy³
21. Dr. M. Thambidurai
22. Dr. Sudhanshu Trivedi⁴

¹ Elected w.e.f. 29.07.2021 *vice* Smt. Darshana Jardosh, MP appointed as Minister of State w.e.f. 07.07.2021.

² Elected w.e.f. 29.07.2021 *vice* Shri Ajay Kumar Mishra, MP appointed as Minister of State w.e.f. 07.07.2021.

³ Elected w.e.f. 09.08.2021 *vice* Shri Rajeev Chandrasekhar, MP appointed as Minister of State w.e.f. 07.07.2021.

⁴ Elected w.e.f. 09.08.2021 *vice* Shri Bhupender Yadav, MP appointed as Union Minister w.e.f. 07.07.2021.

**COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE
(2020-21)**

Shri Adhir Ranjan Chowdhury - Chairperson

MEMBERS

LOK SABHA

2. Shri T. R. Baalu
3. Shri Subhash Chandra Baheria
4. Shri Sudheer Gupta
5. Smt. Darshana Vikram Jardosh
6. Shri Bhartruhari Mahtab
7. Shri Ajay (Teni) Misra
8. Shri Jagdambika Pal
9. Shri Vishnu Dayal Ram
10. Shri Rahul Ramesh Shewale
11. Shri Rajiv Ranjan Singh alias Lalan Singh
12. Dr. Satya Pal Singh
13. Shri Jayant Sinha
14. Shri Balashowry Vallabhaneni
15. Shri Ram Kripal Yadav

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16. Shri Rajeev Chandrasekhar
17. Shri Naresh Gujral
18. Shri Bhubaneswar Kalita*
19. Shri Mallikarjun Kharge*
20. Shri C. M. Ramesh
21. Shri Sukhendu Sekhar Ray
22. Shri Bhupender Yadav

* Elected w.e.f. 11 February, 2021.

INTRODUCTION

I, the Chairperson, Public Accounts Committee (2022-23), having been authorised by the Committee, do present this Fifty-fifth Report (Seventeenth Lok Sabha) on “**Provisioning, Procurement and Issue of High Altitude, Clothing, Equipment, Ration and Housing**” based on Chapter II of C&AG Report No. 16 of 2019 (Union Government-Compliance Audit - Defence Services (Army) relating to the Ministry of Defence (Department of Military Affairs)).

2. The Report of Comptroller and Auditor General of India was laid in the Rajya Sabha on 13 December 2019 and in the Lok Sabha on 03 February 2020.

3. The Public Accounts Committee (2020-21) selected the subject for detailed examination and report. The subject was carried forward for examination by the successor Public Accounts Committee during their term, 2021-22 and 2022-23. The Committee took oral evidence of the representatives of the Ministry of Defence (Department of Military Affairs) at their sittings held on 10 August, 2020, 06 October, 2020 and 20 October, 2021. The Committee (2022-23) obtained updated information in connection with the examination of the subject. The Committee considered and adopted this Report at their sitting held on 05 December, 2022. The Minutes of the sittings of the Committee are appended to the Report.

4. For facility of reference and convenience, the Observations and Recommendations of the Committee have been printed in **bold** and form Part-II of the Report.

5. The Committee thank their predecessor Committees for taking oral evidence and obtaining information on the subject.

6. The Committee would like to express their thanks to the representatives of the Ministry of Defence (Department of Military Affairs) for tendering evidence before them and furnishing the requisite information to the Committee in connection with the examination of the subject.

7. The Committee also place on record their appreciation of the assistance rendered to them in the matter by the Committee Secretariat and the office of the Comptroller and Auditor General of India.

NEW DELHI:
07 December, 2022
16 Agrahayana, 1944 (*Saka*)

ADHIR RANJAN CHOWDHURY
Chairperson,
Public Accounts Committee

PART-I

CHAPTER-1

High Altitude Clothing and Equipment

I. Introduction

1.1 The Northern and Eastern Commands of the Indian Army secure national boundaries in mountainous regions in Jammu & Kashmir, Sikkim and Arunachal Pradesh. Most of the troops in these two Commands are deployed at high altitude areas (HAA) such as Siachen, Ladakh, Doklam, etc.

1.2 Troops in such areas need to be provided special clothing and equipment, special ration and housing facilities to enable them to effectively withstand the inclement weather and ailments caused due to such extreme cold weather conditions. Accordingly, Government has authorized special clothing, equipment and ration at enhanced/enriched scales for the troops operating at high altitudes.

1.3 The Public Accounts Committee (2020-21) decided to take up for detailed examination and report, Chapter II of C&AG Report No. 16 of 2019 (Union Government-Compliance Audit- Defence Services (Army) on the subject, "Provisioning, procurement and issue of High Altitude Clothing, Equipment, Ration and Housing". This chapter pertains to the Ministry of Defence, Department of Military Affairs.

1.4 The C&AG of India (Audit) conducted a performance audit to ascertain the efficiency and effectiveness of provisioning and procurement of clothing, equipment, ration and housing, their inventory management and quality for the intervening period of 2015-16 to 2017-18. Audit found instances of delays in procurement of clothing items upto four years from the time of 'Acceptance of Necessity'. There were inordinate delays in receipt of contracted items from Ordnance Factories. Delayed procurement action and delayed receipt of contracted items led to acute shortage of essential clothing and equipment items and timely issue of the same to the troops. Health and hygiene of troops stationed at high altitude areas was affected as a result of procedural delays, non-supply or supply of recycled or alternate items at the time of need.

1.5. Lack of Research and Development by defence laboratory and failure in indigenization resulted in prolonged and continued dependence on import. Special rations were to be given to the troops for alleviating certain psychological and physiological conditions that the troops face in high altitude inhospitable conditions. However, audit findings revealed that substitutes in *lieu* of scaled items were authorized in a given percentage on cost to cost basis which resulted in reduced quantity of calorie intake of troops. There were also instances of short issue of rations to troops due to deficiencies in Internal Controls on administrative check.

1.6. In regard to housing, the project for improving housing conditions of the troops in high altitude areas was executed in an *ad hoc* manner. Sanction of the competent authority was never taken and even the pilot project was sanctioned in phases. Despite

an expenditure of Rs. 274 crore, the pilot project was not successful. Annual plans were being drawn and works were being sanctioned without correct and objective assessment of the requirements. Execution of works and subsequent handing over of assets for use to the units in the most formidable climatic conditions was inordinately delayed.

1.7 Acceptance of stores was done merely on the basis of visual inspection and there was no documentary evidence of the stores being subjected to any kind of testing in the quality control labs of the units. The Numerical Assets Registers (NAR) were not being maintained as per the laid down procedure leading to gaping discrepancies between the assets shown in NAR and those on the ground.

1.8 The Public Accounts Committee (2020-21) took oral evidence of the representatives of Ministry of Defence and the Chief of Defence Staff on 10.08.2020 and 06.10.2020. The subject was carried forward to the next year and examined by the successor Committee i.e. PAC (2021-22). PAC (2021-22) took further oral evidence of the representatives of Ministry of Defence and the Chief of Defence Staff on 20.10.2021. PAC (2021-22) undertook a study visit *inter-alia* to Leh from 15.08.2021 to 17.08.2021 where informal interaction was held with representatives of Ministry of Defence (Department of Military Affairs) and Northern Command (Army) on the aforesaid subject. The Committee also had first hand interaction with the troops deployed in the forward locations where they utilized SCME items. The Committee also obtained written information on various aspects of the issues under consideration. Based on the oral evidence and written submissions made, the Committee have carried out in-depth examination of the subject as detailed in the succeeding paragraphs.

(i) High Altitude Clothing and Equipment

1.9 The term High Altitude Clothing and Equipment (HACE) encompasses Extreme Cold Clothing and Equipment (ECC&E) as well as Special Clothing and Mountaineering Equipment (SCME). ECC&E items are issued to troops deployed above 9000 feet in Eastern Command and above 6000 feet in other Commands. These items are classified as Category-I & II items.

1.10 Category-I consists of 13 items such as boots, coats, gloves, goggles, sleeping bag etc. meant for extreme cold climate which are issued to individual soldiers on his induction to the high altitude area. These items are managed on the pattern of life cycle concept of personal clothing items with each item having been assigned a fair life.

1.11 Category-II ECC&E consists of 17 items like tent, mattress, snow shoe, gaiters, spare glasses for goggles. These items are retained by units and do not have any prescribed life. These are retrieved and re-issued depending upon their state of serviceability.

1.12 The SCME items are issued to the troops inducted in very High Altitude Areas like Siachen. These are also classified into two categories. Category-I consists of 22

items such as woolen caps, socks, jackets, rucksacks, face masks which are retained by individual soldier.

1.13 Category-II have 37 items like carabiner (a special type of shackle), knife, rope, high altitude tents, pulleys, oxygen cylinder, ice axe, avulang (used to breathe under snow), tigger snow shoes which are retained by units.

1.14 The Director General, Ordnance Services (DGOS) under Master General of Ordnance (MGO) in Army Headquarters is responsible for provisioning, procurement, receipt, storage, accounting and issue of all stores including high altitude clothing and equipment items.

1.15 Provision of only SCME Category-I items, which are procured through import, is done by Equipment Management (EM) Directorate under MGS (erstwhile MGO). Procurement is approved by the Empowered Committee which is specially constituted for this purpose under the Chairmanship of MGS.

(ii) Ration

1.16 For the Armed Forces, adequate nutrition is essential to build up their nutritional reserves while deriving maximum benefits/peak performances in operational situations by keeping their morale high. The basic items of ration are scaled and authorized to the troops to meet their daily energy requirements.

1.17 The existing ration scales have been designed based on the geographical conditions and energy requirement of soldiers at different altitudes as per details given below:

- (a) Ration scales for troops (JCOs/OR) at 9000 feet and below,
- (b) Ration scales for officers at 9000 feet and below,
- (c) Ration scale for troops at 9000 feet and above,
- (d) Ration scale for officers at 9000 feet and above,
- (e) Ration scales for all ranks at 12000 feet and above (Special ration scales).

1.18 The high altitude region has extreme environmental conditions wherein the temperature during severe winters falls below -50°C . This causes loss of appetite due to various physiological changes leading to weight loss and reduction in performance. The normal ration scale is not sufficient for the calorific value required for the high altitude areas.

1.19 The basic objective of giving special ration to the troops at 12,000 feet and above is to provide alternative food items in order to alleviate certain psychological and physiological conditions that troops face under inhospitable conditions in high altitude areas.

(iii) Housing

1.20 Shelters as substitute of tentage are provided to troops located in high altitude areas for living, storage, administrative accommodation, ancillary services etc. To meet

the challenges at various geographical locations/altitudes, these shelters are mainly pre-fabricated, made of galvanized steel with Poly Urethane Foam (PUF) insulation. For extreme climatic and geographical conditions, Fiber Reinforced Plastic (FRP)/Fiber Glass Huts (FGH) are provided for housing purposes.

1.21 Besides prefabricated shelters, housing at high altitude also requires ancillary services like electrification, heating, water supply, sewage disposal etc.

II. Audit methodology

1.22 Audit was conducted to examine whether:

1. The provisioning and procurement process of HACE items, special ration and housing was economic, efficient and effective;
2. Quality issues of HACE items, Ration and Housing were managed properly and,
3. Inventory management was effective.

1.23 Audit covered the period from 2015-16 to 2017-18. In respect of clothing and equipment items and special scale of ration to troops at high altitude areas, Northern Command (NC) and Eastern Command (EC) were selected in audit. For housing to troops at high altitude area, Audit was conducted in Northern Command (NC) only.

1.24 Audit was commenced with an introductory conference at IHQ of MOD (Army), New Delhi wherein scope of audit, audit objectives and audit methodology pertaining to HACE and Special Ration was shared. In case of HACE, audit was conducted at MGO's Branch, Central Ordnance Depot (COD) 'N' including its Detachment (Det), CQA (GS) and CQA T&C Kanpur. Further, Defence Material Store Research & Development Establishment (DMSRDE), Kanpur as well as two depots each under Eastern Command FOD 'A', ABOD 'B' and Northern Command (FOD 'C' & Division Ordnance Unit (DOU) 'D') were also covered in HACE audit.

1.25 Audit of special ration was conducted at Army HQ in the Quarter Master General's (QMG's) Branch and Director General Supply and Transport (DGST). This was followed by audit at HQ Northern Command (NC), HQ Eastern Command (EC) and HQ 'X' & 'Y' Corps. Operation of contracts and distribution chain were examined in seven battalions /Composite Units of Army Services Corps (ASC) and 12 dependent user units.

1.26 Audit of high altitude housing was commenced with an introductory conference at HQ, NC wherein audit objective, scope and audit methodology was shared. Besides HQ NC, field audit was conducted in HQ 'X' Corps followed by the audit of two Engineer Regiments under the Corps and two user units under each Engineer Unit.

1.27 An exit conference of HACE items was held on 13.02.2019 with the Ministry of Defence to discuss the audit findings and recommendations contained in the draft audit report.

III. Budget

1.28 Audit found that there is no separate allotment for ration and housing for high altitude areas. Expenditure for clothing and equipment (HACE) is met from allotment for 'General stores and clothing' which also includes general clothing and equipment for the entire Army. Expenditure specifically on HACE was not furnished to Audit. In respect of special ration, expenditure on only local purchases was furnished to Audit. Expenditure figures on high altitude housing were extracted from job wise details of high altitude housing through Operational Works.

1.29 In this regard, the Committee desired to know whether, for a comprehensive and holistic approach, there was a case in point to have a separate allotment in the budget for high altitude rations, housing and clothing. The Ministry in response, informed as follows:

"The Operational Works procedure is a special provision which primarily caters for creation of infrastructure along the borders to include high altitude areas. Operational Works has a separate budget head and is allotted on an average Rs. 800 Crore out of which Rs. 400 Crore is spent for formations deployed along the Northern Borders. With regard to rations, budget allocated is sufficient and there has been no instance of any budgetary constraint. Further, no separate allotment in the budget for high altitude rations is required."

1.30 The Committee sought to know whether the Ministry of Defence was adopting outcome-oriented monitoring of the expenditure and revenue and capital procurement which account for nearly one-third of the defence budget. The Committee was of the opinion that only such monitoring would bring in greater efficiency in the management of budgetary outlays. The Ministry in this regard, gave the following response:-

"Erstwhile the Defence Budget was categorized as Non-Plan and no Central Sector Scheme is being implemented under Defence Service Estimates. Further, no outcome oriented monitoring of the expenditure is presently being done in Budget Division."

1.31 The Committee desired to know the reasons for not bifurcating between the budget allotment for expenditure for the general areas and the high-altitude areas. In this regard, the Ministry gave the following response:-

"Funds are allocated as part of the Army budget in various Minor Heads, Sub Heads and Code Heads. The bifurcation of existing Code Heads are need based and not terrain/region based."

(i).Inventory Management

1.32 Stocking and issue of ECC&E and SCME are regulated by the authorization sanctioned by the Ministry of Defence. ECC&E items are authorized for field stock

corresponding to number of troops under respective command. In addition, command reserves (10 percent of field stock) and Army Headquarters (AHQ) reserve (percentage not specified) are authorized to cater for contingencies, dual task formations, movement of additional formations in HAA areas and for providing relief due to any disaster. Similarly, SCME items are authorized for field stock in respective Command with equal number of sets as Army Headquarters reserve.

a. Holding stock of ECC&E and SCME items

1.33 AHQ reserve of Northern Command is stocked at Field Ordnance Depot (FOD 'C') location and that of other commands are stocked at Central Ordnance Depot (COD 'N'). Audit scrutiny revealed that there was a deficiency of 24 to 100 per cent at FOD 'C' and 41 to 100 per cent at COD 'N'.

1.34 Audit sought reasons for non-holding of stock even up to AHQ Reserve in COD 'N' and how the units met the requirement of troops in case of any emergency situation. In reply, COD 'N' stated that the items were released by AHQ and the depot undertook stocking and dispatch of stores based on the release instruction of AHQ. The reply was silent about how the requirement of troops was met.

1.35 The Ministry further stated as follows in the action taken notes:-

"Shortage of reserves does not impact availability to units as regular supplies were available. As 100% ECC&E items are from indigenous sources, short supplies from sources like OFB were addressed through local purchases.

(ii) The deficiency in Army HQ Reserves have not affected the availability of store to troops as sufficient stock existed at Command level for regular issue to troops.

Improvement in System and Procedures including Internal Controls.

(a) 82 items previously sourced from OFB have been declared as Non-Core thereby making procurement from trade in phased manner feasible.

(b) Prospective bidders now submit Capacity Verification documents while submitting Tech Bids. This saves minimum of 2-3 months time.

(c) Procurement decisions by Procurement Committee meetings instead of through file movement have reduced timeline by about 15-30 days."

1.36 When asked by the Committee about the action taken to maintain AHQ reserves of ECC&E and SCME items which are supposed to be maintained at all times, the Ministry stated as follows:-

"The exercise for building up 100% reserves was initiated in FY 2020-21. 100% reserves for critical lifesaving items have been provisioned and are under

procurement action. Endeavour is to provide authorized stocks for deployed troops and hold 100% reserves of critical lifesaving items by FY 2022 -23."

1.37 The Committee then desired to know the present stock position of ECC & E and SCME items in Northern Command and Eastern Command as per AHQ reserves and Command reserves. The Ministry in response submitted the following reply:-

"There is no shortfall with troops and complete entitlement for 2021-22 has been met. 100 % reserves of critical life saving items have either been contracted or procurement action has been initiated. Endeavour is to hold 100 % reserves by FY 2022-23."

1.38 On being queried whether the deficiencies highlighted by C&AG have been addressed, the Ministry gave the reply as under:-

"Deficiencies were highlighted by C&AG with respect to AHQ reserves. Reserves are being made up in the fastest possible timeframe."

1.39 In response to a query regarding action taken for more effective inventory management and procurement to avoid situations of shortages in future, the Ministry, through their post-evidence reply stated as under:-

"Central Inventory Control Group (CICG), an automated centralized database for effective inventory management and procurement has been created. Better inventory visibility to procuring agency is now available. First phase of CICP has been completed and second phase is nearing completion. On completion of Phase III, computerization of all India inventory visibility will be achieved. Store holding Depots are also using ADP (SAP) for enhancing shelf life management and visibility. Shortages in reserves are also being made up."

b. Special clothing and Mountaineering Equipment (SCME) items

1.40 Government of India, Ministry of Defence approved in April 2005 and April 2017, certain number of sets each of 21 types of SCME Cat-I items authorized to troops at very high altitude area like Siachen. It also laid down the scale of AHQ reserve as 100 per cent. Cat-I items of special clothing are to be issued to soldiers as items of personal clothing and to be retained by them.

1.41 Scrutiny of stock details report of Commands related to SCME revealed that out of 21 Category-I items of SCME, the deficiency percentage of eighteen items ranged from 15 per cent to 98 percent.

1.42 This also showed that no Army HQ Reserve Stock was being held as even the field stock was not upto the desired level. In reply, Detachment COD 'N' stated that only running stock was held in Depot and reserves would be maintained only after receipt of complete store items.

1.43 Audit sought reasons for short issue of SCME items against the authorization and the manner in which requirement of troops was met. The units stated that the issues were made on the basis of release orders issued by the higher formation/command/MGO Branch. Thus, the release orders themselves were not compliant to the authorization. Ministry's reply was silent on this Audit finding.

1.44 The Ministry furnished the following information in their action taken notes:-

“(i) The deficiencies in reserves do not impact availability to units.

(ii) The deficiencies due to non-supply by OFB to units have been mitigated by obtaining NOC & effecting procurement through trade. Moreover, to meet emergent requirements when supplies ex- central sources are delayed, local purchase is resorted to.

(iii) The deficiency calculated by audit is out of total authorization, which includes 100% reserves to be maintained. If reserve is discounted, the availability % for troops will double, thereby, reflecting that requirement of troops have been met. It may also be noted that the stocks noted do not include the items already held with troops that are deployed. The stocks held with Ordnance echelons are for the future inductions.

(iv) Deficiencies reported by audit are thus transitory in nature as the procurement state is always dynamic.”

Issue and stocking of shelf life expired/ obsolete stores

c. Issue of items with expired shelf life

1.45 Audit noted that Det COD 'N' intimated in June 2018 Director General of Ordnance Services that some SCME items are past their shelf life. A huge quantity of life saving and essential items under Cat-II worth Rs. 43.60 lakh with expired shelf life were issued by Det COD 'N' after receiving release orders by AHQ. Further, stores amounting to Rs.30.31 lakh were lying in stock after completion of shelf life/ expiry date.

1.46 Audit scrutiny of FOD 'C' revealed that Fire Star Refill Tube 150 gm (4712 numbers) was received in October 2012 from Det COD 'N'. The FOD 'C' intimated HQ 'Z' Corps about expiry position of Fire Star Refill. Against the expired 6025 numbers, FOD 'C' issued 551 numbers to the units and balance 5474 were in stock as of July 2018. Reason for issue of huge quantity of items with expired shelf life was enquired in audit.

1.47 No reply was furnished by Det COD 'N' as of October 2018. However, FOD 'C' in a reply furnished in July 2018 stated that the depot was only a stocking echelon and all receipts/ issue to the depot are based on release orders from higher Formations.

1.48 Further, in their action taken notes, the Ministry stated as follows:-

“The shelf life is only a guideline for usage of equipment and does not imply immediate downgradation of equipment post expiry of shelf life. The principle is followed for all warlike stores including sensitive items like ammunition, where shelf life is extended repeatedly for gainful utilization.

(ii) Although the shelf life of these items might have expired but the usage life was still remaining and the items were issued against the deficiencies reported by Command HQs.

(iii) The procurement of item in question was based on past wastage experience. As the future wastage cannot be predicted, in the instant case the subsequent usages were less. On the contrary, hindering procurement for fear of shelf life expiry can result in denial of stores to troops deployed under critical conditions.

(iv) No policy for destruction of store immediately on expiry of shelf life exists.

(v) There has neither been any incorrect provisioning/procurement nor loss to State.

(vi) **Improvement in System and Procedures including Internal Controls.**

A central database has already been created and put in place in phases as part of CIGP Phase-II. On completion of Phase-II of CIGP, all units will be covered in the ambit of centralized inventory management program.”

1.49 In this regard, the Committee desired to know the timelines of CIGP, in connection with which the Ministry in a written reply, stated as follows:-

“First two phases of CIGP (re-christened CIGG) have been completed and the final phase of CIGP is only balance. On completion of Phase III computerisation for all India inventory visibility will be achieved. As briefed by the CDS during the PAC Meeting, security related requirements are presently being looked into. The indicative timelines for completion are 41 months from AoN.”

1.50 In this regard, on being asked when the second phase of CIGP would be completed, the Ministry stated as follows:-

“The second phase of CIGP has already been rolled out and the project is under ‘operations and maintenance stage’ up to July 2025.”

1.51 When asked about the benefits achieved after completion of IIIrd phase i.e All India Inventory Visibility and when Phase III would be completed, the Ministry, in response, stated as under:-

“After completion of third phase of CIGP, all ordnance inventory holding echelons and headquarters of field formations down to division level will be automated and connected. As brought out by Secretary DMA during oral evidence to PAC, completion of third phase will provide utmost visibility of inventory held at various

depots across the country. As a result, rationalisation and stage management of inventory between various sectors will be achieved.”

1.52 The Committee desired to know how, in the absence of an automated inventory management system, the MoD/Army was managing the huge inventory. The Committee also sought the Ministry’s comments on lack of efficient inventory management which is indicative of a systematic deficiency. The Ministry in response stated, as follows:

“Prior to CICIP, automation of inventory was being managed through a customised approach. CICIP is a graduated step towards a centralised approach, based on Enterprise Resource Planning (ERP) platform. The challenges faced in customised approach gave birth to CICIP. The advent of CICIP has coincided with the proliferation of data networking in India over the last decade or so.”

d. Holding of shelf life expired items in ABOD ‘B

1.53 The Advance Base Ordnance Depot (ABOD ‘B’) was holding large quantity of 19 items of shelf life expired condition valuing Rs. 4.59 crore. On being pointed out about the non-issue of items within shelf life, it was intimated that ABOD ‘B’ was a nodal agency for receipt and issue of ECC&E and SCME stores and it was holding the same against the release orders. The fact remains that the ECC&E items valuing Rs. 4.50 crore could not be utilized within shelf life.

1.54 Ministry, in its reply stated that shelf life is only a guideline and items were stocked properly in proper storage accommodation and were held in serviceable condition. Further, Ministry stated that the items had been transferred to HQNC for gainful utilization.

1.55 The Committee during oral evidence stated that if there was a need for extending shelf life of items, then records etc. were also supposed to be modified accordingly and that there must be some well laid down principles to evaluate the conditions for extending shelf life of the items. In response, the Ministry submitted as follows in written reply:-

“There is no policy for destruction of any store immediately on expiry of shelf life. The shelf life is only a guideline for usage of equipment and does not imply immediate down-gradation of equipment at end of indicated initial shelf life. The principle is followed for all warlike stores including sensitive items like ammunition, where shelf life is extended repeatedly for gainful utilisation till expiry of usage life and detailed records maintained. Assessment of shelf life is a well established and documented process. In case of consumable items the process may be less structured, however suitable additional checks for better record keeping are being instituted.”

1.56 When the Committee sought to know the reasons for holding and issue of huge quantities of life equipment and essential items with expired shelf-life by COD after receiving AHQ sanction for extension of shelf life, the Ministry submitted the following:-

“The Audit observation is in respect of five HACE items (Fire Star Cooker, Fire Star 150 gm Tube, Oxygen Cylinder, Mattress Kapok-II and Boot Combat RW). Shelf life is not an expiry date as Shelf life pertains to the period of storage under normal conditions, initially guaranteed by the supplier. Usage life of an item is independent of shelf life and begins after an item is used. Shelf life is a guideline for inventory management purposes and does not imply discard at end of indicated initial shelf life as there are adverse implications on inventory management when reserves are held and inventory is not fast moving. Principle of shelf life extension is followed for all warlike stores, including sensitive items like ammunition. Shelf life is extended by a survey and conditioning board of officers for exploitation of complete usage life and detailed records are maintained. Only items/equipment found serviceable are issued to troops and there is no loss to State due to shelf life management.”

1.57 The Committee desired to know how the expiry of an item is determined in the Army/COD, if shelf life is not an expiry data and is only a guideline for inventory management. In response, the Ministry submitted the following:-

“Expiry of an item is declared when it has not been found fit for operational use after due inspection by qualified board of officers.”

1.58 When asked about the present state of utilization/ disposal of shelf-life expired mattress Kapok –II held with ABODs, the Ministry submitted as follows:-

“Complete quantity i.e. 10,983 Nos mentioned in the Audit report have been issued to Northern Command in 2019 and have been gainfully utilized.”

1.59 When asked as to what action has been taken by the Ministry to avoid such a situation, the Ministry responded thus:-

“Automated inventory management through ADP (SAP) and Central Inventory Control Group (CICG) when fully implemented will result in better shelf life management.”

(ii). Provisioning and Procurement of HACE items

1.60 Provisioning reviews of HACE items are undertaken annually to assess the quantity of stock to be maintained. These stocks are termed as Monthly Maintenance Figure (MMF) and they help in determining the quantity to be procured. Provision reviews of Cat-I SCME items (ex-import) are done by Equipment Management Directorate (EM Dte) in MGOs Branch. Provisioning reviews of Cat-II SCME and ECC&E items are done by Central Ordnance Depot (COD) ‘N’ Ordnance Services Directorate (OS Dte) in MGO’s Branch. However, after the examination by the Committee was over, the Army has now informed that currently, Provision reviews of Cat-I SCME items (ex-import) are done by SCME Section in MGS Branch.

1.61 Items ex-import are procured specially by Empowered Committee under the Chairmanship of MGO. Indigenous items are procured by Ordnance Services Directorate (OS Dte) in MGOs Branch from Ordnance factories and the open market. However, after the examination by the Committee was over, the Army has now informed that currently, all items including ex-import, having AON value more than 2 crore are procured by SCME section whereas indigenous items having AON value less than 2 crore are procured by COD Kanpur, in accordance with DFPDS 2021.

1.62 In their background note, the Ministry submitted the following information detailing the process of procurement:-

"The Director General Ordnance Services (DGOS) under Master General of Ordnance (MGS) in Army Headquarters is responsible for provisioning, procurement, receipt, storage, accounting and issue of all stores including high altitude clothing and equipment items. Provision of only SCME-Category I items, which are procured through import, is done by Equipment Management (EM) Directorate under Master General of Sustenance (MGS). Procurement of all imported items i.e. both Category-I and Category-II are approved by the Empowered Committee which is specially constituted for this purpose under the chairmanship of MGS. Due to import dependence of special items of SCME clothing, a concerted effort has been made to develop these specialized items through indigenous production. Indian manufacturers have come forward and are being encouraged to improve quality so as to reduce import dependence. With Indian manufacturers getting encouragement, additional manufacturers of technical clothing in India have come forward. This will ensure timely procurement of high SCME items to the soldiers deployed in extreme cold climatic conditions.

The SCME items, essential for survival and operational effectiveness of troops deployed in Super High Altitude Areas (SHAA) which are above 12000 feet with temperatures from minus 20° Celsius to minus 50° Celsius or lower, are procured through a modified procurement process. The peculiarities involved in procurement are as under:-

- (a) No military grade equipment is manufactured or readily available worldwide. Firms producing mountaineering equipment adapt or provide regular products to meet the requirements of Indian Army. Products use proprietary and/ or varying technologies to achieve desired results/outcomes i.e. effectiveness of an equipment/clothing to fulfill operational requirements.
- (b) Effectiveness is determined by user trials and is the first step in the procurement process.
- (c) Tendering is as per Government policy on L-1 basis amongst all suppliers approved by users for effectiveness without the context of vintage,

technology or other factors. An item once selected by user may only be removed if declared ineffective by user.

- (d) All Quality Assurance (QA) processes are designed to ensure that bulk supplies do not deviate from the user approved sample.

The agencies involved in the procurement process and their roles are as under:-

- (a) User i.e. Army - Selection of equipment or clothing and procurement as Competent Financial Authority (CFA).
- (b) Directorate General of Quality Assurance (DGQA) - Quality Assurance to ensure bulk supplies match the user approved samples.
- (c) Ministry of Defence (Fin) - Financial prudence and advice during procurement process.

The detailed procurement process is as under:-

- (a) Items required are sought through RFIs/RFPs published on defence procurement portal. The past practice of accepting equipment offered on suo-moto NCNC (No Cost No Commitment) basis has been discontinued.
- (b) Samples submitted by prospective suppliers are sent for user trials under actual operational conditions to troops deployed in SCME areas.
- (c) Separate individual technical specifications for each user approved item are prepared by DGQA.
- (d) Each bidder bids against his specific user approved item and not on pre-determined or common technical specifications.
- (e) Normal General Financial Rules (GFR)/ Defence Procurement Manual (DPM) based procurement process on two bid system is thereafter followed. Procurement decision is taken on L-1 basis without any correlation to technology or commercial standards.
- (f) DGQA is responsible to ensure zero deviation from user approved sample at bulk delivery stage, which it achieves through detailed Quality Assurance (QA) procedures as per respective Acceptance Test Procedure (ATP) for each vendor.
- (g) All procurement decisions are discussed, ratified and monitored by an Empowered Committee constituted under the Chairmanship of MGS.

1.63 When the Committee enquired about the steps taken to review the procedure and to expedite the procurement process, the Ministry in written reply submitted as follows:-

“(a) As brought out during oral evidence to the PAC on 06 Oct 2020 the creation of the office of DMA, refinement of procurement procedure in 2020, bringing in better efficiency through corporatisation of Ordnance Factories, move of clothing and similar items from Ordnance Factories to trade and enhanced delegation of financial powers are all positive steps already taken to give a major fillip to time bound defence procurement.

(b) Specific to procurement timelines for HACE as explained during the oral evidence that Government had sanctioned procurement of three to five years requirement at any given time to cater for protracted procurement timelines. This implies that while there may be gap between successive contracts, these cannot be construed as delays in procurement as every contract makes available three years requirements. There have been no shortages even if a subsequent contract has taken time to be concluded. Moreover not all procurements can have uniform timelines. Tenders published for identifying new sources involve trials and thus take more time than those published for assured supplies from past suppliers.

(c) Notwithstanding, as also submitted, procurement timelines have been reduced by up to 50 % in the last five years and further reduction remains a constant focus area.”

1.64 When asked about the status of all acquisitions in which AON has been accorded for rations, housing and special clothing as this would help to identify the stages at which the procurement process often gets derailed and more importantly, identify those cases which are lagging behind the prescribed timeframe, the Ministry responded as under:-

“Contracts for ration are planned and executed as per a definite procurement plan depending on the anticipated consumption across the entire year. Timely procurement, duly factoring the estimated shelf life of the food items is always ensured. As per the data of contracts pertaining to central procurement of rations for FY 2021-22, Acceptance of Necessity (AoN) was taken in 31 cases, out of which, contracts were awarded in 14 cases, 12 cases are at Commercial Negotiation Committee (CNC) stage and 05 cases are at Technical Evaluation Committee (TEC) Stage.

The Operational Works are normally carried out through revenue head and the procedure has special provisions which ensures minimal delay in processing approvals for creation of infrastructure to include housing in high altitude areas. In the current financial year, concrete measures were taken to improving housing

conditions of troops in high altitude areas. The heightened tensions along the Northern Borders necessitated induction of additional troops to forward areas especially high altitude areas. This operational contingency required creating additional housing infrastructure for both the existing and the additional troops inducted in such extreme terrain and climatic conditions. Over a period of six months, before the onset of winters, an amount of Rs. 500 Crore was spent to construct habitat to include pre-fabricated modular shelters and thereby improving the living conditions of troops in high altitude areas.

With regard to Special Clothing and Mountaineering Equipment (SCME) items, AoN for Assured Supply were accorded for 24 cases in 2019 and 2020 (upto October 2020). Out of these, contracts had been concluded in 22 cases, 02 cases are at Contract vetting / approval stage. Further, deliveries have been completed/ partially completed in 16 cases.”

1.65 Despite the constitution of Empowered Committee (EC), considerable delays in procurement were noticed. When asked what initiatives/actions/measures have been instituted to expedite and shorten the procurement procedures, the Ministry stated as follows:-

“The Audit observation on delays in procurement were made based on five global tenders for identifying new sources of supply during the period, 2011 to 2015. None of these cases affected the assured supply chain. Detailed timelines on progress of each of the cases was presented to the Audit. Time taken in four cases for formulation of technical specifications had varied from 17 to 24 months, and in the fifth case, re-trials had to be carried out as vendor changed basic raw material during formulation of technical specifications. As against tender for widening of vendor base indicated above, routine procurement for assured supplies only takes six to eight months. The need for formulation of technical specifications in a time bound manner has already been acknowledged and is an activity which is now closely monitored by EC. EC has fulfilled its mandate year on year by providing the best quality clothing & equipment as per authorization and in a time bound manner and more than 60,000 troops have been supported on the Northern Borders in 2020, as also in 2021. Concerted efforts made by EC over the years have reduced procurement timelines by up to 50 % in last five years. Notwithstanding, further optimization of procurement timelines remains a constant endeavour.”

1.66 On being asked, how the ‘Policy’ delays can be overcome in procurement, the Ministry submitted as follows:-

“Various enabling provisions and delegation of financial powers have been granted to Services to expedite procurements of critical equipment, both of Capital and Revenue nature. For capital procurements, New Defence Acquisition Procedure was released in 2020 and for Revenue procurements, DFPDS -21 has

been released recently. Defence Procurement Manual-2009 is also being revised and is in advanced stages of release.”

a. Non placement of orders against the deficient quantity projected in Annual Provision Review (APR)

1.67 As per time frame for procurement under two bid system stipulated in DPM 2009 the period from receipt of indent to the signing of contract is 23 weeks i.e. within 6 months. Audit noticed that demands had been approved by Competent Financial Authority after provision reviews but the contracts for their supplies were not concluded even after a lapse of one to three years. Audit noted that the objective of provisioning review was defeated due to non finalization of procurement contracts even after several years.

1.68 Ministry in its reply stated that APR is a roll-on process as the provisioning review caters for a time of 33 months and the signing of contracts takes time of one to two years and this does not affect the availability of items. It was also stated that the case for review of timelines for procurement was being projected in the DPM review presently underway.

1.69 Further, the Ministry furnished the following information in the action taken notes:-

“Delay has been calculated against indicative timelines in DPM, whereas HACE procurement follows a timeline of 3 to 5 years.

(ii) Audit has quantified delay against indicative procurement timelines given in DPM. However, HACE is procured under special provisions promulgated under Government Sanction No 22(2)/07/D (O-I) dated 15 Jul 2010 and B/82253/Misc/MGO/EM (SplClo)/D (O-I)/2017 dated 03 Feb 2017. This enables/permits procurement of 3 to 5 years requirement to cater for long procurement timelines and peculiarities of procurement. GSLs authorizing 3 to 5 year procurement is attached.

(iii) Reducing procurement timelines is a constant endeavour because of which over the last five years the average procurement timelines have been reduced drastically by up to 50 %.”

b. Inadequate provisioning of Boot MP

1.70 Boot Multipurpose (Boot MP) is used by troops in inhospitable terrain and in extreme cold climate areas. It protects the feet from cold at temperature up to minus 55°C. It is authorized as SCME Cat-I item for troops posted in High Altitude Area. The authorization of Boot MP was 'O pairs Plus 'O' (Reserve) for the Army in April, 2005 which was revised to 'R' pairs and 'R' pairs respectively in April, 2017.

1.71 The Empowered Committee headed by MGO sanctioned procurement of 66,494 pairs of Boot MP from M/s Scarpa SPA, Italy on single bid (STE) to cover criticality of

item. It also sanctioned procurement of 16,623 pairs from Global Tender Enquiry (GTE) for widening vendor base after working out the requirement including one year AHQ reserve. It was further mentioned in the minutes of meeting that total holding of the item of 53, 658 would last upto October, 2015.

1.72 The contract was concluded in March 2016 with the firm for 71,453 pairs of Boot MP @ Euro 154.00 at a total cost of Euro 11.0 million. The total quantity was received between September, 2016 and February, 2017. The first lot of items was taken on charge in September, 2016 whereas existing stock was expected to get exhausted in October, 2015.

1.73 Total quantity of 1,07,179 pairs of Boot MP was received up to March, 2018 against above contract of March 2016 and addendums to the contracts were made in December, 2016 and June 2017. The required quantity for troops was R-1 pairs upto March 2018, which would leave a balance of 30, 203 pairs. Audit noted that the estimated balance of 30.203 pairs is even lesser than the AHQ reserve of 'R' pairs. Thus, troops could not be provided Boot MP between November 2015 and September, 2016.

1.74 Audit sought reasons for delay in conclusion of contract after a lapse of 2 to 4 months from date of acceptance of necessity by Empowered Committee. Further, action proposed to be taken to meet the requirement of Boot MP during the years 2018-19, 2019-20 and 2020-21 was sought.

1.75 MGO EM Directorate stated in September 2018 that Acceptance of Necessity (AoN) for procurement of 1,36, 895 pairs under Single Tender Enquiry and 20,779 pairs under Global Tender Enquiry had been accorded in April 2017 by the Empowered Committee to meet out the requirement of 2018-19, 2019-20 and 2020-21.

1.76 Ministry in its reply stated that the contract was delayed as the firm raised certain issues with DGQA on technical specifications which took time to resolve. Ministry acknowledged that Boot MP could not be made available for the summer months of 2016, however, the users were forewarned and they made good the requirement through recycling of available boots.

1.77 Ministry's reply confirms the shortage of boots during 2016 and that the users had to wear recycled boots, which being a Category-I SCME item, was supposed to be retained by troops after their tenure. Further, Ministry was silent on progress made in finalization of fresh tenders for 1,36,895 Boot MP, the AoN for which was issued in April, 2017.

1.78 In this regard, the Ministry, in their action taken notes furnished the following reply:-

“(i) No shortage of Boot MP manifested during the period of audit. Year wise availability, as given below, has been provided to audit for reconciliation consequent to publishing of report.

<u>Year</u>	<u>Annual Authorization</u>	<u>Availability to Troops</u>		
		<u>Stock Held (Start of FY)</u>	<u>Released</u>	<u>Total Available</u>
2015-16	24,751	19,424	6,000	25,424
2016-17	24,751	11,788	24,751	36,539
2017-18	38,229 (revised)	12,094	31,451	43,545
2018-19	38,229	13,841	27,600	41,441
2019-20	26,761@	34,919	-	34,919

@ Authorization revised to 70% of strength. Item earmarked for reuse till serviceable.

(ii) The initial response that boots were re-cycled was on detailed reconciliation found to be not correct. Same has been provided to audit for reconciliation. Further, it was also explained by Secretary DMA during oral evidence to PAC that these boots are of high quality and have a very long usage life in snow bound areas. It has been decided that these will be re-used and optimally utilized to avoid wastage.”

1.79 When the Committee enquired if recycled Boots were of the same standard as new, the Ministry replied as under:-

“(a) As explained by Secretary DMA these boots are of high quality and have a very long usage life in snow bound areas. It has been decided that these will be re-used and optimally utilised to avoid wastage.

(b) There is a proper procedure which is followed for segregating stocks for re-use. Detailed conditioning is carried out by a board of officers to identify stocks which can be re-used. Due care is taken to ensure that only serviceable stocks are re-used. These stocks are suitably cleaned before being issued for re-use.”

(iii). Procurement of HACE items

1.80 Based upon the requirements projected in the annual provisioning reviews, procurement process of various items is initiated. Procurement starts with selection of vendors, formulation of technical specification and preparation of Request for Proposal (RFP), technical evaluation, commercial bid and signing of contract after IFA/CFA approval. The RFP should clearly provide for Pre-Dispatch Inspection (PDI) and /or Joint Receipt Inspection (JRI) as required. For new items, user trial of selective samples is carried out for finalizing the items for introduction in service.

1.81 For procurement of SCME items on fast track basis, the EC under the chairmanship of MGO, having full powers of Competent Financial Authority was initially

formed in 2007 with a mandate for one year. The term of the EC was extended upto August, 2019.

1.82 Audit noted cases of non-adherence to time frame, delay in supply of stores from Ordnance Factories, delay in user trials and formulation of technical specifications in case of newly introduced items.

a. Non-adherence to time frame for procurement process as mentioned in DPM-2009 for items ex-import

1.83 As per Defence Procurement Manual (DPM) 2009, timeline for signing of contract for procurement of items under two bid systems is 23 weeks from date of vetting /registration of indents. Audit noted that timeline was not followed in procurement process of imported stores. Average time taken for procurement of stores was more than four years after date of AON in four cases and more than two years in one case against stipulated time frame of 23 weeks. In response, MGO, EM Dte stated in August, 2018 that delay was due to involvement of multiple agencies and complex procedure requiring approval of Empowered Committee/ Competent Financial Authority at each step.

1.84 Ministry in its reply stated in March 2019 that the formulation of technical specifications was invariably prolonged due to due diligence by DGQA and inability of the firm to either provide or arrive at a consensus with respect to technical specifications.

1.85 In this regard, the Ministry submitted the following information in their background note and action taken notes:-

“..The observation of audit on ineffectiveness of EC has been commented based on selective findings of only five procurement cases which are mainly global tender enquiries. Also no cognisance has been taken of successful procurements, improvements during the pre & post EC period and the fact that EC was the outcome of pre-2008 protracted procurement failures when CFA powers were vested with MoD.

(iii) On the contrary, it is relevant to note that the present user satisfaction for procurement of super high altitude clothing is above 95 percent. Key highlights of the performance of the EC in last three years are as under:-

(a) **Contracts Concluded.** A total of 30 contracts for an amount of Rs. 654.20 Crore have been successfully concluded in the last three years (period of audit) as against five cases pointed out by audit as examples of failure of EC.

(b) **Procurement in Progress.** Items worth Rs. 882.25 Crore are at various stages of procurement.

(c) **Average Time in Conclusion of Contracts.** Presently the average time taken in conclusion of contracts after publishing of RFPs has been reduced from 18 months to 07- 08 months for limited/single tender enquiries and from 32

months to 20 months for global tender enquiries aimed at identifying new sources of supply to widen vendor base.

(d) **Success in Indigenisation**

The EC has given due impetus to indigenisation and established a sound interface and coordination with the Ministry of Textiles and renowned Technical Textiles Associations to promote the indigenisation drive. During the period, seven ex-import items as under have been indigenised.

<u>Ser No</u>	<u>Item</u>	<u>No of Indigenous Suppliers</u>
(i)	Rucksack	02
(ii)	Thermal Insoles	02
(iii)	Snow Goggles	01
(iv)	Socks Woollen Special	02
(v)	HAPO Bag	03
(vi)	ECWCS	01
(vii)	Under Slung Cargo Net	01

(e) **Widening of Vendor Base.** In order to bring in more competition and better price discovery, 13 RFIs and 13 RFPs (Global Tender Enquiry) were published in the last three years. A total of 23 new vendors for 17 different items have been added to the list of developed sources after successful user trials since 2016.

(f) **Introduction of New Items.** The EC has been alive to the dynamic requirements of the user and three new items have been introduced in the inventory after obtaining Government sanction.

- (i) Avalanche Air Bag with Air safe.
- (ii) Snow Tugger Shoes.
- (iii) Summer suit for SHAA.

(g) **No User Complaints.** By ensuring judicious user trials and stringent quality checks during procurement, there have been no user complaints in the last three years.

(h) **No Arbitration or Court Cases.** There have been no arbitration or court cases against any procurement undertaken by the EC.

(j) **Functional Synergy.** The EC as a mechanism has also brought about functional synergy between all stakeholders by providing a common platform to all the stakeholders for timely decision making, minimised file transition, enhanced institutional memory by detailed recording of the minutes, facilitated more responsibility and accountability at the functional level, as also promoted greater understanding and cooperation between stakeholders with spin offs of improved coordination and interface at the subordinate level.

(iv) A large number of actions have already been completed as outlined above. The EC system is stable, efficient, continuously affording major benefits

and is continuously improved upon to overcome numerous hurdles encountered. The most recent example being the nimble response of the EC to challenges due to Covid-19 and enhanced requirement of SCME items on the Northern Borders further reinforces the utility of the mechanism.”

1.86 When asked to identify the reasons for delay in procurement action and corrective steps taken to avoid such delays in future, the Ministry responded by stating as follows:-

“(a) As brought out during oral evidence to the PAC on 06 Oct 2020 the creation of the office of DMA, refinement of procurement procedure in 2020, bringing in better efficiency through corporatisation of Ordnance Factories, move of clothing and similar items from Ordnance Factories to trade and enhanced delegation of financial powers are all positive steps already taken to give a major fillip to time bound defence procurement.

(b) Specific to procurement timelines for HACE as explained during the oral evidence that Government had sanctioned procurement of three to five years requirement at any given time to cater for protracted procurement timelines. This implies that while there may be gap between successive contracts, these cannot be construed as delays in procurement as every contract makes available three years requirements. There have been no shortages even if a subsequent contract has taken time to be concluded. Moreover not all procurements can have uniform timelines. Tenders published for identifying new sources involve trials and thus take more time than those published for assured supplies from past suppliers.

(c) Notwithstanding, as also submitted, procurement timelines have been reduced by up to 50 % in the last five years and further reduction remains a constant focus area.”

b. Delay in receipt of stores from Ordnance Factories

1.87 Audit noted that there was huge shortfall in receipt of stores from Ordnance Factories during 2015-16 to 2017-18 in case of nine SCME / ECC&E items. The details of such items for the last three years are given in Table below:

Table: Details of Dues-in items from Ordnance Factories

Sl.No.	Item Nomenclature	Dues-in, i.e., balance quantity to be received (as per PRF)			
		2015-16	2016-17	2017-18	2018-19

1	Coat ECC	4,95,494	2,30,093	88,518	22,037
2	Trouser ECC	13,22,908	5,31,485	2,71,886	1,39,213
3	Mattress Kapok MK-II	1,54,147	1,35,673	4,20,457	2,26,884
4	Heater Space Oil Burning	4,621	2,270	2,270	2,131
5	Cap Glacier	44,226	64,560	84,312	1,20,026
6	Cap Balaclava Snow	Nil	2,00,000	2,00,000	1,29,783
7	Poncho Glacier	42,649	16,812	19,818	47,762
8	Over Garment Trouser (Trouser Wind Cheater)	59,840	54,030	15,207	54,168
9	Over Garment Blouse (Jacket Wind Cheater)	73,624	72,934	30,890	4,483

1.88. From the table above, Audit noticed that dues –in quantity in respect of Cap Glacier and Cap Balaclava snow had increased significantly in 2018-19 compared to 2015-16.

1.89 Audit, further noted that Ordnance Factories had not supplied the stores against the yearly target fixed for supply of items. The percentage of supply of stores was less than 50 per cent of the target fixed in respect of Coat ECC, Trouser ECC, Jacket Winter Cheater, Trouser Winter Cheater and Heater Space Oil Burning during 2015-16. Position of supply of Trouser ECC, Trouser Winter Cheater, Cap Balaclava remained below 50 per cent of the target during 2017-18. No quantity of Cap Glacier was supplied during the years 2015-16 to 2017-18 against the target for supply.

1.90 Ministry in its reply accepted the shortfalls mentioned above and stated that NOCs were being obtained against the inability of DGOF for procurement through trade and the Government had approved transaction of core items to non-core items in a phased manner. Requirement of troops are being met from existing stock or by resorting to local purchase by Regional Ordnance Depots.

1.91 In their action taken notes, the Ministry submitted the following:-

“(i) The huge shortfall from OFB did result in non-availability of stores. Accordingly, OFB started with the concept of Non-Core items from financial year 2018-19 onward wherein 82 items of General Stores & Clothing were declared as Non-Core and to be procured by MGO Branch from trade in a phased manner thereby obviating requirement of NOC from OFB.

(ii). The present status of cases scrutinised by audit is as under: -

(a) **Goggles All Terrain.** The emergent and critical requirement of the item was met by utilising reserve stocks, redeployment, recycling of spare glass and by procurement ex-trade. It is also relevant that no eye injury attributable to non-availability of Goggles All Terrain has been reported. However, the present status of ongoing procurement/RC case is as under: -

<u>Item</u>	<u>Qty</u>	<u>Procurement Status</u>
(b) Goggles(All Terrain)	4,66,929 Nos	SO placed in May 2020 with PDS July 2021.
	3,31,691 Nos	Departmental Rate Contract concluded in Jun 2020 valid upto Jun 2021.

Overall Winter Complete. Supply order for qty 25,000 Nos. has been placed on trade on 07 Jan 2020 and is at advanced sample stage.

(iii). The procurement after shift of items to non-core category will stabilise after fructification of ongoing cases."

1.92 When asked about the status of procurement process from Ordnance Factories and how 'delay' in procurement process can be minimized, the Ministry stated as follows:-

"In order to reduce dependency on Ordnance Factories, Government policy of 'core to non-core' i.e., procurement from trade, is already under implementation in a phased manner from 2018-19 onwards and will be completed by 2024-25. This policy has resulted in not only widening of the vendor base, but has generated business opportunities for the private industry and fostered a competitive environment. As a result, the procurement timelines are set to reduce even further. Newly created defence PSUs (erstwhile ordnance factories), are now participating in procurement through competitive bidding."

1.93 During oral evidence, the Committee desired to know if the Army was taking appropriate steps for development of private sector manufacturers for sourcing non-core items. In response, the Ministry submitted as follows on this issue:-

"We are closely working with the Ministry of Textiles and the Indian Industry through Chambers of Commerce, Industry and textile associations. A new approach for contracting year on year supplies over a five year contractual period has been adopted to encourage manufacturing in India by offering assured business opportunities over a longer period."

1.94 The Committee desired that the Ministry must fix responsibility on the part of OFB for the lapse as OFB failed to deliver, thus causing shortages with the Army. In this regard, the Ministry, in a written response stated:-

“The High Altitude Clothing & Equipment (HACE) used by the Indian Army are broadly classified into two categories viz. (i) Special Clothing for Mountaineering and Equipment (SCME) and (ii) Extreme Cold Weather Clothing & Equipment (ECC&E). HACE are produced at Ordnance Clothing Factory, Shahjahanpur (OCFS), Ordnance Equipment Factory, Kanpur (OEFC) and Ordnance Parachute Factory, Kanpur (OPF). These items are regularly manufactured and supplied to the Indian Army as per annual targets fixed in the Target Fixation Meeting (TFM) held between Army HQ and OFB.

The Factories concerned source all types of raw material from trade and convert them into end product, for which procurement action is initiated on receipt of covering Indents for the targeted quantity. Indent is the authority to finalise the contract of basic material, and at least six months' lead time is required to ensure the availability of material at the start of the Financial Year.

The main reasons for the shortfall in achieving the targets in respect of various items are as under:

- (i) Delayed receipts of indents of various items by the OFB (during the later part of a financial year), is one of the main reasons for the shortfall in supplies by OFB for that particular year.
- (ii) Change/revision in specifications of certain items in the mid-year, which necessitated re-vetting of old indents with new specifications. The re-vetting of DGQA takes considerable time, withholding the procurement and production activity, which results into delays and shortfall in supplies. In some cases, the revised specifications approved by the users are not as commonly available with industry and eventually turn out to be unachievable. Whenever, there is a revision in specifications of the material either due to Product Improvement (PI) or change in specifications of the product, Open Tender Enquiry (OTE) is resorted to as per the provisions of the OFB Procurement Manual. Moreover, the new raw material is to pass stringent acceptance test before their use in production.
- (iii) In cases, where there is an improvement in specifications of any item, the modified version is requested to be delivered immediately due to operational requirements and to maintain operational preparedness by the indenter rather than inducting the upgraded product in a phased manner for avoiding any sudden disruption in production and supplies.
- (iv) Failure in supplies of basic material and on quality parameters.

To obviate the above hurdles, the following measures are being taken by the Ordnance Factory Board to ensure that the shortfalls in supplies are reduced to the minimum:

- a) Vendor base is continuously being expanded by the OFB by identifying and registering new vendors based on continuous Product Improvement.
- b) Ordnance Factory Board Procurement Manual, 2018 (OFBPM-2018) has been issued on 31.08.2018 wherein the mode of procurement has been changed from the erstwhile 50-50 for Local Tender Enquiry (LTE)-OTE to 80-20 for LTE-OTE in order to facilitate supplies from established/reliable sources.
- c) A strong system for Quality Management and Control has been put in place in the OEF Group of Factories, to out rightly screen the poor supplies from vendors, and to allow only quality materials to go into manufacturing.
- d) To overcome hurdles related to delayed indents raised on OFB and to avoid related shortfall in yearly targets of supplies, Roll-on-Indents have been initiated to be placed on OFB for a period of 5 years at a time.
- e) Corporatization of Ordnance Factories (OFs) has been approved by the Cabinet, which will review the entire functioning of OFs for better efficiency.

Ordnance Factory Board and its Officials have made their best efforts to achieve the targets. However, in the wake of the shortfalls highlighted by the Audit, requisite remedial measures have been taken by the OFB.”

1.95 When the Committee further sought to know the initiatives taken by the Ministry to address various challenges in the procurement process the proposal for corporatization of the OFB notwithstanding, the Ministry stated as follows in reply:-

“Details are as under:-

- (a) Following Initiatives have been undertaken: -
 - (i) Creation of the office of DMA.
 - (ii) Refinement of procurement procedure in year 2020.
 - (iii) Corporatization of Ordnance Factories.
 - (iv) Shifting of clothing and similar items from Ordnance Factories to the Trade.
 - (v) Online procurement measures have been streamlined.
 - (vi) Enhanced delegation of financial powers has been done.
 - (vii) Collegiate vetting of files and collegiate decision making has been instituted.
 - (viii) Automated inventory management.
- (b) Notwithstanding, advice by the Chairman, PAC for Ordnance Factories is noted and will be brought to the notice of concerned Department in MoD for their indulgence.”

Delay in user trial and formulation of technical specification

c. Delay in carrying out user trials

1.96 User trials of selective samples are carried out for finalizing the items for introduction in service. It is also done to widen the vendor base in case of newly introduced items. User trial process involves formulation of trial directives, issue of trial store, conduct of trial and evaluation of trial reports. After trial approval, vendor is included in approved vendor list for request for proposal (RFP). The trial process also involves preparation of specifications through DGQA after trials and retention of approved samples.

1.97 In Feb 2011MGO Branch issued SOP on conduct of trials of General stores and Clothing items including SCME and ECC&E items. Evaluation of stores is an important aspect in the procurement process as it ensures selection of the appropriate item to meet user's requirement.

1.98 Audit noted that 35 (ECC&E-8 and SCME-27) out of 38 cases examined, there was considerable delay in conducting user trials and the delay ranged from a period of 51 days to 797 days as shown in Table below:

Table: Statement showing age-analysis of delay in conducting user trial

Range of delay	No. of items
51-150 days	28
151-300 days	04
300 days and above	03

1.99 Ministry in its reply stated that most trials of ECC&E & SCME are carried out in operational commands of Northern and Eastern Commands. Further, the timelines are not sacrosanct and may vary for reasons of operational and logistic constraints.

1.100 In this regard, the Ministry submitted the following in their background note:-

“(a) All trials are carried out at actual operational areas in Super High Altitude Areas (SHAA) like Siachen Glacier and primarily during winters. As soldiers evaluate a new item for effectiveness during a complete winter cycle, only one trial cycle per year is feasible. Given the preceding, the practical timelines are as under:-

Ser No	Activity	Minimum Average Time (in days)
(i)	Collection of samples from new prospective suppliers through open tendering /RFI.	60 to 90 days
(ii)	Transportation of samples to user in SCME areas	30 to 45 days
(iii)	Conduct of trials over one winter season	120 to 180 days
(iv)	Preparation and submission of trial reports	30 days
Total Average Time		240 to 345 days

(b) Conduct of user trials is the most important phase of procurement because only items capable of meeting the rigorous operational requirements need to be procured. With the physical constraints of one winter per year and need for diligent evaluation, trial durations are difficult to telescope or compromise. Notwithstanding, the audit suggestion will be considered to the extent feasible.”

1.101 The Committee expressed the following view in the course of oral evidence of the Ministry:-

“Why can we not have labs or some other simulations rather than having to wait for one full season? That almost is an in-built delay in the procurement process. If you say that you have to go through one season of user trial that defines your procurement process to take minimum of one year.”

d. Delay in formulation of the technical specification of samples

1.102 As per MGO/EM Policy as on February, 2011, DGQA is responsible to ascertain the technical aspects of item, analyse the proposals /offers technically and formulate technical specification. Based on the trial approved samples and technical details provided by the vendor, DGQA will formulate the specification of the items.

1.103 DGQA will be responsible to liaise with the representative of the vendor and obtain necessary inputs required to facilitate successful formulation of technical specifications. The laid down timeline for formulation of specification by DGQA is three weeks from the date of receipt of sample.

1.104 EM, Directorate, MGO Branch communicated in May 2016 to DGQA and Detachment COD 'N' that eight SCME items were successfully evaluated under trial for the year 2016 and found fit for introduction in the Indian Army. Audit observed that out of these eight cases, in four cases formulation of specifications were yet to be finalized in September 2018, even after lapse of 27 months.

1.105 CQA (GS) Kanpur intimated that limited staff strength of AHSP, absence of testing facilities, incomplete documents of user's trial report, receipt of insufficient number of samples were the constraints faced in formulation of specifications. The reply furnished by the Ministry, while confirming the delay in finalizing the specifications, was silent about efforts taken to address the various constraints.

1.106. Ministry also informed that finalization of technical specifications gets prolonged due to inability of the firms to either provide or arrive at a consensus with respect to technical parameters. It was further stated that invariably it takes anything between three months to six months to prepare the technical specifications.

1.107 The Ministry further stated as follows in the action taken notes:-

“User Trials These are conducted at actual operational areas in Super High Altitude Areas (like Siachen Glacier) and is the cornerstone of the special

procurement process. Only items capable of meeting the rigorous operational requirements need to be procured. As soldiers undertake diligent evaluation of a new item for operational suitability & effectiveness during a complete winter, only one trial cycle per year is feasible. Thus, with the physical constraints of one winter per year and need for diligent evaluation, trial durations are difficult to telescope or compromise. Testing in labs cannot fully replace evaluation of suitability for operational activities like patrolling, firing, search and rescue, sentry duties etc.

(ii) **Technical Specifications**. The need to reduce time for formulation of technical specifications is agreed to.

(iii) **Improvement in System and Procedures including Internal Controls**.

The formulation of technical specifications is actively and closely monitored, and controlled by EC.”

1.108 The Ministry submitted the following in their background note:-

“(a) Formulation of technical specifications is the key for DGQA to ensure that there is zero deviation from user approved sample during bulk supplies. While the supplier aspires for minimum testable/measurable parameters, the DGQA works towards maximum QA checks, in the interest of the users and judicious utilisation of public money.

(b) Formulation of technical specifications for new sources is an activity related to widening of vendor base or product improvement and is independent of the procurement of assured supplies from already established suppliers. Thus delays in finalisation only impacts availability of new sources and not assured supplies. Nonetheless, the formulation of specifications in a time bound manner is regularly monitored and facilitated.”

1.109 In this regard, when the Committee observed that after user trials, technical specifications of user approved items were formulated through reverse engineering and sought to know the reasons for delay in formulation of technical specifications, the Ministry in a written submission stated as follows:-

“Activity of formulation of technical specifications is part of quality assurance by DGQA. However, it is now being closely monitored by the Empowered Committee on a regular basis to enforce time-bound actions. As brought out by Secretary DMA during the oral evidence to the PAC, the proposal is to bring quality assurance organisation (DGQA) under the Services to make it more responsive.”

1.110 On being asked what actions have been taken to minimize delays in formulation of technical specifications and conduct of various trials, the Ministry responded thus:-

“Various measures undertaken to minimize delay are as under: -

- (a) Acceptance of vendor certification for non-critical parameters and use of simulation techniques has been instituted.
- (b) Conduct of concurrent trials, where feasible.
- (c) Provisioning of maximum advance information about trial methodology during Request for Proposal stage is being ensured.
- (d) Hand holding of vendors to enable in-situ rectification of equipment.”

1.111 The Committee sought to know the current status of User Trials and formulation of technical specifications including instances of the process followed and time taken during two such occasions in the recent past. The Ministry submitted the following:-

“(a) Conduct of user trials is an ongoing activity carried out year on year for identifying new sources of supply in order to widen the vendor base for healthy competition. The focus of user trials in the last five years has been on identifying indigenous suppliers. User trials are carried out by soldiers deployed in actual operational conditions.

(b) Formulation of technical specifications is a direct consequence of user trials. Formulation of technical specifications is part of quality assurance by DGQA to ensure that bulk supply does not deviate from user approved sample. It is a onetime activity undertaken only for new sources of supply identified after user trials. This means that formulation of technical specifications is independent of the supply chain from already established suppliers and hence in no way affects ongoing procurement of authorised requirement. Time bound actions have been ensured through close monitoring by the Empowered Committee. The endeavour is to further reduce the time taken to less than six months. Time taken in formulation of technical specifications for two items in the recent past is given below:-

<u>Ser No</u>	<u>Item</u>	<u>Approved in User Trials 2018-19</u>	<u>Examination of User Trial Reports and CFA approval</u>	<u>Complete Technical Inputs provided by Vendor to DGQA</u>	<u>Present Status</u>	<u>Remarks</u>
(i)	Socks Woollen Special	03 Apr 2019	10 May 2019	10 Jul 2019	Specifications finalised in Feb 2020.	Both sources have already participated in procurement of respective item and have been contracted for supplies.
(ii)	Summer Suit for Super High Altitude Area	04 May 2019	18 Jun 2019	05 Aug 2019	Specifications finalised in Mar 2020.	

(iv). Quality Control

1.112 Quality issues in procurement, viz., absence of well-defined Qualitative Requirements (QR)/ General Staff Qualitative Requirements(GSQR) for special clothing had earlier been reported in Paragraph 1.7.2 of C&AG’s Performance Audit Report No.4

of 2008 and Para 3.1 of C&AG's Compliance Audit Report No. 4 of 2008. It was brought out that method of technical specification led to inconsistency in quality at various stages of procurement. It was also brought out that Ministry may ensure that QRs for imported items of SCME were formulated diligently to facilitate indigenous development.

1.113 The Ministry in its ATNs in February, 2010 and April, 2017 stated that at present broad technical specifications are being used in place of QRs. GSQRs for Special Clothing items were not formulated due to peculiar nature of these items. Only broad technical specifications are formulated based on samples approved during user trials. It was admitted by the Ministry that the existing system leads to narrow vendor base for most of the special clothing items.

1.114 However, it was stated that efforts are underway to formulate GSQRs as well as important qualifying specifications of all items of special clothing. Further, based on GSQRs and other important qualifying specifications prepared by Army HQ, detailed technical specifications of SCME would be formulated by DGQA.

1.115 In respect of indigenization it was stated that Ordnance Factory has taken up steps for indigenization of Sleeping bags, Jacket Down, Trouser Down, Gloves Outer, Gloves Inner and Rucksack 70 litre. However, audit observed that these items are still being imported as can be observed from the findings in succeeding paragraphs.

1.116 Moreover, audit noticed that instead of formulating GSQRs as assured in the ATN, only provisional specifications were formulated by DGQA for 11 items viz. i) Avalung-II, ii) Boot Multipurpose, iii) Ice Axe, iv) Boot Crampons, v) Gloves Outer, vi) Gloves Inner, vii) Modular Gloves, viii) Rucksack, ix) Jacket Down, Trouser Down (JDTD), x) Snow Goggles and xi) Snow Goggles

a. Procurement of Sub-standard Face Masks

1.117 The total authorization of Extreme Cold Weather Face Masks was 2,65,353. It was developed by Defence Materials and Stores Research and Development Establishment, Kanpur (DMSRDE). The item was successfully trial evaluated and adopted in service in March 1988. DMSRDE Kanpur issued provisional specification of the item in October, 2003.

1.118 Audit had reported (Paragraph 3.1 of Audit Report No. 30 of 2013 (Defence Services)) the case of procurement of substandard Face Masks of above specification. As reported in this paragraph, Northern Command had taken up a case with IHQ of MoD (Army) in March 2011 for improvement in the quality of Face Mask as there were complaints regarding the quality of items.

1.119 Subsequently, Controllerate of Quality Assurance (Textile and Clothing) had suggested in March 2015 to MGO Branch that, based on user's requirements, the case for product improvement may be taken up with DMSRDE, Kanpur. It suggested two

options, viz., (i) use of improved material with better feel & finish and (ii) new design with different material.

1.120 Audit observed that AHQ placed two supply orders on M/s Arihant Industries Ltd and M/s NCFD Kanpur between December 2012 and January 2014 for procurement of 3,55,850 Face Masks of order specification for Rs. 6.13 crore. Supply of the item was completed in January 2015 and October 2016 respectively against the two orders.

1.121 Further, Headquarters 'Z' Corps also intimated NC that it was inconvenient for the troops to use Face Mask Extreme Cold Weather which was being issued by the Ordnance. The item was not found acceptable by the troops as it did not offer any worthwhile protection against Extreme Cold Weather.

1.122 The Ministry in its reply stated that after taking feedback from other Commands, product improvement (PI) was undertaken by MGO Branch in April, 2015. It was found that the item was required. Hence, two Supply Orders were placed on firms to avoid immediate disruption in supply chain. It was further stated that procurement of 4000 face masks based on PI was undertaken by M/s NTC, New Delhi for trial purpose but the same failed in trials between December 2016 and February, 2017.

1.123 Ministry further added that a fresh attempt of PI is being undertaken by MGO. Audit was of the view that the Ministry's reply is not convincing as the outcome of efforts to improve product is not evident till date even after quality issue were raised more than 8 years back in March 2011. Thus, the troops were still made to use sub-standard face mask which failed to provide them worthwhile protection against extreme cold conditions. Further, it was noticed that the Ministry had not committed to a time frame to complete the fresh PI attempt.

1.124 The Ministry further stated as follows in their action taken notes:-

- “(i) Observation partially agreed only for time taken in product replacement/improvement.
- (ii) The face mask sought to be changed was designed by DRDO, tried and approved by troops before procurement and supply.
- (iii) The identification and approval of an alternative was delayed. However, continued supply of existing product till an improved product was approved by the soldiers after trials was essential in order to avoid break in supplies.
- (iv) An improved product has been introduced and supplied to troops.”

1.125 In their background note, the Ministry submitted as follows in this regard:-

- “(i) Product improvement is a continuous process and in line with that the Comd HQs had projected improvement of existing specification of the item and not for discontinuation of item from the inventory. An item neither becomes substandard nor is its procurement discontinued immediately on initiation of a product improvement case. Instead the item remains current and remains part of

the inventory and is procured to avoid disruption in supply. The supply of such items is carried out till the new improved item becomes available. The item in question is DMSRDE designed product being manufactured by OFB and has been in use for the past several years.

(ii) Consequently, attempts were made to undertake PI of said item and accordingly quantity 4,000 Nos was procured from M/s NTC, New Delhi. However, said PI item failed in the trials.

(iii) The item has now been improved by incorporating the same as part of new Improved Cap Balaclava. Accordingly, a study on ECC&E has recommended deletion of Face Mask from inventory after introduction of Improved Cap Balaclava, as it also serves the purpose of Face Mask.

(iv) Based on new specifications, a procurement of qty 11, 40,538 Nos Improved Cap Balaclava has been finalised and supply order placed on two firms in Sep 2019 and item is under supply.”

1.126 On being asked by the Committee as to why the face masks were given when they were not acceptable to the troops, the Ministry in reply, stated as follows:-

“The face mask previously in use was designed by DRDO, tried and approved by troops before procurement and supply. The need for improvement was identified after bulk supplies were received and provided. The identification of an improved product was delayed for want of a suitable alternative being approved by the troops themselves. Continued supply of existing product till an improved product was approved by the troops after trials was essential in order to avoid break in supplies. However, indigenised face masks have now been procured.”

b. Procurement of sub-standard Sleeping Bags of old specification

1.127 In October 2015, MGO (Equipment Management Directorate) issued request for Proposal (RFP) under Global Tender Enquiry for procurement of Sleeping Bag. Four firms responded to the RFP. Samples submitted by M/s Goldeck Textile GMBH, Austria was found RFP compliant. The Contract was concluded in June 2017 with M/s Goldeck Textile GMBH, Austria for supply of 22,132 Sleeping Bags at USD 175 each for a total cost of USD 3.87 million.

1.128 The specification mentioned in the contract was CQA (T&C) Kanpur provisional specification No. Prov/ IND/ TC/ 3019 of the year 2017.

1.129 Audit noted that another sanction for purchase of sleeping bags was accorded by Empowered Committee in August 2015. RFP was issued in August 2016 for procurement of sleeping bags under Limited Tender Enquiry (LTE). Contract was concluded in November 2017 with M/s Richener Suisse SA, Switzerland for supply of 31,779 Sleeping bags at USD 212.25 each for a total cost of USD 6.74 million. The

specification mentioned in the contract was CQA, T&C, Kanpur Prov. Specification No S/6421/Bag Sleeping DF/ TC-6 of the year 2008.

1.130 Audit further noted that specifications of 2017 were broader without restriction on type of filling or technology used. Thus, procurement of 31,779 sleeping bags was made as per older specification (with “down filled” technology) and at higher rates which resulted in avoidable expenditure of USD 1.18 Million

1.131 In reply, MGO EM Dte stated in October 2018 that in view of the criticality and emergency requirement of the sleeping bag, an LTE on old technical specification was floated in 2016 as an interim measure. It further stated that decision was taken to simultaneously process both the cases so that supply from at least one of them would fructify in time.

1.132 The Ministry in its reply stated in March 2019 that audit had compared two separate products procured under two separate contracts. It stressed that comparison of cost of two products with different technologies of ‘Non Down’ and ‘Down Filled’ was incorrect. Further, it was stated that subsequent contracts of Sleeping Bags were concluded for ‘Non Down’ at cheaper rates.

1.33 The Ministry further stated as follows in their action taken notes:

“(i) Down-filled products still remain the premier and preferred technology for mountainous and glaciated areas. Audit may reconcile the technical observations with suitable technology experts as no basis for referring to ‘down-filled’ sleeping bags being substandard and of older technology, when compared to ‘non-down filled’ sleeping bags has been given.

(ii) As regards the costs, both contracts were concluded through competitive bidding on L1 basis and cost reasonability for each procurement was duly established.

(iii) Both ‘down-filled’ and ‘non down-filled’ continue to remain in service and manufacturers of both are competing in ongoing procurement on L1 basis.”

1.134 In this context, the Ministry have given the following information in their background note:-

“(i) It is reiterated that there is no concept of old/new in items being procured for super high altitude areas. Every item approved by the user remains available for procurement unless declared unfit for procurement based on a Defect Report raised by the user as per Army Order 323/66. Improvements if sought by the user do not make an item defective.

(ii) The two specifications referred to by audit are of two separate products from different suppliers, one formulated in 2008 and the other in 2017. If audit’s logic of date being the only criteria is followed then each time a new supplier is identified the previous one with an older date of specifications will need to be eliminated. Thus enlarged vendor base for increased competition will never accrue and a perpetual STE situation will result.

(iii) All existing suppliers up to 2017 were only supplying down-filled sleeping bags. Non-down sleeping bags were approved by the user as part of an exercise to widen vendor base and not as a replacement for 'down-filled' sleeping bags. Thus this in no way precludes the Army to buy down-filled sleeping bags in the future, either to introduce a competitive bidding environment or to ensure timely assured supplies.

(iv) Further, the audit has given no basis for referring to 'down-filled' sleeping bags being substandard, of restrictive and older technology. It is only the user who after use decides whether an item is sub-standard. No such Defect Report on 'down-filled' sleeping bags has ever been raised. In addition, the most preferred clothing by professional mountaineers to date is 'down-filled'.

(v) The procurement process has been robust, duly involving the user, DGQA and Pr. IFA and supervised by the Empowered Committee. No follow up action is envisaged."

1.135 When asked as to why the Ministry took one year to issue RFP for procurement of Sleeping Bags under LTE in Aug 2016, whereas sanction from EC was given in August 2015 on account of urgency of procurement, the Ministry in reply stated:-

"Publishing of said RFP took one year after AoN sanction because vetting of draft RFP by various stakeholders was carried out on file. Process of avoidable file movement has been streamlined by introduction of 'Collegiate Vetting' and close monitoring by EC. It has been a constant endeavour of EC to identify such like bottlenecks in order to further optimize procurement timelines."

1.136 When asked further, the reasons for issuing RFP on older specifications of sleeping bag whereas newer version of sleeping bags was available in the global market, the Ministry gave the following reply:-

"The query pertains to user approved down-filled and non-down sleeping bags. Products of newly identified suppliers do not render products of previous or existing suppliers or their specifications 'old'. Such a system will result in a perpetually unstable supply chain and near monopolistic conditions. All user approved sources remain in the vendor base till declared unsuitable by the user due to quality issues or change in operational requirements. All user approved sleeping bags, down-filled or non-down continue to be procured and provided even today. As all Government procurements are based on items meeting minimum user requirements, the aspect of availability of newer versions in the global market rendering existing product being perceived as 'old' is not a correct deduction."

1.137 In this regard, during oral evidence, the Committee pointed out that prevalence of different technical specifications and different products which serve the same purpose – in this case sleeping bags, would result in multiple products being available for serving the same purpose. Therefore, it was felt that whenever any particular specimen is

chosen for procurement, comparison will happen with products of other specifications as all of them meet the same objective. Asked to address this issue, the Ministry in their reply stated:-

“(a) The procurement process of Special Clothing for super high altitude areas is as per the Government sanction letter of 2007 which enables “...floating tenders based on minimum acceptable performance parameters and drawing of technical specifications of approved samples for each successful vendor separately”.

(b) The measure of selection and comparison is effectiveness under operational conditions and not technical specifications. Audit’s application of processes & procedures for routine procurements, to items procured through special processes leads to ambiguities. The user does not compare various items on specifications instead on its utility and suitability.

(c) The aspect of different prices is fully addressed as all contracts are finalised on L1 basis and best value for public money spent is obtained.”

1.138 It was further asked by the Committee during oral evidence whether defence production units were not competent to produce items like multipurpose boots, snow goggles, jackets, sleeping bags etc. The Committee specifically desired to know whether these items necessarily need to be imported. In this regard, the Ministry informed:

“Multipurpose boots, snow goggles, jackets, sleeping bags when manufactured for super high altitude areas for use in temperatures up to – 50 degree C, are now being manufactured in India with collaboration of foreign manufacturers. Efforts are ongoing to ensure that procurement of all such clothing and equipment is made from Indian manufacturers in the next 2 to 3 years. Orders for some of the special clothing items manufactured by Indian vendors have been placed and procurement is ongoing. Procedures have been streamlined to ensure that there is no subjectivity in trials conducted on Indian and Foreign manufactured products, so that preference is accorded to Indian manufacturers.”

c. Acceptance of rejected Rucksacks in Re-Joint Receipt Inspection

1.139 In November 2013, MGO EM Dte concluded a contract with M/s Intersales, AS, Jongsaveien Norway for supply of 67, 066 rucksacks of 70 litre quantity at USD 36 each. As per the contract, Pre Despatch Inspection (PDI) of the consignment was to be done at seller’s premise to check compliance with the specifications. Further on receipt of the consignment at buyer’s premise Joint Receipt Inspection (JRI) was to be done for quantitative and functional parameters of the stores as well as testing of material and dimensions as per specification. It further provided that only in case the store has been found acceptable during PDI jointly by DGQA and seller’s representative, the JRI shall be restricted to visual examination.

1.140 First consignment of 7,066 rucksacks was found acceptable in PDI and was received in April 2014 at Det COD, 'N'. PDI for subsequent consignments was not done. On receipt of 2nd and 3rd consignments of 15,000 each, DGQA sent their samples for testing to laboratories viz., M/s Spectro Research Lab Ventures Pvt Ltd and M/s SGS India Pvt Ltd respectively. Both laboratories reported percolation of water drops through fabric. Based on the reports, DGQA rejected both the consignments in JRI in August/September 2014.

1.141 On the objection of the firm, Empowered Committee decided in November 2014 for retesting of samples from a different laboratory i.e. NITRA (Northern India Textile Research Association). NITRA in its reports passed the samples. The EC decided in April 2015 to conduct re-JRI by the DGQA based on the report of NITRA. In re-JRI the consignments were found acceptable.

1.142 Audit noted that acceptance procedure adopted by DGQA in PDI of the 1st consignment was different from the procedure stipulated in the contract. As per contract, Hydrostatic Head Test was to be conducted as per ISO 811 standard. However, procedure adopted in PDI was AATCC 127. As per ISO 811, test was to be done with water level maintained in rucksack at 600 mm water column for 60 minutes. According to AATCC 127, the test is carried out by selecting 60 milibar gradient (Pressure rate).

1.143 However, in JRI of 2nd and 3rd consignments, DGQA adopted the test procedure as per the contract, in which the stores were rejected. After rejection of stores in JRI, retest by NITRA was done again with the procedure adopted in PDI of the 1st consignment and the stores were accepted.

1.144 Thus, fabric of the rucksack was not as per the specifications of the contract. Adopting test method different from the contract provisions by DGQA resulted in acceptance of inferior quality of rucksacks.

1.145 The Ministry in its reply on the issue stated that in order to overcome the anomaly and prevent any litigation; the tests methods similar to those conducted in PDI were adopted. Moreover tests were conducted in an independent NABL accredited lab (NITRA) and all consignments were accepted after samples were found to meet the laid down specifications as per contract.

1.146 In this regard, the Ministry also stated as follows in a written note furnished to the Committee:-

“(i) As a follow up during contract execution the following was established:-

(a) **Testing in PDI.** DGQA certified that the testing methods in PDI for first consignment had followed AATCC (American) test methods which were identical to the testing methods mentioned in the contract and hence accepted. No PDI for 2nd or 3rd consignment was undertaken as the same was not approved by MoD.

(b) **Testing in JRI.** Due to inconsistency in lab testing by DGQA during JRI as pointed out by the Seller, the EC ordered an independently supervised re-testing in an NABL accredited lab as per test methods followed during PDI of first consignment.

(ii) The EC ordered re-testing of not just JRI stores (2nd & 3rd consignment) but also stores of first consignment previously accepted by DGQA in PDI & JRI. The outcome of test validated uniformity of quality amongst all consignments vindicated the decision of the EC and at the same time ensured availability of stores to the troops. The actual test results and not avoidance of litigation was the basis of decision to accept the stores. Moreover, the audit observation that inferior quality stores were accepted is neither supported by test results of PDI and JRI nor by any Defect Report by the user.”

1.147 While taking evidence of the representatives of the Ministry, the Committee pointed out that the matter raises issues pertaining to the inspection process of DGQA, which is part of the MoD, and an enquiry may be needed for ascertaining facts.

1.148 When further questioned on action taken by the Ministry for avoiding recurrence of such issues, and whether responsibility had been fixed, the Ministry gave the following response:-

“Actions regarding fixing responsibility are also recorded in EC Minutes of 3/15, whereby reasons were sought by the EC, but explanation by DGQA on similarity of tests between ISO and AATCC standards and no impact on quality was accepted and the matter was deemed closed.”

1.149 When the Committee queried as to why inferior quality Rucksacks were accepted after testing as per AATCC standard and not as per ISO standards as mentioned in the contract, the Ministry, in response stated as follows :

(a) As per DGQA the AATCC (American) standard was identical to ISO standard.

(b) The deduction of audit that inferior stores were accepted has not been proven after usage. Exploitation of stores proved that they were not of inferior quality.

(c) Notwithstanding the above, Empowered Committee now closely monitors testing and all discretions as previously exercised by DGQA have been curtailed.”

1.150 Also, as per the information furnished by the Ministry, there was no delay in submission of replies with respect to this audit observation.

1.151 On being questioned on the action taken by Ministry to avoid/eradicate irregularities in procurement, the Ministry submitted the following:-

“There has been no irregularity in procurement. The procurement process is robust, duly involving the user, DGQA, PIFA (A-O) and is supervised by the EC.”

1.152 Queried further as to why DGQA had adopted different procedures in procurement and inspection for testing procedures and the action taken by the Ministry on those responsible for the same, the Ministry furnished the following reply:-

“As per contract, testing was to be carried out as per ISO standard. However, during PDI, DGQA carried out testing as per AATCC (American) standard because as per DGQA, the AATCC (American) standard was identical to ISO standard. ‘Fixing of responsibility’ was also sought by the Empowered Committee (EC) from the DGQA. Explanation by DGQA that both standards were identical and there was no impact on quality was accepted and the matter was deemed closed. EC now closely monitors testing and all discretions, as previously exercised by DGQA, have been curtailed.”

1.153 In response to a query why the Ministry accepted retest of samples from different laboratories such as M/s Nitra, the Ministry gave the following reply:-

“Decision taken by EC for retesting was based on essential need for continuity of supplies. Re-testing corrected the variation in testing methods during PDI & JRI as testing procedures during PDI & JRI were aligned before accepting the stores. The stores were accepted only after results of realigned tests confirmed uniformity and zero shortcomings in the quality of all stores. The stores were effectively used by troops and no complaints regarding quality were received.”

1.154 Questioned on the procedure adopted in PDI of the first consignment which led to acceptance of inferior stores, the Ministry, responded as under:-

“As per contract, testing was to be carried out as per ISO standard. However, during PDI, DGQA carried out testing as per AATCC (American) standard because as per DGQA, the AATCC (American) standard was identical to ISO standard. The deduction of audit that inferior stores were accepted is recommended to be reconciled because the stores were effectively utilized and there were no quality issues or defect reports raised by soldiers.”

d. Irregular Procurement of old version of Jack Down and Trouser Down (JD TD)

1.155 The total authorization of JD TD and Extreme Cold Weather Clothing System (ECWCS) was 'S' sets. As per Government of India sanction (April, 2015) the ratio of Jacket Down and Trouser Down (JDTD) and Extreme Cold Weather Clothing System (ECWCS) an advanced version of JD TD, was fixed at 50:50. Accordingly, contract was concluded (December 2013) by MGO EM Dte with M/s Richner Suisse SA, Switzerland for supply of 39, 173 sets of Down Jacket and Down Trouser (JD &TD) at USD 199 per set. Supply under the contract was completed in August 2016.

1.156 User unit recommended (May 2015) that procurement ratio for ECWCS and JD TD should be 90:10 due to the reasons that bulkiness of JD TD hindered free movement in working and JD TD did not have the flexibility of layered clothing. This matter was raised during the EC Meeting held in August 2015 and it was unanimously agreed and the authorization of JD TD was worked out as S/10 sets based on 10 per cent of total authorization.

1.157 However, Repeat Order for 39,173 sets of JD TD was placed in January 2017 taking into account the ratio of JD TD and ECWCS as 50:50 ignoring the user requirement and ECs approval (August 2015). Thus, 39, 173 sets (instead of 2S/10 sets) of JD TD were procured costing USD 7,795, 427.00 (Rs.50.25 crore) through the repeat order.

1.158 MGO EM Dte, in reply to audit query, stated that the repeat order (January 2017) was placed as per Government sanction letter of April, 2005 at the ration 50:50. It further stated that the revised order of 90:10 ratios was issued in April, 2017.

1.159 The Ministry in its reply also stated that Govt. sanction for change in ratio of JDTD and ECWCS was received in June 2017 whereas repeat order for procurement of JDTD was signed in January 2017 to avoid gap in supply as per minutes of EC meetings 06/16 dated 09 Sep 2016. The reply of the Ministry did not reflect the complete facts as the EC in its meeting held in August 2015 had unanimously decided to procure 'S/10' sets of JDTD based on 10 percent of total authorization. Further, reasons for issuing the Government sanction of change in ratio in June 2017, almost two years after EC decision in August 2015 was not explained by the Ministry.

1.160 In order to avoid gap in supply, procurement of requisite quantity of substitute ECWCS could have been made. Thus, ignoring the problems faced by the users, procurement of old version JDTD was made.

1.161 The Ministry further furnished as follows, in their note:-

(i) Factual data is correct however deduction is not agreed to. The procurement ratio of ECWCS & JDTD at the time of placing the repeat order of JDTD was 50:50. The revised ratio of 90:10 was effective after receipt of Government sanction in Jun 2017. Neither was user requirement ignored nor was procedure violated.

(ii) There exists no old or new version of JDTD. The same JDTD continues to be procured against 10% authorisation.

(iii) An item becomes of older version when replaced by a newer item, not when reduced in authorisation. The deduction is erroneous due to linkage of two unrelated issues of change in ratio and procurement of older version of JDTD.

(iv) The time lag in change of scaling/procurement ratio of ECWCS & JDTD could not have been implemented without Government sanction."

1.162 The Committee was furnished with the following information on the matter:-

“(i) The audit observation that change in procurement ratio of ECWCS and JD TD should have been implemented by the EC in Aug 2015 is misplaced as it is the Government’s mandate to change scaling of items, which in this case was only accorded in June 2017.

(ii) Consequent to approval of user’s recommendation by the EC in Aug 2015, case for change of scaling was initiated with the Government in Sep 2015. It took two years to be sanctioned as per timelines given below:-

(a) Case initiated	-	08 Sep 15
(b) Clarifications sought by MoD	-	30 Sep 15
(c) Clarifications submitted by MGO Branch	-	12 Oct 15
(d) Additional inputs sought by MoD	-	22 Jan 16
(e) Inputs submitted by MGO Branch	-	11 Feb 16
(f) Further clarifications sought by MoD	-	03 Jun 16
(g) Clarifications submitted by MGO Branch	-	09 Jun 16
(h) Internal consideration by MoD	-	Jun 16 to Jun 17

(iii) The suggestion by audit to procure ECWCS instead of JD TD in Jan 2017 also does not take into consideration the procurement cycle, the stock position or assured supplies of ECWCS at that time.

(iv) JD TD is not an old version of ECWCS as is being made out by audit. Indian Army still continues to procure JD TD, it being authorised as a discrete and different item from ECWCS.”

1.163 The Ministry also stated as follows in their note:-

“(i) **Irregularity in Procurements.** As brought out to response in each case at Sub-Para 2.4.1, 2.4.2, 2.4.3 & 2.4.4, neither of the above cases involve irregularity nor has there been any lapse in procurement. Most of the observations of audit are a result of the unique procurement process for HACE items and improvements are continuously worked upon.

(ii) **Testing Procedures.** The testing procedures are meant to enable DGQA to ensure that bulk deliveries are as per user approved samples. Thus each contract has a unique and customised testing protocol which is fully aligned to international standards. Further diligence and adherence to the same will be ensured.”

1.164 The Committee observed during oral evidence that there was a unanimous decision of the Empowered Committee in Aug 2015, but till Jan 2017 there was no action. The Committee sought to know if there was any follow up action by officials and why it took the Ministry two years to change the procurement ratio. The Committee further observed that the users decided in 2015 that they wanted a particular ratio of jackets but the Ministry did not respond or change the requirement till 2017. This, according to the Committee, leads to the perception that there were vested interests.

The Committee desired to know whether the procedure has since been tightened. The Ministry submitted the following:-

“Proposals are initiated on file at Army HQ level and are progressed through various channels in Army HQ as well as in Ministry of Defence/ Ministry of Defence (Finance). Clarifications on the proposals are obtained by holding meetings by MoD/ Army HQ and also through movement of file(s) before obtaining the final approval of the Competent Authority and as such it takes some time in disposal of the case. Although, no study has been conducted to reduce time to progress the cases in the Ministry/AHQ, concerted efforts are made for timely finalization of cases without compromising on quality and procedures. The cases are progressed as per procedure specified in DPM-2009.”

1.165 On the opinion expressed by the Committee that older versions of items such as face masks, jackets and sleeping bags that were procured deprived troops of the benefits of using improved products, the Ministry in reply stated as follows :

“(a) The approval of an item in trials is not based on technology, but instead on its suitability and effectiveness for operational use. The user does not compare various items on specifications instead on its utility and suitability.

(b) The measure of selection and comparison is effectiveness under operational conditions and not technical specifications. Audit’s application of processes & procedures for routine procurements, to items procured through special processes leads to ambiguities.”

1.166 When the Committee desired to know whether the Ministry considered the need for an overhaul of the contracting process between the Ministry and vendor which provide for more built-in contractual responses and contractual liabilities on the vendor and are not subject to too much of subjective interference or interpretation etc., the Ministry gave the following written reply:-

“Tendering and contracting of HACE is as per Defence Procurement Manual (DPM), a document which has evolved with time through periodic reviews. All procurement activities are carried out and decisions taken through logical interpretation of guidelines in the DPM keeping the best interests of the State in mind. As regards performance of vendors is concerned, the procurement procedure always endeavours to identify genuine suppliers. To this end, tenders are now being invited only from OEMs even though DPM permits authorised distributors, dealers and stockists to participate.”

(v). Indigenisation and Research, Design & Development of specialized clothing for high altitude by DMSRDE, Kanpur

1.167 Defence Materials & Stores Research and Development Establishment (DMSRDE) at Kanpur is a Defence Laboratory under DRDO. DMSRDE is responsible for following charter of duties:-

1. Research, design and development of
 - a. Polymers, elastomers and composites
 - b. Specialty fibres, fabrics and their applications in defence
 - c. Emerging and futuristic non metallic materials
2. Support to services in speciality materials, Adhesive, Sealants, Paints, Lubricants, Hydraulic fluids and coolants etc.

1.168 Audit noted that DMSRDE could not execute any new project for research and development of ECC &E/SCME items during last five years as the MGO had not raised any requirement for the same. Further no case was initiated by DMSRDE during last five years for research and development activity for ECC items. Therefore, due to lack of R&D and as well as product improvement by DMSRDE during last five years, Army was compelled to import the SCME items from the foreign vendors.

1.169 The Ministry in response, inaction taken notes informed as follows:-

“(i) The factual position is that 100% ECC & E and 71% SCME items are indigenous items. Import items in SCME have been brought down from 43% to 29% by working with Indian industry, a system which has proved to be effective and efficient. The items indigenised are ECWCS, Socks Woollen Special, Rucksack 70 Litres, Snow Goggles, Summer Suit, Thermal Insoles, HAPO Chamber and Under Slung Cargo Net.

(ii) Out of the 29 % being imported, 35% have been offered to DRDO for indigenisation and balance ones being pursued through trade.

(iii) Endeavour at import substitution through long term contracts for encouraging Indian industry to set up indigenous manufacturing facilities are being attempted.”

1.170 To a query posed in this regard as to why MGS Branch had not raised any requirement of ECC&E and SCME in the previous five years, the Ministry in reply submitted as follows:-

“The Indian Army had not given them any specific project because the focus areas are procurement and indigenization. On the advise of PAC, proposal was made to DRDO in Oct 2020 to undertake R & D of items which present metallurgical and electronic challenges i.e Karabiner, Rock Piton, Ice Axe, Boot Crampons, Avalanche Victim Detector and Avalanche airbag, as solutions for these presently not available with Indian Industry. We are now collaborating with the Ministry of Textiles for manufacturing of technical clothing including items of SCME.”

1.171 The Committee sought to know *inter-alia* whether the DRDO-Kanpur was being exploited optimally. The Ministry in response stated as follows:-

“(a) Based on advice of PAC, DRDO has recently initiated an exclusive ‘Development Project’ for indigenisation of remaining SCME items.

(b) Karabiner ‘S’ type, Rod Avalanche and HAPO Chamber are SCME items which have been developed by DRDO, are in-service and being supplied by ToT partners.”

1.172 The Committee desired to know how much time it would take for bringing 29% down to 0%, what targets were fixed and how many foreign suppliers set up manufacturing units in India through tie-up with Indian industry. In this regard, the Ministry submitted the following response:-

“(a) Indigenisation is a special and sustained focus area. We have been constantly reaching out to the Indian Industry to sensitise them of our requirements. Regular tenders are being floated and this year too user trials are being conducted to identify new and indigenous sources of supply. However no timelines can be prescribed because it all depends upon the responsiveness of Indian manufacturers and their products found effective for operational use. Looking at the success achieved in the last few years we are confident that with cooperation from Indian Industry 100% import substitution is possible.

(b) At present to the best of knowledge none of the existing foreign suppliers have set up manufacturing in India but are being encouraged manufacture in India through either Joint Venture with Indian company or wholly owned Indian subsidiary.”

1.173 The Committee also desired to know details of the steps being taken by the Ministry of Defence to boost the ‘Make in India policy’ in Defence Sector. The Ministry in this regard submitted as follows:-

“The following steps are being taken by the Ministry of Defence to give a boost to the Make in India Policy in defence sector:-

- i. DPP 2016 has been revised as Defence Acquisition Procedure 2020, which is driven by the tenets of Defence Reforms announced as part of ‘Atma nirbhar Bharat Abhiyan’.
- ii. In order to promote indigenous design and development of defence equipment ‘Buy {Indian-IDD (Indigenously Designed, Developed and manufactured)}’ category was introduced in 2016 and was accorded top most priority for procurement of capital equipment.
- iii. In pursuance of Government’s endeavor of ‘Atma Nirbhar Bharat Abhiyan’ and to boost indigenisation in the defence sector, the ‘First Positive Indigenisation’ List comprising 101 items was notified in August, 2020. This list included some high technology weapon systems like artillery guns, assault rifles, corvettes, sonar systems, transport

aircrafts, light combat helicopters (LCHs), radars and many other items to fulfil the needs of our Defence Services.

- iv. In order to give a further impetus to indigenization in the Defence sector, the Government has notified the 'Second Positive Indigenization List' of 108 items in May, 2021. This will give further boost to indigenization with active participation of public and private sector for fulfilling the twin objectives of achieving self-reliance and promoting defence exports. All the 108 items will now be procured from indigenous sources as per provisions given in Defence Acquisition Procedure (DAP) 2020. The second list lays special focus on weapons/systems which are currently under development/trials and are likely to translate into firm orders in the future. The 'Second Positive Indigenization List' provides continuous impetus towards self-reliance in Defence and comprises of complex systems, sensors, simulator, weapons and ammunitions like Helicopters, Next Generation Corvettes, Air Borne Early Warning and Control (AEW&C) systems, Tank Engines, Medium Power Radar for Mountains, MRSAM Weapon Systems, SCME (Clothing & Equipment) and many more such items to fulfill the requirements of Indian Armed Forces. The Defence industry can gainfully utilize this golden opportunity to build robust Research and Development facilities, capacities and capabilities to meet the futuristic requirements of the Armed Forces. This list also provides an excellent opportunity for 'start-ups' as also MSMEs which will get tremendous boost from this initiative
- v. Towards this, Ministry of Defence, Defence Research and Development Organization (DRDO) and Service Head Quarters (SHQs) will take all necessary steps, including hand holding of the Industry, to ensure that the timelines mentioned in the 'Second Positive Indigenization List' are met, thereby facilitating an environment for Indian Defence Manufacturers to create world class infrastructure, assist in Government's 'Make in India' vision to make India self-reliant in defence and develop the capabilities for defence export in the near future.
- vi. The 'Make' Procedure of capital procurement has been simplified. There is a provision for funding upto 70% of development cost by the Government to Indian industry under Make-1 category. In addition, there are specific reservations for MSMEs under the 'Make' procedure.
- vii. Procedure for 'Make-II' category (Industry funded), introduced in DPP 2016 to encourage indigenous development and manufacture of defence equipment has number of industry friendly provisions such as relaxation of eligibility criterion, minimal documentation, provision for considering proposals suggested by industry/individual etc. So far, 55 projects relating to Army, Navy & Air Force has been accorded

'Approval in Principle', valuing about Rs. 30,000 Crores.

- viii. The Government of India has enhanced FDI in Defence Sector up to 74% through the Automatic Route for companies seeking new defence industrial license and up to 100% by Government Route wherever it is likely to result in access to modern technology or for other reasons to be recorded. The obligatory government approval for existing FDI approval holders / current defence licensees for change in equity / shareholding pattern up to 49% FDI have been replaced with mandatory declaration for the same within 30 days of change of equity / shareholding pattern. The proposals for raising FDI beyond 49% from such companies could also be considered with Government approval. An innovation ecosystem for Defence titled Innovations for Defence Excellence (iDEX) has been launched in April 2018. iDEX is aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, Start-ups, Individual Innovators, R&D institutes and Academia and provide them grants/funding and other support to carry out R&D which has potential for future adoption for Indian defence and aerospace needs.
- ix. An indigenization portal namely SRIJAN has been launched in August 2020 for DPSUs/OFB/Services with an industry interface to provide development support to MSMEs/ Startups/ Industry for import substitution.
- x. "Offset portal" has been created in May 2019 to ensure Greater transparency, efficiency and accountability in the process. Reforms in Offset policy have been included in DAP 2020, with thrust on attracting investment and Technology for Defence manufacturing.
- xi. Government has notified the 'Strategic Partnership (SP)' Model in May 2017, which envisages establishment of long-term strategic partnerships with Indian entities through a transparent and competitive process, wherein they would tie up with global Original Equipment Manufacturers (OEMs) to seek technology transfers to set up domestic manufacturing infrastructure and supply chains
- xii. Government has notified a 'Policy for indigenization of components and spares used in Defence Platforms' in March 2019 with the objective to create an industry ecosystem which is able to indigenize the imported components (including alloys & special materials) and sub-assemblies for defence equipment and platform manufactured in India.
- xiii. An Inter-Governmental Agreement (IGA) on "Mutual Cooperation in Joint Manufacturing of Spares, Components, Aggregates and other material related to Russian/Soviet Origin Arms and Defence Equipment" was signed in Sep 2019. The objective of the IGA is to

enhance the After Sales Support and operational availability of Russian origin equipment currently in service in Indian Armed Forces by organizing production of spares and components in the territory of India by Indian Industry by way of creation of Joint Ventures/Partnership with Russian Original Equipment Manufacturers (OEMs) under the framework of the "Make in India" initiative.

- xiv. Defence Products list requiring Industrial Licences has been rationalised and manufacture of most of parts or components does not require Industrial License. The initial validity of the Industrial Licence granted under the IDR Act has been increased from 03 years to 15 years with a provision to further extend it by 03 years on a case-to-case basis. About 500 Industrial Licenses have been issued so far.
- xv. Department of Defence Production has notified 46 items under the latest Public Procurement Order 2017 notified by Department for Promotion of Industry and Internal Trade (DPIIT), for which there is sufficient local capacity and competition and procurement of these items shall be done from local suppliers only irrespective of the purchase value.
- xvi. Defence Investor Cell has been created in Feb-2018 the Ministry to provide all necessary information including addressing queries related to investment opportunities, procedures and regulatory requirements for investment in the sector.
- xvii. Project under the 'Make' categories, with procurement not exceeding Rs.100 Crore/year based on delivery schedule at the time of seeking AoN have been earmarked for MSMEs.
- xviii. Defence Research & Development Organization (DRDO) has evolved a new industry friendly Transfer of Technology (ToT) policy for transfer of DRDO developed technologies to industries. DRDO has also promulgated new patent policy to facilitate Indian industries to get free access to use DRDO patents.
- xix. DRDO has launched a program termed as Technology Development Fund (TDF) for meeting the requirements of Tri- Services, Defence Production and DRDO. The scheme has been established to promote self-reliance in Defence Technology as a part of the 'Make in India' initiative by encouraging participation of public/private industries especially MSMEs, including startups.
- xx. During 2017-2018, DDP had notified 275 items which were previously exclusively sourced from OFB, for sourcing from open industry and 141 items have been placed on Government e- Marketplace (GeM).
- xxi. Testing facilities: The Test facilities/infrastructure available with various Government agencies (OFB, DPSU, DRDO, Directorate General Quality Assurance (DGQA), Directorate General of

Aeronautical Quality Assurance (DGAQA) & Service Head Quarters (SHQs) have been made available to private sector with the objective to assist them in design & development of defence systems. The details of test facilities, procedure and other Terms & Conditions' are available on websites of the respective Government Agencies.

- xxii. Third Party Inspection (TPI) of Defence Stores: To align with the Government of India initiative to promote Ease of Doing Business for MSMEs and private sector and achieve national vision of "Make in India", the Department has formulated Policy Document on 'Utilization of Third Party Inspection Services' for effective administration of inspection function of out-sourced work with involvement of third parties for inspection services.
- xxiii. Mission Raksha Gyan Shakti: The Mission was launched with with objective to encourage Intellectual Property Rights (IPR) for self-reliance in defence. IPR is the key enabler for developing an ecosystem of innovation and indigenization. As a part of Mission Raksha Gyan Shakti, an IPR Division has been constituted in DDP.
- xxiv. The Union Cabinet enhanced delegation of Financial Powers under Capital Procurement to levels below Vice-Chief of Armed Forces. Under Other Capital Procurement Procedure (OCP) of Defence Acquisition Procedure-2020, financial powers upto Rs.100 crore has been delegated to General Officers Commanding-in-Chief (GOC-in-CO), Flag Officer Commanding-in- Chief (FOC-in-C), Air Officer Commanding-in-Chief (AOC-in-C) at Services Command and Regional Commanders, Indian Coast Guard (ICG) and powers up to Rs.200 crore has been delegated to Deputy Chief of Army Staff (CD & S)/MGS (Master General Sustenance), COM (Chief of Material), AOM (Air Officer Maintenance), DCIDS (Deputy Chief Integrated Defence Staff) and ADG ICG (Additional Director General Indian Coast Guard).
- xxv. The Cabinet has also enhanced financial powers in the Make-I category under which Government funding up to 70% of the prototype development cost is available for Design & Development of equipment, systems, major platforms or upgrades thereof Chief of Integrated Defence Staff to the Chairman Chiefs of Staff Committee (CISC), Vice Chief of Army Staff (VCOAS), Vice Chief of Naval Staff (VCNS), Deputy Chief of Air Staff (DCAS), and Director General of Coast Guard (DGCG have now been given powers to sanction Government support up to Rs.50 core towards cost of prototype development. Financial powers have also been enhanced for other competent financial authorities under 'Make-1' in line with Government's vision of 'Atmanirbhar Bharat' and 'Make in India' for a robust defence industrial ecosystem.

Further, during a webinar on Budget announcement, Hon'ble Raksha Mantri made the following announcements for the growth of Indian Defence & Aerospace Sector-

- (i) Domestic procurement to be about 63% of the allocated amount for military modernization i.e. about Rs.70221 Crore for 2021-22.
- (ii) Second Positive List for Aatmanirbhar Bharat to be notified in March 2021.
- (iii) Issuance of Letter of Intent (LoI) to HAL for Light Utility Helicopter (LUH) so that the platform can be inducted in the Services on the occasion of India@75 i.e. August 2022 to commemorate 75th Anniversary of India's Independence.
- (iv) Efforts will be made for direct procurement from the domestic private sector to more than 15% of the domestic capital procurement in the next financial year.
- (v) Endeavour will be made to ensure that the period from grant of AON to signing of contract is maximum two years, for which close monitoring will be done.
- (vi) Efforts will be made to accord Approval in Principle (AIP) and finalize some projects having value from Rs.500 crore to Rs.2000 crore on competitive basis in the next financial year.
- (vii) To address the funding issues of MSMEs and Startups, Rs.10,000 Crore "Fund of Funds" has already been created by the Government of India. Complete support will be extended by MoD to the companies in Defence and Aerospace Sector in utilizing the fund.
- (viii) Approval in Principle (AIP) will be accorded for at least 5 Make-1 Projects in 2021-22.
- (ix) Startups and MSMEs may offer indigenous products/solutions to the Services under "iDEX - open challenge" route or "Make-II Suo Moto".
- (x) To give a major boost to development of innovative defence technologies and support the growing Startup base in the country, MoD would channelize Rs.1000 crore during 2021-22 for procurement from the iDEX Startups.
- (xi) For indigenization of military materials including critical and strategic raw-materials, a Task Force comprising of officers from MoD, Services, Industry and Academic Institutions will be constituted. The task force will assist in preparing a roadmap and an implementation framework for the same."

1.174 On the information furnished that there is 100% indigenization in ECC&E and 71% in SCME, the Committee wanted to know the value of these percentages of indigenization in pre-Apr 2020, and post Apr 2020 periods. In response, the Ministry submitted as follows:-

“The value of percentage of indigenization of ECC & E and SCME as presented to PAC is pre April 2020. Identification of a new source of supply is done only after user trials. As trials are conducted over one winter, one cycle of trials has been possible after April 2020. In this cycle post April 2020, indigenous source for one more previously imported item (Karabiner ‘P’ Type) has been identified. In terms of numbers, 43 out of 57 SCME items are now either indigenized or have an indigenous source identified. However, based on Positive Indigenization List, all items of SCME are to be procured from Indian Vendors with effect from December 2022.”

CHAPTER-2

Special Ration to the troops in HAA

Procurement of special Ration

2.1 The basic objective of giving special rations to the troops is to provide alternative food items in order to alleviate certain psychological and physiological conditions that the troops face in high altitude inhospitable conditions. Audit findings on procurement, issue and quality of these ration items are discussed in succeeding paragraphs.

a. Issue of costlier substitutes in meager quantities

2.2 The basic items of special rations were scaled and were authorized to the troops to meet their daily energy requirements. Substitutes in lieu of basic items were also authorized but only in a given percentage and on 'Cost to Cost' basis. Keeping in view the restriction of cost-to-cost basis, sanctioning costly substitutes in lieu of basic items without analyzing their nutritional content essentially amounts to procuring these substitutes at reduced scale.

2.3 In this regard, in their background note, the Ministry submitted as follows:-

"Rations are scaled to each soldier of Army. The scales have been scientifically designed and evolved to provide adequate nutrients and to cater for the daily routine, training and for operating in different terrain conditions. Rations are accordingly authorized at different scales for all ranks serving at altitude below 9000 ft, between 9000 ft to 12000 ft and above 12000 ft with progressive increments for challenges at higher altitudes. Similarly some increments to ration scales are aimed at countering heat and dehydration in desert terrain. Director General of Armed Forces Medical Services (DGAFMS) and Defence Institutes of Physiology and Allied Science (DIPAS) are responsible for a constant and periodic check on adequacy of ration scales.

Stringent quality parameters are ensured for procurement and issue of rations. Food Safety and Standards Authority of India (FSSAI) standards for food items laid down by Govt of India are the bare minimum standards. However, Defence Food Specifications (DFS) sets the qualitative parameters of food items many notches higher than FSSAI standards. Enforcing the DFS therefore ensures much higher quality of rations for soldiers. All ration items for issue of troops are subjected to stringent quality checks and accepted only if they meet the prescribed specifications.

High Altitude Rations Authorized above 12000 feet: -In 1984, special scale of rations were introduced for troops deployed in Siachen. On the basis of experiences of soldiers who were posted at Siachen, these ration scales were further improved in next few years. In 2010, these special ration scales were authorized for all the soldiers who are posted at 12000 ft height and above

altitude. The Government sanction also authorized procurement of any other items of rations not listed in the scale of rations as demanded by the formations deployed above 12000 ft and sanctioned by GOC-in-C Command, 'to meet the taste of troops'.

Procurement of Ration

(a) Perishable Ration:- Perishable rations are procured by concluding contracts at the level of Command, Corps, Area and Sub Area Headquarters. The contracts are concluded separately for each station with registered vendors as per provisions of Government orders. The contracts are concluded with registered vendors only on Public Procurement Portal, less negotiated contracts concluded in Northern and Eastern Command with local co-operative societies and milk contracts with NCDFI.

(b) Dry / Tinned Supplies:- All dry/tinned supplies are procured at apex level under the aegis of the central procurement agency i.e. Army Procurement Organisation (APO). Contracts are concluded on annual basis with deliveries spread over the year duly factoring the available storage space at the supply depots and shelf life of the food items. Procurement is executed through Open Tender Enquiry on Public Procurement Portal with registered and unregistered vendors as per provisions of DPM 2009 and amendments thereto.

Stringent quality checks are carried out by a specialist outfit i.e. Food Inspection Organisation, before issue of rations to troops. This organization comprises of Bulk Inspecting Officers and Defence Food analysts.

Timely provisioning and procurement of ration is carried out through time tested methodology and same is supplied to troops as per laid down scales. Adequate measures are instituted, planned and rehearsed for any contingency. Under no circumstances till date, the supply of ration to troops have failed.”

2.4 Paragraph 6 of the Standard Operating Procedure (SOP) issued by the HQ NC stipulated that only similar alternative items be demanded in lieu of basic item, keeping in view the calorific value. Costly items should preferably not be demanded against cheaper items on 'cost-to-cost basis because in that case scale of costly item would be so less.

2.5 Audit observed that in both the Commands, the costlier substitutes were being provided on cost to cost basis. This not only violated the provisions of the SOP but also resulted in providing lesser calorific intake ranging between 48.00 and 82.75 per cent.

2.6 The impact on calories intake in case of items selected in test check are summarized in Table below:-

Table: Impact on calories by substituting basic items

Sl. No.	Basic Item	Substitute item	Scale	Rate per No/Kgs	Amt (in Rs.) available for purchasing substitute	Qty of substitute supplied on cost to cost basis (gm)	Calories in basic item	Calories in substitute	Percentage of lesser calories provided
1	Egg fresh		03	3.9			158		
		Chicken Kabab		684.98	11.70	17.08		27.26	82.75
2	Semiyam		0.020 gm	59.26			70		
		Honey		212.99	1.18	5.54		21.10	70.00
3	Ground Nut salted		0.010	134.41			57		
		Chikki peanut		241.50	1.34	5.550		29.76	48.00

2.7 In reply, Ministry stated that the provisions of the SOP were not being violated as calorific value was not the sole factor that was taken into account but preference of the troops, variety, dietary supplements nutritional value was also considered.

2.8 Provision of ration at reduced scale with lesser calorific value would possibly impact the health and fitness of troops posted at high altitude areas. Even the SOPs clearly state that for maintaining the calorific value, costly substitutes may preferably not be procured.

2.9 The procurement of substitutes at reduced scale implies reduced intake of calories and subsequent weight loss to the troops at these extreme altitude and climatic conditions. This aspect was also confirmed by a Quarter Master General (QMG) study carried out in March 2010 and study team also suggested that substitute items be authorized in terms of quantity. The action on study team's recommendations remains to be taken by the MoD.

2.10 The Ministry in this regard, further informed:

“(a) Importance Attached to Choice of Troops in High Altitude Area. Troops operating in high altitude area suffer from anorexia, a syndrome which results in loss of appetite. To mitigate this challenge, preference of troops and their palate acceptability is given due importance, in order to induce appetite and generate a desire to eat with multiple options being made available to provide variety in their diet. Thus preference of troops at such places is given relatively more importance with the aim to enhance/motivate and incentivize 'food intake'. In this regard, even the audit team at Para B of their report (Page 40), has acknowledged that the objective of giving special rations to troops is to provide alternative food items to alleviate certain psychological and physiological conditions in high altitude inhospitable conditions.

(b) Procurement Policy/Mandate as per the GSL. The Government Sanction authorizing special rations to troops deployed above 12000 feet was issued vide

66195/Q/S-6/1069/D(QS) dated 19 May 2010 & Corrigendum No 66195/Q/ST-6/1948/D(QS) dated 23 Sep 2010. The said sanction authorizes procurement of any other item of rations not listed in the scale of rations as demanded by the formations deployed above 12000 feet and sanctioned by GOC-in-C Command, 'to meet the taste of troops'. It further stipulates that cost of such items purchased 'shall not exceed the cost of items under drawn/not drawn'. Thus the GSL stipulates two terms of references, viz a financial ceiling and taste of troops. There are 33 groups of items authorized in daily scale of rations in high altitude areas. Out of these, 15 items are categorized as 'special rations', which can be substituted by other items based on troop's preference. Balance 18, comprising of basic rations like Atta/rice, Dal, Sugar, Tea etc are issued as such. These 'Basic Group Items' constitute major proportion of daily meals and meet bulk of the nutritional requirement of an individual soldier.

(c) To arrive at the total calorie intake by a soldier, it is but logical that the calorific value of each of the 33 items being issued (including substitutes) be calculated & totaled. This will give the correct picture.

(d) The audit team, instead of calculating the calorific intake being provided by the entire day's ration, has selectively taken three items, and compared it with one of the substitutes. The statement made in the audit report that issue of substitutes resulted in providing lesser calorific intake ranging between 48.00 to 82.75 percent is hence misleading & projects a completely false image, as if only one item (eg eggs) constitutes the entire day's ration of a soldier, from where he gets the required nutrition. Fact on ground is that the energy intake from the entire day's rations (including substitutes) when compared with the energy expenditure, is more than adequate. From 2013-16, DIPAS had undertaken an extensive study on the nutritional aspects of present ration scales. The energy expenditure and energy intake for troops deployed in high altitude area above 12000 feet is as under:-

- (i) Total energy expenditure - 4270 kcal (\pm 550)
- (ii) Total energy intake from existing rations (including in-lieu items) - 5350 kcal

(e) Study of March 2010 on Special Rations. The audit report has referred to a study carried out in March 2010, to support its argument of reduced calorie intake by the troops due to issue of in lieu items. The findings of the study report have clearly been misquoted by the audit team. In the study, it clearly emerged that the nutrient value of special rations as per the inventory formulated by Command, is adequate. The study report has categorically stated that "It is once again reiterated that in-lieu/substitute items should not be looked at purely from nutritional angle but also as a measure to enhance the food intake". The study had found that even when in lieu items as per preference of troops are issued on cost to cost basis, the calorific value ranges from 5779 kcal to 5867 kcal (depending on items issued in-lieu) which is clearly more than adequate, considering the fact that energy expenditure is only 4270 kcal (\pm 550)."

b. Deviation in tendering procedure

2.11 Defence procurement Manual (DPM) 2009 states that Open Tendering System should be preferred mode of procurement of common use items of generic specification which are readily available off the shelf in the market from wide range of sources/vendors in all cases where estimated value of the tender is more than Rs. 25 lakh. However, in case of urgency, Limited Tender Enquiry (LTE) may be resorted to procurement of special ration items. MoD in letter of May 2010 also directed observance of Open Tender system under the delegated financial powers of GOC-in-C.

2.12 Further, QMG in their administrative instruction of September 2010 directed that registration of vendors for supply of the items needs to be taken up at the earliest. Efforts be made to enlist original item manufacturers or their authorized Carry and Forward agents who have the requisite AGMARK, FPO/BIS certification for their products.

2.13 Audit observed that while the contracts in EC were being concluded following Open tender system, in NC the contracts for special ration were being concluded by inviting the online bids from only registered firms through limited tender enquiry. This practice was followed by the Command Headquarters /'X' Corps for all the three years i.e. 2015-16 to 2017-18. As a result, the fair competition amongst vendors was restricted which is evident from the level of response achieved as summarized in the Table below:

Table: Statement of bids received for Special Rations in NC

Year	Contracts concluding authority	Number of Tenders	Total number of bids received			
			One	Two	Three	Four
2015-16	HQ NC	43	10	19	12	2
2016-17	HQ 'X' Corps (under HQ NC)	47	12	23	11	1
2017-18	HQ NC	50	11	26	12	1

2.14 Ministry in response stated in May 2019 that its order dated 19 May 2010 accorded unique authorization to buy brands like Maggie, Cadbury Chocolates etc. It thus became obvious that if such branded items were listed to be procured there need not be any open tendering. It stated that the original item manufacturers or their Carry & Forward agents were pre-verified to quote rates and, therefore, the aim of Government sanction stood fulfilled. Adoption of LTE mode of tendering was not as per the Government sanction /administrative instructions issued by the Army Headquarters.

2.15 The Ministry also submitted as follows in their action taken notes:-

“(a) In Eastern Command, contracts for Special Rations are being concluded on OTE basis.

(b) In Northern Command, the procedure followed was not strictly of LTE but more aligned to OTE as every vendor who was desirous of supplying Special rations was accorded all information and opportunity, at every stage, about the requirements of the organization and the process to get registered for being eligible to participate in the tendering process.

(c) Notwithstanding the above, contracts for the year 2019-20 & 2020-21 in Northern Command too, for special rations have been processed as OTE. Resultantly, the contractual cycle has got elongated, requiring additional lead time to initiate the procurement process”

c. Local purchase of special ration items at costlier rates

2.16 Audit observed from the Local Purchases made by the Supply Depot (SD) Bengdubi during 2015-16 that the accepted rates of items of Special ration were much higher with reference to rates of the respective items procured by HQ EC through contract for the same year. Local purchase was made for the period in which the contract did not exist and resulted in an extra expenditure of Rs. 27.38 lakh.

2.17 Audit observed that variation in rates extended upto 42 percent. Further, the unit carried out local purchase of centrally purchased items during the year 2015-16 and 2017-18. The purchase was made at higher rates (upto 37 per cent) than the central purchase rates which resulted in an extra expenditure of Rs. 90.47 lakh. Ministry stated in reply in May 2019 that the rates were accepted due to essential/ urgent requirement which if not made would have resulted in lapse of ration to troops.

2.18 In this regard, the Ministry also submitted as follows:-

“(a) Resorting to Local Purchase (LP) was a refuge of last resort when contracts for the same could not be concluded at the Command Headquarter. However, every purchase was done with due diligence. LP always takes into account LPP/purchases done at the Command Headquarter and available market inputs. Further, said purchases were on OTE basis, which by the very nature itself is a process of ‘price discovery’. Given the fact that there is a paucity of vendors at lower levels, devoid of the benefit of economy of scales, such purchases at times are at higher costs as the same has to be executed in a time bound manner so as to obviate any lapse of rations.

(b) The audit report only invites attention to items secured at higher values. In the same purchase, there were also items that were secured at lesser costs viz Ready to Eat (RTE) Jeera Rice Noodles (Top Ramen), Noodles Veg (Top Ramen), Tetra Pack (TP) Juice Apple, TP Juice Mixed Fruit, TP Juice Orange, Milk Chocolate, Biscuit Pista Badam etc. Thus the purchase costs were dictated by the then prevailing market dynamics and cannot be termed as loss to exchequer, in hindsight.

The purchase was transparent, through well established processes and did serve organization interests as troops deployed in extreme inhospitable climatic conditions were provided their desired entitlements timely.”

2.19 The Committee were of the opinion that while Central Procurement processes are transparent and based on competitive bidding, local purchase proceedings give room for less transparency, have scope for corruption & misappropriations and often result in low quality /sub-standard products. The Committee felt that this matter needed to be addressed. The Ministry, in response stated as under:-

“LP was resorted to by Field Commanders when there was short supply from OFB. Financial powers have been delegated to Field Commanders to overcome such like challenges. Adequate checks and balances to uphold financial probity and quality of procurement are in place. All procurements are being carried out in compliance with laid down Government procedures duly advised by Integrated Finance Adviser.”

d. Acknowledging receipt of rations

2.20 During the scrutiny of Load Tally, Certified Receipt Voucher (CRV) and Daily Statement maintained by a Composite Platoon of an ASC Battalion, it was observed that the ration items were shown issued before actual receipt of store at Leh.

2.21 Ministry stated that detachment of units responsible for issue of the items to consumer units in Kargil and Leh regions through respective Composite Platoons were placed at Chandigarh during winters. There were many occasions when the items though received at Chandigarh did not reach the composite platoons locations due to cancellation of air sorties or road transport disruptions from Air Head at Leh to remote locations of Ladakh and Kargil.

2.22 Therefore, issues/ receipts reflected even before physical receipt of stores in Ladakh / Kargil region do not imply that the items were not physically received from the contractors or proper quality control checks were not undertaken by the unit operating the contracts.

2.23 According to Audit, the reply given by the Ministry is acceptable to the extent of physical receipt of stores from contractor and its quality check at Chandigarh. However, physical issue of stores for consumption by consumer units in Leh before actual receipt at respective composite platoons needs to be addressed.

2.24 The Ministry in this regard, submitted as follows in their action taken notes:-

(a) Special Ration items of 14 Corps are received from various vendors and checked for quality & quantity by the units/ detachments of forward units which are located at 'N' Area (Chandigarh) and accordingly taken on charge by the nominated unit. Further transportation and accounting of the stores is an intra formation/organization function i.e. accounting between base/nodal units & forward units/ detachments.

(b) These rations are transported through a tedious and complex logistic network which is prone to disruption due to terrain and weather compulsions which are well beyond human control. Allocation of transport/logistics resources are dictated by operational dynamics. Notwithstanding these huge logistic challenges, all out efforts are made to ensure rations, as entitled, are seamlessly supplied to the forward most posts to maintain the morale and operational efficiency of our forces.

(c) The supply chain pertaining to the ASC Battalion located in forward areas involves receipt of stores at mother/base/composite Platoons and further dispatch is dependent upon weather & road conditions across mountain passes (prone to frequent disruptions due to weather/terrain conditions).

(d) The Audit observation is purely from the accounting perspective and that too based on local accounting procedure followed between sub units under a unit/formation in forward areas located in close proximity, with fragile connectivity due to geographical/terrain/weather extremities. In such a scenario, the aim is to safeguard the interest of the troops, by accounting of the rations in a manner that the rations do not lapse. Higher precedence, is thus accorded to the interest of troops, by taking into account the rations available at an integral supply echelon at close proximity, while reflecting ration issues.

e. Verification of Administrative Check Statement (Admn Check)

2.25 In the units functioning on War Establishment, the details of ration drawn and consumed during the month by the unit is prepared in the form of Administrative Check Statement (Admn check) at the end of each month. SOP on management of special ration, inter alia, stipulated that Indent would be signed by the Commanding Officer / Officer Commanding unit and processed through the Brigade HQ. Indent should be duly supported with the Admn Check of the previous two months and previous indent placed on the affiliated Composite Platoon.

2.26 The ration should be indented by the unit on the basis of 'present'(P) indicated in the Administrative check. Audit, however, observed during the test check of two consuming units that despite the higher number of 'P' the indent was placed for lesser strength of troops. The curtailment by the Brigade HQs was to the extent of 12.29 percent. As a result, special rations were not provided for 35,694 number of troops.

2.27 On being pointed out in audit, the consuming unit stated that there was no compensation for the lapsed ration. It was further clarified that the strength of troops authorized to consume the special ration was released by the Brigade HQ which serves as an authority for indent by the units and issue by the ASC. The reply does not justify the reasons for non-drawal of adequate ration for the reduced strength. Further, in the absence of parade statement, ration shown as consumed in the Admn Check could not be verified in Audit.

2.28 Ministry in its reply stated that as per existing system of ration accounting in field areas, formations/units on war establishment were not auditable, except at ASC supply units who issue the ration. The field units prepare Admin check for ration drawn which was audited and checked by the Station Board of Officer.

2.29 Ministry, however, accepted that no laid down accounting instructions mandating production/ audit of parade statement of the units had been promulgated till date. Therefore, due to deficiencies in Internal Controls on Admin check, there were instances of short issue of special rations to the troops.

2.30 In their action taken note on the matter, the Ministry submitted as follows:-

“(a) As per the accounting system, the field units prepare Admn Check for rations drawn and audited/checked by the station board of officers. A copy of the Admn Check is also kept by the supply units which are produced during audit.

(b) Revised policy for the ration accounting system was issued by IHQ of MoD (Army), vide QMG branch letter No 0135/Q1(B) dated 30 Nov 2018. The revised system has been adopted wef 01 Apr 2019. The contentions of C&AG audit of no laid down accounting instructions mandating production/audit of parade state by the units as also associated accounting procedure have already been addressed.”

f. Feedback

2.31 A questionnaire or opinion of the soldiers on taste, quality and hygienic condition of the items of special ration was issued to selected units. Audit observed from the information collected that the troops had generally opined favourably in respect of all the parameters of special ration being provided to them. However, few items were labeled as average / satisfactory which need attention.

2.32 The Ministry in this regard, submitted the following in their action taken notes:-

(a) A robust, time tested feedback mechanism is in place that captures inputs from troops deployed above 12000 ft on a regular basis.

(b) Regular feedback from ground troops on the quality of rations is sought by Headquarters at all levels and based on the feedback, the revision of the inventory of special ration is carried out at the level of Command Headquarter.

(c) The feedback received on regular basis has been quite favourable. Procedure is also in place to cater for preference of troops in this regard.

2.33 The Committee desired to know if the Ministry sponsored an independent study in the matters pertaining to maintenance of food hygiene and the provision of ration cum essential food substitutes as per the assigned scales to the officers, soldiers serving at high altitude and its findings. The Committee also desired to know if the Ministry looked into the matter of provision of reduced quantity of food substitutes to soldiers. If so, the Committee desired to know the initiatives taken by the Ministry to curb such irregularities in future. In case, the matter was not looked into, the Committee sought to know the reasons for the same. The Ministry stated in this regard, as follows:-

“(a) A detailed study by the Defence Institute of Physiology and Allied Sciences (DIPAS), an institute working under the aegis of DRDO, and consisting of experts in the field of nutrition, was carried out from 2002 to 2006 to assess the nutritional requirements of Armed Forces personnel at various conditions, to include High Altitude Areas. The study had found that the soldiers deployed in OP MEGHDOOT (Siachen Glacier) were highly satisfied with the supply of special rations, and had recommended that these rations should be authorized at other areas too. Based on this in 2010, the special rations were authorized to all personnel deployed in High Altitude Areas i.e above 12000 ft, which was not the case earlier.

(b) As regards nutritional adequacy while issuing substitutes of certain items to cater for preference of troops, a study was carried out in 2010 under the aegis of HQ Northern Command in conjunction with DIPAS. The study report has categorically stated that it is amply clear that calorific contents of special rations based on a mix of listed and substituted items on cost-to-cost basis more or less remains the same. There is no reduction in the calorific intake by issuing substitutes. The study thus established the need to incentivise food intake at High Altitude Areas (to counter loss of appetite due to Anorexia) by continuing the practice of catering for certain additional items as substitutes, based on preference of troops.”

2.34 With regard to determining expiry of a ration item, the Ministry stated as follows:-

“As regards rations, all processed and packaged food items issued to troops are subject to detailed chemical, microbiological and physical analysis for compliance to quantitative and qualitative requirements as per Defence Food Specification by integral laboratories of the Food Inspection Organisation. After initial acceptance, these parameters are again periodically assessed during storage for Shelf Life estimation and all food products consumed by personnel are within the scientifically assessed shelf life only. No food item is issued to troops after expiry of shelf life.”

CHAPTER-3

Housing in High Altitude Area

3.1 Shelters as substitute of tentage are provided to troops located in High Altitude Area (HAA) under Operational works (Op works). To meet the challenges at various geographical locations / altitudes these shelters are mainly pre-fabricated and made of galvanized steel with poly urethane foam (PUF) insulation and constitute shelters for living, storage, administrative accommodation, ancillary services etc., For extreme climatic and geographical conditions fibre reinforced plastic (FRP) /fiber glass huts (FGH) are provided for housing purposes. Besides prefabricated shelters, housing at high altitude also require ancillary services like electrification, heating, water supply, sewage disposal etc. Apportionment of budget for habitat /housing in NC is as shown in Table-below:

Table : Apportionment of budget for Habitat(Rs. in crore)

Year	Total Allocation for NC	Apportionment for Habitat		
		All Corps in NC	HAA in 'X' Corps	Percentage of Total
2015-16	508.00	165.93	75.60	45.46
2016-17	499.50	148.58	65.19	43.88
2017-18	523.28	163.34	84.35	51.64
Total	1530.78	477.85	225.14	

(i). Project for improvement of habitat in high altitude area

3.2 In order to improve habitat and living conditions in high altitude area, Army conducted a study in the year 2007. The study group headed by Chief Engineer (Northern Command) was to evolve a standard format for habitat, assess fund requirement and time frame for their implementation. The study was completed in April 2008.

3.3 Based upon the study report, Engineer-in-chief envisaged for construction of new habitat and replacement / up-gradation of existing habitat of Army and Air Force, at an estimated cost of Rs. 3180 crore to be executed within approximately 5 years. Cabinet Committee on Security (CCS) was the competent financial authority to accord approval for the project. However, Raksha Mantri, in July 2009 decided that Government sanction for pilot project to be approved and in case of any delay in CCS sanction; the project should keep moving uninterrupted so that time line is not extended.

3.4 Accordingly, before going for CCS approval, a pilot project (Phase I) was sanctioned by MoD in August, 2009 to test the efficacy of emerging technology/ products (Six types of shelters) in high altitude areas. The pilot project was to be executed by Chief Construction Engineer (Central Ordnance Depots) CCE (COD), New Delhi at 27 posts by November, 2010. The sanctioned cost of the project was Rs. 94.86

crore including consultancy charges of Rs. 2.68 crore (for tendering design, engineering and consultancy services by a consultant). MoD sanction also provided for selective tendering and dispensing with advertisement for tendering irrespective of value as per Para 38 of Defence Works Procedure.

3.5 A meeting to review the progress on the Pilot Project was held under the Chairmanship of Additional Secretary (M) in July 2010. It was decided to try out 12 to 15 more technologies and to incorporate alternate sources of energy (solar and wind source to generate power) and rain water harvesting. It was also decided to project additional requirement for Rs. 100 crore till the finalisation of CCS note. Accordingly, MoD in August 2010 enhanced the scope of the pilot project (Phase II) to construct habitats at 24 additional posts at an estimated cost of Rs. 100 crore including consultancy charges of Rs. 2.88 crore with probable date of completion (PDC) by March 2011.

3.6 Directorate General of Military Operations apprised that before launch of main Project, two standard designs be put under confirmation trials. Accordingly MoD in December 2013 again enhanced the scope of pilot project (Phase III) for confirmatory trials at 12 additional posts at an estimated cost of Rs. 63.65 crore including consultancy charges of Rs. 1.82 crore with PDC by December 2014. The pilot project (Phase I & II) was completed in December 2013 after delay of two years and nine months and pilot project (Phase III) was completed in November 2017 after delay of two years and 11 months. Total expenditure of Rs. 274.11 crore was incurred on the pilot project (Phase I, II and III) as of March 2018.

3.7 Audit noticed the following:-

(i) The idea behind Pilot Project was to test new technologies for improvement of habitat in high altitude areas. Selective tendering and dispensing with open tender/global tenders defeated very purpose of the project as open tender /global tender was necessary to involve industry to exploit best possible technologies to achieve optimum results.

Besides, completion of the pilot project after delay of more than two years defeated the very purpose of adopting selective tendering for completing the project in a compressed time frame.

(ii) Six types of insulated shelters duly integrated with different system for space heating, water heating and sewage treatment were tried out in Phase I & II at various locations spread in four commands. Based on summer/winter trials and user feedback two standard designs were conceptualized for main project. Thus, after conduct of extensive summer/winter trials of assets created and expending Rs. 195 crore in Phase I and II, enhancement of scope of pilot project (Phase III) at a cost of Rs. 63.65 core only for confirmatory trials was avoidable.

(iii) The Pilot Project Phase I and II were completed in December 2013 and defect liability period of two years of assets created under Phase I and II was also over in

December 2015. However, maintenance funds in respect of assets created under pilot project was only catered in the financial year 2019-20.

As such, funds were not made available for maintenance of assets created under the pilot project from January 2016 to March 2019. There was no provision for maintenance of these assets after completion of defect liability period.

(iv) After completion of three phases of pilot projects in November 2017, Directorate General of Military Operations in March 2018 did not consider the implementation of main project for improvement of the habitat and living condition of troops in high altitude areas and closed the main project. Chief Construction Engineer (Central Ordnance Depots) in August 2019 stated that they were not aware of the reasons for closure of the main project.

Audit noticed that MoD had sanctioned two additional Phases of pilot project (Phase II & III) amounting to Rs. 163.65 crore without even awaiting closure of phase I of pilot project.

(v) Chief Construction Engineer (Central Ordnance Depots) had to hire consultancy services based on the spot quotation. Based on the spot quotation, consultancy agreement was made with a consultancy firm on 26 August 2009 to provide consultancy services for pilot project (Phase I) for four months (till 25 December 2009) at a cost of Rs. 1.70 crore. In September, 2010 consultancy agreement with vendor was extended to provide consultancy services for pilot project (Phase II) at a cost of Rs. 1.55 crore with date of completion as 31 March 2011 which was further extended in different spells till March 2014 at an additional cost of Rs. 4.91 crore. Total payment of Rs. 8.15 crore was made to a consultancy firm for Phase I and II as of September 2014.

3.8 Further, consultancy agreement was made with a consultancy firm on 01 April 2014 to provide consultancy services for pilot project (Phase III) for 12 months (till 31 March 2015) at a cost of Rs. 1.52 crore which was extended in different spells till February 2018 at an additional cost of Rs. 1.78 crore. Total payment of Rs. 3.24 crore was made to a consultancy firm as of March 2018 for Phase III.

3.9 Audit noticed that while the study for improvement in habitat and living conditions in high altitude areas was started in October 2007 a consultancy firm was founded in October 2007 itself by a retired Army officer and was enlisted by MES as consultants for all engineering and project management consultancy work in December 2007.

3.10 Audit also noticed that for consultancy services, a total of Rs. 7.38 crore (3 per cent) was catered to in the MoD sanction for all the phases of Pilot Project. However, against this an amount of Rs. 11.39 crore (4.6 percent) was paid to a consultancy firm for consultancy services. Thus an excess payment of Rs. 4.01 crore (Rs. 11.39 crore – Rs. 7.38 crore) was paid to consultancy firm which needs to be reviewed by MoD.

3.11 The Ministry submitted the following explanation in their action taken notes:-

“(i) The project was sanctioned as a high priority project to be executed within a short period, for which CCE (COD) was vested with powers of

selective tendering and dispensing with advertisement for tendering in accordance with Para 38 of DWP 2007. Further the works were to be executed in High Altitude Areas (HAA) at remote and sensitive locations along the border under adverse climatic conditions with limited time available for work. As such process of selective tendering adopted was as per approval and operational requirement.

(ii) To test new technology for improvement of habitat in HAA, the pilot project was sanctioned in three phases. To ensure incorporation of latest available technology a Project Management Committee (PMC), a Technical Sub Committee (TSC) and services of consultant were sanctioned to use their expertise. Further, the tenders were issued to OEMs only who were experts in these fields and who could undertake innovative modifications to incorporate latest technology as recommended by the consultant and the users after each phase.

(iii) Initially six types of shelters of different design were constructed in various locations on trial basis under Phase-I & Phase-II. Based on feedback and recommendation of users, two standard designs were finalized which were incorporated with certain modification and improvement in Phase-III for confirmatory trials which was necessary and justified before sanction of main project at estimated cost of Rs 3180.00 Crore.

(iv) As per Govt sanction vide letter No 2001/JS(AB)/2013 dated 17 Dec 2013, the completed assets were to be taken over by local MES formation/local user unit and the maintenance after defect liability period was to be carried out by them. Nearest MES formations were located at varying distances from these remote locations. The cost of maintenance through these MES units was working out to be exorbitantly high. The local user units were not able to maintain these assets due to lack of funds and technical knowhow. Apropos, the best option considered for maintenance of these assets was by Formation Engineer Regiments through Operational Works maintenance funds. The assets are presently being maintained in high state of serviceability by Formation Engineer Regiments through operational works.

(v) As regards excessive payment to consultant, it is brought out that in the Administrative Approval, 3% (three percent) amount was sanctioned towards consultancy charges and the amount quoted by consultant was well below the sanctioned percentage. The consultancy contracts were signed for a specific period. However due to delay in execution of projects, the period of consultancy had also to be extended multiple times, which resulted in additional payment.”

3.12 In this regard, when the Committee desired to know the reasons for closing the main project for improvement of habitat and living conditions for troops deployed in

HAAAs, that too after completion of the Pilot Project, the Ministry gave the following response:-

“Original project was conceptualised to replace/ upgrade existing habitat for ₹ 3180 Cr. MoD had sanctioned the Pilot Project for ₹ 274 Cr. Initially, six types of shelters duly integrated with different systems for space heating, water supply and sewage disposal were tried at various locations. Based on the feedback and recommendations of the users, two technologies were incorporated in Phase – III of the project. By the time this phase got completed in Nov 2017, civil industry had also developed such technologies, and better quality modular shelters were available commercially off the shelf. In addition, assets created at far flung areas with no MES establishments available in close proximity resulted in exorbitantly high maintenance cost. Keeping both issues of maintenance and availability of better technology off the shelf, the project was closed after Phase III.”

3.13 To the question that whether any suitable alternative was considered before or after closure of the project and if so, to furnish details of the outcome/ alternate scheme option, the Ministry gave the following reply:-

“Pilot project was successful in identifying new technologies for creation of habitat and provided impetus to indigenous development by the Indian Industry. Design of shelters, now being constructed, have improved substantially: Fibre Glass Huts, PUF panels, prefabricated shelters, gypsum boards with vitrified/ joint less tiles, Oil Bukharis, water heaters etc. Solar electrification projects have also been introduced. In Eastern Ladakh modern, modular, prefabricated and quick erectable shelters, in partnership with the private industry are being catered for in habitat planning. Bore well digging rigs to create water points and pond ages to cater for water even during winters have also been catered. Hence, closure of the pilot project has had no adverse impact on the plan to construct habitat in HAA.”

3.14 The Committee had expressed the following opinion on the matter:-

“My question here on technical expertise is: what is lacking in terms of our technical expertise, in our engineering and prototyping abilities that we cannot put something like this together? Even if it is in harsh terrain, we have more than enough. I myself am from IIT-Delhi and I know the quality of our civil engineering department there and that of IIT-Bombay and IIT-Kanpur etc. We have extraordinarily good engineers who, if they are appropriately deployed, can tackle these technical issues very adequately. Are we, therefore, bringing our best technical minds to deal with some of these very difficult challenges? That is a capability issue that I would like to ask you. Finally, we have adversaries but we also have a lot of partners that also deal with these harsh terrains as well. What is it that we can learn from the capabilities that they have built, whether it is in procurement, in financing and budgeting or in the application of technical expertise, to be able to solve problems like that?”

3.15 Taking note of the limitations of terrain and weather for timely conduct of HAA trials of various equipment that impact early procurements/ induction into service, the Committee desired that the Ministry may explore advancement in science and technology for conducting trials in simulated environment/ laboratories and also the

feasibility of conducting the HAA trials in Friendly Foreign Countries. The Ministry in response submitted as follows:-

“User trials in actual operational areas are being carried out to assess effectiveness of products during conduct of various operational activities. The nature of terrain and weather conditions in HAA are unique with extreme temperature, rarefied air and difficult terrain making it a challenge to conduct trials in HAA. However, several initiatives have been taken to overcome these. There are adequate trial areas available in HAA in the country and need for conduct of HAA trials in friendly foreign countries may not exist. Concerted effort have been made to carry out trials based on vendor certification and/or simulation to the extent possible with the end objective of reducing the duration of trial without compromising the requisite trial evaluation to establish desired performance, reliability & sustenance of the equipment. However, it needs to be adopted in a gradual manner with concurrent development of eco system for simulation.”

3.16 Questioned about the authority competent to sanction the main housing project meant for high altitudes which was put on two trials, and one confirmatory phase of development; the circumstances that led to the delay in sanctioning the main housing project; the latest modules and specifications of modular housing sanctioned by the authorities for Army personnel serving at high altitudes facing harsh weather condition and extreme temperature in the range of -40 to -70 degrees centigrade; and, whether housing amenities were only on paper or the facilities available on ground for the use of Army personnel and soldiers, the Ministry submitted in response, stated as follows:-

“(a) The Pilot project for housing in High Altitude Area (HAA) was sanctioned by MoD in three phases as Under:-

- (i) Phase I: MoD letter No. A/03616/HAA/E2 Army/NC dated 12 Aug 2009.
- (ii) Phase II: MoD letter No, 11438/JS (O/N) dated 03 Aug 2010
- (iii) Phase III: MoD letter No 2001/JS(AB)/2013 dated 17 De 2013.

(b) CCE (COD) was vested with powers of selective tendering in accordance with Para 38 of DWP 2007. The works were to be executed in HAA at remote and sensitive locations along with border under adverse climate conditions with limited time available for work and this lead to some delay in execution. By the time Phase III of the project got completed, the civil industry had also come up with solutions and rather than executing this project further it was decided to construct habitat through normal operational works. Modern state of the art technologies to include modular re-locatable shelters in the form of Porta Cabins, Containers, Fast Erectable Modular Shelters, Fibre Reinforced Plastic Huts and Barrel Type Shelters are now in use.

(c) These shelters have up to 80 mm thick Rockwool with density 80 kg/m³ as insulation in addition to cross linked close cell Polyethylene foam panelling which

provides adequate protection against sub-zero temperatures. In addition, ancillaries such as electric heating appliances as well as solar and hybrid based technologies, water supply systems and toilets have been constructed to ensure proper comfort for the troops. Habitat for more than 10,000 troops in Eastern Ladakh was constructed in 2020-21 and habitat for another 18,000 troops is under progress.”

(ii). Execution of works

3.17 The essence of the OWP is to execute the works with speed to cater for the emergency in the operational environment. It was therefore incumbent upon the Engineers to ensure that the works were executed and handed over in the shortest possible time to meet the needs of the users.

3.18 Audit, however, observed that there was delay both in execution of works and in formal handing over of assets to the users. The cases are summarized as follows:-

a. Delay in execution of works

3.19 Op. works in 'X' Corps zone were to be completed in a period of two year cycle. In order to find out the promptness with which the works related to habitat in HAA were being executed, details about physical progress of the works were scrutinized in audit.

3.20 Audit noted that works approved in 2014-15 could not be completed even after completion of the third working season i.e. by September /October 2016.

3.21 The progress of execution in respect of works for the year 2015-16 and 2016-17 is summarised in the Table below.

Table: Progress of work after the stipulated time frame

Corps Zone	Year	Period of Reference	Total Quantities of Op wks approved	Quantities completed	Balance	Per Cent
'X' Corps	2015-16	July 2017	2049	1847	202	9.86
	2016-17	June 2018	688	631	57	8.28

For the year 2015-16 and 2016-17 about 10 per cent jobs had not been completed even after the completion of the prescribed two working seasons. Thus, despite the inherent nature of urgency attached with Op works, their execution was being delayed much beyond the stipulated time frame.

3.22 In response, the Ministry stated that Operational works in 'X' Corps Zone are being executed in one of the harshest HAA and despite such enormous challenges financial and physical closures of all works are largely achieved well before the stipulated timelines.

3.23 The Ministry further submitted the following explanation in their note:-

“Operational works in 14 Corps Zone are being executed in one of the harshest HAA. Long gestation period factoring stores being transported from the hinterland, limited working season due to prolonged winter cut off posts and extremes of terrain and weather conditions have necessitated a peculiar need for two year working season in these formations. Despite such enormous challenges, financial and physical closures of all works are largely achieved well before the stipulated timelines. Further, formation Engineers, the executing agency of Operation Works, also have operational role and same entails commitment of approximately two months in a year. Given the dynamic situation along the Line of Control & Line of Actual Control, a delicate balance has to be maintained between operational & construction tasks. Further, non-recognition of severe climatic conditions & road closure and its effect on execution of work by the audit team reflect inadequate comprehension of the challenges therein.”

3.24 The Committee desired to know whether concrete measures had been taken by the Government to complete the pending projects for improvement in housing conditions of troops in high altitude areas. In response, the Ministry submitted the following:-

“In the current financial year concrete measures were taken for improving housing conditions of troops in high altitude areas. This was achieved despite the disruption in supply chains caused due to COVID pandemic. Most importantly, the heightened tensions along the Northern Borders necessitated induction of additional troops to forward areas, especially high altitude areas. This operational contingency required creating additional housing infrastructure for both the existing and the additional troops inducted in such extreme terrain and climatic conditions. Hence over a period of six months before the onset of winters, despite COVID related supply chain challenges, an amount of Rs 500 Crores was spent to construct habitats to include pre-fabricated modular shelters and thereby improving the living condition of troops in high altitude areas.”

b. Delay in handing over of assets

3.25 Physical closure of works implies that construction on ground has been completed and all the stores procured for the job have been consumed/ accounted for. Once the construction agency completes the work, a Board of Officers (BoO) is convened by the formation HQ to close the work and take over the assets. The BoO authenticates that the assets have been created as per Technical Sanction (TS) and the stores correctly incorporated in the job. The assets are accordingly accounted for in NAR and handed over to the users.

3.26 Audit observed that the delay in execution of the works despite the urgency (as commented in the preceding paragraph) was further exacerbated by the delay in handing over of assets to the users. Audit found that even after physical completion of the work, it took more than a year for the formations to hand over the assets to the units for use. As a result the users were to remain deprived of resources which were already scant in the most challenging climatic conditions.

3.27 Ministry stated that the assets as and when completed are handed over to the users and the inventory got acknowledged. The formal handing over of the assets was done only after completion of job followed by accounting of assets in the Formation NAR.

c. Receipt and accounting of stores without necessary quality inspection

3.28 To ensure the necessary quality and quantity of the stores being procured, Board of Officers (BoO) is constituted by the Corps HQrs. The BoO carries out the inspection and evaluates the stores with reference to the approved technical specifications. The material received needs to be tested by the BoO for its conformity to IS Codes/ Specifications in the quality control (QC) Lab established by each procuring unit.

3.29 Audit observed that there was no documentary evidence to establish that the stores had been subject to any kind of testing in the QC Labs of the units. The acceptance of the stores was done merely on the basis of visual inspection. Therefore, due process to establish the quality parameters of the stores being procured was not being followed.

3.30 Audit also pointed out that the technical specifications of items like Shelters (both FRP and PUF) were beyond the scope of visual inspection. Technical parameters like density, compressive /tensile strength thermal conductivity wind load, snow load, etc warranted a qualitative and analytical check before the stores are accepted. Non adherence to the laid down procedures, therefore, would result in risk of negligence in quality in procurement of shelters of habitat.

3.31 Absence of due diligence was further apparent from the fact that most of these stores were procured by the units located in 'X' Corps zone during the "road closed period", location /detachment at Pathankot. The BoO was therefore required to visit the location i.e. Pathankot, for inspection and receipt.

3.32 Audit, however, noted that the inspection for the stores received at Pathankot was certified to have been done by the BoO, when the Board was actually located and certifying another set of stores received at Leh. This is illustrated in the Table below:-

Table: Indicating testing by the same BoO at different location

SO No and date	Constitution of BoO	Date of inspection	Place of Delivery	Location of the BoA
235ER/37/2017-18 dt 03 Feb 18	4 Officers	20 Feb - 18	Leh	Leh
235ER/35/2017-18 dt 03 Feb 18	Same set of members		Pathankot	Leh
235ER/33/2017-18	Same set of members		Pathankot	Leh

dt 02 Feb 18				
235ER/29/2017-18 dt 02 Feb 18	Same set of members		Pathankot	Leh
235ER/26/2017-18 dt 02 Feb 18	Same set of members	15 Feb 18	Pathankot	Leh
235ER/25/2017-18 dt 02 Feb 18	Same set of members		Leh	Leh

3.33 The same Board has certified the inspection of stores at Leh and Pathankot on the same date. Evidently, the endorsement of the Board of Officers was only *post facto*.

3.34 In reply, Ministry stated that all stores undergo laboratory and field test at various stages. Sample testing of stores was done at Test Labs established by Engineer Regiments. The sample testing reports annexed by the Ministry with their reply pertained to Cement, which was being generally procured centrally and tested at the Command Test Laboratory. However, test certificate in respect of stores pertain to shelters carried out in the Test Laboratory could not be produced to Audit.

(iii). Accounting issues

3.35 All assets created out of Operational Works are to be entered in the "Numerical Assets Register" (NAR). This is to be maintained independently by the Corps HQ, formation HQ and the Engineer Regiment (ER) based on the proceedings of the closure BoO. NAR, therefore, assume great significance as a document for accounting of assets to record the detailed history including the year of creation utilisation location cost and present use etc. It can also be used as the basic document for planning and working of annual maintenance grant.

3.36 Notwithstanding the significance of the register and the essence of having three separate copies, Audit observed that the Corps HQ did not maintain the NAR independently. In most of the cases the copy of NAR produced for audit scrutiny by CE 'X' Corps was a shadow copy of the NAR held by the respective ER, which was even being maintained and updated by the concerned Regiment. CE 'Z' Corps did not even produce the document for scrutiny. Hence, the purpose of having an independent NAR at Corps HQ, inter-alia as a tool of internal control was not served.

3.37 Audit further observed that most of the NARs, maintained either by the ERs or by the Corps Hqrs were not updated. In most cases updation had been made only up to 2015-16, yet entries in some cases beyond 2012-13 were still not reflected.

3.38 This had resulted in discrepancies between the records of assets and those on ground and therefore in actual assessment of requirement as described in the following cases:-

(i) To ascertain the requirement of habitat for Leh garrison HQ 'X' Corps had convened a BoO in May 2018. The Board collected data of all assets held on ground by 33 units in the garrison.

Audit analysed the number of assets held on ground, as certified by the Board, in juxtaposition with the assets accounted for in the NAR by the Engineers. Audit found that in almost all the cases, the type and number of assets identified by the BoO on ground were different from those recorded in the NAR. In a considerable number of such cases, the findings indicated a shortfall in the number of assets held on ground.

Corps HQ attributed the mismatch of assets to human error and stated that the status will be cross verified and corrected accordingly.

(ii) Most of the Units holding Op works assets in field areas keep moving from one location to another after their turn over period. The record of such assets is, however, permanently maintained by the formation HQ and the formation Engineer.

Audit observed that there was neither any laid down procedure nor authentic repository of Op works assets held with the unit/formation or the Engineers, wherein unit wise distribution and accounting of such assets was recorded and monitored. In the absence of same, authenticity of the assets handed over could not be ascertained in audit.

In reply, the Corps HQ stated that the onus and responsibility for handing over from one unit to another unit remains with the particular user. The reply, however, does not justify the absence of a laid down trail and weakness in the accounting system which banks heavily on the reliability of the documentation maintained by the holding unit.

(iii) During the audit of the accounts of HQNC in 2017-18, Audit noticed discrepancy in accounting of assets worth Rs. 3.11 crore held by HQNC Camp. Similarly, HQ 'Q' Sub Area Camp did not have the details of the assets worth Rs. 11.71 crore held as of August 2017. The documents were not produced to Audit during 2018-19 on the plea that the subject was beyond the defined scope of audit. In reply to the observation HQNC further stated that necessary corrections will now be made.

In response, Ministry stated that accounting of all operational works assets is ensured through maintenance of NAR by the formation Engineers. This is the 'Master Document' that records all details of jobs executed.

3.39 The Ministry in a written reply further stated as follows:-

"Accounting of all operational Works executed is ensured through maintenance of the Numerical Assets register (NAR) by the formation Engineers. This is the 'Master Document' that records all details of jobs executed (job numbers, year of manufacture, executing agency, grid references of locations and photographs as applicable). This NAR may not be confused with the user unit maintained documents/ notes with respect to incorporating operational work assets. These are documents maintained by the various units on ground, which are more of locally necessitated requirements for the purpose of accounting, report and

handing/taking over of units on relief. The updation of NAR is a regular activity & is necessitated after Physical Closure Board, relocation and post natural disaster, in case of destruction of assets. Hence, the updation will always be for previous Financial Year. Also, till such time the asset has been constructed/ relocated & Physical Closure Board is complete, the entry in NAR is not carried out. The accounting system is robust with parallel maintenance of records at all levels.”

CHAPTER -4

GENERAL

4.1 While examining aspects relating to provisioning, procurement and issue of High Altitude Clothing, Equipment, Ration and Housing, the Committee came across related issues such as medical facilities being provided to the troops in high altitude areas and storage facility for fuel for use of kerosene based Bukhari system in the absence of electricity in forward locations.

4.2 The Committee were of the opinion that in high altitude areas, it is a necessity that each unit has a good doctor and equipment and wanted to know how the medical needs of units in these areas was being managed. The Ministry, in this regard, in their reply stated as follows:-

“(a) Non-medical units located in field are authorized one Regimental Medical Officer and one or two Nursing Assistants to establish Regimental Aid Post (RAP) for providing medical cover in high altitude. Battle Field Nursing Assistants (BFNA) are unit personnel trained in first aid to provide primary medical care and are deployed at forward posts.

(b) Advance Dressing Station (ADS) and Forward Surgical Centre (FSC) are established by Field Hospitals in forward locations for receiving patients/casualties from RAP. Surgical team is deployed at FSC to perform life/limb saving surgeries.

(c) Medical equipment is authorized to RAP, ADS and FSC as per the Medical Equipment Scales. Infrastructure for Field Medical Establishments is provisioned from Army Engineer Stores.

(d) Various cadres/BFNA courses are conducted at AMC Centre & College/Field Hospitals/Military Hospitals to train medical/non-medical personnel in first aid/Basic life support/Advance Traumatic Life Support.”

4.3 The Committee also sought to know that since there was no electricity in forward areas, fuel was required to be supplied and wanted to know where fuel was being stored. The Committee also queried if erstwhile Kerosene Oil based Bukhari system was being used in Jammu and Kashmir. The Ministry in reply, stated as follows:-

“(a) Indian Army is deployed in varying terrain conditions. Depending upon the peculiarities of terrain, as also ways of carrying the fuel to deployed locations, multiple means of fuel storage are employed to include underground storage tankages, barrels and Jerricans. Payment for these storage facilities is made out of the budget allotted by Financial Planning Directorate. However, some underground storage tanks are constructed by Oil PSUs at their own expense.

(b) Kerosene is the chief fuel being used for the purposes of warming and drying. Kerosene based Bukharis are in use for warming/ heating purposes. Other than usage of Oil Bukharis, generators are being provided through operational works in areas where there is no civil supply. In addition, solar and

hybrid based technologies are being introduced wherever possible to gradually reduce the demand on kerosene oil and generators.”

4.4 Another issue which came up during the discussion was the Indian Army’s preparedness in protecting the defence/military interests of the country. The Committee desired to know whether in the aftermath of the Afghanistan crisis, the Government was contemplating to authorise any special equipment etc. for the Indian Army to deal with unforeseen eventualities. The Ministry, in response, stated as follows:-

“Indian Armed Forces are adequately equipped and organized to deal with any kind of threat and operational contingencies. Equipment upgrades and infusion of newer technologies is an ongoing process to keep pace with own operational philosophies and changing threat manifestations.”

4.5 The Committee sought to know whether then Military drill by China in the Ladakh region prompted the Government to authorise special clothing, equipment and ration at enhanced/enriched scales for troops operating at high altitudes. The Ministry in this regard, responded as under:-

“The authorisation of special clothing and equipment for soldiers deployed along Northern Borders has been revised in Apr 2021. Procurement actions as per revised authorisation have been initiated. 100% reserves as per revised authorisation will be built up by 2022-23. As regards the authorisation of rations in High Altitude Areas, the scales have been scientifically designed, and sufficiently cater for the nutritional requirements and preference of troops operating at High Altitudes.

4.6 The Committee further wanted to know if in the aftermath of the drone spying/drone attack, whether the Indian Army was contemplating to provide any new items to the Forces to counter the threat posed by drone spying/drone attack. The Ministry in response, stated as follows:-

“The Indian Army is cognizant to the emerging threat of Drone/UAVs. In the recent past it has contracted Anti Drone/UAVs systems for the forces. The details are as follows:-

<u>S No.</u>	<u>Scheme</u>
(a)	Drone Spoofer
(b)	Drone Jammer
(c)	Drone Jammer (Man Portable)
(d)	Integrated Drone Detection & Interdiction Systems

4.7 The Committee sought comments of the Ministry in regard to the fact that even DRDO approved products may not be always right for Army use. The Ministry in their written submission, stated as follows:-

“Felt need for product improvement is either dictated by operational necessity or based on aspirations of soldiers. Seeking product improvement does not mean that in-service product is sub-standard. Such an analogy leads to incorrect deductions. The same was also explained during oral evidence given to PAC on

06 Oct 2020 and has once again been dwelt upon in detail by Secretary DMA during oral evidence given to PAC on 20 Oct 2021.”

4.8 The Committee sought to know the clear terms from the Ministry whether provisioning, procurement and issue of High Altitude Clothing were being maintained in the Indian Army as per norms and existing policy specifications. Further, the Committee sought to know if issues relating to Equipment, Ration and Housing were being addressed as per the needs and requirements of our soldiers deployed in those intractable and hilly regions. The Ministry in reply, stated as under:-

“PAC is once again assured that there is no shortfall of High Altitude Clothing & Equipment (HACE) in the Indian Army and complete entitlement of soldiers is being met. The best quality clothing as acceptable to the soldiers (after user trials and approval) is being provided. Similar assurance was also given to the PAC during its visit to Ladakh. Modern state of the art habitat has already been constructed for our troops in high altitude areas. As regards rations, it is assured that the needs and requirements of the troops are adequately met at all locations of their deployment.”

4.9 On being asked where we stand vis-à-vis China in terms of latest technological arms and equipment and by when we will be able to develop weapons and other armament requirements indigenously for our armed forces, the Ministry, in reply, stated:-

“(a) China is pursuing military modernization efforts to improve its war-fighting, force projection, and nuclear deterrence capabilities, in addition to developing capabilities to conduct operations in space and cyberspace. China also continues to develop its Anti Access/Area Denial capabilities to attack adversary forces that might deploy or operate within the Western Pacific Ocean in the air, maritime, space, EM and information domains at long ranges. China has been emphasizing on development of state of art weapons, equipment and technology. PLA has been pursuing niche military technologies to achieve the desired capabilities and has been steadily progressing in the following domains:-

- (i) Artificial Intelligence (AI) & Robotics
- (ii) UAVs and Drone Swarms
- (iii) Quantum Computing and Communication
- (iv) Manoeuvrable Re-Entry Vehs (MaRV)
- (v) EM Railgun and Directed Energy Weapons
- (vi) Hypersonic Glide Vehicle (HGV)
- (vii) Counter Space Weapons

(b) China has embarked on a number of programmes for development of disruptive technology in military domain and has heavily invested in them. The whole of nation approach, disregard to intellectual property rights and covert nature of weapon development programmes has already started showing major accomplishments in the fields of *AI, Autonomous weapons technology and Hypersonic weapons technology*. Though China’s major competitor is US but with unresolved border disputes, India should remain aware of the widening military capability gap between India and China.

(c) India’s entry into the field of disruptive technology development and exploitation has been delayed as compared to China, however, in recent past,

requisite high priority has been accorded in this field as well. Notwithstanding the foregoing, Indian Armed Forces have embarked on technological R&D, absorption and indigenous development / production of high tech military hardware over the last few years. *Atmanirbhar Bharat – Make in India* initiative has empowered the Indian Defense Industry with enhanced opportunities as also facilitated increased funding into Defense R&D indigenously. India is also importing niche technological military equipment for its operational needs on an emergent basis wherever required.

(d) While there is a technological gap between India & China, India is continuously steering its way to mitigate any defense vulnerabilities and progressively equipping its field formations with latest state of the art and new generation arms and equipment, so as to be fully prepared to thwart any nefarious designs of our adversaries.”

4.10 On being asked about the global trend now and where the country stands in terms of armament technology, the Ministry stated as under:-

“(a) Global trends in the field of armament technology essentially relating to Tanks, Infantry Combat Vehicles and Artillery guns indicate shift towards developments in the fields of increased engagement ranges, high tech sights, new generation Fire Control Systems, better quality ammunition with high lethality and accuracy, better mobility of weapon platforms, improved metallurgy and power packs.

(b) Indian inventory of weapons systems and equipment is contemporary and is fully capable of taking on any threat of our adversaries. The existing Tanks, Infantry Combat Vehicles and Arty Guns are also under fitment of requisite upgrades as operationally required as also new generation equipment like Light Tanks, Futuristic Ready Combat Vehicles (FRCV), Futuristic Infantry Combat Vehicles (FICV), 155mm Mounted Gun System (MGS) etc. are under procurement including higher lethality ammunition both for Tanks & Arty Guns.”

4.11 When asked about the current and future procurement plans to cope with the emerging security scenario in the country, the Ministry in reply, stated:-

“(a) The Indian Army’s modernisation plans are essentially based on developing ‘Force Capabilities’ as per the enunciated national security requirements. Modernisation plans encompass force modernisation and the development of critical combat capabilities, besides overcoming obsolescence in core capabilities in consonance with the Defence Capability Development Strategy.

(b) Procurement Plans of the Indian Army is being progressed in a focused manner as per a well-conceived Long Term Perspective Plan (LTPP). It focuses on building up of necessary operational capabilities with technologically advanced arms and ammunitions, catering for the current and emerging security scenarios in the country. To further streamline the procurement process between the three Services as well as ensure timely induction of operationally essential equipment an ‘Integrated CapbDevp Sys’ (ICADS) has been introduced as a suitable replacement for the LTPP. The Integrated Capability Development Plan (10 yrs) and Defence Capability Development Plan (05 yrs) will provide the

necessary guidance for long term keeping a balance between Threat Based or Capability Based approach towards capability building.

(c) Currently 94 Capital Procurement Schemes of ₹ 1,52,387.02 Cr are under progress at various stages. These are the outcome of the above mentioned plans and would result in substantial modernisation of our Armed Forces.

(d) IA is procuring contemporary and futuristic weapon systems like combat vehicles, artillery guns, air defence platforms, helicopters and other assets for the conventional warfare domain. Modernisation of Mechanised Forces includes induction of additional tanks, missiles and enhancement of night fighting capability. Alongside, Artillery has achieved major impetus through induction of long range Gun Systems and aerial surveillance platforms. The Aviation fleet will soon undergo a major transformation as new platforms will replace the existing helicopters and weaponised helicopters are inducted. Air Defence capability is also being addressed through acquisition of long range missile systems and more responsive Control & Reporting equipment.

(e) Indian Army procurement plans aims at harnessing latest niche technology to build capabilities in the domain of Electronic Warfare including networking, Intelligence, Surveillance, Reconnaissance, Artificial Intelligence and Swarm Drones to augment the existing operational effectiveness of conventional warfare platforms and systems.

(f) Procurement roadmap of Indian Army lays constant emphasis on ensuring that contemporary and modern equipment is procured to empower our soldiers engaged in Proxy Wars as well as Insurgency Theatres.”

4.12 Taking note of the reportage that weapon acquisition process is beset with huge delays, with only eight to ten percent out of 144 proposed deals in the last three financial years fructifying in the stipulated time period, the Committee desired to know whether any step have been taken to overcome such type of delays. The Ministry, in their written submission, submitted as follows:-

“The Capital Acquisition Contracts, concluded during the last three financial years, have on an average taken around 3 years progressing from AoN to the Contract conclusion stage.

Some of the steps as brought out in Defence Acquisition Procedure-2020(DAP-2020) to overcome the delays in the procurement process are as under:-

- (i) Setting up of Service Procurement Board and streamlining process of seeking AoNs such that for cases upto Rs. 500 Cr, AoNs are obtained in a single step/stage.
- (ii) Enhancement of delegation in decision making at various levels.
- (iii) Setting up of Project management Unit (PMU) - PMU in addition to monitoring of cases would also advice the concerned agencies at every stage of acquisition process.
- (iv) Trial and testing procedure has been streamlined.”

PART-II

Observations/Recommendations of the Committee

The Committee note that the Government has authorized special clothing, equipment and ration at enhanced/ enriched scales for the troops operating at high altitudes. The C&AG of India (Audit) conducted a performance audit to ascertain the efficiency and effectiveness of provisioning and procurement of clothing, equipment, ration and housing, management of inventory relating thereto and quality for the intervening period of 2015-16 to 2017-18.

The Committee observe from the Audit Report that the Ministry had constituted in 2007, an Empowered Committee (EC) under Master General of Ordnance (MGO) with full delegated financial powers for speedy procurement of clothing items. However, Audit found instances of delays stretching upto four years in procurement of clothing items from the time of 'Acceptance of Necessity'(AoN). There were inordinate delays in receipt of contracted items from Ordnance Factories. Delayed procurement action and delayed receipt of contracted items as per Audit observations led to acute shortage of essential clothing and equipment items and adversely affected timely issue of the same to the troops. Health and hygiene of troops stationed at high altitude areas was reportedly affected as a result of procedural delays, non-supply or supply of recycled or alternate items at the time of need.

Lack of Research and Development by defence laboratories and failure in indigenization resulted in prolonged and continued dependence on import. Special rations were to be given to the troops for alleviating certain psychological and physiological conditions that the troops face in high altitude inhospitable conditions. However, audit findings revealed that substitutes in lieu of scaled items were authorized in a given percentage on cost-to-cost basis which affected the quantity of calorie intake of troops. Instances of short issue of rations to troops due to deficiencies in Internal Control also came to light consequent upon administrative check.

In regard to housing, the project for improving housing conditions of the troops in high altitude areas was, as per Audit, executed in an ad-hoc manner. Sanction of the competent authority was never taken and even the pilot project was sanctioned in phases. Despite incurring an expenditure of Rs.274 crore, the pilot project was not successful. Annual plans were being drawn and works were being sanctioned without correct and objective assessment of the requirements. Execution of works and subsequent handing over of assets for use to the units in the most formidable climatic conditions was inordinately delayed.

Acceptance of store items was done merely on the basis of visual inspection and there was no documentary evidence of the stores being subjected to any kind of testing in quality control labs of the units. The Numerical Assets

Register(s) (NAR) were not being maintained as per the laid down procedure thereby leading to gaping discrepancies between the assets shown in NAR and those on the ground.

Given the rapidly evolving and challenging geo-political circumstances for India; the Committee feel that the approach towards provisioning, procurement and issue of high altitude clothing, equipment, ration and housing facilities needs to be revamped urgently in a holistic and comprehensive manner. The Committee have, accordingly, recorded their observations and recommendations on issues in the audit report that merit consideration in the succeeding paragraphs.

Budget for clothing, equipment, ration and housing in High Altitude Areas

1. The Committee note that there is no separate allotment for expenditure on clothing, equipment, ration or housing for high altitude areas. The expenditure on High Altitude Clothing and Equipment (HACE) is met from allotment of 'General stores and clothing' which also caters to requirements of the Army as a whole. For housing, the Committee note that the Operational Works procedure is a special provision which primarily caters for creation of infrastructure along the borders and includes high altitude areas. The Committee note that Operational Works has a separate budget head and is allotted on an average Rs. 800 Crore out of which Rs. 400 Crore is spent for troop formations deployed along the Northern Borders. The Committee note the Ministry's contention that with regard to rations, budget allocated is sufficient and no separate allotment in the budget for high altitude rations is required. The Committee also note that funds are allocated as part of the Army budget in various Minor Heads, Sub Heads and Code Heads and that the bifurcation of existing Code Heads are need based and not terrain/region based.

While acknowledging the fact that the Government has authorized clothing, equipment and ration at enhanced/ enriched scales for the troops operating at high altitudes, the Committee, nevertheless feel that it may be preferable to have special provisioning for soldiers safeguarding our country in the inhospitable and icy climatic conditions of high altitude areas where the temperature falls to as low as minus 50 degree Celsius. This becomes even more crucial in view of the threat to India's borders, owing to which our troops are constantly in a state of alert for protecting the country's borders. The Committee, therefore, express the view that it may be ideal to have separate budget heads for clothing, equipment, ration and housing for high altitude areas. Having separate heads of budget amounts, the Committee feel, would help the troops in being provided with commensurate clothing, equipment, housing facility and ration. This will go a long way in enabling our soldiers to effectively withstand the harsh and inclement weather of high altitude areas.

Inventory Management- Reserves

2. The Committee note that reserves of ECC&E and SCME are regulated by the Ministry of Defence. For ECC&E, 10 percent of field stock Command reserves and Army Head Quarters (AHQ) reserve (percentage not specified) are authorized to cater for contingencies, dual task formations, movement of additional formations in HAA areas and for providing relief due to any disaster. SCME items are authorized for field stock in respective commands with equal number of sets as AHQ reserve. Disturbingly, audit revealed shortage of AHQ reserves for ECC&E items ranging from 24% to 100% at various commands. Out of 21 items of SCME Category-I items (that are for personal use and are to be retained by the soldiers) the deficiency percentage of 18 items ranged from 15% to 98%. No AHQ Reserve stock was being maintained although it was mandated that 100% reserve should be maintained even as the field stock was not at the desired level. Further, 56 SCME Category I & II items were not issued to units in super high altitude areas as per authorization. The Committee note from the information furnished by the Ministry that deficiencies in reserves did not impact availability to units and it was “non-supply by OFB” which was one of the main reasons for shortages. The issue was being addressed through local purchases and 82 items that were previously sourced from OFB were declared as non-core, thereby making procurement from ‘trade’ or the open market in a phased manner, feasible. The Committee note from the reply of the Ministry that now, 100% reserves of critical life saving items have either been contracted or procurement action has been initiated and the Ministry is endeavoring to hold 100% reserves by Financial Year 2022-23. Given the disadvantages of emergency procurement and also the fact that ECC&E and SCME products are highly price-sensitive to volumes, the Committee recommend that economies of scale be built into the procurement process which would help in lowering costs as well as the reserve requirement. The Committee also recommend that the task of building reserves may be completed within a specific timeframe and they be kept apprised of the progress thereof.

Issue and holding of shelf-life expired items- Serviceability

3. The Committee are concerned to note that a huge amount of life saving and essential items under SCME Category-II worth Rs.43.60 lakh with expired shelf life were issued after receiving release orders by AHQ. Further, stores amounting to Rs. 30.31 lakh were lying in stock after completion of shelf life/expiry date. As another example, against the expired 6025 numbers of Fire Star Refill Tubes kept since 2012, 551 numbers were issued to the units and balance 5474 were in stock as of July 2018. The Committee note that the only reason given for issue of such a huge quantity of items with expired shelf life was that the depot was only a stocking echelon and all receipts/issues from the depot were based on release orders from higher formations. The Committee fail to understand why such a huge quantity of stocks were procured/held when they were not issued/required for long.

The Committee also observe that Advance Base Ordnance Depot (ABOD 'B') was holding 19 items (one Mattress Kapok-MK-II and 18 different sizes of Boot Combat RW HA) of shelf life expired condition valuing Rs. 4.59 crore. The Committee note from the Ministry's reply that shelf life is only a guideline and items were stocked properly in proper storage accommodation and were held in serviceable condition. Expiry of an item is declared when it has not been found fit for operational use after due inspection by qualified board of officers. In view of the explanation of the Ministry, the Committee recommend that a distinction may be drawn in clear terms between 'shelf life' and 'serviceability' which would better indicate the usability of a product after due inspection. The Committee also desire that regular reviews of the stock in hand may be carried out and the same may be rationalized as per current/ projected requirements.

In this regard, the Committee note that Central Inventory Control Group (CICG), an automated centralized database for effective inventory management and procurement has been created to mitigate such issues of holding excess and expired/non-serviceable stock. The Committee observe that first phase of CICG has been completed and second phase has been rolled out and is under 'operations and maintenance stage' up to July 2025. On completion of Phase III, computerization of all India inventory visibility will be achieved and Phase III is at grant of Acceptance of Necessity (AoN) stage and its roll out is expected to commence 17 months after AoN is accorded and is to be deployed fully in the subsequent 24 months thereafter. The Committee desire that all efforts may be made to fully implement phase III of the project as planned and trust that following the roll out, instances of shortage/wastage of stock will be obviated and there would be gainful utilization of all inventory. The Committee may be apprised of the stage-wise status of implementation of the project.

Provisioning of HACE items– DPM and Empowered Committee

4. The Committee note that provisioning reviews of High Altitude Clothing and Equipment (HACE) items are undertaken annually to assess the quantity of stocks to be maintained. The Committee observe that demands for critical products such as Boot Crampons, Hyper Barric Chamber, Ice Axe & Shovel and Avalanche Victim Detector and Karbiner had been approved by the competent financial authority after provision reviews but the contracts for their supplies were not concluded even after a lapse of one to three years. The Committee agree with Audit that the objective of provisioning review was defeated due to non finalisation of procurement contracts even after several years. The Committee are perplexed at the contradictory aspect of the replies of the Ministry. While on the one hand, it has been stated that the time of one to two years taken for signing of contracts does not affect availability of items; simultaneously, it has also been informed that a review of timelines in the DPM is currently underway. Review of procurement processes would not be required, had this not been affecting availability adversely. In this connection, the Committee also note from the reply

of the Ministry that the Empowered Committee was constituted in 2007 to address the problem of inadequacies of routine procurement cycles of DPM and long HACE procurement processes varying between 03 to 05 years. The Committee accept the Ministry's contention that as the purpose of the Empowered Committee was to address shortcomings of DPM for HACE procurements, assessment of delays on the basis of DPM timelines leads to incorrect deductions. The Committee desire that the findings/observations of the Empowered Committee in procurement may be considered while revising the Manual. The Committee expect that the revision of the DPM-2009 is being done keeping in view the changes in requirements of the Army, changes in the sources of procurement, indigenisation of products and the fact that the erstwhile Ordnance Factories have been converted into new defence PSUs etc.

Inadequate provisioning of Boot MP

5. The Committee observe that Boot MP (Multi-Purpose) is used by troops in inhospitable terrain and protects the feet of the soldiers from cold at temperatures nearing minus 55° Celsius in extreme cold climate areas. The Committee note that there was delay in conclusion of contract of Boot MP ranging from 2 years and 4 months from date of Acceptance of Necessity by Empowered Committee because of which troops could not be provided the boots between November 2015 and September 2016. The Committee note from the reply of the Ministry that the contract was delayed as the firm concerned raised certain issues with Directorate General of Quality Assurance (DGQA) on technical specifications which took time to resolve. Much to the chagrin of the Committee, the Ministry first acknowledged that Boot MP could not be made available for summer months of 2016 and that the same were recycled, despite the fact that being a Category I SCME item, these boots were to be retained by troops. Subsequently however, it was submitted by the Ministry that shortage of Boot MP had not manifested during the period of audit and a revised year wise availability was provided. Had there been no shortage, as claimed, there would be a need for having a clear explanation for having resorted to recycling the boots. This incongruence in the information furnished also raises questions on the efficacy of systems in the Ministry in providing information and data that is consistent and accurate. The Committee desire that the matter may be reconciled and they be apprised thereof. The Committee also express the need for ensuring that accurate data is provided to Audit. Further, since these boots are SCME Category-I items and are to be retained by the soldiers, the Committee desire to be apprised of the steps taken to ensure that the boots and other such items of similar category are retained by the troops.

Procurement of HACE items

6. The Committee note that for procurement of SCME items on fast track basis, the EC under the Chairmanship of MGS (erstwhile MGO), having full

powers of competent financial authority was initially formed in 2007 with a mandate for one year which was extended upto August 2019. Audit scrutiny revealed cases of non-adherence to time frames, delay in supply of stores from ordnance factories, delay in user trials and formulation of technical specifications in case of newly introduced items. The Committee note that despite the timeline as per DPM 2009 for signing of contract for procurement of items under two bid system being 23 weeks from date of vetting/ registration of indents, the same was not followed in procurement process of imported stores. The average time taken for procurement of stores was more than four years after the date of AON in four cases and more than 2 years in one case against the stipulated time frame of 23 weeks. The Committee note the reply of MGO Equipment Management Directorate (EM Dte) that delay was due to involvement of multiple agencies and complex procedure requiring approval of Empowered Committee/Competent Financial Authority at each step. The Committee also observe from the reply of the Ministry that the formulation of technical specifications was invariably prolonged owing to due diligence by DGQA and inability of the firm to either provide or arrive at a consensus with respect to technical specifications.

The Committee further note that Stores projected as deficient in Annual Provision Review of ECC&E items for the years 2015-16, 2016-17 & 2017-18 were not received in stock and the deficient quantities of previous years continued to be shown as outstanding in the APR of 2018-19. The Committee also note from the response of the Ministry that delays took place due to various complexities, viz, representations of firms on different issues, non-submission of performance bank guarantees (PBG) by firms, re-tendering, opinion/remarks of Pr. IFA etc. and the actual requirement of troops was met from either Maintenance /Reserve Stock or by resorting to local purchase at unit level.

The Committee note that now procurement timelines have been drastically reduced by almost 50% from 18 to 08 months for single/limited tenders and 32 to 20 months for global tenders (which involve conduct of user trials over one winter season). The Committee recommend that the Ministry may consider overhauling the contracting process between the Ministry and vendors where there are more built-in contractual responses and contractual liabilities on the vendors and the contracts are not open to subjective interference or interpretation. The Committee would prefer the Ministry signing contracts for longer periods with appropriate performance/ product guarantees as constituent provisions of the contract. The Committee also desire that the Army may consider evolving a process whereby vendors who are not conversant with online processes may also be allowed to bid in the procurement process. The Committee are of the view that a mechanism needs to be evolved to ensure outcome oriented monitoring of expenditure and revenue and capital procurement. This would also aid in reduction of procurement timelines.

Role of erstwhile Ordnance Factories, the new DPSUs in reducing procurement timelines

7. The Committee note that there was extensive shortfall in receipt of stores from Ordnance Factories during 2015-16 to 2017-18 in case of nine SCME / ECC&E items. Ordnance Factories had not supplied the store items against the yearly target fixed for supply of items and the percentage of supply of most items remained at 50% or less for consecutive years. The Committee also note that the challenges faced in procurement from Ordnance Factories were addressed by moving clothing and like items to the non-core list, whereby Army was no longer obliged to source the items from OFB, and instead be free to procure from the 'open market'. This was to be done in a phased manner from 2018-19 onwards and completed by 2024-25. The Committee note in this regard that in the meanwhile, the OFBs have been corporatized and restructured into 7 Government companies (wholly owned by the Government of India). While noting that the newly created defence PSUs (erstwhile ordnance factories), are now participating in procurement through competitive bidding, the Committee desire that with higher delegation of powers and more freedom in decision making, the new DPSUs may expedite their procurement processes so that the lacunae ailing the erstwhile ordnance factories do not continue to persist. The Committee desire that the Ministry may handhold the new DPSUs in this regard.

Delay in user trials and formulation of technical specifications

8. The Committee observe that user trials of selective samples are carried out for finalizing the items for introduction in service. The Committee are distressed to note that out of 38 cases examined, incase of 35 items (ECC&E-8 and SCME-27), there was considerable delay in conducting user trials ranging from a period of 51 days to 797 days. The Committee note from the reply of the Ministry that most trials of ECC&E & SCME are carried out in operational commands of Northern and Eastern Commands and that timelines may vary for reasons of operational and logistic constraints.

The Committee also note that based on the trial, approved samples and technical details provided by the vendor, DGQA is required to formulate specifications of items within three weeks from the date of receipt of samples. The Committee, however, find that out of eight SCME items which were successfully evaluated under trial for the year 2016, formulation of specifications was not finalized till September 2018 even after lapse of 27 months. The Committee observe that the reason for the same is that there is a mismatch in the actual process on ground with limited staff strength, absence of testing facilities, incomplete documents of user's trial report, receipt of insufficient number of samples and inability of the firms to either provide or arrive at a consensus with respect to technical parameters. The Committee recommend the Ministry/ Army

to take necessary steps towards increasing staff strength, improving testing facilities, ensuring adequate number of samples and computerizing the process of trials and formulation of technical specifications.

The Committee accept the contention of the Ministry that trials are conducted at actual operational areas in Super High Altitude Areas (like Siachen Glacier) and are the cornerstone of the special procurement process. Only items capable of meeting the rigorous operational requirements need to be procured. As soldiers undertake diligent evaluation of a new item for operational suitability and effectiveness during a complete winter, only one trial cycle per year is feasible. To the suggestion of the Committee that trial simulations may be carried out in labs, the Ministry expressed the view that testing in labs cannot fully replace evaluation of suitability for operational activities like patrolling, firing, search and rescue, sentry duties etc. To mitigate the afore-mentioned constraints, the Committee desire that Ministry may collaborate with friendly countries with similar terrain/ geographical conditions and learn from their experiences. This can contribute in reducing delays on account of user trials.

While noting the various steps taken by the Ministry viz. acceptance of vendor certification for non-critical parameters and use of simulation techniques; conduct of concurrent trials, where feasible; provisioning of maximum advance information about trial methodology during Request for Proposal stage; and hand holding of vendors to enable 'in-situ' rectification of equipment, the Committee would like to be apprised of the resultant effect of the measures so taken.

Quality Control

9. The Committee note that absence of well-defined Qualitative Requirements/ General Staff Qualitative Requirements (QR/GSQR) for special clothing has for long been identified as a handicap/ disincentive in quality issues in procurement. Broad technical specifications are being used in place of QRs and GSQRs for special clothing items which were not formulated due to peculiar nature of these items. It was admitted by the Ministry that the existing system has led to narrow vendor base for most of the special clothing items. It was stated that efforts are underway to formulate GSQRs as well as important qualifying specifications of all items of special clothing. The Committee note that based on the GSQR and other important qualifying technical specifications prepared by Army HQ, detailed technical specifications of SCME would be formulated by DGQA. However, only provisional technical specifications were formulated by the DGQA for 11 items viz. Avalung-II, Boot Multipurpose, Ice Axe, Boot Crampons, Gloves Outer, Gloves Inner, Modular Gloves, Rucksack, Jacket Down, Trouser Down (JDTD) and Snow Goggles.

The Committee observe one such instance where 'Face Mask for Extreme Cold Weather' was not found acceptable to troops but was continued to be

provided to the soldiers. Troops were constrained to use a Face Mask which they did not find to be suitable. The Committee note from the information furnished by the Ministry that the face mask that was sought to be changed was designed by DRDO/ DMSRDE, and tried and approved before it was procured and supplied. The same was accepted by way of 'quality assurance' by DGQA. Since, the identification and approval of an alternative was delayed, continued supply of existing product till an improved product was made available to the soldiers after trials was essential with a view to avoid break in supplies. The Committee also note that subsequently an improved product has been introduced and supplied to the troops. This issue raises concerns relating to the nature of quality assurance offered by DGQA as also the research undertaken by DMSRDE. With regard to formulation of technical specifications, as has been brought out in the various interactions with the Ministry, the Committee desire that the Directorate General of Quality Assurance be brought under the Services so as to make it more responsive and accountable. The issue pertaining to DMSRDE is dealt with in the subsequent part of the report.

Quality Control- Sleeping bags

10. The Committee note from Audit's contention that 31,799 sleeping bags were procured as per older specification (with "down filled" technology) and at higher rates which resulted in avoidable expenditure of USD 1.18 million. The Committee further note from the Ministry's reply that a limited tender enquiry was floated on an old technical specification in 2016 as an interim measure in view of criticality and emergent requirement of sleeping bags. The Committee note the Ministry's contention that audit had compared two separate products procured under two separate contracts. It stressed that comparison of cost of two products with different technologies of 'Non Down' and 'Down filled' was incorrect. Further it has also been stated that sleeping bags procured subsequently were concluded for 'Non Down' category at cheaper rates. The Committee understand that 'down filled' products are warmer and more expensive as compared to 'non down' filled products which are less warmer but cheaper. With the Indian army serving at a range of heights, the Committee are of the considered opinion that there should be no compromise on the quality of products being used by Army Personnel at extreme high altitude areas. Whatever type of products are more suitable for the climate of a particular area, only such products need to be procured. The Committee hope that the army now has a sound and objective analysis/understanding of the type of sleeping bags required at varying heights/regions. The Committee desire that a comprehensive review of such requirements may be made for all high altitude areas and the products be procured accordingly to meet the needs.

Acceptance of rejected rucksacks

11. The Committee note that MGO EM Dte concluded a contract for supply of 67,066 rucksacks for which Pre Despatch Inspection (PDI) of the consignment was to be done at seller's premise to check compliance of the specifications. Further, on receipt of the consignment at buyer's premise Joint Receipt Inspection (JRI) was to be done for quantitative and functional parameters of the stores as well as testing of material and dimensions as per specification. Only in case the store was found acceptable during PDI jointly by DGQA and seller's representative, the JRI would be restricted to visual examination.

The Committee observe that the first consignment was found acceptable in PDI and PDI was not carried out for the subsequent consignments. The DGQA sent samples of the second and third consignments to two laboratories who reported that there was percolation of water drops through the fabric. The Committee note that based on the lab reports, DGQA rejected both the consignments in JRI. The Committee note that on the objection raised by the seller firm, the Empowered Committee (EC) decided to retest the samples from a different laboratory, which passed the samples. The EC decided to conduct re-JRI based on the retesting reports and in the re-JRI, the consignments were accepted. The Committee note with consternation that in all three consignments, the samples were first rejected when DGQA adopted the test procedure (ISO 811 standard) as per the contract, but were accepted after retesting (AATCC 127) in a different laboratory which apparently is a deviation from the 'contract provisions'. This led to "acceptance" of the rucksacks. The Committee fail to understand why a test method, which was not stipulated in the contract, was adopted. If, as the DGQA certified, the alternate testing method i.e. AATCC (American) test was identical to the testing methods mentioned in the contract, then the issue of why this was not included in the contract would arise.

The Committee are also aghast at the conflicting replies the Ministry provided on different occasions. While, at first, it was informed that the store items were accepted to overcome the possibility of anomaly and to avoid litigation; subsequently, it was stated that the actual test results formed the basis for deciding on acceptance of the store item.

While noting the reply of the Ministry that Empowered Committee now closely monitors testing in PDI and JRI and all discretions exercised by DGQA have been curtailed, the fact remains that it was the EC that decided on retesting of the samples from a different laboratory. The Committee desire that the matter be looked into in detail and they be apprised of the factual details of the matter. The Committee further desire that the testing procedures/ standards be streamlined and specific efforts made to obviate such instances in future.

Research, design and development of specialized clothing for high altitude by DMSRDE

12. The Committee note that Defence Materials & Stores Research and Development Establishment (DMSRDE) at Kanpur is a Defence laboratory under DRDO, responsible for research, design and development of polymers, elastomers and composites, specialty fibres, fabrics and their applications in defence and emerging and futuristic non-metallic materials. The Committee are surprised that DMSRDE could not execute any new project for research and development of ECC&E /SCME items for the five year period that was audited as the Master General of Sustenance (Erstwhile MGO) had not raised any requirements for the same. The Committee are also concerned to note that DMSRDE could not bring about improvement in items such as facemasks, which raises issues on the efficacy of R&D services of the organization. The Committee note that now, 100% ECC&E and 71% SCME items are indigenously procured items and that import of SCME items has come down from 43% to 29%. 35% of the items have been assigned to the DRDO/DMSRDE for indigenization. Based on the advice of the Committee, Army Design Bureau (ADB) is now collaborating with DMSRDE and an exclusive 'Development Project' for indigenisation of remaining SCME items has been initiated. The Committee would like to be apprised of the outcome of the project. The Committee would also like to reiterate that quality of the products so designed should not be compromised and sincere efforts made to ensure that the standard of indigenous products is at par with the imported ones if not better.

Indigenisation

13. In regard to indigenization, the Committee note that it has been stated that the Ordnance Factories had taken up steps for indigenization of Sleeping bags, 'Jacket Down', 'Trouser Down', 'Gloves Outer', 'Gloves Inner' and 70 litre Rucksack etc. The Committee acknowledge the efforts made to obviate dependency on imports and note that the items being manufactured indigenously are ECWCS, Socks Woollen Special, 70 Litres Rucksack, Snow Goggles, Summer Suit, Thermal Insoles, HAPO Chamber and Under Slung Cargo Net. The Committee also observe that a number of items that are being manufactured indigenously need improvement. The Committee note from the response of the Ministry that with cooperation from Indian Industry, 100% import substitution is possible and that Public Preference Order (Make in India) is now a standard clause in all tenders and procurement is being carried out accordingly. The Committee note that various initiatives under the 'Atmanirbhar Bharat Abhiyan' have been taken such as Buy Indian-IDD (Indigenously Designed, Developed and manufactured), Positive Indigenisation Lists to fulfil the needs of Defence Services with active participation of public and private sector, procurement from indigenous sources as per provisions given in Defence Acquisition Procedure (DAP) 2020, simplification of 'Make' Procedure of capital procurement, provision for funding upto 70% of development cost by the Government to Indian industry under specific reservations for MSMEs, enhancement of FDI in Defence Sector up

to 74% through the Automatic Route for companies seeking new defence industrial license and up to 100% by Government Route wherever it is likely to result in access to modern technology, launch of Innovations for Defence Excellence (iDEX) aimed at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries, launch of an indigenization portal namely SRIJAN for DPSUs/OFB/Services with an industry interface to provide development support to MSMEs/ Startups/ Industry for import substitution, notification of 'Strategic Partnership (SP)' Model 2017 envisaging establishment of long-term strategic partnerships of Indian entities with global Original Equipment Manufacturers (OEMs) to seek technology transfers to set up domestic manufacturing infrastructure and supply chains, industry friendly Transfer of Technology (ToT) policy for transfer of DRDO developed technologies to industries; 141 items being placed on Government e-Marketplace (GeM) etc. The Committee would like to be apprised of the results of such endeavours of the Ministry as outlined above. The Committee also desire that indigenization should be coupled with in-house surge capacity in the country while maintaining quality of indigenised products at par with international standards and adhering to the specifications suggested by troops serving in such geographically difficult and hostile conditions.

Special Ration to the troops in HAA

14. The Committee note from audit's finding that contracts for special rations in the Eastern Command were being concluded through open tender system whereas in the Northern Command they were being concluded through Limited tendering which restricted fair competition. The Committee also note that contracts for the year 2019-20 & 2020-21 in Northern Command too, have been processed through Open tendering system for special rations, resulting in the contractual cycle getting elongated, requiring additional lead time to initiate the procurement process. The Committee desire that the Ministry devise ways and means to reduce the timelines of contracting processes.

The Committee note that rations are transported through a tedious and complex logistic network which is prone to disruption due to intractable terrain and adverse weather conditions. Allocation of transport/logistics resources are dictated by operational dynamics. Notwithstanding these huge logistic challenges, all out efforts are made to ensure that rations, as entitled, are seamlessly supplied to the forward most posts to maintain the morale and operational efficiency of our forces. The soldiers posted in High Altitude Areas continue to be issued with quality rations conforming to the Defence Food Specifications consisting of a total of 33 basic items. The cost-to-cost substitutes to be issued for the 15 special ration items (out of total 33 items) are selected based on choice and palate preference of troops at the Command Headquarters.

The Committee further note that a detailed study by the Defence Institute of Physiology and Allied Sciences (DIPAS), an institute working under the aegis of DRDO, and consisting of experts in the field of nutrition, was carried out from 2002 to 2006 to assess the nutritional requirements of Armed Forces personnel at various conditions including High Altitude Areas. The study had found that the soldiers deployed in OP MEGHDOOT (Siachen Glacier) were highly satisfied with the supply of special rations, and had recommended that these rations should be authorized in other areas too. Based on this, in 2010, special rations were authorized to all personnel deployed in High Altitude Areas i.e. above 12000 ft.

The Committee recommend that periodic reviews/ feedback from troops deployed at high altitude areas should be taken to comprehend the issues in entirety i.e. taste, quality and hygienic condition of the rations being provided to them and recommend carrying out improvements, as may be found to be necessary.

Housing in High Altitude Area

15. The Committee note that Shelters, as a substitute for tentage are provided to troops located in High Altitude Areas (HAA) under Operational works (Op works). The Committee observe that a pilot project (Phase I) was sanctioned by MoD in August, 2009 to test the efficacy of emerging technology/ products (Six types of shelters) in high altitude areas. The pilot project was to be executed by Chief Construction Engineer (Central Ordnance Depots) CCE (COD), New Delhi at 27 posts by November, 2010. The sanctioned cost of the project was Rs. 94.86 crore including consultancy charges of Rs. 2.68 crore. The Committee further note that MoD in August 2010 enhanced the scope of the pilot project (Phase II) to *inter-alia* try out 12 to 15 more technologies and to construct habitats at 24 additional posts at an estimated cost of Rs.100 crore which included consultancy charges of Rs.2.88 crore with probable date of completion (PDC) of March 2011. The MoD in December 2013 again enhanced the scope of pilot project (Phase III) for confirmatory trials at 12 additional posts at an estimated cost of Rs. 63.65 crore which included consultancy charges of Rs. 1.82 crore with PDC of December 2014. The Committee find that the pilot project (Phase I & II) was completed in December 2013 after delay of two years and nine months and pilot project (Phase III) was completed in November 2017 after delay of two years and 11 months. Total expenditure of Rs. 274.11 crore was incurred on the pilot project (Phase I, II and III) as of March 2018. Audit found that there was selective tendering for the project, funds were not made available for maintenance of assets created under the pilot project from January 2016 to March 2019 and there was no provision for maintenance of these assets after completion of defect liability period.

While noting that the technology tried out and tested during the pilot project has been incorporated in creation of habitats in HAA through Operational

Works, the Committee observe that on account of the pilot project, design of shelters have been improved substantially and Fibre Glass Huts, PUF panels, pre-fabricated shelters, gypsum boards with vitrified/ joint less tiles, Oil Bukharis, water heaters and solar electrification projects have also been introduced. The Committee desire that the new technological innovation in habitats building may be actively used to create better and more sustainable housing conditions for the troops. The Committee also note that habitats for more than 10,000 troops in Eastern Ladakh were constructed in 2020-21 and habitats for another 18,000 troops was under progress. The Committee wish to be apprised of the status construction of habitats for troops in Eastern Ladakh.

16. The Committee note from the information furnished by the Ministry that creation of habitats in HAA is a specialist task and varies with terrain, user requirements and altitude factor and maximum efforts are being undertaken to improve habitat and living conditions of troops within available budgetary support and execution capabilities of Indian Army Engineers. The Committee are of the opinion that there is sufficient technical expertise available in various Indian institutions including IITs which can be deployed for projects in harsh terrains. The Committee desire that the Ministry be pro-active in using such expertise to the fullest extent.

Consultancy services

17. The Committee note that based on an on- the-spot quotation, services of a consultancy firm were hired for the pilot project which was extended time and again, resulting in additional expenditure of Rs.4.91 crore. The Committee, in this regard, have also taken note of the Audit finding that while the study for improvement in habitat and living conditions in high altitude areas was started in October 2007, the contracting firm was also formed in the same month and was enlisted by MES as a Consultant for all engineering and project management consultancy work in December 2007. Notwithstanding the fact that the amount quoted by the Consultant was lower than the sanctioned percentage, the Committee are of the view that in the interest of probity, the matter of awarding the contract to the consultancy service be looked into and they be apprised of the factual details thereof.

Delay in execution of works and handing over

18. The Committee note that works approved in 2014-15 could not be completed even by the period the third working season was due to close i.e. by September /October 2016, whereas, as per schedule, they were to be completed in a period of two year cycle. In reply, the Ministry stated that Operational works in 'X' Corps Zone were being executed in one of the harshest HAA and despite enormous challenges, financial and physical closures of all works were largely achieved well before the stipulated timelines. The Committee are dismayed to note that there was inordinate delay in handing over of assets to the users. It was

found that even after physical completion of the work, it took more than a year for the formations to hand over the assets to the units for use. As a result, the users had to remain deprived of resources which were already scant in the most challenging climatic conditions. The Committee observe that there was no documentary evidence to establish that the store items had been subject to any kind of testing in the QC Labs of the units and that the “acceptance” of the store items was done merely on the basis of visual inspection. Noting that there is a well-established mechanism to hand over assets immediately following the completion of the work, the Committee desire that the same may be followed scrupulously and measures be taken to carry out inspection of the completed assets/ work expeditiously.

Accounting issues-NAR

19. The Committee note that all assets created out of Operational Works are to be entered in the “Numerical Assets Register” (NAR). This document accounts for assets with record of detailed history including year of creation, utilization, location, cost and present use etc. It can also be used as the basic document for planning and working of annual maintenance grant. The NAR is to be maintained independently at 3 levels viz, Corps HQ, formation HQ and the Engineer Regiment (ER). However, it was found that mainly the ER was maintaining it, thus defeating the purpose of the NAR being a tool for internal control. The Committee are disappointed to note that in most cases, updating had been done upto 2015-16 whereas in some cases entries beyond 2012-12 were not reflected. Needless to say, the NAR were not being maintained as per the laid down procedure. As a result, there were discrepancies between the assets shown in NAR and assets on the ground, viz shortfall in number of assets on the ground, type and number of assets identified by the Board of Officers (BoO) on ground being different from those recorded in the NAR etc. which defeated the purpose of maintaining the records of housing assets. The Committee note that the digitalized e-NAR is being set up in Corps HQ and the units. The Committee would like to be apprised of the progress in setting up of the same and hope that the process would be completed in a time bound manner.

Medical facilities for troops

20. While examining the subject pertaining to ‘Provisioning, procurement and issue of High Altitude Clothing, Equipment, Ration and Housing’, the Committee came across related issues such as medical facilities being extended to troops in high altitude areas and also storage facilities for fuel for the use of Kerosene – based bukhari system in the absence of electricity in forward locations.

The Committee have been informed that Regimental Aid Post (RAP) is established for providing medical cover in high altitude areas. Battle Field Nursing Assistants (BFNA) are also trained in first aid to provide primary medical care and are deployed at forward posts. However, the Committee in this regard

recall their interaction with the troops at the high altitude areas viz. Drass and Kargil Sector, during which the troops were categorical in stating that at times, medical facilities at forward locations are only minimal and not very comprehensive.

The Committee earnestly feel that besides food and shelter, what is equally important for the troops deployed in High Altitude areas is the medical facilities. This is owing to the fact that the troops are deployed in difficult areas, and work in adverse weather conditions. Adequate medical facilities for the troops will not only provide them a solid support system but will also contribute towards enhancing their confidence level. The Committee, therefore, recommend that the medical facilities being provided to the troops at forward locations be made more comprehensive so that the soldiers do not have to risk hazards of health.

Fuel storage facilities in forward locations

21. The Committee note from the reply of the Ministry that Kerosene is the chief fuel being used for the purpose of warming and drying. Kerosene based Bukharis are in use for warming/heating. The Committee also note that multiple means of fuel storage were employed to include underground storage tankers, barrels and Jerricans. The Committee have been told that some underground storage tanks were constructed by Oil PSUs at their own expense. The Ministry have also stated that other than usage of oil Bukharis, generators are being provided where there is no civil supply, and solar and hybrid based technologies are also being introduced.

Realising the importance and imperativeness of the storage facility for the purpose of working and drying by the troops in forward locations, the Committee desire that the Oil PSUs should construct more underground storage tanks as part of their CSR activities so that the troops deployed at forward locations in the High Altitude areas do not face any inconvenience due to fuel shortage. They also impress upon the administrative Ministry to explore the possibility of other energy sources based on solar, wind and other hybrid based technologies with the help of PSUs under the Ministry of New & Renewable Energy so that dependence on the Kerosene based Bukharies can be minimised.

Provisioning and procurement to supplement military preparedness

22. Indian Army's preparedness is yet another issue that surfaced during the discussion on 'Provisioning, Procurement and issue of high altitude clothing, equipment, Ration and Housing'. The Committee have been informed that the Indian Armed Forces are adequately equipped and organised to deal with any kind of threat and operational contingencies. At this critical juncture, the Committee feel that Army should give utmost priority to provisioning, procurement and issue of high altitude clothing, equipment, ration and housing so that the Army's preparedness is not affected by any shortfall in this regard.

The Committee are happy to note that authorisation for special clothing and equipment for soldiers deployed along Northern Borders has been reviewed in April, 2021. Procurement activities, as per revised authorization, have also been initiated. Moreover, the Committee feel reassured over the statement of the Ministry that there is no short fall of HACE items and the best quality clothing that is acceptable to the soldiers is being provided. The Committee have also been reassured that the needs and requirements of the troops are adequately met at all locations of their deployment.

The Committee note that despite technological limitations the country is continuously steering its way to mitigate any defence vulnerabilities and progressively equipping its field formations with latest state of the art and new generation arms and equipment to be fully prepared to thwart any nefarious designs of our adversaries. The Committee feel that at this critical juncture, there should not be any gap in provisioning, procurement and issue of High Altitude Clothing equipment, ration and provision of housing for our soldiers, who are engaged in safeguarding our borders under unfavorable climatic conditions. The Committee trust that the Ministry will fulfil their assurance to see that there is no shortfall of High Altitude Clothing & Equipment in Indian Army and complete entitlement of soldiers is adequately met at all forward locations of their deployment.

NEW DELHI:
07 December, 2022
16 Agrahayana, 1944 (*Saka*)

ADHIR RANJAN CHOWDHURY
Chairperson,
Public Accounts Committee
