54

PRODUCTION OF SMALL ARMS IN ORDNANCE FACTORIES

MINISTRY OF DEFENCE

PUBLIC ACCOUNTS COMMITTEE
(2026-27)

FIFTY-FOURTH REPORT

EIGHTEENTH LOK SABHA

सत्यमेव जयते

LOK SABHA SECRETARIAT
NEW DELHI

PAC NO. 2488

FIFTY-FOURTH REPORT

PUBLIC ACCOUNTS COMMITTEE
(2026-27)

(EIGHTEENTH LOK SABHA)

PRODUCTION OF SMALL ARMS IN ORDNANCE FACTORIES

MINISTRY OF DEFENCE

Presented to Lok Sabha on:	***12.08.2026***
Laid in Rajya Sabha on:	***12.08.2026***

LOK SABHA SECRETARIAT
NEW DELHI

August, 2026 / Sravana, 1948 (Saka)

CONTENTS

***Minutes not appended.**

COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE (2026-27)

Shri K. C. Venugopal - Chairperson

MEMBERS

LOK SABHA

2. Shri Thalikkottai Rajuthevar Baalu
3. Shri Kalyan Banerjee
4. Dr. Nishikant Dubey
5. Shri Jagdambika Pal
6. Shri Jai Parkash
7. Shri Ravi Shankar Prasad
8. Dr. C M Ramesh
9. Shri Magunta Sreenivasulu Reddy
10. Smt. Aparajita Sarangi
11. Dr. Amar Singh
12. Shri Tejasvi Surya
13. Shri Anurag Singh Thakur
14. Shri Balashowry Vallabhaneni
15. Shri Dharmendra Yadav

RAJYA SABHA

16. Shri Ashokrao Shankarrao Chavan
17. Dr. K Laxman
18. Shri Praful Patel
19. Vacant*
20. Shri Akhilesh Prasad Singh
21. Dr. Sudhanshu Trivedi
22. Vacant

SECRETARIAT

1.	Smt. Mamta Kemwal	-	Joint Secretary
2.	Smt. Archna Pathania	-	Director
3.	Shri Pankaj Kumar Sharma	-	Deputy Secretary
4.	Shri Charanjeet Singh	-	Committee Officer

* Consequent upon resignation of Shri Sukhendu Sekhar Ray, MP from Rajya Sabha with effect from 08.06.2026

COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE (2025-26)

Shri K. C. Venugopal - Chairperson

MEMBERS

LOK SABHA

2. Shri Thalikkottai Rajuthevar Baalu
3. Dr. Nishikant Dubey
4. Shri Jagdambika Pal
5. Shri Jai Parkash
6. Shri Ravi Shankar Prasad
7. Dr. C M Ramesh
8. Prof. Sougata Ray
9. Shri Magunta Sreenivasulu Reddy
10. Smt. Aparajita Sarangi
11. Dr. Amar Singh
12. Shri Tejasvi Surya
13. Shri Anurag Singh Thakur
14. Shri Balashowry Vallabhaneni
15. Shri Dharmendra Yadav

RAJYA SABHA

16. Shri Ashokrao Shankarrao Chavan
17. Shri Shaktisinh Gohil
18. Dr. K Laxman
19. Shri Praful Patel
20. Shri Sukhendu Sekhar Ray
21. Vacant*
22. Dr. Sudhanshu Trivedi

* Consequent upon retirement of Shri Tiruchi Siva, MP, RS w.e.f.2nd April, 2026

COMPOSITION OF THE SUB COMMITTEE ON DEFENCE OF PUBLIC ACCOUNTS COMMITTEE
(2026-27)

i.	**Smt. Aparajita Sarangi**	**-**	**Convener**
ii.	**Dr. C.M. Ramesh**	**-**	**Alternate Convener**
iii.	Shri Balashowry Vallabhaneni	-	Member
iv.	Shri Tejasvi Surya	-	Member
v.	Shri Magunta Sreenivasulu Reddy	-	Member
vi.	Shri Ravi Shankar Prasad	-	Member
vii.	Shri Akhilesh Prasad Singh	-	Member

COMPOSITION OF THE SUB COMMITTEE-II (DEFENCE) OF PUBLIC ACCOUNTS COMMITTEE
(2025-26)

i.	**Smt. Aparajita Sarangi**	**-**	**Convener**
ii.	**Dr. C.M. Ramesh**	**-**	**Alternate Convener**
iii.	Shri Balashowry Vallabhaneni	-	Member
iv.	Shri Tejasvi Surya	-	Member
v.	Shri Magunta Sreenivasulu Reddy	-	Member
vi.	Shri Ravi Shankar Prasad	-	Member
vii.	Shri T.R. Baalu	-	Member

INTRODUCTION

I, the Chairperson, Public Accounts Committee (2026-27) having been authorised by the Committee, do present this Fifty-Fourth Report (Eighteenth Lok Sabha) on "Production of Small Arms in Ordnance Factories" based on C&AG Report No. 5 of 2023 relating to the Ministry of Defence (Department of Defence Production).

2. The C&AG Report No. 5 of 2023 was laid on the Table of the House on 27.03.2023.

3. The Sub-Committee - II on "Defence" was constituted by the Public Accounts Committee (2025-26) for detailed examination of the subjects related to Ministry of Defence. The Sub-Committee worked under the convenorship of Smt. Aparajita Sarangi, Member of PAC and Member of Parliament, Lok Sabha. Public Accounts Committee (2025-2026) selected the aforesaid subject and allocated the same to Sub-Committee – II (Defence) for examination and Report.

4. The Sub-Committee-II (Defence) of Public Accounts Committee (2025-2026) took briefing by Audit on 03.11.2025. Thereafter, Sub-Committee took oral evidence of the representatives of the Ministry of Defence (Department of Defence Production) on the aforementioned subject on 22.04.2026. The Sub-Committee considered and adopted the Draft Report at their sitting held on 30.07.2026. Subsequently, the Report was considered and adopted by the Public Accounts Committee (2026-2027) during their sitting held on 06.08.2026. The Minutes of the sittings are appended to the Report.

5. 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.

6. The Committee thank Sub-Committee-II (Defence) of the predecessor Committee (2025-26) for taking oral evidence and obtaining information on the subject.

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

8. 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;
10 August, 2026
19 Sravana, 1948 (Saka)

K. C. VENUGOPAL
Chairperson
Public Accounts Committee

PART- I

INTRODUCTION

1. The Report of the Committee is based on C&AG Report No. 5 of 2023. The C&AG Report No. 5. of 2023 on the subject for the year ended 2022 contains significant results of the compliance audit of the Ministry of Defence of the Union Government.

2. The Public Accounts Committee (2025-26) selected the aforesaid C&AG Report for examination and report. The Sub-Committee of Public Accounts Committee considered the subject for detailed examination, held discussion with the representatives of the Ministry/Department concerned and obtained written replies on the same.

Audit Report:

3. Ordnance Factories' production of small arms was meant mainly for meeting the needs of the Armed Forces, mainly the Army. However, during the period from 2015-16 to 2019-20, the small arms factories witnessed either no demand or very little demand from the Armed Forces for their principal items of production. Bulk of the production of the factories was for issue to the Ministry of Home Affairs. Significantly less issue of small arms ranging from 33 to 58 per cent per annum were observed in case of four to seven items in each year, out of 12 selected small arms. Decline in demand from the Army as well as non-receipt of sufficient demand from the MHA and shortfall in production in its major items issued to the MHA, led to under-utilisation of production capacity in the small arms factories. Simultaneously, the factories failed in their objective to develop new products.

4. Non-achievement of production targets led to accumulation of inventory. Deficiencies in input material inspection and in carrying out inter-stage checks by the factory's Quality Control section during the manufacturing process resulted in recurrent "return for Rectification" on the same grounds by the Senior Quality Assurance Establishment (SQAE). The Army reported 269 accidents involving four small arms during 2015-16 to 2019-20.

5. The small arms factories operated with high levels of overheads which contributed to increase in the unit cost of production, Further, the issue price was fixed much lower than the actual cost of production in the three previous years which was on the higher side. This resulted in in a wide gap between the unit cost of production and the unit issue price of the given item.

6. The plan to develop new and more modern small arms failed to meet the milestones and expectations projected in the perspective Plan 2016-17 to 2018-19. The R&D projects also failed to meet their objectives. During the period being audited, the armed Forces resorted to import of small arms viz. 7.62 X 51 mm Assault/Sniper/LMG for their operational requirements.

<u>Declining Demand from Armed Forces and Dependence on MHA</u>

7. During 2015-16 to 2019-20, the small arms factories witnessed either no demand or very little demand from the Armed Forces for their principal items of

production such as 5.56 mm INSAS Rifle, 5.56 mm LMG, 9 mm Auto Pistol, etc. The factories became largely dependent on orders from the Ministry of Home Affairs (MHA). However, MHA orders alone were insufficient to utilise the full production capacity of the three factories. The Army's share of total issues worked out to only 10 per cent of total issues during this period.

8. On being asked about the measures undertaken by the Ministry and the Ordnance Factory Board (OFB) to realign the production profile of the factories with the anticipated shift in the Army's calibre preference from 5.56 mm to 7.62 mm due to lack of firm procurement plans from the Army beyond 2015-16 and the reasons for not taking these measures proactively, the Ministry in their reply stated as under:

> "7.62 mm weapon design, prototype manufacture, trial and validation is a pre-requisite to manufacturing. It takes substantial time to go through this process. The shift in manufacturing infrastructure to cater to 7.62 mm caliber weapons takes time, since it requires substantial capital investment, specialized tooling, proof ranges, and supply chains. The Army's small arms requirements continuously evolved from INSAS upgrades to Excalibur, then to imported SIG716 rifles, AK-203 induction, CQB carbines, and mixed-caliber philosophy. This frequent change in the Army's requirements limited proactive industrial restructuring because erstwhile OFB traditionally manufactured against confirmed user specifications. Once large-scale infrastructure for 5.56 mm production was established, rapid conversion became financially and operationally difficult without firm General Staff Qualitative Requirements (GSQR) based decisions from the Army.
>
> Further, in conjunction with shift in preference of Indian Army from 5.56 calibre to 7.62 calibre, small arms factories under erstwhile OFB also undertook several measures to re-align its production profile and manufacturing infrastructure, which include:
>
> (i) Upgradation of rifle manufacturing facilities at factories such as Rifle Factory Ishapore and Ordnance Factory Trichy to support newer rifle systems (7.62 x 51 mm Ishapore Assault Rifle, 7.62 x 39 mm Trichy Assault Rifle, 7.62 x 39 mm TAR -25, 7.62 x 51 mm LMG) and associated ammunition.
>
> (ii) Gradual phasing down of INSAS-related production and spares dependency while shifting design, tooling, metallurgy, and barrel manufacturing capability toward 7.62 mm family weapons.
>
> (iii) Further, Joint venture establishment for AK-203 production through Indo-Russian Rifles Private Limited at Korwa, was carried out aiming at large-scale indigenous production of 7.62×39 mm assault rifles.
>
> It is pertinent to mention that the complete shift from 5.56 mm to 7.62 mm was not carried out since Central Armed Police Force (CAPF)& State polices continued to purchase 5.56 mm weapon systems for their own utilization. Considerable inventory of INSAS rifles, magazines, ammunition, spare parts, and training infrastructure were already existed with the Armed Forces, CAPFs

& State Police Forces. Sustenance and maintenance of these inventories are essential from national security point of view."

9. When enquired whether the Ministry considered this skewed customer profile to be an acceptable and sustainable position for strategic defence production units and action taken post-corporatisation to reclaim the Army as a primary customer, given that the primary mandate of these factories was to supply the Armed Forces, the Ministry in their reply stated as under:

"Post corporatization, AWEIL is to compete with other industries to get orders from Armed Forces, Police, CAPF etc. Indian Army is not placing orders on AWEIL on nomination basis and is now procuring the weapons through open tendering process. AWEIL is focusing now on Research & Development (R&D) to develop new products for various users. In this regard, AWEIL has developed various weapons through in-house R&D and in association with Armament Research and development Establishment (ARDE, a unit of DRDO) which includes:

7.62x39mm Trichy Assault Rifle

7.62x39mm TAR-25

7.62x51mm MMG Upgrade

7.62x51mm Assault Rifle

7.62x51mm LMG

5.56x45mm CQB

In this context, products developed by AWEIL and orders received thereof are as under:

Development Year (FY)	**Products developed through R&D efforts**	**Order Value (In Cr)**
2021-22	7.62x51mm LMG	24
2022-23	7.62 x 51 mm Ishapore Assault Rifle 7.62x51mm MMG Upgrade	5 587
2024-25	9x19mm SMG	29
2025-26	7.62 x39mm TAR 25	7
Grand Total		652

Further, orders from Indian Armed Forces is also contributing regularly to AWEIL Small arms business, accounting for approximately 25% to 38% of AWEIL Small arms turnover over the last 4 years."

Shortfall in Achievement of Production Targets

10. Audit found shortfalls in issue of eight to ten small arms in each year during 2015-16 to 2019-20 out of the 12 selected items. Instances of more than 20 per cent

shortfall, ranging from 33 to 58 per cent per annum, were observed in case of four to seven items each year. Significant shortfalls ranging from 12 to 100 per cent were noticed in respect of almost all items issued to the MHA.

11. When asked whether the matter was being discussed in Production Review meetings between 2015 and 2019 and specific corrective actions taken after reporting of each annual shortfall, the Ministry in their reply stated as under:

> "Actual achievement details for FY 2015-20 is enclosed as Annexure-'A'. Further the reasons for shortfall in issue are deliberated as under:
>
> Pre corporatization, the tentative target to the Small Arms units were set over and above the intent for purchase received (in form of requirement of BQ/Proforma Invoice) from CAPFs and SPOs, to maintain economies of scale in sourcing of input materials and manufacturing. Simultaneously, it was to ensure that the weapons are supplied to the concerned forces as soon as possible, so that the operational requirement of the concerned forces are not affected by the standard cycle of material procurement and manufacturing thereafter. However, the confirmed orders (for which the actual payments were received) were less than the tentative production target set. The actual production was only carried out based on confirmed orders. Therefore, though it may appear that there is huge shortfall against the production target but actually the confirmed order received were converted into sales. Production target, actual orders received and achievement was regularly discussed in production review meeting, at factory and erstwhile OFB level. Since the production targets that were fixed was based on tentative demands received from CAPFs and SPOs, all small arms units followed up rigorously with CAPFs and SPOs for carrying out the payment. However, since the payment and confirmation of order is only received after their internal approval and fund allocation to the concerned police department, the follow up did not have a 100% conversion rate. A few shortfalls were due to delay in supply of input material from the vendors/suppliers or the material supplied not matching the requisite quality parameters. Post corporatization, AWEIL has also carried out changes in its procurement policy where multiyear procurement action can be taken so as to ensure timely supply of input material meeting the requisite quality parameters. This ensures supply of weapons as per desired delivery schedule. An example, is supply of 7.62mm MAG to Indian Army where against the running contract there is no shortfall with respect to scheduled delivery as per contract."

12. On being asked about whether AWEIL (post-corporatisation) has put in place a contractual mechanism to ensure that production warrants are issued only against advance payments actually received in order to meaningfully link the production targets to guaranteed cash flows and its current status, the Ministry in their reply stated as under:

> “Post corporatization, AWEIL has been receiving orders of small arms from MHA/State Polices Organizations through tenders as well as on nomination basis.”

<u>Non-receipt/Late Receipt of Payments from MHA (including State Police)</u>

13. Audit scrutiny revealed persistent shortfalls in issue of small arms to MHA due to non-receipt or late receipt of advance payments from State Police Organisations and private customers. During 2015-16 to 2019-20, there were 85 cases of non-receipt and 78 cases of late receipt of advance payments from State Police Organisations alone. Rifle Factory Ishapore (RFI) visited State Police Organisations only between November 2019 and September 2021, over one-and-a-half years after the OFB’s instruction of April 2018.

14. When asked about accountability fixed for this inaction and binding contractual and legal framework put in place by AWEIL post-corporatisation to enforce advance payment discipline from State Police Organisations, the Ministry in their reply stated as under:

> “After issuance of performa invoice, individual small arms unit regularly followed up with the provisioning department of concerned State Police Forces and at senior level. While the representatives from RFI visited state police forces between Nov-2019 and Sep-2021, the issue has been taken up during various customer meets, police modernization meetings and MHA meetings. Simultaneously the advance payments were also followed up through emails and communication and calls at senior level. RFI visit to state polices between nov-2019 and sep-2021 was multi purposed, to market its product and simultaneously to expedite advance payment.
>
> Post corporatization, for procurement through nomination basis by SPOs, proforma invoice is issued with payment terms and conditions. The advance payments in such cases depends on the time taken by the concerned state police force in taking internal approvals and is beyond the control of AWEIL. For orders received through successful bidding in tenders floated by state police, tender terms and conditions guides and enforce the payment discipline.
>
> Follow up with the State Police Departments are carried out, however it is reiterated that the payment is only received after their internal approval and fund allocation to the concerned police department.”

15. There was a structural disconnect between the production warrant system (based on OFB extracts) and the advance payment system (based on proforma invoices), with no linkage between warrant quantity and payment received. As a result, production continued even when payments had not been received. On being asked about the resolution of this disconnect post-corporatisation and reorientation of production planning system by AWEIL so that warrants are issued only against

advance payments actually realised against proforma invoices, as recommended by Audit, the Ministry in their reply stated as under:

> “Post corporatization, AWEIL has been receiving orders of small arms from MHA/State Polices Organizations through tenders as well as on nomination basis. Accordingly, the orders received from MHA/ state police, mutually agreed tender terms and conditions guides the production planning and enforce the payment discipline in the contract.”

Prolonged Breakdown of Cold Swaging Machine at Small Arms Factory (SAF), Kanpur

16. The cold swaging machine at SAF Kanpur, which is critical for manufacturing forged barrels of 7.62 mm MAG and 5.56 mm LMG, suffered a breakdown on 9 March 2015 due to a fire in its electrical panel. Repairs could only be completed in March 2021 – a lapse of six years. There were inordinate delays at every stage of the tendering process: technical bid finalisation took 12 months against a norm of 4 months; price bid finalisation took 18 months against a norm of 2 months; and the supply order was placed 8 months after price bid finalisation. The OFB itself expressed concern on record about SAF’s slow pace.

17. On being asked why the tendering process alone took over three years against prescribed timelines, accountability fixed at each level for this prolonged delay, any disciplinary action initiated, current status of accountability proceedings and mandatory review mechanism put in place by the Ministry at the apex level for repairs to mission-critical equipment, as recommended by Audit, the Ministry in their reply stated as under:

> “Non acceptance of the contractual terms and conditions by the firm was the primary reasons for the extension of tendering process to over three years. Decision was taken at various levels based on the procurement policy at Factory, erstwhile OFB. Since the delay was due to non-acceptance of terms and condition by the firm, no disciplinary action was initiated. Post corporatization, AWEIL apex-level management regularly reviews critical machines & equipment repairs and undertaking the modernization/overhaul of production facilities to ensure maximum machine availability.”

18. There were inordinate delays in finalisation of both the technical bid and the price bid. When asked why these standard commercial issues were allowed to delay a strategic defence manufacturing asset for over three years and has AWEIL formulated standardised model contract terms for Original Equipment Manufacturer (OEM) based repairs to avoid recurrence of such contractual deadlocks, the Ministry in their reply stated as under:

"In the instant case the provision of OFBPM-Plant & Machinery - Aug 2013 for the procurement of Plant and machinery were being followed at respective level. Post corporatization, AWEIL apex-level management is regularly reviewing and monitoring for avoiding such hindrance in repairs of mission critical equipment. In recently amended plant and machinery procurement policy of AWEIL, delegation of financial powers to units has been enhanced from 25 Cr. to 50 Cr, to handle procurement/repair of plant and machinery."

Under-utilisation of Production Capacity and Accumulation of Inventory

19. For its principal items including 5.56 mm INSAS Rifle (Fixed and Foldable Butt) and 5.56 mm LMG, the factories could utilise a maximum of only 29 per cent of their respective production capacities during 2015-20. The three small arms factories together held an inventory of ₹641 crore as on 31 March 2020, constituting 72 per cent of the total cost of production. Work-in-Progress (WIP) alone constituted 56 per cent of the total inventory and had increased by 102 per cent during 2015-20. Store holdings exceeded OFB's prescribed limit of 135 days by 156 to 241 days as of March 2020.

20. When enquired about the current capacity utilisation position (post-2021) for each of the 12 selected items across RFI, SAF and OFT and formulation of a concrete capacity optimisation plan by AWEIL and its key targets, the Ministry in their reply stated as under:

"Post corporatization, AWEIL is focusing on Research & Development (R&D) to develop new products for various users for its optimum capacity utilization. As a result of these R&D efforts, AWEIL received orders worth Rs. 652 crore during 2021-22 to 2025-26 which provided sufficient workload to Small Arms factories as elaborated below:

Capacity utilization of Small Arms Factory Kanpur:

a) Out of the 12 selected items, 3 items (7.62mm Gun Machine, 0.32 Revolver MK-IV, 5.56 mm LMG) pertains to Small Arms Factory (SAF) Kanpur.

b) SAF have orders for 7.62mm MAG. The current capacity utilization (FY 2025-26) in SAF is as follows:

7.62mm MAG – 100%

c) The production of Revolver .32 MK-IV has been discontinued. Further, there is no requirement of 5.56 mm LMG. Therefore, the manufacturing of both the products have been discontinued.

d) The Factory capacity is utilized for the export and domestic orders of 7.62mm MAG, 7.62mm MMG upgrade, 7.62mm LMG belt fed, 9x19mm SMG & components to be supplied in AK-203 kits to (IRRPL). AWEIL has signed contract with IRRPL for supplying 4,03,500 nos. of AK-203 kits. Capacity utilization of the factory will be carried out for manufacturing components of AK 203 kits to be supplied to IRRPL. SAF have to supply 39 components out of 50 components in the kit.

<u>Capacity utilization of Rifle Factory Ishapore</u>:

a) The demand for Rifle Factory Ishapore weapons (9 out of 12 selected items) is depleting. Three items are of 5.56 calibre (5.56 mm INSAS fixed butt, 5.56 mm INSAS fold butt, Excalibur) now only procured by State Polices and their requirement is only in meagre quantities. Considering this, all CAPFs and SPOs has been intimated that the production line will be stopped and all the customers have been requested to place their consolidated spares requirements for upcoming years.

b) Similarly, Anti-Riot Gun 0.303" is manufactured based on the old guns received from the state police forces for conversion to Anti-Riot Gun. The actual production and sales thereafter is accordingly fluctuating.

c) The two items are civilian weapons i.e. .315" and .22" sporting rifles. These civilian weapons requirements are also in small amount and dependent on the license issued.

d) With the above scenario, AWEIL has signed contract with IRRPL for supplying 4,03,500 nos. of AK-203 kits. Capacity utilization of the factory will be carried out for manufacturing components of AK 203 kits to be supplied to IRRPL. RFI have to supply 8 components out of 50 components in the kit. Supply of these 8 components for 4,03,500 nos. of AK-203 kits will result in optimal use of RFI production capacity.

<u>Capacity utilization of OFT</u>:

a) Out of the 12 selected items, 1 items (.315" sporting rifle) pertains to Ordnance Factory Trichy and is common to RFI. This civilian weapon requirement is also in small amount and dependent on the license issued.

b) Meanwhile OFT has received the ToT for manufacture of 12.7mm Stabilized Remote Controlled Gun System with an order of 'Z1' Gun to be supplied to Indian Navy and Coast Guard and manufacturing of this weapons along with its standard production line will result in optimal utilization of its capacity. Simultaneously, OFT is also getting order for the weapons from various shipyards.

Further, AWEIL is also exploring business opportunities in both domestic as well as export markets through competitive bidding in RFP/TEs. Accordingly, AWEIL received various orders, both domestic and export, which provided workload for these small arms factories. It is pertinent to mention that AWEIL is already executing export orders worth INR 333 Cr.

Table for Capacity utilization is enclosed as **Annexure-'B'**."

21. On being asked about the specific measures taken by AWEIL to liquidate the excess Work-in-Progress (WIP) and finished goods inventory and the current inventory position and how does it compare with the prescribed norm, the Ministry in their reply stated as under:

> "Regular monitoring has resulted in reduction of inventory of three factories from INR 641 Cr. as of 31.03.2020 to INR 554 Cr. as of 31.03.2026. Finished articles value is INR 105 Cr. Major contributor is MMG upgrade for export, which could not be dispatched due to prevailing geopolitical situations. The inspection by the customer and dispatch would be carried out once geopolitical situations improves. Work in progress value is INR 216 Cr. The WIP includes material cost as well as manpower and overhead cost incurred in production line. Main contributor are 7.62 mm MAG Gun, Stabilized Remote Controlled Gun, 30mm cannon, small arms and spares to be issued to various customers against the confirmed orders. Store in hand value is INR 138 Cr. And mainly comprises of raw material and finished/semi-finished components procured for manufacturing/assembly of Stabilized Remote-Controlled Gun, MAG Gun, 30mm cannon, small arms. From above, it can be observed that the inventory has considerably been reduced. The finished articles comprising of MMG upgrade for export will be dispatch once inspection which is tentatively scheduled in upcoming month is completed by the customer. Simultaneously, the work in progress will deplete as soon as dispatch of lots are carried out against the confirmed contracts."

<u>Quality Checks of Input Materials and During Manufacturing</u>

22. Audit found that the Quality Control (QC) section of RFI was carrying out only sample-based checks on input materials instead of the mandatory 100 per cent checks prescribed in the Quality Assurance Plan (QAP). For critical input materials like Unit Burst Control of the 5.56 mm INSAS Rifle, hardness and crack detection tests were done on a sample basis only. No documentary evidence was found for visual inspection in most cases examined. During the manufacturing process, visual checking, dimensional checking and Final Acceptance Inspection were not being carried out for several items including 5.56 mm Rifle Ex-calibre, 0.315" Sporting Rifle, 12 Bore Pump Action Gun and the 7.62 mm Assault Rifle (Ghatak).

23. When asked why QAP was not formally revised by Controllerate of Quality Assurance (CQA) to reflect the limitation that certain critical input materials cannot be checked 100 per cent and this leading to the creation of a compliance gap, the Ministry in their reply stated as under:

> "QAP of Unit Burst Control has been amended vide No. QAP/INSAS/1005-007791/2, dated 30-08-2021. Unit Burst Control of the INSAS Rifles have been issued as per the required quality norms after factory QC and SQAE / CQA inspection even before and after the amendment of the QAP."

24. When enquired about the action taken to enforce mandatory documentation of all QC checks and accountability fixed on factory QC personnel for these lapses, the Ministry in their reply stated as under:

> "Final Acceptance Inspection (FAI) was conducted for the 7.62 mm Assault Rifle (Ghatak), 5.56 mm Rifle Ex- calibre and 0.315" Sporting Rifle at RFI. However, the documentation which was maintained by the factory for FAI conducted was in different format. After advice of Audit, the Prescribed format has been incorporated. It is again submitted that no weapons were issued without final acceptance inspection (FAI) by Inspection Authority hence the question of fixing responsibility did not arise in the case."

Return for Rectification (RFR) in Final Acceptance Inspection

25. Audit observed recurrent and significant RFR (Return for Rectification) by the SQAE at Final Acceptance Inspection in all five items submitted for SQAE inspection. The RFR ranged from 11 to 41 per cent during 2015-20 across items including the 5.56 mm INSAS Rifle, 5.56 mm LMG, 7.62 mm MAG and 9 mm Auto Pistol. The main reasons for RFR were barrel bore chip-off, low rate of fire, defects in components like breech block and piston extension, and non-feeding/non-extraction. These were the same recurring defects flagged year after year, indicating inadequate attention to QINs by the Factory.

26. RFR rates ranged from 11 to 41 per cent across the five items inspected by SQAE during 2015-20 – far in excess of the acceptable threshold – and on the same recurring grounds year after year. Ministry itself had ordered (October 2008) that eliminating RFR was a primary quality management objective. When asked about the current status of RFR, systemic corrective actions taken since October 2008 and any new quality improvement measures post-corporatisation specifically targeted at reducing RFR introduced by AWEIL, the Ministry in their reply stated as under:

> "Pre-Corporatisation minor defects observed in small arms were Returned for Rectification (RFR) during FAI as per the QAP. This way it was ensured that instead of rejecting the entire lot, only weapons with defects were Returned for Rectification (RFR). Post Corporatization, AWEIL introduced quality improvement measures which resulted in reduction of RFR. The current status of RFR in the items inspected by SQAE is as follows:

Unit	**Weapon**	**RFR (FY 25-26)**
SAF	MAG 7.62 MM	12.26
	LMG 5.56 MM	0
	Revolver .32 MK IV	No production in 25-26

RFI0	9 MM pistol	0
	5.56 mm INSAS Fixed Butt	13.62
	5.56 mm INSAS Fold Butt	No production in 25-26

Post corporatization, the quality improvement measures introduced by AWEIL are as follows:

a) Quality control and quality assurance framework (Post OFB corporatization): Post corporatization, mutually agreed Acceptance Test Procedures have been prepared by OFs and DGQA to clearly define the role of OFs and DGQA with regard to QA functions.

b) Quality Checks of the input materials by the factory: The Quality of the Input material is responsibility of OFs. DGQA carries out document verification of the input material as per mutual agreement between OFs and DGQA. Further, for the items which have been identified as critical, random samples are verified by DGQA as per mutual agreement.

c) Quality Checks during Manufacturing Process by the Factory: All quality checks at designated stages/inter stages have been complied as per Quality Assurance Plan and record of dimensions of individual dimension measurement may not be required. Before coming to assembly stages, 100% inspection of components are done with gauges and measuring instruments as per available QAP of the components.

d) Quality Improvement Notes (QINs): QINs issued by SQAE(SA) were perused and implemented by respective units of AWEIL. Concerned sections have been directed to take necessary action for implementation of suggested short / long term remedial measures.

e) A comprehensive Quality Assurance Plan is prepared before commencement of production of any item. All quality checks at designated stages/inter stages are carried out as per Quality Assurance Plan to ensure compliance to stipulated quality parameters.

f) The Quality System being followed is having complete traceability. The Input Material inspection, Component Stage inspection, Assembly stage inspection & Proof Inspection details are all documented on Computer through NQDBMS (Network based Data Base Management System)."

27. AWEIL attributed persistent Returned For Rectification (RFR) to the subjective nature of barrel defects (chip-off, cut marks, ring marks) which vary in assessment from inspector to inspector. On being asked whether objective, measurable acceptance criteria for barrel bore defects to eliminate inspector-dependent variation has been developed by AWEIL/DGQA considering inspector subjectivity as a genuine

cause of inflated RFR, implementation of the ‘uniform proof procedure’ recommended by Senior Quality Assurance Establishment (SQAE) Small Arms (SA) Ishapore in January 2021 – requiring pre-proof firing by the factory before submission to SQAE – been implemented and its impact on RFR rates, the Ministry in their reply stated as under:

> “Post corporatization ‘acceptance test procedures (ATP)’ have been jointly formulated by factory QC and resident SQAE. Further, QAPs have been reviewed for all the items to improve the quality standards. Acceptance test procedure was revised in 2023 (ATP no.-SA/ATP/010 revision 01,2023) where in criteria for barrel bore inspection was set up as “barrel bore should be free from flaking of Cr plating, crack, deep scratch, dent, bulge and surface irregularities”. The issues were minimized by dimensional/process improvement such as maintaining the bore dia in higher limit, use of high accelerated chrome salt of efficiency 25%, and control in process such as no etching, contamination on surface etc.
>
> Further, due to above activities the RFR has been reduced to 12.26% (FY 2025-26) for 7.62mm MAG. After implementation of Approved Acceptance Test Procedures, before submission to SQAE (SA) at FAI Stage, the Pre Proof firing activities at factories has been implemented at all the small arms unit of AWEIL. The proposal of Uniform Proof Procedure of SQAE (SA), Ichapur requiring pre-proof firing by the factory before submission to SQAE implementation at Rifle Factory, Ichapur (RFI) has resulted in reduction in RFR of 9mm auto pistol. The details of last four years are given below:

Years	**% of RFR**
2022-23	33.01
2023-24	7.5
2024-25	2.3
2025-26	0”

<u>Non-compliance with Quality Improvement Notes (QINs)</u>

28. Senior Quality Assurance Establishment (SQAE) issues Quality Improvement Notes (QINs) suggesting measures for quality improvement. Audit found that defects mentioned in QINs were mostly of a repetitive nature – for instance, deviation in hardness was found in almost every year during 2015-20 for the 5.56 mm LMG and 7.62 mm MAG. Defects classified as ‘critical’ by SQAE Kanpur (i.e., those that could lead to malfunctioning, non-achievement of desired rate of fire, or operational failure) recurred annually despite QINs being issued.

29. When enquired about the mechanism for monitoring compliance with QINs, and action taken when a factory fails to comply with QINs and accountability fixed on Factory QC or management personnel for the persistent recurrence of critical defects previously flagged in QINs, the Ministry in their reply stated as under:

"Quality Improvement Notes (QINs) were issued by the resident SQAE(SA) against observed defect along with suggested short term & long-term remedial measures. These suggested measures were complied and report was forwarded to Resident SQAE (SA) in a time-bound manner. It is submitted that factory management ensures that all the Quality Improvement Notes have been implemented, and at present, there are no QINs pending for implementation at factory level. Further, in case of recurring defect, a joint Investigation Committee comprising the officers from factory & Resident SQAE(SA) are to be constituted to ascertain the root cause of defects and remedial measures were submitted to comply at shop floor level. In such recurring critical defect, previously flagged in QINs, where the joint investigation committee will identify that the recurrence is due to Factory QC or management personnel, then accountability of concerned would be fixed and appropriate action will be taken. Further, regular liasioning meetings are held with SQAE for monitoring compliance with QINs to ensure that remedial measures have been implemented timely."

<u>Accidents of Weapons at User's End and Defect Investigation</u>

30. The Army reported 269 accidents involving four small arms during 2015-16 to 2019-20. The Defect Investigation (DI) committee attributed the accidents mainly to quality problems in components, deviation in hardness measurements, and non-conformance of input material with specifications. The DI committee also failed to ensure timely investigation and prompt remedial measures to avoid recurrence.

31. When asked whether a root cause analysis has been done to establish this link formally, accountability enforced on the Quality Check and Quality Assessment agencies that passed these defective weapons for issue and remedial action taken after each accident, the Ministry in their reply stated as under:

"DGQA is the co-ordination agency of Defect investigation. In case of accidents / defects reported by the user, a Board of Officers is formed by DGQA. Based on defect investigation outcome, DGQA suggests remedial measures to arrest the recurrence of these defects. The defects could be due to issues related to procurement of Input material, production process, integration process of the weapon, defect in the ammunition, Quality Control by the Factory, Quality Assurance by DGQA and faulty drills by the user. After scrutiny of the defects mentioned by Audit, for majority of the DI cases, it has also been observed in the DI Report that most of the weapons (5.56mm INSAS) have year of manufacturing as 1998/1999/2003. i.e. weapons were older than 22 years. The service life of Rifle 5.56mm 1B1 is 15000 rounds and the minimum benchmark for set for discard of Rifle 5.56mm INSAS is 22 years or 10000 rounds whichever is earlier. Thus, end-of-life or nearing end-of-life of weapon is the common probable cause of failure in most of the DI cases. Further, the deficiencies were observed in the weapons as a result of post-accident investigation. However, to ensure that the same issue does not get repeated, each case of defect is deliberated in detail and recommendations / advisory on each Defect Investigation report is forwarded to manufacturing units and all the agencies dealing with the subject weapon. It is also advised to the users to operate the weapon as per the operating instructions and maintenance manual provided with these weapons."

32. On being asked about average time taken for completion of DI in the accidents reported during 2015-20, number of cases out of 269 cases where investigation was completed within the prescribed 30-day window and mechanism been put in place to track and escalate DI cases that exceed the prescribed timeline, the Ministry in their reply stated as under:

"Defect Investigation (DI) for any small arms/ ammunition is initiated by the user unit of Indian Armed Forces on basis of a Special Army Order. The start point of any Defect Investigation is the report which needs to be submitted within 30 days of the occurrence of defect. Defect investigation (DI) is a Joint Activity undertaken by multiple agencies that are involved in the DI namely user, DGQA, Ordnance Factories, EME Dte, OS Dte and DRDO (wherever applicable). Within the DGQA different CQAs have different Authority Holding Sealed Particulars (AsHSP) responsibilities i.e. CQA(Amn), Pune for ammunition, CQA(Met), Ichapur for metallurgical investigation and CQA(SA), Ichapur for Small Arms. These CQAs have domain expertise and depending on the defect they are specifically tasked to undertake the defect investigation. The actual DI starts from the time the defective weapon / ammunition reaches the designated AHSP from the user unit, which generally gets delayed due to internal inquiries being undertaken by the user units and the logistics.

Activities undertaken to reduce the DI time line- Based on decision taken during the Quality Review Meeting at DGQA, all CQAs have been instructed to complete the DI within 90 days from the date of receipt of Defective weapon / ammunition / Store. The same is being ensured. The average time taken to close the DI cases during the year 2015-20 is given below:-

Ser No.	**Year**	**Average Total Time taken to close the case after receipt of weapon (in days) – When multiple AHSP(s) were involved (Each AHSP has max 90 days to close the DI)**	**Average Time taken by CQA (SA) in Days (AHSP Timelines – Upto 90 days)**
1.	2015 & 2016	211	65
2.	2017	128	36

3.	2018	105	21
4.	2019	96	33
5.	2020	138	38

Constant efforts are made to track, Monitor & expedite the DI cases. In this regard the mechanism adopted is through issuance of reminders, constant liaisons with concerned stake holders and ensuring monthly review through report and returns. Further, quarterly review on defect report and progress of DI is monitored at the HQ DGQA level, through physical / VC meetings

Post corporatization, year wise data of time taken in defect investigation is enumerated below:-

S. No.	FY	No. of DI	Average Time taken by between defect observed and DI report shared with AWEIL (months)
1.	2021-22	1	11
2.	2022-23	1	03
3.	2023-24	4	13
4.	2024-25	1	13
5.	2025-26	3	6.5

Cumulative Loss of ₹366 Crore in Issue of Small Arms

33. The small arms factories operated with high levels of overheads which contributed to increase in the unit cost of production. Further, the issue price was fixed much lower than the actual cost of production in the three previous years which was on the higher side. This resulted in a wide gap between the unit cost of production and the unit issue price of the given item. The three factories suffered cumulative losses of ₹366 crore in issuing 12 selected small arms during 2015-20. Major losses were incurred in issues to MHA (₹251 crore), followed by Armed Forces (₹47 crore), State Police (₹36 crore) and civil customers (₹32 crore). The primary cause was fixation of issue prices at levels far lower than the actual and rising unit Cost of Production (CoP). For example, the unit CoP of the 7.62 mm Gun Machine (MAG) at SAF was ₹11,93,595 in 2019-20, while the issue price was fixed at ₹7,50,000 for the Navy/MHA.

34. On being asked to explain the rationale for capping issue price below the actual cost and the cumulative loss position post-2019-20, the Ministry in their reply stated as under:

"Due to capping of issue price below the actual cost escalation, the financial burden was bore by the Government before corporatization. Post corporatization, the cumulative loss for three small arms factory for FY 2023-24 to FY 2025-26 (3 years) is 234 cr. One of the main reason of the enhanced expenditure against the revenue earned resulting in loss in small arms factories is that while the employees of AWEIL are Central government employees and have been transferred on deemed deputation to DPSUs from erstwhile OFB post corporatization, customers (Armed Forces, CAPFs and SPOs) are procuring weapons through competitive bidding and strategic pricing is carried out in interest to bag an order in competitive bidding and to bring workload to small arms factories. However, AWEIL is making constant efforts to increase the productivity and reduce the overhead cost including staffing and supervision charges."

35. When enquired about any ceiling put in place on such losses and revision of its pricing policy by AWEIL on a full-cost-recovery basis for at least MHA and civil customers, as it is not bound by the 7-8 per cent cap for non-defence customers, the Ministry in their reply stated as under:

"Post corporatization, AWEIL being a DPSU have to be self-sustainable. All efforts are made to recover the cost of production in the orders received from MHA and civil customers. Simultaneously, strategic pricing is also carried out in interest to bag an order in competitive bidding and to bring workload to small arms factories."

High Overheads in Cost of Production

36. The three small arms factories operated with overheads ranging from 52 to 72 per cent of their total Cost of Production during 2015-20, significantly higher than the Ordnance Factory Organisation's average of 30 to 43 per cent. Supervision charges alone constituted 43 to 49 per cent of total overheads, and indirect labour 20 to 24 per cent. High overheads were attributed to large deployments of staff and officers relative to diminishing production volumes. The Principal Controller of Accounts also raised concerns about high overheads due to large staff deployment.

37. When enquired about the specific measures taken by AWEIL post-corporatisation to rationalise staffing levels, reduce supervision charges, and bring overhead costs to a level comparable with industry benchmarks, targets set for overhead reduction, and progress achieved, the Ministry in their reply stated as under:

"The employees of AWEIL are Central government employees and have been transferred on deemed deputation to DPSUs from erstwhile OFB post corporatization. It is not possible to rationalize/reduce the employee benefits to them at this stage. However, AWEIL is making constant efforts to increase the productivity and reduce the overhead cost including staffing and supervision charges. This includes not only competitive bidding for the requirements in the domestic market of Armed Forces, CAPFs & SPOs but also venturing into export market to secure weapon contracts for small arms group of factories."

R&D Projects – Overall Performance

38. 30 R&D projects valuing ₹3,560.92 lakh (expenditure incurred) were undertaken for development of new small arms till 2019-20. Not a single R&D project was completed within its original Planned Date of Completion (PDC). Nine projects were completed beyond the original PDC with delays ranging from 36 to 82 months. 11 projects were short-closed after incurring an expenditure of ₹357.45 lakh against sanctioned cost of ₹263.49 lakh. 10 projects were still incomplete as of February/March 2022, with 8 of those having exceeded even the revised PDC. Excess expenditure of ₹430.47 lakh was yet to be regularised.

39. On being asked to provide a comprehensive account of what went wrong in the R&D programme during 2015-20, lessons drawn and specific changes made to its R&D management framework by AWEIL, the Ministry in their reply stated as under:

a) R&D timelines are generally kept stringent for faster development of the new weapons and equipment. However, it is to be understood that there is always an uncertainty in success of research and development of new weapons. For most of the R&D projects, the unavailability of any technical documentation, lack of expertise and absence of supply chain are the main constraints. Most of the time in R&D projects is consumed in overcoming these obstacles.

b) It may be appreciated that AWEIL has received an order of 'X' nos. 5.56 mm JVPC from Indian Army, which was jointly developed along with ARDE. This in addition to 9000 nos. JVPC supplied to CAPFs & SPOs.

c) Orders has been received from CAPFs and State Polices for jointly developed weapon such as 9x19mm SMG and 5.56 mm CQB Carbine. 5.56 mm CQB Carbine was also technically qualified under against Indian Army RFP.

d) AWEIL has also developed 7.62x51 mm Assault Rifle, 7.62x39mm TAR, 7.62x39mm TAR-25 and 7.62x51mm LMG.

e) AWEIL has supplied more than 80000 7.62x39mm TAR-25 to CAPFs & SPOs.

f) Similarly 7.62x51mm LMG cleared MHA trials. 256 nos. have been supplied to CAPFs & SPOs and further enquiry has been received for 913 nos. from Indian Coast Guard.

g) AWEIL is also in process of revamping its R&D Policy where AWEIL will establish an unified, structural R&D framework for AWEIL. It integrates technology development pathways, innovation ecosystem and strategic partnership to accelerate capability development.

   Along with in-house innovation driven manufacturing, AWEIL R&D policy will support innovation challenges by funding and mentoring startups, MSMEs and academia. The lifecycle and the timeline of a R&D project would be established based technology readiness level framework. AWEIL have created five year R&D plan targeting 2-3% of their revenue for R&D and new product development."

40. Excess expenditure of ₹430.47 lakh was incurred on R&D projects beyond the sanctioned cost, and this excess was yet to be regularised as of 2022. When asked to furnish current status of regularisation of excess expenditure and financial and administrative sanctions sought, the Ministry in their reply stated as under:

"Post corporatization new DPSUs has been given financial autonomy and accordingly the excess expenditure has been regularized by AWEIL as per procedure in vogue."

Joint Venture Protective Carbine (JVPC)

41. The JVPC R&D project was initiated by SAF Kanpur in February 2014 with a PDC of 24 months at an estimated cost of ₹111.50 lakh. The PDC was revised twice (to December 2016 and then December 2021). Expenditure incurred was ₹1,244.60 lakh till February 2022, exceeding the sanction by ₹430.47 lakh – an amount yet to be regularised. While the JVPC cleared conformity user trials in December 2020, the Army has placed no orders. SAF had already created a full-fledged assembly line for JVPC. However, a new factory (Ordnance Factory Korwa) has also been built to manufacture JVPC and CQB Carbines, raising the risk of idle capacity.

42. On being asked about the current status of Army orders for the JVPC, fate of the dedicated assembly line at SAF and the Korwa factory in case of no procurement by the Army and steps taken to ensure that the investment made does not become infructuous, the Ministry in their reply stated as under:

a) JVPC weapon cleared all the trials of Indian Army & MHA, more than 9000 Nos. has already been issued to MHA &SPOs
b) No dedicated machining & assembly line for JVPC 5.56mm was created at SAF. Depending upon the target mix of weapons, existing machining & assembly facilities have been diverted towards manufacture of JVPC 5.56x30mm.
c) It is also pertinent to mention that further order of 'X' Nos JVPC weapons has been received from Indian Army.
d) Further, the manufacturing facilities at Korwa is being utilized for components to be supplied in AK-203 kits to IRRPL and to other AWEIL factories. AWEIL has signed contract with IRRPL for supplying 4,03,500 nos. of AK-203 kits. Korwa have to supply 03 components out of 50 components in the kit.

Assault Rifles/Modified INSAS and Import

43. RFI undertook an R&D project in October 2016 for development of a 7.62×51 mm Assault Rifle at a cost of ₹450 lakh with a PDC of April 2017. The PDC was revised repeatedly up to September 2021 and expenditure of ₹525.12 lakh was incurred. During internal evaluation trials in June 2019, the weapon was not recommended due to feeding problems. DGQA found three non-conformities in March 2021. The project meant to be completed by April 2017 remained incomplete. Meanwhile, the Ministry concluded a contract under Fast Track Procedure in February 2019 to import 7.62×51 mm Assault Rifles to meet the Army's operational requirements.

44. When asked about the specific technical and management failures that led to delay, current status of the project and the realistic timeline for meeting Army requirements, the Ministry in their reply stated as under:

a) Based on Indian Army requirement of 7.62x51mm Assault Rifle, IHQ of MoD(Army) issued a request for information in July-2016 for the subject assault rifle. A project monitoring committee was constituted for developing and evaluating the weapon to be inducted. The PMT was chaired by DG Infantry along with members from Infantry, erstwhile OFB, ARDE and DGQA. Both RFI and ARDE design were given go-ahead. 6 PMT meetings were conducted and 02 prototype weapons were to be developed, 01 solely by RFI and second by ARDE in association with RFI.

b) It is pertinent to mention that at the same time RFI developed weapon was also offered to MHA and SPOs for evaluation. MHA conducted trials in Sep-2019 and Jan-2021. Based on these efforts, thereafter RFI received order from CRPF and MP Police in FY 2021-22.

c) The earliest developed weapon had weight of 4.19 kg with empty magazine. In case of Army, however, as per decision of DAC, MoD, RFI was further instructed to comply the weapons as per GSQR 1607(where prescribed weight is less than 4kg with empty magazine) and develop the weapon for User (Army) NCNC Trial. RFI upgraded the 7.62x51mm Assault Rifle accordingly as per GSQR need for NCNC trial by User. Newly developed weapon incorporating the improvements have now been successfully cleared all the user(Army) trials, including Plain (ITDU, Mhow), HAA (SUMDO, HP) & DGQA (SQAE(SA), Ishapore) Trials.

Duplication of R&D Efforts Across Factories

45. The plan to develop new and more modern small arms failed to meet the milestones and expectations projected in the Perspective Plan 2016-17 to 2018-19. The R&D projects, which were taken up simultaneously with the Perspective Plan, also failed to meet their objectives. Three factories – SAF Kanpur, OFT Trichy, and RFI Ishapore – independently undertook R&D projects for development of the 7.62×39 mm

Assault Rifle in different periods, with overlapping PDCs, without integrating their efforts. Expenditure of ₹29.70 lakh, ₹186.44 lakh and ₹94.70 lakh was incurred by the three factories respectively. Products developed by RFI and OFT were not accepted by the Army, while SAF's project was short-closed. Similarly, two factories (RFI and SAF) separately undertook development of the 5.56×45 mm CQB Carbine in overlapping periods. Audit found that all this happened with full knowledge of the OFB Board.

46. On being asked about the rationale for permitting three factories to independently develop the same weapon, introduction of a mechanism to prevent such duplication and pooling of R&D resources in order to ensure a single, coordinated product development effort for each requirement, the Ministry in their reply stated as under:

a) **For 7.62x39mm Assault Rifle:**

   i. All three factories worked on different variants of the weapon.

   ii. Initially SAF took project, to develop Assault Rifle. However, after initial developments all the drawings & inventory was handed over to RFI, and subsequent development in the project was made by RFI. This rifle is stamped body version of 7.62x39mm Assault rifle.

   iii. Another variant developed and manufactured at OFT is machined body version of 7.62x39mm Assault rifle.

b) **For 5.56x45 mm CQB Carbine:**

   i. SAF took the project of development of 5.56x45 mm CQB Carbine in association with ARDE to meet the GSQR of Indian Army. The weapon was successfully developed and fielded to Army against RFP.

   ii. Weapon was fully compliant w.r.t. GSQR parameters & SAF was declared technically compliant in said RFP procurement. Weapon is still being re-engineered for cost reduction & to meet requirement of MHA & SPOs.

   iii. Project of CQB Carbine at RFI was short closed.

c) Post corporatization, AWEIL has ensured that duplication of R&D activities does not happen and the R&D resources are pooled and utilized to ensure a single, coordinated product development effort for each requirement.

<u>Post-Corporatisation Status – AWEIL and Action on C&AG's 12 Recommendations</u>

47. Subsequent to the audit period, OFB was dissolved and 41 Ordnance Factories were converted into seven DPSUs with effect from 1 October 2021. The three small

arms factories were grouped under M/s Advanced Weapons and Equipment India Limited (AWEIL), headquartered at Kanpur. C&AG's Report No. 5 of 2023 contains 12 recommendations across four areas: Production Performance (7), Quality of Small Arms (3), Cost Effectiveness (1), and R&D (1).

48. When enquired about the formal business viability review of small arms portfolio, identification of commercially viable products, products requiring re-engineering for cost reduction, products need to be discontinued or outsourced and product and market strategy of AWEIL for the next five years, the Ministry in their reply stated as under:

a) Presently AWEIL supply weapons to Armed Forces, CAPFs and SPOs at a price which include a suitable profit margin, for orders received through participation in tenders or through nomination basis.

b) Based on the requirements from Armed Forces, CAPFs, State Police Forces and Export market, AWEIL is regularly reviewing its existing Small Arms product matrix and reorienting its portfolio accordingly.

c) Weapons/variants which are commercially non-viable and the requirement is also depleting, production/spares manufacturing will be discontinued. These includes 5.56mm INSAS, 5.56mm LMG, 0.303" Anti-Riot Gun and Revolver .32" Mk-IV. In this regard, all CAPFs and SPOs has been intimated that the production line will be stopped and all the customers have been requested to place their consolidated spares requirements for upcoming years.

d) Simultaneously to make its product commercially viable, AWEIL is also outsourcing components, Assemblies, Sub-Assemblies. Based on this activity, AWEIL was able to offer a competitive price, became L1 and bag an order of 3073 nos of 9x19mm Sub Machine Gun from Assam Rifles in a competitive tender.

e) AWEIL is working towards diversification through new products, upgrades and expanding customer base particularly export markets. The Small Arms produced by AWEIL units have export potential in African, Middle East Countries as well as US civilian markets. AWEIL is working to tap these markets through its channel partners and with the help of Indian Embassies in foreign countries. Based on these efforts, AWEIL has already received export orders for 1700 nos of 7.62mm MMG upgrade.

f) Simultaneously, AWEIL has also developed weapons in sync with market demands and having innovative features such as 7.62mm TAR-25, 7.62mm MMG upgrade, 5.56X45 CQB carbine & Sniper Rifles to tap the domestic markets i.e. CAPFs & SPOs and international market.

49. On being asked about the specific commitments made regarding timelines for indigenising the weapons currently being imported by the Armed Forces, any development agreements by AWEIL with DRDO, private sector or foreign OEMs for this purpose and current progress, the Ministry in their reply stated as under:

a) AWEIL has developed 7.62 x 51mm LMG Belt Fed, 7.62x51mm Ishapore Assault Rifle, 5.56x45mm CQB carbine along with weapons such as 7.62x39 mm Assault Rifle, 5.56x30 mm JVPC and 9x19mm Sub Machine Gun.

b) It is conveyed that Indian Army is procuring weapons through tender process where AWEIL also participates with its in-house developed weapons. For example, Development of 8.6x70 mm Sniper Rifle based on draft GSQR provided by Indian Army was undertaken. Thereafter Indian Army published RFP for Sniper Rifle along with ammunition. AWEIL has participated in this RFP and the weapons of all the bidders are under evaluation.

c) Further, AWEIL offered its in-house developed 7.62x51mm Assault Rifle for NCNC trial by User. Weapon has now successfully cleared all the user trials, including Plain (ITDU, Mhow), HAA (SUMDO, HP) & DGQA (SQAE(SA), Ishapore) Trials.

d) AWEIL also entered into development agreements with Armament Research and development Establishment (ARDE, a unit of DRDO) and has developed 5.56x45mm CQB Carbine, 5.56x30mm JVPC and 9x19mm Sub Machine Gun in association with ARDE.

e) Further, possibilities of collaboration with foreign OEMs is also being explored and the discussions are undergoing.

50. When asked to furnish note covering the background and rationale of the corporatisation of OFB into seven DPSUs, with reference to the Cabinet Note approved by the Union Cabinet, the benefits and performance improvements achieved post-corporatisation, and any prospective measures and recommendations from the Ministry's side, the Ministry in their reply stated as under:

a) Note covering the background and rationale of the corporatization of OFB into seven DPSUS, benefits and performance improvements achieved post-corporatization and pro-spective measures and recommendations from the Ministry's side is enclosed as **Annexure-'C'**.

b) Post corporatization, the revenue and profit after tax of AWEIL has grown and are showcased as below:

FY	**Revenue from Operations (In Crores)**	**Profit after tax (In Crores)**
2021-22 (H2)	1088.62	4.53
2022-23	1939.32	-12.79
2023-24	2038.59	20.24
2024-25	2530.93	82.74
2025-26 (Provisional unaudited)	2811.00	61.00

*****

PART – II

OBSERVATIONS AND RECOMMENDATIONS

Demand Side Constraints

1. The Committee observed that between 2015-16 and 2019-20, the small arms factories faced little to no demand from the Armed Forces for their principal products, leaving them largely dependent on MHA orders which alone were insufficient to fully utilise the capacity of all three factories. The Army's share of total issues stood at just 10% during this period. Responding to this skewed customer profile, the Ministry stated that post-corporatisation, AWEIL must now compete with other manufacturers for orders from the Armed Forces, Police, and CAPF, with the Army having shifted from nomination-based orders to open tendering. AWEIL is now focusing on R&D to develop new products for various users, and Armed Forces orders currently account for approximately 25-38% of AWEIL's small arms turnover over the past four years. The Committee note with concern that the combination of no further Army demand, insufficient MHA demand, and production shortfalls even against MHA orders led to idling of production capacity across all three factories. The Committee feel that this may result in a lot of wasted potential for the ordnance factories whose capacities may be utilized better if the orders are received continuously. To this effect the Committee recommend that the Ministry consider institutionalizing a multi-year roll-on demand plan between the Army, MHA, state police forces, and AWEIL so factories aren't caught idle after sudden demand drop-offs.

2. The Committee also recommend that the Ministry conduct a detailed and in-depth study for understanding demand patterns and wherever the demand has structurally shifted (e.g., due to indigenous rifle imports or changed procurement policy), assess whether installed capacity itself needs recalibration rather than simply chasing more orders to fill excess capacity.

Cost structure / overheads

3. The Committee noted that small arms factories operated with high overheads, driving up unit production costs, while the issue price was fixed well below the actual cost of production (based on the previous three years' costs, which were themselves elevated). This resulted in cumulative losses of ₹366 crore across the three factories on 12 selected small arms during 2015-20. The

Ministry explained that pre-corporatisation, this financial burden arising from capping the issue price below actual cost escalation was borne by the Government; post-corporatisation, the cumulative loss for the three factories over FY 2023-24 to FY 2025-26 stood at ₹234 crore. The Ministry added that competitive bidding and strategic pricing are being used to secure new orders, and that AWEIL is continuously working to boost productivity and cut overhead costs, including staffing and supervision charges through competitive bidding for Armed Forces, CAPF, and SPO requirements domestically, as well as by pursuing export contracts for the small arms factories. The Committee note with concern that high fixed overheads relative to fluctuating output make the factories uncompetitive when demand dips. To be able to resolve this issue the Committee desire that since AWEIL now operates as a DPSU, benchmarking unit costs against comparable private defence manufacturers may be considered by the Ministry to close the cost gap and make the ordnance factories more competitive.

4. Further, the Committee observe that the Ministry has submitted that the employees of AWEIL are Central government employees and it is not possible to rationalize/reduce the employee benefits to them at this stage. The Committee, therefore, recommend the Ministry to further consider opting for innovative measures to increase the revenue output such as production of Sporting and hunting rifles for the domestic licensed civilian market; non-lethal/riot-control equipment and Component/spares manufacturing for private OEMs.

<u>Quality control</u>

5. The Committee noted recurrent and significant Return for Rectification (RFR) by the SQAE at Final Acceptance Inspection across all five items submitted, with recurring defects i.e. barrel bore chip-off, low rate of fire, faults in components like the breech block and piston extension, and non-feeding/non-extraction, flagged year after year, pointing to inadequate attention to Quality Improvement Notes (QINs) by the Factory. The Ministry responded that post-corporatisation, AWEIL introduced quality improvement measures that reduced RFR, including constituting a Joint Investigation Committee comprising factory officers and the Resident SQAE(SA) to identify root causes and submit remedial measures for shop-floor compliance. The Ministry added

that regular liaison meetings are held with SQAE to monitor QIN compliance and ensure timely implementation of corrective actions. The Committee are of the considered opinion that the Ministry need to work not only at the scale but also quality of the production at Small Arms Ordnance Factories in order to revive them into thriving productions. In this regard, the Committee are of the opinion that inadequate quality checks have downstream effects which lead to creation waste as well as delay in deliveries. To curb this problem, the Committee recommend that the Ministry establish a thorough monitoring mechanism to ensure compliance with the new and revamped quality directives. The Committee further desire that the Ministry consider moving from end-of-line inspection toward in-process quality checks to catch defects earlier, reducing costly rejections.

Inventory Management

6. The Committee take note of the fact that the three small arms factories together held an inventory of ₹641 crore as on 31 March 2020, constituting 72 per cent of the total cost of production. Work-in-Progress (WIP) alone constituted 56 per cent of the total inventory and had increased by 102 per cent during 2015-20. Store holdings exceeded OFB's prescribed limit of 135 days by 156 to 241 days as of March 2020.The Committee are of the opinion that accurate inventory and its effective management is critical component of successful military logistics around the world. Whether it is routine or breakdown repair, the inventory management should be able to pool in essential parts in a fair amount of time to keep platform downtime to a minimum. The Committee desire that the steps should be taken by the Ministry to ensure that best available practices should be adopted in order to maintain healthy inventory. The Committee also recommend that annual stock verification, which is an effective tool of inventory management, should be applied effectively so as to enable better decision making. The Committee further recommend that Ordnance Factories should strengthen inventory management by incorporating cost-efficiency metrics and goals, evaluating and improving demand forecasting procedures, revising inventory management practices to better accommodate demand fluctuations, and enhancing oversight.

<u>Research and Development</u>

7. The Committee noted from audit findings that the plan to develop new and modern small arms failed to meet the milestones and expectations. No Research and Development (R&D) projects were completed within their original Planned Date of Completion (PDC) and some projects were short closed. Three small arms factories simultaneously worked on the same calibre weapon without integrating their efforts.

The Committee appreciate that post-corporatization, AWEIL has created R&D Plan targeting 2-3% of their resources for R&D and new product development. However, in view of the fact that R&D is critical for achieving strategic self-reliance in production of small arms and maintaining national security, the Committee recommend that an augmented share of the budgetary grants must be earmarked solely for R&D activities in the ordnance factories and the efficacy of the ongoing R&D projects should be examined and applied to meet the emergent requirements of the armed forces. Bold reforms in R&D and ecosystem integration are must for innovation and fostering indigenisation in the development of new and modern small arms. The Committee further recommend that a proper monitoring mechanism should be put in place for timely and successful completion of R&D projects.

*****

NEW DELHI; **K. C. VENUGOPAL**
<u>10 August, 2026</u> **Chairperson**
19 Sravana, 1948 (Saka) **Public Accounts Committee**