#### **CHAPTER I: INTRODUCTION**

#### 1.1 Foreword

This Report relates to matters arising from the compliance audit of the financial transactions of the Ministry of Defence and its following Organisations:

- Army,
- Inter Services Organisations,
- Defence Research and Development Organisation and its laboratories dedicated primarily to Army and Ordnance Factories,
- Defence Accounts Department, and
- Ordnance Factories.

Compliance audit refers to examination of the transactions relating to expenditure, receipts, assets and liabilities of the audited entities to ascertain whether the provisions of the Constitution of India, applicable laws, rules, regulations and various orders and instructions issued by the competent authorities are being complied with.

The primary purpose of the report is to bring to the notice of the legislature important results of audit. Auditing standards require that the materiality level for reporting should be commensurate with the volume and magnitude of transactions. The findings of Audit are expected to enable the Executive to take corrective actions as also frame policies and directives that will lead to improved financial management of the Organisations, thus contributing to better governance and improved operational preparedness.

This chapter, in addition to explaining the planning and extent of audit, provides a synopsis of the significant audit observations, followed by a brief analysis of the expenditure of the above Organisations. Subsequent chapters present detailed findings and observations arising out of the compliance audit of the Ministry and the aforementioned Organisations.

#### 1.2 Audited entity profile

Ministry of Defence, at the apex level, frames policies on all Defence related matters. It is divided into four departments, namely, Department of Defence, Department of Defence Production, Department of Research and Development and Department of Ex-Servicemen Welfare. Each department is headed by a Secretary. The Defence Secretary who is the Head of the Department of Defence also coordinates the activities of other departments.

Army is primarily responsible for the Defence of the country against external aggression and safeguarding the territorial integrity of the nation. It also renders aid to the civil authorities at the time of natural calamities and internal disturbances. It is, therefore, incumbent upon the Army to suitably equip, modernize and train itself to meet these challenges.

DRDO, through its chain of laboratories, is engaged in research and development, primarily to promote self-reliance in Indian Defence sector. It undertakes research and development in areas like aeronautics, armaments, combat vehicles, electronics, instrumentation, engineering systems, missiles, materials, naval systems, advanced computing, simulation and life sciences.

The Inter Services Organisations, such as Armed Forces Medical Services, Military Engineer Services (MES), Defence Estates, Quality Assurance, etc., serve the Defence forces in the three wings of the Army, Navy and Air Force. They are responsible for development and maintenance of common resources for optimising cost-effective services. They function directly under Ministry of Defence.

Ordnance Factory Board (OFB) functions under the administrative control of the Department of Defence Production and is headed by Director General, Ordnance Factories. Thirty-nine factories are responsible for production and supply of ordnance stores to the armed forces.

#### 1.3 Integrated Financial Advice and Control

Ministry of Defence and the Services have a full-fledged internal financial control system in place. With fully integrated Finance Division in the Ministry of Defence, the Secretary (Defence Finance) and his/her officers scrutinize all proposals involving expenditure from the Public Fund. Secretary (Defence Finance) is responsible for providing financial advisory services to Ministry of Defence and the Services at all levels, and for treasury control of the Defence expenditure.

Being Chief Accounting Officer of the Defence Services, Secretary (Defence Finance) is also responsible for the internal audit and accounting of Defence expenditure. This responsibility is discharged through the Defence Accounts Department with the Controller General of Defence Accounts as its head.

#### 1.4 Authority for Audit

The authority for our audit is derived from Articles 149 and 151 of the Constitution of India and the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) (DPC) Act, 1971. We conduct audit of Ministries/Departments of the Government of India under Section 13<sup>1</sup> of the

2

<sup>&</sup>lt;sup>1</sup> Audit of (i) all expenditure from the Consolidated Fund of India (ii) all transactions relating to Contingency Funds and Public Accounts and (iii) all trading, manufacturing, profit & loss accounts & balance-sheet & other subsidiary accounts.

CAG's (DPC) Act. Major Cantonment Boards are audited under Section 14<sup>2</sup> of the said Act. Principles and methodology of compliance audit are prescribed in the "Regulations of Audit and Accounts, 2007".

#### 1.5 Planning and Conduct of Audit

Our audit process starts with the risk assessment of the Organisation as a whole and of each unit, based on expenditure incurred, criticality and complexity of activities, level of delegated financial powers, assessment of overall internal controls, and concerns of stakeholders. Previous audit findings are also considered in this exercise. Based on this risk assessment, the frequency and extent of audit are decided. An annual audit plan is formulated to conduct audit on the basis of such risk assessment.

After completion of audit of each unit, Local Test Audit Reports (LTARs) containing audit findings are issued to the Head of the unit. The units are requested to furnish replies to the audit findings within a month of receipt of the LTARs. Whenever the replies are received, audit findings are either settled or further action for compliance is advised. Important audit observations arising out of these LTARs are processed for inclusion in the audit reports which are submitted to the President of India under Article 151 of the Constitution of India. During 2011-12, audit of 626<sup>3</sup> units/formations was carried out by employing 11670<sup>4</sup> party days. Our audit plan ensured that most significant units/entities, which are vulnerable to risks, were covered within the available manpower resources.

#### 1.6 Significant audit observations

Capital and Revenue procurements made by the Ministry of Defence and the Service Organisations form the critical area as far as the audit of Defence Sector is concerned. We have been pointing out deficiencies in the procurement process in the previous Audit Reports and the Ministry of Defence has taken several measures to improve the procedures involved. Periodical revisions of the Defence Procurement Procedure (DPP) and Defence Procurement Manual (DPM) are significant steps to evolve better practices.

The present Report highlights cases which assume importance in the light of their impact on operational preparedness. The Report also brings out issues regarding improper management of Defence land, poor management of contract, inadmissible payments to contractors, procurement of substandard stores, excess payments etc which require immediate redressal.

<sup>&</sup>lt;sup>2</sup> Audit of receipt and expenditure of bodies or authorities substantially financed by grants or loans from the Consolidated Fund of India or of any State or of any Union Territory.

<sup>&</sup>lt;sup>3</sup> Number of units/formations audited by O/o DGADS, New Delhi and O/o PDA(OF) Kolkata

<sup>&</sup>lt;sup>4</sup> Number of Party days employed during the financial year 2011-12 by the o/o DGADS New Delhi and o/o the PDA(OF) Kolkata

In violation of standard procurement practice DRDO procured a critical component at a cost of ₹52.58 crore in anticipation of an order from the Army resulting in blocking of Government money of ₹34.70 crore (Paragraph 5.3).

Army HQ/Central Ordnance Depot Delhi Cantonment procured 37957 newly introduced low maintenance batteries at a cost of ₹21.32 crore without sensitising the holding depots about its storage procedure and catering for adequate infrastructure for their recharge. Consequently, 6993 batteries became defective/unserviceable prematurely resulting in a loss of ₹4.18 crore (Paragraph 3.3).

Army HQ failed to implement the 'Transportation Model' for the purchase of Tyres and Integrated Field Shelters during 2005-06 to 2009-10 which resulted in avoidable expenditure of ₹5.45 crore during 2008-09 to 2011-12, due to redispatch of these stores by COD Mumbai to various units, instead of direct dispatch to such units from the firms (Paragraph 3.4).

In contravention of provisions of Defence Works Procedure 2007, three Chief Engineers in the Central, Western and South Western Commands concluded contracts incorporating escalation clause resulting in inadmissible payments of ₹1.39 crore to the contractors (Paragraph 4.4).

Army HQ failed to implement the laid down procedure of sample and capacity verification of the firm and concluded a contract with a new and unregistered firm for supply of Mask Face Extreme Cold Weather for ₹2.54 crore without prior approval of sample. The Mask so procured were found to be sub standard (Paragraph 3.1).

Ministry of Defence (MoD) concluded contracts for procurement of Tanks 'X' without Air-conditioners (ACs) valuing ₹9083.36 crore, despite the recommendation of the trial team for the same. However, MoD immediately accepted the need for ACs. The procurement of ACs was yet to materialize (Paragraph 2.3).

Chief Engineer Udhampur Zone did not install the meter in absence of which Jammu & Kashmir State Electricity Department charged MES for assessed consumption at a highly inflated rate. MES, thereby, incurred an extra expenditure of ₹8.04 crore from March 2008 to November 2012, which was avoidable. (Paragraph 4.3)

In case of Ordnance Factories, audit has commented on avoidable extra expenditure on procurement of a component, undue benefit to a foreign supplier by allowing Exchange Rate Variation, undue benefit to a foreign firm by diluting the conditions in tender enquiry and contract, loss due to rejection of empty shells and consequent blocking of inventory, inadequate quality control resulting in loss of ₹7.42 crore due to rejection of 7.62mm brass cups and ammunition, blocking of inventory due to bulk manufacture before clearance of pilot sample and recovery at the instance of audit. In addition, General Performance about the functioning of the Ordnance Factory Organisation for the financial year 2011-12 has also been commented.

#### 1.7 Persistent irregularities in Defence Estates management

Cases of poor management of Defence land have been highlighted in various Reports of the Comptroller and Auditor General of India on Defence Services, including the Performance Audit Report No.35 of 2010-11 on Defence Estates Management. Despite instances of unsatisfactory management of Defence estates being repeatedly highlighted in the Reports of the Comptroller and Auditor General of India, there was no significant improvement. Cases relating to misuse of Defence land by the Local Military Authorities, unauthorised occupation of land by the ex-lessees due to non-renewal of lease in time and consequent loss of revenue and unauthorized use of Defence accommodation continued to persist as reported in Paragraphs 2.1 and 3.6. Corrective steps need to be taken urgently in this regard.

# 1.8 Response of the Ministry/Department to Draft Audit Paragraphs

On the recommendations of the Public Accounts Committee, Ministry of Finance (Department of Expenditure) issued directions to all Ministries in June 1960 to send their response to the Draft Audit Paragraphs proposed for inclusion in the Report of the Comptroller and Auditor General of India within six weeks.

The Draft Paragraphs are forwarded to the Secretaries of the Ministry/departments concerned drawing their attention to the audit findings and requesting them to send their response within six weeks. It is brought to their personal attention that in view of likely inclusion of such Paragraphs in the Audit Reports of the Comptroller and Auditor General of India, which are placed before Parliament, it would be desirable to include their comments in the matter.

Draft paragraphs proposed for inclusion in this Report were forwarded to the Secretaries concerned between December 2012 and July 2013 through letters addressed to them personally.

The Ministry of Defence did not send replies to 12 Paragraphs out of 19 Paragraphs featured in Chapters II to V. Ministry of Defence did not send reply to seven of the eight paragraphs (November 2013) included in Chapter VI of this Report. However, the response of Army Headquarters and Ordnance Factory Board, wherever received, had been suitably incorporated in the paragraphs included in Chapter II to VI.

#### 1.9 Action taken on earlier Audit Paragraphs

With a view to enforcing accountability of the Executive in respect of all issues dealt with in various Audit Reports, the Public Accounts Committee desired that Action Taken Notes (ATNs) on all paragraphs pertaining to the Audit Reports for the year ended 31 March 1996 onwards be submitted to

them duly vetted by Audit within four months from the date of laying of the Reports in Parliament.

Review of ATNs relating to the Army as of November 2013 indicated that ATNs on 89 paragraphs included in the Audit Reports up to and for the year ended March 2011 remain outstanding, of which the Ministry had not submitted even the initial ATNs in respect of 13 Paragraphs and 28 ATNs are outstanding for more than 10 years as shown in **Annexure-I**.

#### 1.10 Financial Aspects and Budgetary Management

#### 1.10.1 Introduction

The budgetary allocations of the Ministry of Defence are contained under eight Demands for Grants of which six grants are included under Defence Service Estimates (DSE) and two under Civil Grants.

- Two Civil Grants which include Demand No. 20 Ministry of Defence (Civil) and Demand No. 21 Defence Pensions.
- Six Grants of the Ministry of Defence, which include the following:

Demand No.22, Defence Service - Army

Demand No. 23, Defence Services - Navy

Demand No. 24, Defence Services - Air Force

Demand No. 25, Defence Ordnance Factories

Demand No. 26, Defence Services - Research & Development (R&D)

Demand No. 27, Capital Outlay on Defence Services - Includes All Services and Departments other than those covered by the Demands for Grants of Ministry of Defence (Civil)

• The budgetary requirements for the Border Roads Organisation are provided by the Ministry of Road Transport & Highways.

The above mentioned Grants are broadly categorized into Revenue and Capital expenditure.

- \* Revenue Expenditure: This includes expenditure on Pay & Allowances, Transportation, Revenue Stores (like Ordnance Stores, supplies by Ordnance Factories, Rations, Petrol, Oil and Lubricants, Spares, etc.), Revenue Works (which include maintenance of buildings, water and electricity charges, rents, rates and taxes, etc.) and other miscellaneous expenditure.
- ❖ Capital Expenditure: This includes expenditure on Land, Acquisition of new weapon and ammunitions, Modernization of Services, Construction Works, Plant and Machinery, Equipment, Tanks, Naval Vessels, Aircraft and Aero-engines, Dockyards, etc.

Approval of Parliament<sup>5</sup> is taken for the Gross expenditure provision under different Demands for Grants. Receipts and Recoveries, which include items like sale proceeds of surplus/obsolete stores, receipts on account of services rendered to State Governments/other Ministries, etc. and other miscellaneous items are deducted from the gross expenditure to arrive at the net expenditure on Defence Services for the six Demands, *viz.* Demands Nos. 22 to 27. A brief analysis of these Grants is given below.

#### 1.10.2 Grant No. 20 - Civil Expenditure of the Ministry of Defence

The budgetary provisions and actual expenditure including Revenue and Capital expenditure for the year 2011-12 under Demand No. 20 is shown in Table - 1 below:

Table-1: Budgetary allocation and Actual expenditure: MoD (Civil)

(₹in crore)

<b>Budget Estimates</b>	<b>Revised Estimates</b>	Actual Expenditure
13156.81	15072.84	14920.10

Major components of gross Revenue expenditure of ₹13296.32 crore for 2011-12 are Canteen Stores Department (CSD) (₹10322.32 crore), Defence Accounts Department (₹953.92 crore), Coast Guard Organisation (CGO) (₹925.84 crore), Defence Estates Organisation (DEO) (₹159.94 crore), Jammu & Kashmir Light Infantry (J&K LI) (₹733.82 crore), etc. In the Capital outlay of ₹1623.78 crore in the Revised Estimates 2011-12, the major allocations are Capital Outlay of other fiscal services - customs (₹1575.38 crore), housing and office buildings (₹35.44 crore), PSUs (₹4.00 crore) and Miscellaneous Loans for Unit Run Canteen (URC) by CSD (₹2.32 crore).

#### 1.10.3 Grant No. 21 - Defence Pensions

Defence Pensions, under Ministry of Defence, provides for pensionary charges in respect of retired Defence personnel (including Defence Civilian employees) of the three services, *viz.* Army, Navy and Air Force, and of employees of Ordnance Factories, etc. It covers payments of service pension, gratuity, family pension, disability pension, commuted value of pension, leave encashment, etc.

The position of budgetary allocation and expenditure for the year 2011-12 under this grant is as under:

Table- 2: Budgetary allocation and Actual expenditure: Defence Pension

<b>Budget Estimates</b>	Revised Estimates	Actual Expenditure
34000	34000	37568.56

<sup>&</sup>lt;sup>5</sup> Source: Report No.20 of Standing Committee on Defence (2012-13)

#### 1.11 Grant No.22 to 27 - Defence Services Estimates

#### 1.11.1 At a glance

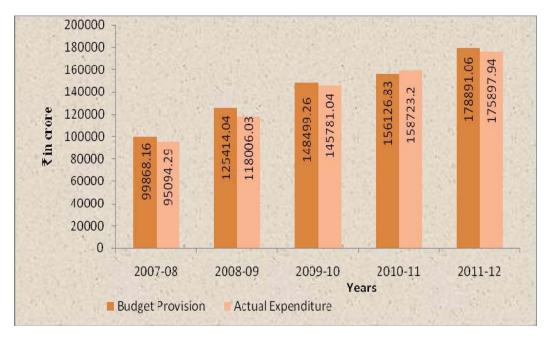
The overall Defence Budget, allocation and actual expenditure (Voted & Charged) for the period 2007-08 to 2011-12 is given in Table-3 and Chart -1 as under:

Table-3: Total Defence Budget allocation and Actual expenditure

(₹in crore)

Year	Budget Provision	Actual Expenditure
2007-08	99868.16	95094.29
2008-09	125414.04	118006.03
2009-10	148499.26	145781.04
2010-11	156126.83	158723.20
2011-12	178891.06	175897.94

Chart-1: Budget provision Vs Actual expenditure



The data relating to actual defence expenditure shows an overall increase of 84.97 *per cent* during the period 2007-08 and 2011-12 whereas the increase in 2011-12 over the previous year is 11 *per cent*.

#### 1.11.2 Revenue Expenditure vs. Capital Expenditure in Defence Services

Capital and Revenue expenditure (Voted) for the period 2007-08 to 2011-12 is given in Chart - 2 below:

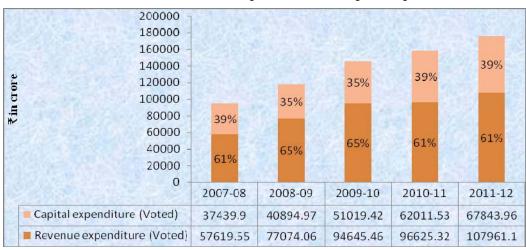


Chart - 2: Revenue expenditure vs. Capital expenditure

The above data shows that the proportion of Capital expenditure as a percentage of total Defence expenditure has remained between the range of 35 to 39 *per cent* during the period 2007-08 to 2011-12.

# 1.12 Break-up of Expenditure (Voted) relating to Army, Ordnance Factories and R&D (Capital & Revenue) – Grant No. 22, 25, 26 and 27<sup>6</sup>

A detailed analysis of the expenditure (Voted) for the period 2007-08 to 2011-12 relating to Army, Ordnance Factories and R&D showing Revenue and Capital expenditure is given in Table-4 below.

Table-4: Expenditure (Voted) of Army, Ordnance Factories & R&D

(₹in crore)

Description of Grant	Components of Expenditure	2007-08	2008-09	2009-10	2010-11	2011-12
Army	Actual	47393.09	59663.53	77512.29	80789.82	86776.05
	Revenue	35481.29	49052.51	62716.64	65001.96	71832.66
	~	(74.87%)	(82.22%)	(80.91%)	(80.46%)	(82.78%)
	Capital	11911.80	10611.02	14795.65	15787.86	14943.39
		(25.13%)	(17.78%)	(19.09%)	(19.54%)	(17.22%)
Ordnance	Actual	1424.15	3309.13	3520.27	1527.00	1704.15
Factory	Revenue	1274.14	2957.00	3279.98	1073.42	1427.94
		(89.47%)	(89.36%)	(93.17%)	(70.30%)	(83.79%)
	Capital	150.01	352.13	240.29	453.58	276.21
		(10.53%)	(10.64%)	(6.83%)	(29.70%)	(16.21%)
R&D	Actual	6137.13	7730.66	8507.87	10191.99	9932.29
	Revenue	3190.61	3873.55	4355.57	5230.88	5321.24
		(51.99%)	(50.11%)	(51.20%)	(51.32%)	(53.58%)
	Capital	2946.52	3857.11	4152.30	4961.11	4611.05
	•	(48.01%)	(49.89%)	(48.81%)	(48.68%)	(46.43%)

**Note**: Figure in brackets represents the Revenue/Capital expenditure as a percentage of the Actual expenditure.

<sup>6</sup> Grant No. 23 - Navy and Grant No.24 - Air Force are analysed in the Compliance Audit Report of the Union Government (Defence Services) Air Force and Navy

9

- The total Army expenditure during 2011-12 has registered an increase of 7.41 *per cent* over the previous year with the Capital expenditure recording a decrease of 5.35 *per cent* and the Revenue expenditure registering an increase of 10.50 *per cent*
- The total Ordnance Factory expenditure during 2011-12 has recorded an increase of 11.60 *per cent* over the previous year with the Capital expenditure registering a decrease of 39.10 *per cent* and the Revenue expenditure an increase of 33.02 *per cent*.
- The total R&D expenditure during 2011-12 has recorded a decrease of 2.55 *per cent* over the previous year with Capital expenditure registering a decrease of 7.06 *per cent* and the Revenue expenditure a increase of 1.73 *per cent*.

#### 1.12.1 Analysis of total Army Expenditure - Capital and Revenue

A trend of total Army expenditure both Capital and Revenue as a proportion of actual expenditure during the period 2007-08 to 2011-12 is given in Chart - 3 below:

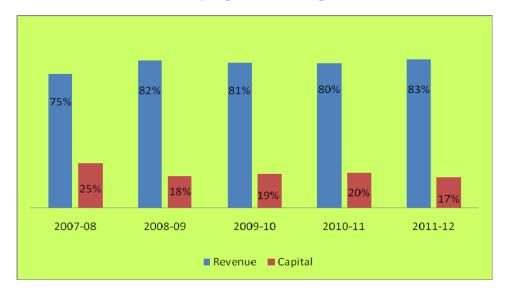
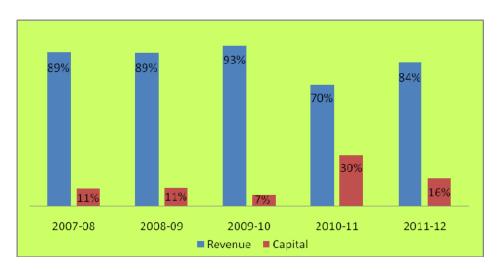


Chart-3: Total Army expenditure - Capital and Revenue

The above chart shows that the Revenue component of the total Army expenditure has increased by 8 *per cent* during the period 2007-08 to 2011-12 from 75 *per cent* in 2007-08 to 83 *per cent* in 2011-12 while the Capital component has recorded a corresponding decrease during the same period from 25 *per cent* (2007-08) to 17 *per cent* (2011-12).

#### 1.12.2 Analysis of Ordnance Factory Expenditure - Capital and Revenue

A trend of total Ordnance Factory expenditure both Capital and Revenue as a proportion of actual expenditure for the period 2007-08 to 2011-12 is given in Chart - 4 below:



**Chart-4: Total Ordnance Factory expenditure - Capital and Revenue** 

Chart-4 shows that the Revenue component of the total actual expenditure of the Ordnance Factories for the period 2007-08 to 2011-12 decreased by 5 *per cent* from 89 *per cent* in 2007-08 to 84 *per cent* in 2011-12, whereas the Capital component of expenditure increased by a corresponding percentage from 11 *per cent* to 16 *per cent*.

### 1.12.3 Analysis of Research and Development Expenditure - Capital and Revenue

A trend of total Research and Development expenditure both Capital and Revenue as a proportion of actual expenditure for the period 2007-08 to 2011-12 is given in Chart - 5 below.

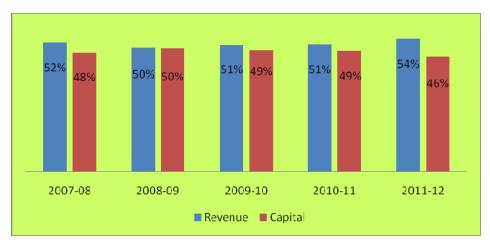


Chart-5: Total R&D expenditure - Capital and Revenue

Chart-5 shows that the Revenue expenditure on R&D has increased by 2 *per cent* from 52 *per cent* in 2007-08 to 54 *per cent* in 2011-12 during the period 2007-08 to 2011-12 while the Capital expenditure has decreased by a similar percentage from 48 *per cent* to 46 *per cent*.

#### 1.13 Analysis of Major components of Revenue expenditure

#### 1.13.1 Army (Voted)

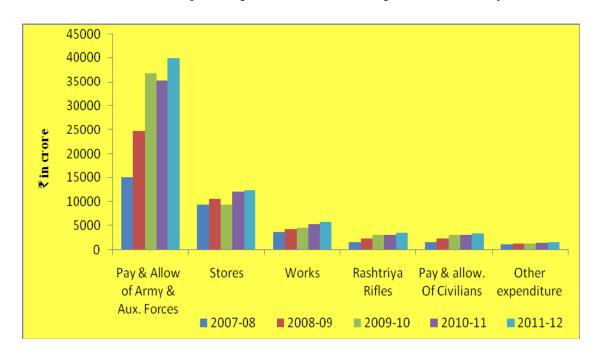
During the period 2007-08 to 2011-12 maximum Revenue expenditure was incurred under six Minor Heads (MH) of the Army as given in Table-5 and Chart-6 below:

Table-5: Details of Major components of Revenue expenditure of Army

(₹in crore)

Year	Pay & Allowances (MH-101& 103)	Stores (MH-110)	Works (MH-111)	Rashtriya Rifles (MH-112)	Pay & Allowances of Civilians (MH-104)	Other expenditure (MH-800)
2007-08	15147.14	9488.60	3648.24	1603.25	1604.54	1165.81
2008-09	24656.04	10712.51	4282.97	2419.72	2353.11	1370.11
2009-10	36896.23	9404.65	4608.34	3047.58	3132.27	1380.31
2010-11	35445.39	12144.48	5308.35	3098.71	3051.42	1475.79
2011-12	39996.27	12442.20	5708.68	3585.38	3361.21	1644.18

Chart-6: Major components of Revenue expenditure of Army



• Rise in expenditure by more than 100 per cent: A rise in expenditure of more than 100 per cent has been recorded under Minor Heads of Pay & Allowances of Army & Auxiliary Forces, Pay & Allowances of Civilians and Expenditure relating to Rashtriya Rifles at 164.05 per cent, 109.48 per cent and 113.6 per cent, respectively during the period 2007-08 to 2011-12.

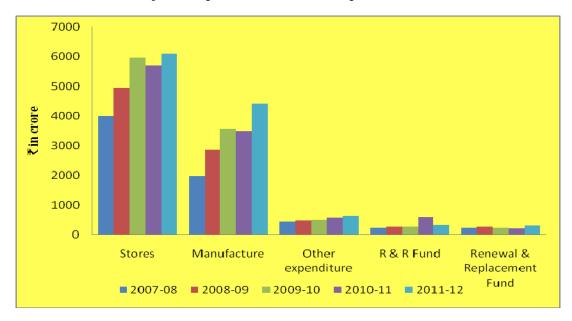
#### 1.13.2 Ordnance Factories

During the period 2007-08 to 2011-12 maximum Revenue expenditure was incurred under five Minor Heads (MH) of the Ordnance Factories as given in Table-6 and Chart-7 below:

Table-6: Major Components of Revenue expenditure of Ordnance Factories

Year	Stores MH-110	Manufacture MH-054	Other Expenditure MH-800	Renewal & Reserve Fund (R&R) MH-797	Renewal & Replacement MH-106
2007-08	4012.06	1985.14	445.76	230.0000	237.50
2008-09	4948.22	2858.54	483.05	271.0000	276.22
2009-10	5965.16	3566.03	506.74	280.0000	228.24
2010-11	5704.96	3499.75	582.66	600.0000	207.82
2011-12	6101.41	4415.33	649.75	325.0000	310.25

Chart 7: Major Components of Revenue expenditure of Ordnance Factories



- Increase in expenditure by more than 100 per cent: The Minor Head Manufacture-054 has recorded an increase of 122.41 per cent during the period 2007-08 to 2011-12.
- Expenditure under Minor Heads Store, R&R Fund and Renewal & Replacement has, on the other hand, have shown an increase of 52.07 *per cent*, 41.30 and 30.63 *per cent*, respectively during the same period.

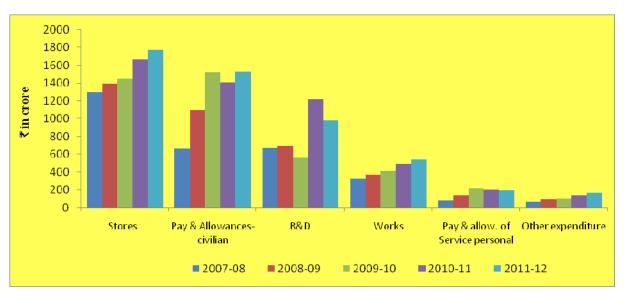
#### 1.13.3 Research & Development

During the period 2007-08 to 2011-12 maximum Revenue expenditure was incurred under six Minor Heads (MH) of the R&D as given in Table-7 and Chart-8 below:

Table-7: Major components of Revenue expenditure of Research & Development

Year	Stores MH-110	Pay & Allowances- Civilian MH-104	R&D MH-004	Works MH-111	Pay & Allowance of Service Personnel MH-101 & 103	Other Expenditure MH-800
2007-08	1301.18	661.19	677.58	325.77	83.17	68.78
2008-09	1395.99	1096.76	696.51	374.86	140.67	97.87
2009-10	1453.76	1525.66	562.81	411.80	220.34	101.31
2010-11	1665.91	1409.71	1218.25	492.17	201.61	144.02
2011-12	1774.18	1534.88	983.91	543.20	198.23	167.55

Chart 8: Major components of Revenue expenditure of Research & Development



- Increase in expenditure by more than 100 per cent during last five years: Under Minor Heads Pay & Allowances of Civilian and Pay & Allowances of Service Personnel the expenditure has increased by 132.13 per cent and 138.30 per cent, respectively during the period 2007-08 to 2011-12.
- "Other Expenditure": The Other Expenditure registered an increase of 143.60 *per cent* during the period 2007-08 to 2011-12.

• The expenditure under Minor Head- Works, R&D-004 and Stores have, on the other hand, shown a corresponding increase of 66.74 *per cent*, 45.20 *per cent* and 36.35 *per cent*, respectively during the period 2007-08 to 2011-12.

## 1.14. Analysis of Capital expenditure - Major Head-4076-Grant no. 27-Capital Outlay on Defence Services

1.14.1 Components of Capital expenditure: There are eight Sub Major Heads under this Grant, viz. Sub Major Head 01- Army, Sub Major Head 02- Navy, Sub Major Head 03- Air Force, Sub Major Head 04- Ordnance Factories, Sub Major Head 05 - R&D, Sub Major Head 06 - Inspection Organisation, Sub Major Head 07 - Special Metal and Super Alloys Projects and Sub Major Head 08 - Technology Development.

### 1.14.2 Trend Analysis of Capital expenditure of Army, Ordnance Factories and R&D (Voted)

The details of Capital expenditure of Army, Ordnance Factories and R&D i.e; Sub Major Head-01, 04 and 05 during the period 2007-08 to 2011-12 is given in Table - 8 below:

Table-8: Total Capital expenditure (Defence Services) Vs Army, Ordnance Factories and R&D

Year	Total Capital	Capital	Capital	Capital
	Expenditure	Expenditure of Army	Expenditure of Ordnance	Expenditure of R&D
		J	Factories	
2007-08	37439.90	11911.80	150.01	2946.52
2008-09	40894.97	10611.02	352.13	3857.11
2009-10	51019.42	14795.65	240.29	4152.30
2010-11	62011.53	15787.86	453.58	4961.11
2011-12	67843.96	14943.39	276.21	4611.05

- Total Capital Expenditure of Defence Services: The total Capital expenditure of Defence Services has recorded an overall increase of 81.21 *per cent* during the period 2007-08 to 2011-12. Compared to this the component-wise increase in Capital expenditure of Army, Ordnance Factories and R&D were 25.45 *per cent*, 84.13 *per cent* and 56.49 *per cent*, respectively.
- Army Capital Expenditure: The component of Capital expenditure of Army against the total Capital expenditure of Defence Services decreased by 10 per cent from 31.82 per cent in 2007-08 to 22.03 per cent in 2011-12. The Capital expenditure of Army during 2011-12 has recorded a decrease of 5.35 per cent over the previous year, despite an increase of 9.4 per cent in the Capital expenditure of Defence Services.

- Ordnance Factory Capital Expenditure: Capital expenditure of Ordnance Factory has not seen any significant variations as a component of the total Capital expenditure during the period 2007-08 to 2011-12. From 0.40 *per cent* of the total Capital expenditure in 2007-08 it has increased to 0.41 *per cent* in 2011-12. Over the previous year, the Capital expenditure of Ordnance Factory in 2011-12 has shown a decrease of 39 *per cent*.
- **R&D Capital Expenditure:** Capital expenditure of R&D has seen a minor decrease of nearly 1 *per cent* i.e. from 7.87 *per cent* (2007-08) to 6.80 *per cent* (2011-12) with respect to total Capital expenditure. Compared to the previous year, the Capital expenditure of R&D has decreased by 7.06 *per cent*.

#### 1.14.3 Trend of Saving/Excess in Capital Expenditure (Voted)

The trend of 'Saving' and 'Excess' in Capital expenditure for the period 2007-08 to 2011-12 is given in Table-9 below:

Table-9: Trend of Saving/Excess in Capital Expenditure

(₹in crore)

Year	Total	Total	<b>Under Total Capital</b>	
	Grant	Expenditure	Grant	
	(Voted)		Saving (-)	Excess (+)
2007-08	41857.60	37439.91	4417.69	-
			(10.55 %)	
2008-09	47976.10	40894.98	7081.12	-
			(14.76%)	
2009-10	54779.62	51019.42	3760.20	-
			(6.86%)	
2010-11	60776.21	62011.52	-	1235.31
				(2.03 %)
2011-12	69148.01	67843.97	1304.04	-
			(1.89%)	

Note: Figure in brackets represents the saving  $(-)/\exp(+)$  as a percentage of Total Grant (Voted)

- It is evident from the above table that during the period 2007-08 to 2011-12 there were persistent "Savings' except in the year 2010-11 when there was an "Excess" of 2.03 per cent. The 'Savings' have ranged between 14.76 per cent and 1.89 per cent during this period.
- The saving of ₹1304.04 crore (1.89 *per cent*) during the year 2011-12 is in addition to the surrender of funds amounting to ₹3105.71 crore (4.49 *per cent*) on the last working day of the financial year 2011-12.