

**21**

**STANDING COMMITTEE  
ON DEFENCE  
(2006-07)**

**FOURTEENTH LOK SABHA**

**MINISTRY OF DEFENCE**

*[Action Taken by the Government on the Recommendations contained in  
the Ninth Report of the Committee (Fourteenth Lok Sabha) on  
Defence Public Sector Undertakings]*

**TWENTY-FIRST REPORT**



**LOK SABHA SECRETARIAT  
NEW DELHI**

*July, 2007/Asadha, 1929 (Saka)*

TWENTY-FIRST REPORT  
STANDING COMMITTEE ON DEFENCE  
(2006-07)

(FOURTEENTH LOK SABHA)

MINISTRY OF DEFENCE

*[Action Taken by the Government on the Recommendations contained in  
the Ninth Report of the Committee (Fourteenth Lok Sabha) on  
Defence Public Sector Undertakings]*

*Presented to Speaker, Lok Sabha/Chairman, Rajya Sabha on 20.7.2007  
Presented to Lok Sabha on .....  
Laid in Rajya Sabha on .....*



LOK SABHA SECRETARIAT  
NEW DELHI

*July, 2007/Asadha, 1929 (Saka)*

**C.O.D. No. 85**

*Price* : Rs. 95.00

© 2007 BY LOK SABHA SECRETARIAT

Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Eleventh Edition) and Printed by Jainco Art India, New Delhi-110 005.

## CONTENTS

	PAGES
COMPOSITION OF THE COMMITTEE (2006-07) .....	(iii)
PREFACE .....	(v)
CHAPTER I Report .....	1
CHAPTER II Recommendations/Observations which have been accepted by the Government .....	36
CHAPTER III Recommendations/Observations which the Committee do not desire to pursue in view of Government's replies .....	65
CHAPTER IV Recommendations/Observations in respect of which replies of Government have not been accepted by Committee .....	67
CHAPTER V Recommendations/Observations in respect of which final replies of Government are still awaited .....	77
MINUTES OF THE SITTING .....	78
APPENDIX Analysis of Action Taken by Government on the Recommendations contained in the 9th Report of the Standing Committee on Defence (Thirteenth Lok Sabha) .....	86

COMPOSITION OF THE STANDING COMMITTEE  
ON DEFENCE (2006-07)

Shri Balasaheb Vikhe Patil—*Chairman*

MEMBERS

*Lok Sabha*

2. Shri S. Bangarappa
3. Shri Milind Murli Deora
4. Shri Santosh Kumar Gangwar
5. Shri Ramesh C. Jigajinagi
6. Shri Suresh Kalmadi
7. Shri C. Kuppusami
8. Dr. K.S. Manoj
9. Ms. Ingrid Mcleod
10. Shri Asaduddin Owaisi
11. Shri Adhalrao Shivaji Patil
12. Shri Shriniwas Patil
13. Shri Rajendrasinh Ghanshyamsinh Rana (Raju Rana)
14. Dr. H.T. Sangliana
15. Shri Arjun Charan Sethi
16. Prof. Mahadeorao Shiwankar
17. Shri Manvendra Singh
18. Shri Balashowry Vallabhaneni
19. Shri Rajesh Verma

*Rajya Sabha*

20. Dr. Farooq Abdullah
21. Shri Jai Prakash Aggarwal
22. Shri Abu Asim Azmi
23. Smt. Sobhana Bharatia
24. Shri R.K. Dhawan

(iv)

25. Smt. N.P. Durga
26. Shri S.P.M. Syed Khan
27. Shri K.B. Shanappa
28. Shri Arun Shourie
29. Smt. Viplove Thakur

SECRETARIAT

1. Shri S.K. Sharma — *Additional Secretary*
2. Shri P.K. Bhandari — *Joint Secretary*
3. Shri Gopal Singh — *Director*
4. Shri D.R. Shekhar — *Deputy Secretary-II*
5. Smt. Jyochnamayi Sinha — *Under Secretary*
6. Shri Rahul Singh — *Committee Officer*

## PREFACE

I, the Chairman, Standing Committee on Defence (2006-07) having been authorized by the Committee to submit the Report on their behalf, present this Twenty-First Report on 'Action Taken by the Government on the recommendations contained in the Ninth Report of the Committee (Fourteenth Lok Sabha) on 'Defence Public Sector Undertakings (DPSUs)'.

2. The Ninth Report was presented to/laid in Lok Sabha/Rajya Sabha on 20 March, 2006. The Government furnished replies indicating action taken on the recommendations contained in the Report. The Committee took oral evidence of the representatives of Ministry of Defence on 12 February, 2007 to have clarifications on certain issues arising out of the action taken replies. The Committee also took evidence of the representatives of various Trade/Employees Unions of Defence Public Sector Undertakings (DPSUs) and Ordnance Factories on 6 June, 2007. The Draft Action Taken Report was considered and adopted by the Committee at their sitting held on 11 July, 2007.

3. An analysis of action taken by the Government on recommendations contained in the Ninth Report of the Standing Committee on Defence (Fourteenth Lok Sabha) is given in Appendix.

4. For facility of reference and convenience, the observations/recommendations of the Committee have been printed in thick type in the body of the Report.

NEW DELHI;  
12 July, 2007  
21 Asadha, 1929 (Saka)

BALASAHEB VIKHE PATIL,  
*Chairman,*  
*Standing Committee on Defence.*

## CHAPTER I

### REPORT

The Report of the Standing Committee on Defence deals with action taken by the Government on the recommendations/observations contained in their Ninth Report (Fourteenth Lok Sabha) on the Defence Public Sector Undertakings which was presented to Lok Sabha/laid on the Table of Rajya Sabha on 20th March, 2006.

2. In the Ninth Report (Fourteenth Lok Sabha), the Committee had made 45 observations/recommendations on the following subjects:—

Sl.No.	Para No.	Subject
1.	1.5 to 1.13	Introduction
2.	2.19 to 2.27	Hindustan Aeronautics Limited
3.	3.19 to 3.21	Bharat Electronics Limited
4.	4.12 to 4.16	Bharat Earth Movers Limited
5.	5.8 to 5.12	Bharat Dynamics Limited
6.	6.13 & 6.14	Mishra Dhatu Nigam Limited
7.	7.21 to 7.24	Goa Shipyard Limited
8.	8.12	Garden Reach Shipbuilders and Engineers Limited
9.	9.24 to 9.28	Mazagon Dock Limited
10.	10.7 & 10.8	Private Sector Participation in Defence Productions

3. Action Taken Notes have been received from the Government in respect of all the recommendations/observations contained in the Report. These have been categorised as follows:—

- (i) Recommendations/Observations which have been accepted by Government (Please see Chapter II):

Sl. Nos. 1.7 to 1.13, 2.19, 2.21 to 2.27, 3.19 to 3.21, 4.12 to 4.15, 5.8, 5.12, 6.14, 7.23 & 7.24, 8.12, 9.24 to 9.28, 10.7 & 10.8



- (ii) Recommendations/Observations which the Committee do not desire to pursue in view of Government's replies (Please *see* Chapter III):

Sl. Nos. 4.16, 5.9 & 5.10

- (iii) Recommendations/Observations in respect of which replies of Government have not been accepted by the Committee (Please *see* Chapter IV):

Sl. Nos. 1.5, 1.6, 2.20, 6.13, 7.21 & 7.22

- (iv) Recommendations/Observations in respect of which final replies of Government are still awaited (Please *see* Chapter – V):

Sl. No. 5.11

**4. The Committee trust that utmost importance will be given to the implementation of the recommendations accepted by the Government. In cases, where it is not possible for any reason to implement the recommendations in letter and spirit, the matter should be reported to the Committee with reasons for non-implementation. The Committee desire that action taken notes on the recommendations/observations contained in Chapter-I and final replies to the recommendations contained in Chapter-V of the Report be furnished to the Committee within six months of the presentation of the Report.**

5. The Committee will now deal with the action taken by the Government on some of their recommendations contained in Chapter-I of this report. Chapter-I deals with the recommendations of the Committee on which replies furnished by the Ministry are not satisfactory and are not accepted by the Committee or replies to the recommendations of the Committee have been accepted, but still in some areas of implementation, the Committee want to further comment or seek more detailed information. Accordingly in Chapter-I of the Action Taken Report further comments, recommendations on some of the replies have been given/made by the Committee for further reply/ seeking action taken statement from the Ministry. The Ministry shall as early as possible, after the presentation of this report, furnish statements of action taken or proposed to be taken by them on the recommendations contained in the Chapter-I and the final replies to the recommendations contained in Chapter-V of this report.

## INTRODUCTION

**Need to confer more autonomy to DPSUs****Recommendation (Para Nos. 1.5 & 1.6)**

6. The Committee had noted that the Ministry of Defence had eight Public Sector Undertakings (DPSUs) which catered to the basic strategic requirements of Defence Forces. The Committee had also noted that defence production was a highly sophisticated sector, which required state-of-the-art technology. A major challenge before these DPSUs was therefore to constantly upgrade their technology and products so that their products might be of world standards and may successfully compete in the international market.

7. To achieve the above objectives, DPSUs needed sufficient resources/funds to undertake modernization of their plants and make investment in R&D, manpower training etc. Therefore, the Committee were of the view that DPSUs should be given more financial autonomy and allowed to raise resources through market-borrowing by way of equity/bonds/loan from public. The Committee had recommended that the Government should permit DPSUs to utilize a certain percentage of the money received from market borrowing for modernization purposes. It would ensure accountability and also increase the resource bases of the organizations. It would also make them self-sufficient and reduce their dependency on government funds. The DPSUs should also be given more autonomy in decision making and in matters like entering into joint venture/co-development and co-production agreements with foreign countries. The Committee therefore had desired that DPSUs should appoint a Committee of experts including some outside experts also which might, from time to time, give well considered advice to improve their products and bring efficiency in the work.

8. The Ministry in their, action taken reply, have stated:—

“The Defence Public Sector Undertakings (DPSUs) have taken up several steps to upgrade their technology and products. Out of the eight DPSUs, three are Defence Shipyards.

(ii) It includes Hindustan Aeronautics Limited (HAL)’s upgrading Design and Production facilities with systems and machineries required for a modern aerospace industry. Besides, HAL have commissioned computer aided design packages (Catia, Unigraphics), CNC profilers, CNC machining centres, Coordinate Measuring

Machines, Laser marking and cutting machines, Water Jet cutting machines, Electron Beam Welding Machines and other sophisticated machines. Apart from this, HAL has developed the Advanced Light Helicopter (Dhruv) and under development is intermediate Jet Trainer.

(iii) Another DPSU, Bharat Electronics Limited (BEL) takes up development of new products proactively. Some of its recently upgraded products are Flycatcher Radar, Frequently Hopping VHF equipment, VHF Portable Set (VPS) Mk III etc.

(iv) Shipbuilding is a complex activity comprising Naval Architecture, Mechanical, Electrical and Weapon disciplines. The shipyards focus is towards construction of a desired platform capable of operating in a specified environmental condition and capacity to house the state-of-art machinery/equipment/weapons. Upgradation of Production Technology and Design features are the issues of concern in shipbuilding.

(v) One of the Defence Shipyards, Goa Shipyard Limited (GSL) has taken the following action for upgrading its technology:—

- Implemented ERP covering the entire gamut of its operation.
- Upgraded TRIBON software for design of ships and laying out compartments.
- Integrated ERP system, Primavera Project Management Tool, TRIBON software.
- Upgraded production technology by introducing ceramic back up strip welding, Gullco automatic welding attachment, bevelling machine, established modern electronic workshop, updated Pipe shop etc.
- Appointed M/s. Royal Haskoning, UK as consultants for modernization.

(vi) Another Defence Shipyard, Garden Reach Shipbuilders & Engineers Limited (GRSE) has undertaken:—

- (a) Number of licenced software (Tribon) for Computer Aided Design;
- (b) ERP System (SAP R/4) for better integration/coordination among Production, Planning, Design and Material;
- (c) Project Planning & Control of Shipbuilding activities using PRIMA VERA software;

- (d) Modular Concept in Ship Production to increase the Outfitting activities to 60-80% at prelaunch aids with
- (i) Modern CNC Plasms cutting machines.
  - (ii) CNC Pipe Bending machines.
  - (iii) CNC Oxy Acetylene plate cutting machine.
  - (iv) Boring machine with sighting facility.
  - (v) Extensive use of TIG/MIG welding.
  - (vi) Having taken strides towards updating the Production Technology, GRSE now proposes to venture into exporting a few of its products in the international market.
  - (vii) With the Financial support received from the Strategic Customers and also with injection of the internal resources generated by Mishra Dhatu Nigam Limited (MIDHANI) the Company has been able to commence the Modernization plan. The modernization plan is expected to be completed within two years. The modernization of the Company's equipment and facilities would enable improved productivity and yield while at the same time ensure supply of quality materials to its customers with faster deliveries.
  - (viii) The DPSU Bharat Earth Movers Limited (BEML) is upgrading its products based on feedback from its marketing network by incorporating additional features that are on the competitor equipments. New equipments are designed and produced to meet specific customer requirements. Apart from this, tie ups are made with international companies for new products and these are indigenised progressively by obtaining necessary technical inputs from collaborators."

9. The Ministry in their, action taken reply on Para No. 1.6, have stated:

"Two Mini Ratna DPSUs, Hindustan Aeronautics Limited (HAL) and Bharat Electronics Limited (BEL) have sufficient funds available to undertake their activities and modernization of their plants and products.

(ii) Another DPSU, Mishra Dhatu Nigam Limited (MIDHANI) has been able to wipe out its cumulative losses and to register improvements in its Reserves and Surplus. These funds are being ploughed back into business for procurement of capital equipment as a part of its Modernization plan to replace its outdated and

obsolete equipment as a part of its Modernization plan to replace its outdated and obsolete equipment. However, due to its weak financial health and its inability to service debts, MIDHANI's strategic customers have extended financial assistance both in the form of Grant and interest free loan/advances. MIDHANI could consider borrowing from markets/public in the form of equity/loan/bonds once its financial health improves and for next phase of modernization plan.

(iii) One more DPSU Bharat Earth Movers Limited (BEML) has sought assistance for funds for setting up an independent R&D centre of excellence at Bangalore for Metro Rail coaches and such high tech rail products and for upgrading metro manufacturing facility at its Bangalore unit. These two proposals are with the Department of Heavy Industry. BEML propose to invest around Rs. 167 crore for modernization/upgradation of its manufacturing facilities from its own resources. Also, BEML is engaging Consultants/Professionals in areas where in-house talent/expertise is found wanting.

(iv) One of the Defence shipyards, Goa Shipyard Limited (GSL) has initiated to raise sources from capital market. The GSL propose to appoint SBI Capital Market to render advisory services and also to undertake the Capital restructuring exercise to enable issue of shares held by MoD by way of offer to the public and also by GSL itself.

(v) A comprehensive plan for modernization of GSL is in hand which when completed in a phased manner by mid 2010 would give the yard a quantum jumps in building and repairing medium sized sophisticated vessels at competitive price with reduced build period.

(vi) M/s. Royal Haskoning, UK, have been appointed as consultant for GSL modernisation. The Preliminary Project Report submitted by the Consultant has been duly approved by Board of Directors. The Detailed Project Reports is under preparation.

(vii) Modernisation programme envisaged by GSL involves an outlay of app. Rs. 525 crore. GSL is making efforts to garner Indian Navy's support to fund part of the project to construct MCMVs to the extent of Rs. 237 crore. GSL have also approached Indian Coast Guard with a proposal to part fund the modernization for long term repair/maintenance of Coast Guard ships to the extent of Rs. 80 crore. It is planned to mobilize the remaining

Rs. 208 crore through external commercial borrowings or by issue of additional shares to the public.

(viii) Regarding joint ventures, GSL has signed following MoU/ collaboration agreements

- M/s. Wartsila LIPS Defence, France:  
MoU signed with M/s. Wartsila LIPS Defence for collaborating as their partner in India on project-to-project basis and to pool resources for the purpose of securing orders and manufacturing full stern gear in India.
- M/s. Alstom Power Conversion, France:  
MoU signed with M/s. Alstom Power Conversion, France for collaborating as their partner in India for providing after sales service support to the Propulsion Control and Monitoring System supplied by ALSTOM to Indian Navy and Coast Guard.
- M/s. Iv-Nevesbu, Netherlands:  
MoU signed with M/s. Iv-Nevesbu, Netherlands for collaborating as their partner in India on project-to-project basis and to pool resources for the purpose of securing orders for System Integration of P28 ASW Corvette.
- M/s. Rolls-Royce Power Engineering Plc, U.K.:  
MoU signed with M/s. Rolls-Royce Power Engineering Plc, U.K. for manufacturing/procurement of certain components, sub-assemblies and final assembly and test of motion control equipment for use in Naval and Coast Guard vessels manufactured in India.
- M/s. VT Helmatic, U.K.:  
MoU signed with M/s. VT Helmatic, UK for design, manufacture, test, trials and after sales support service for GRP boats being built for Indian market.
- M/s. THORNYCROFT MARITIME & ASSOCIATES (AUST) PTY LTD Fremantle, Western Australia, Australia:  
MoU signed with M/s. Thornycroft Maritime & Associates (AUST) Pty Ltd. Fremantle, Western Australia, Australia for collaborating as partner on project to project basis to pool resources in regards to shipbuilding projects for Indian market as well as for export.

(ix) Similarly, another Defence Shipyard Garden Reach Shipbuilders & Engineers Limited (GRSE) has embarked on modernization plan at a value of more than Rs. 300 crore and also in the process of setting up ship repairing facility at Haldia Port through joint ventures/co-development and co-production agreement with foreign countries if required. GRSE has appointed UK based consultant M/s Giord for drawing up a modernization plan and the SBI Cap for Haldia Project.

(x) A Committee to give well-considered advice to improve products regularly undertake benchmarking meetings between the defence shipyards to introduce the best practices prevailing in each shipyard. In addition to that, external consultants have been appointed, on need basis in areas of energy saving, improving safety etc.

(xi) MIDHANI in its quest to increase its turnover has been taking up supply of value added items like Rings, Plates, Kanchan Armour, large machined items etc., to its Strategic Customers like Space, Defence and Atomic Energy. In this direction MIDHANI has been making use of the facilities, that do not exist in MIDHANI, but that are available at different PSUs (RSP, Rourkela) and Government Organizations (Nuclear Fuel Complex, Hyderabad) and other private sector/small and medium sectors (in and around Hyderabad) and adequate delegation of powers exists to the Chief Executives in this regard. Though, these are not in the nature of Joint Ventures, its facilities co-development and co-production with efficient utilization of the resources available within the country.

(xiii) MIDHANI has sought the induction of experts in the field of metallurgy management, finance, marketing etc., as independent directors on the Board of MIDHANI. With the induction of these Independent directors MIDHANI would be benefited with their independent advice, foresight and expertise for the improvement of the company."

10. The Ministry was again specifically asked about the outcome of the Committee's recommendation to appoint a Committee for improvements in the working and various products of DPSUs. In their reply the Ministry stated as under:

"The Ministry has not constituted a separate committee of experts for improvement in the working and various products of DPSUs. However, as regards the autonomy of DPSUs the status in each case is as given below:—

**Hindustan Aeronautics Limited (HAL)**

Autonomy has been granted to HAL in decision making and entering into joint ventures and co-development arrangement with foreign vendors and private sector. HAL is a Mini Ratna-Category 1 Company with autonomy and powers delegated accordingly.

The Apex Committee on conferment of Navratna status to select Central Public Sector Enterprises in its meeting chaired by Cabinet Secretary on 13.2.2007 has recommended conferment of Navratna status to Hindustan Aeronautics Limited. Department of Public Enterprises is taking further action to issue notification in this regard. With the notification, HAL will have enhanced autonomy and delegation of powers.

The Board of Directors of HAL is fully empowered to take all decisions pertaining to investments, personnel and other business related issues. Ministry's approval is required only in case of new programmes, where the commitment from the Defence Services/ Government is necessary.

The Board of Directors of HAL includes independent directors from industry and finance in addition to the Government directors and internal directors. Independent directors contribute significantly in the working procedures and systems by their advices in their specialized areas. In addition HAL, has been taking the services of specialist consultants on need basis, in areas such as lean management, Human Resource Development, Project feasibility studies, etc.

**Bharat Electronics Limited (BEL)**

BEL is a Mini Ratna Category-1 and enjoys the autonomy conferred on it in accordance with the status. The Apex Committee on Conferment of Navratna Status chaired by Cabinet Secretary has recommended conferment of Navratna status of BEL. Notification is awaited.

Bharat Earth Movers Limited (BEML), Bharat Dynamics Limited(BDL), Goa Shipyards Limited (GSL), Garden Reach Shipbuilders & Engg. Limited (GRSE) and Mazagon Dock Limited (MDL).

All these five DPSUs have been conferred Mini Ratna Category-I status as on date."



### Comments of the Committee

11. From the reply of the Ministry, the Committee observe that the Ministry of Defence are not inclined to change their mind set to improve upon the existing infrastructure and working of DPSUs in order to make them self-reliant in the field of finance & decision making. The Committee note that only HAL & BEL have been given autonomy in their functioning and they are financially strong and viable, whereas rest of the DPSUs are financially not strong enough and unable to sustain themselves without the outside help, therefore, these DPSUs should restructure themselves in such a way that they may come out of their losses and register improvement in other sources and surplus. The Committee are also concerned to note that the Ministry have not constituted a separate Committee of experts for improvement in the working of DPSUs, as recommended by the Committee. The Committee, therefore, while reiterating their earlier recommendation, wish to further recommend that in order to make DPSUs self reliant, progressive and independent in taking financial and commercial decisions, they must be given financial autonomy to raise resources through market borrowings from public to enable them to invest money in modernisation of their units and applied R&D.

12. The Committee are unhappy to note the casual approach of the Ministry while replying to the recommendations made by the Committee. They have not furnished any detail on the follow up action taken on signing of Memorandum of Understandings (MoUs) and Joint Ventures, which were entered into by various DPSUs. The Committee desire that all the information including date of signing of MoU/Joint Venture and their implementation status should be furnished by the Ministry as mentioned in Para No. 1.6 above at the earliest. The Committee further desire that steps must be taken to make all DPSUs profitable so that they should not be a burden on the exchequer, rather they should support and fund modernisation programme of Armed Forces so that budgetary support given to them by the Ministry of Defence could be minimised.

**Need to spend a minimum percentage of profit on R&D**

#### **Recommendation (Para No. 1.7)**

13. The Committee felt that in R&D matters DPSUs should not depend only on DRDO/foreign technology. They were of the view that in the fast changing technology regime, there was an imperative need for in-house R&D centres in each of DPSUs so that they might

also themselves undertake technology upgradation. For this purpose, a minimum percentage of the profit earned by the DPSUs should be allowed to be utilized by them for their R&D centres. This will also enable the DPSUs to avail benefit of the inbuilt provision in the income tax law whereby they could seek admissible exemption in the income tax for investments made in R&D. In this way DPSUs would be able to spend more money on R&D, thereby taking the country further on the path of self reliance in defence technology. The Committee also felt that DPSUs should maintain effective coordination among themselves in the R&D field to have optimum results therefrom. The Committee had desired that in all & DRDO projects, users and DPSUs should always be involved at the time of conceptualisation of the project.

14. The Ministry in their, action taken reply, have stated:

(i) "DRDO can take up development of the basic technologies which are commercially not viable but are of strategic importance. All the application oriented technologies are to be developed by the DPSUs/industry on a commercial basis.

(ii) Hindustan Aeronautics Limited (HAL) has a policy of spending 2% of its sales or 20% of its profits, whichever is higher, towards R&D. Similarly, Bharat Electronics Ltd. (BEL) could achieve high level of turnover from indigenously developed products due to in-house R&D efforts. Revenue accrued due to indigenous R&D during 2005-06 is 73%. Out of this, 37% is from BEL in-house developed products and 36% from DRDO developed products. BEL spends 4-5% of its turnover on R&D. BEL has entered into an MoU with HAL and OFB with an arrangement for mutual cooperation and work share in the respective core areas of business. BEL is also closely working with the Shipyards for providing electronic systems required for their various shipbuilding programmes. BEL has evolved with DRDO a methodology to participate in development projects from the time of conceptualisation of the projects in the areas of Radars, Sonars, Electronic Warfare Systems, Network Centric Systems, Tank Programmes etc.

(iii) Four different variants of Offshore Patrol vessels namely; 90 mtrs, 102 mtrs and 105 mtrs Naval version and 105 mtrs Coast Guard version to suit the customer requirements have been developed by Goa Shipyard Limited (GSL). It incurs substantial expenditure in proving these designs by conducting model tests.

'Society of Defence Technologies' award in the gold category for development of Technology & Innovation was awarded to GSL in 2004-05 in recognition of its effort in R&D.

(iv) Garden Reach Shipbuilders & Engineers Limited (GRSE) is manufacturing Defence Warships/Patrol Vessels based on orders from the Indian Navy/Coast Guard. The build specification and the equipment outfit are specified. GRSE has limited R&D role. GRSE's R&D activities are limited to ship design & limited product development of engineering/deck machinery items like Halo Traversing System and Bailey Bridges. GRSE will work in liaison with DRDO for R&D projects.

(v) MIDHANI has so far developed more than 150 alloys through in-house R&D efforts that constitute major part of the present sales turnover. The in-house R&D has played an important role not only in providing well defined technological parameters and procedures for their commercial scale production and over the years but it has also played an important role by developing several grades and standardizing process parameters for better quality and yield.

(vi) MIDHANI undertakes certain R&D activities that entail huge investments in collaboration with DRDO so as to ensure that synergies that exists between a Developmental Laboratory and a Production unit are fully exploited. Currently, MIDHANI has been sanctioned an amount of Rs. 1455 Lakh by DRDO for Development of Supercast 247A (GTM-SU-DS-247 LC MH) for Turbine Blade/Vane Applications (Project No. TD-P1-2004/DMR-217) jointly with Defence Metallurgical Research Laboratory (DMRL), Hyderabad.

(vii) Bharat Earth Movers Limited (BEML) is proposing to spend 2% of its sales turnover on R&D. BEML has a well established and equipped R&D centre set up with UNDP assistance and in-house R&D. It has developed a number of products and many more are on the anvil."

15. The Ministry was asked again to give break up of amount spent by each DPSU on R&D, they supplied the following information:

**“(i) Hindustan Aeronautics Limited (HAL)**

HAL has nine R&D centres established for design & development of combat aircraft, helicopters, aero engines, gas turbines, engine test beds, aircraft communication and navigation systems and

mechanical system accessories. The R&D centres are equipped with modern facilities, backed by competent engineers and designers having requisite experience in various disciplines of aeronautics.

Data for HAL is as follows:

	2003-04	2004-05	2005-06
R&D Expenditure (Rs. in crore)	313.81	306.63	433.58
% of R&D Expenditure to sales	8.25	6.76	8.12

(ii) **Bharat Earth Movers Limited (BEML)**

BEML has a well established and equipped R&D centre set up with UNDP assistance. The in-house R&D has developed a number of products and many are on the anvil.

Data for BEML is as follows:

	2003-04	2004-05	2005-06
Amount (Rs. crore)	14.98	16.88	19.85
% of sales	0.85%	0.90%	0.90%

(iii) **Bharat Dynamics Limited (BDL)**

(a) BDL has got in-house R&D.

(b) BDL has proposed to earmark a minimum of 1.5% of Turnover from existing 0.9% towards R&D expenditure.

(c) Data for BDL is as follows:—

	2003-04	2004-05	2005-06
Amount (Rs. in crore)	4.08	3.89	4.57
% of turnover	0.78	0.86	0.86

(iv) **Mishra Dhatu Nigam Limited (MIDHANI)**

MIDHANI has so far developed more than 150 alloys through in-house R&D efforts that constitute major part of the present sales turnover.

The in-house R&D has played an important role not only in providing well defined technological parameters and procedures for their commercial scale production and over the years but it has also played an important role by developing several grades and standardizing process parameters for better quality and yield.

The expenditure incurred in the last five years and percentage R&D expenditure to sale is as under:

	2003-04	2004-05	2005-06
R&D Expenditure (Rs. in crore)	1.05	1.75	1.69
% of R&D expenditure to sales	0.83	1.33	1.11

It can be seen from the above table the R&D expenditure has been consistently increasing as a percentage of sales.

Further, certain R&D activities that entail huge investments are undertaken in collaboration with DRDO so as to ensure that synergy that exists between a Developmental Laboratory and a Production unit is fully exploited. MIDHANI has now been sanctioned an amount of Rs. 14.55 crore by DRDO for Development of Supercast 247A (GTM-SU-DS-247 LC MH) for Turbine Blade/Vane Applications (Projects No. TD-P1-2004/DMR-217) jointly with Defence Metallurgical Research Laboratory (DMRL), Hyderabad. The Project is progressing on the expected lines.

**(v) Bharat Electronics Ltd. (BEL)**

BEL has evolved a three-layer set up to effectively address the technology and product needs of the customers.

- All the 9 manufacturing units have their own unit Development and Engineering (D&E) groups developing new products in their respective areas.
- Central D&E group at Bangalore is working to develop specialized technology modules for the unit D&E groups.
- Two Central Research Laboratories (CRLs) at Bangalore and Ghaziabad are set up for undertaking research in futuristic areas with a view to identify and realize enabling technologies relevant to the company's products.

BEL has been introducing continuously new products to sustain growth through its proactive development initiatives.

BEL could achieve high level of turnover from indigenously developed products due to its concentrated efforts on R&D. Revenue accrued due to indigenous R&D during 2005-06 is 73%. Out of this, 37% is from BEL in-house developed products and 36% from DRDO developed products. The company is availing income tax benefits for investments made in R&D. Estimated tax benefits for the year 2005-06 are Rs. 22 crore.

The Company spends on an average 4-5% of its turnover on R&D. The entire funding for R&D is totally through its internal accruals. The total expenditure on R&D during the last five years is Rs. 586 crore. Data for BEL is as follows:

	2003-04	2004-05	2005-06
R&D Expenditure (Rs. in crore)	130.61	127.14	130.13
% of turnover	4.66	3.96	3.68

**(vi) DEFENCE SHIPYARDS – Goa Shipyards Limited (GSL), Mazagon Dock Limited (MDL) and Garden Reach Shipbuilders & Engg. Ltd. (GRSE)**

R&D in Shipyards is primarily driven by professional Directorates of Navy. Navy provides concept design and the shipyards prepare detailed construction design. The shipyards are in the process of exploring opportunities to set up companies in partnership with global design majors.”

#### Comments of the Committee

16. The Committee note that Hindustan Aeronautics Limited, Bharat Electronics Limited, Bharat Earth Movers Limited, Bharat Dynamics Limited, Mishra Dhatu Nigam Limited are spending 8.12%, 3.68%, .90%, .086% and 1.11% of its turnover/sales on R&D, respectively. The Committee find that HAL is spending a good amount on R&D. Whereas BEL has spent 3.68% during the year 2005-2006 and 4.66% & 3.96% during the year 2003-2004 & 2004-2005 respectively, which shows declining trend of expenditure on R&D. For Goa Shipyards Limited, Garden Reach Shipbuilders and Engineers Limited and Mazagaon Dock Limited there is no clear cut allocation on R&D as it solely depend on the professional directorates of Navy. From the reply of the Ministry, the Committee observe that Ministry of Defence is not implementing the

recommendation of the Committee to spend a minimum percentage of the profit on R&D in letter and spirit. The Committee, therefore, further stress that DPSUs, instead of depending on DRDO, must strengthen their in-house applied R&D by spending at least 5% of their total budget thereon. The Committee also desire that DRDO should facilitate the DPSUs in setting up in-house applied R&D by way of giving technological support to them.

### **Restructuring of three Ship-building DPSUs**

#### **Recommendation (Para No. 1.13)**

17. The Committee had noted that there were three DPSUs namely Mazagaon Dock Limited (MDL), Goa Shipyard Limited (GSL) and Garden Reach Shipbuilders and Engineers Limited (GRSE) engaged in shipbuilding. The Committee had desired that those DPSUs which were producing the same or similar kind of products or supplementary to each other should be restructured/integrated in order to synergise their resources. Such an integration/restructuring would enormously help in modernisation of the existing facilities, besides resulting in optimum utilisation of Human Resource and production capacity. The Committee also desired that during the process of restructuring of DPSUs, the interests of the labourers and workmen must be taken in account by the Government.

18. The Ministry in their, action taken reply, have stated:

“There is no DPSU except HAL which produces aeronautical products and its integration with other DPSU would not be feasible.

The defence shipyards have their own capabilities based on their infrastructure. Depending upon work load, shipyards have in the past offloaded work one to another. GSL has supplied stern gear to Project 17 ships being constructed by MDL and to FACs being manufactured by GRSE. Issues like sharing of resources, know how etc. are discussed with CMDs of other DPSUs.

MIDHANI manufactures critical materials required for the strategic sectors including Defence.”

#### **Comments of the Committee**

19. The Committee are not satisfied with the reply of the Ministry that the defence shipyards have their own capabilities based on their infrastructure. Depending upon work load, shipyards have

in the past offloaded work to one another. GSL has supplied stern gear to Project 17 ships being constructed by MDL and to FACs being manufactured by GRSE. Issues like sharing of resources, know how etc. are discussed by CMDs amongst themselves. However, they desire that these shipyards should build specialised ships according to their expertise in the field and as per the market demand. The Committee desire that in order to strengthen, synergy and optimum use of manpower and advance technology, the management of these shipyards must sit together and have frequent meetings to discuss and exchange their knowledge, resources and expertise available with them to make the country self reliant in ship building.

The Committee are not satisfied with the reply of the Ministry on restructuring/integration of DPSUs with same kind of products. The Committee note that the Ministry on the one side considered the proposal of merging of MIDHANI with the larger DPSU i.e. HAL and, on the other side, when the Committee later on recommended for the restructuring/integration of DPSUs, the Ministry have replied that it would not be feasible. The Committee, therefore, reiterate their earlier recommendation that those DPSUs which were producing the same or similar kind of products or supplementary to each other should be restructured/integrated in order to synergise their resources.

HINDUSTAN AERONAUTICS LIMITED (HAL)

**Need to formulate a strategy to give a better export orientation**

**Recommendation (Para Nos. 2.19 & 2.20)**

20. The Committee were happy to note that Hindustan Aeronautics Limited (HAL) had evolved itself into a large Aeronautics complex and in many areas, it had built up indigenous comprehensive skills in design, manufacturing and overhaul of fighters, trainers, helicopters, transport aircraft, engines, avionics and system equipment. The Committee, however, observe that there were still some areas which needed to be addressed in right perspective in order to have optimum utilisation and better exploitation of capability and potentiality of the HAL such as increase in self reliance or indigenisation of product and technology through more emphasis on R&D and exploitation of global market through export.

21. The Committee had noted that HAL's exports, in comparison to its total sales, were very small. During the year 2003-04, the



company's total sales were Rs. 3799.78 crores and the exports were only Rs. 215.34 crores which was less than 6% of the total sales. The Committee had viewed that HAL by virtue of its vast capability and expertise should play a vital role in global market which can be achieved by increased thrust on exports of their products. The Committee therefore, had desired the HAL to formulate a well planned strategy in consultation with experts so as to give export orientation to their products and market them effectively in the global market. For giving wide publicity to their products, Defence attaché posted in various countries should be actively involved to play a positive role in this regard. The Committee would like that a clear cut export policy be laid down to tap the vast export potential not only for the HAL but also for all Defence PSUs products.

22. The Ministry in their, action taken reply to Para No. 2.19, have stated:

“HAL has identified Research & Development and Exports as thrust areas to position itself as a global player as per its Mission. HAL has drawn up a Design Perspective Plan identifying the products and technologies to be developed in the coming years. The plan envisages Company financed R&D expenditure of Rs. 1000 Cr. for development of new products and technologies upto the period 2012. In addition to in-house plans, co-development with major international companies are being planned in the areas of helicopters, simulators, display technologies, etc.

To promote exports, HAL has drawn up an action plan and some of the actions are listed below:

- Setting up a Joint Venture Marketing company for promotion of ALH with Israel Aircraft Industries.
- Setting up export oriented shops for manufacture of engine components and composites.
- Developing vendors in India to participate in the export programmes with HAL as the nodal agency.
- Obtaining AS-9100 and NADCAP certifications.

(To increase the exports, mutual recognition of civil aviation certifications is required. DGCA through M/o Civil Aviation is being requested to get.)”

23. The Ministry in their, action taken reply to Para No. 2.20, have stated:

“HAL’s exports have grown progressively over the years. Export has been considered as thrust area for HAL. HAL’s perspective plan envisages significant growth in exports for which strategies have been formulated. Export shops for manufacture of engine components and composites are being planned to be set up at HAL. HAL is making its best efforts for aggressive marketing of its products and services for which target markets have been identified and strategies for penetration in the target market have been formulated. On a continuous basis, HAL appraises the Indian Missions abroad regarding the progress made in its efforts in promotion products and services and seek their help in taking HAL’s proposals forward.”

#### **Comments of the Committee**

24. The Committee appreciate the measures taken by HAL to identify the Research and Development and export as thrust area to position itself as a global player as per its mission. However, they desire that HAL not only should do fundamental research in the aviation areas but also expedite the matter with the civil aviation authorities to obtain AS-9100 and NAD CAP certification to increase the exports. The Committee would also like to be apprised about the concrete steps taken by the HAL to turn its proposed action plan into ground reality in the areas like Joint Venture Marketing Company, for promotion of Advance Light Helicopter (ALH), with Israel Aircraft Industries and also setting up export oriented shops for manufacture of engine components and composites etc.

Therefore, the Committee, reiterate their earlier recommendation that there should be a clear cut export policy to encourage export of defence items where the country has expertise and can provide quality products on competitive prices.

#### **Intermediate Jet Engine**

##### **Recommendation (Para Nos. 2.25, 2.26 & 2.27)**

25. The Committee noted that HAL had taken up the development of Intermediate Jet Engine called HJT-36. This project was sanctioned in 1999 and as of now, two prototypes had been developed and trials were going on with different engines. The Committee had desired that for development of IJT a time frame be fixed and should be strictly adhered to so that cost escalation etc. could be checked.

26. The Committee had noted that the engine for Intermediate Jet Trainer IJT or HJT 36 aircraft was being imported by HAL in order to minimise developmental risks. The Committee had desired, that HAL should strive for an indigenous engine for this aircraft to make the country self reliant in production of Intermediate Jet Trainer. The Committee had also desired that regular supply of engines from M/s Snecma, France and LPO Sateern, Russia should be ensured to avoid future developmental and production difficulties.

27. The Committee strongly felt that HAL should strive to develop Advanced Jet Trainer indigenously. In this connection, the Committee had desired that concerted efforts of DRDO/HAL and other related agencies be made to translate it into reality.

28. The Ministry in their, action taken reply to Para No. 2.25, have stated:

“The Initial Operation Clearance (IOC) for IJT aircraft is planned to be achieved by March 2008 and the Final Operation Clearance (FOC) by March 2009.”

29. The Ministry in their, action taken reply to Para No. 2.26, have stated:

“AL-55 I engine selected to power the Intermediate Jet Trainer (IJT) in the production phase will be manufactured at the Engine Division of HAL in Koraput. Inter-Government Agreement for the Transfer of Technology (ToT) for the manufacture and Repair/Overhaul of this engine has been signed in Aug. 05 between the Russian and Indian Governments. AL-55 I engine is under development and is a major milestone as per the contract for development.

HAL is co-ordinating with the Russian side for timely completion of the engine development and also for the supply of engines and setting up of manufacturing facilities at HAL.

HAL has acquired capabilities in design and development of small gas turbine engines and test beds. HAL developed PTAE-7 gas turbine engine is being used on the Lakshya (Pilotless Target Aircraft). Development of engines of the class used on IJT and other similar aircraft will require a timeframe of 8 to 10 years. Initiating development work now will not match with the requirements of the IJT programme.

Gas Turbine Research Establishment under the DRDO is developing the Kaveri engine for the Light Combat Aircraft (LCA). On successful completion of productionisation of this engine, a scaled down version of the Kaveri engine could be developed for powering smaller aircraft in future."

30. The Ministry in their, action taken reply to Para No. 2.27, have stated:

"HAL has proposed to develop an indigenous AJT as a follow up project of IJT. A decision on a new version of AJT would be taken in 2008-09, when the Air Force requirement is firmed up."

#### **Comments of the Committee**

31. The Committee are unhappy to note that the development flight tests of IJT are still being undertaken on engines from Snecma, France and the production series is planned to be fitted with higher powered AL-55 I engine from Russia. The Committee are of the view that trials should be carried out on AL – 55 I engines only as for the production series, this engine was selected. The Committee feel that despite the passage of a long period since the project was sanctioned, HAL has not successfully developed the engine of the Aircraft and unfortunately it has taken HAL more than 7 years to complete the outer airframe of IJT. The Committee further note that the Initial Operation Clearance (IOC) for IJT aircraft is planned to be achieved by Mar 2008 and the Final Operation Clearance (FOC) by March 2009. The Committee again stress that HAL should make all out efforts, to develop indigenous Intermediate Jet Engine in a time bound manner, instead of depending on any foreign company. The Committee would like to be apprised of the progress of trials being undertaken by the HAL. The Committee also desire that the Ministry should take adequate measures so that this project should not be delayed like Kaveri Engine or MBT Arjun.

BHARAT EARTH MOVERS LIMITED (BEML)

**Need to redress the bottlenecks in the production quantities of metro coaches**

#### **Recommendation (Para No. 4.13)**

32. The Committee had noted that BEML also produced Metro Coaches which were at par with imported coaches in terms of quality and performance and had full order book position. The Committee,

however, noted that a major bottleneck was being faced by BEML in achieving the production quantities as per delivery schedule i.e. delay in receipt of “free supply items” such as steel, wheel sets, etc. from Indian Railways. The Committee, had therefore, stressed that in order to supply full order of coaches to Metro, it was essential that the matter might be taken up with the Ministry of Railways to redress the bottleneck coming in the way of achieving the production quantities as per delivery schedule.

33. The Ministry in their, action taken reply, have stated:

“The Ministry had taken up the matter with the Ministry of Railways to expedite free supply materials and wheel sets for manufacture of rail coaches. However, for Metro coaches, the necessary inputs will be organized by BEML by interacting with the overseas suppliers M/s Rotem, South Korea. “

34. In reply to a question on the problems faced by BEML from Ministry of Railways/Ms Rotem of South Korea in free supply materials, the ministry stated as under:

“Railway Board supplies raw material such as steel and wheel sets as free issue items against all the orders placed on BEML. However, there is always time lag between manufacturing of coaches and its aggregates by BEML and receipt of free supply items. The delay in receipt of free supply items delay production schedule of the coaches and semi-finished goods also occupy limited track at the site.

For the current orders for rail coaches, Railway Board has directed BEML to make own arrangements for procurement of wheel sets. This has compelled BEML to find an alternate source, which would be done through imports. The imports of wheel sets would also require approval of RDSO and arrangements would have to be made by BEML for inspection of wheel sets by the team of RITES, RDSO etc. This would further cause a delay in production and supply of the coaches by BEML. If the Railway Board is in a position to continuously supply the wheel sets, this would hasten production and delivery.

For Metro coaches, the necessary inputs are organized by BEML by interacting with the overseas supplier M/s Rotem, South Korea. The “Free supply” of wheel sets is only for the rail coaches and wagons and not for metro coaches.”

### Comments of the Committee

35. The Committee note that Railway Board supplies raw material such as steel and wheel sets as free issue items against all the orders placed on BEML. However, there is always time lag between manufacturing of coaches and its aggregates by BEML and receipt of free supply items. Due to delay in receipt of free supply items, production schedule of the coaches and semi-finished goods are also delayed. However, for the current orders for rail coaches, Railway Board has directed BEML to make own arrangements for procurement of wheel sets. This has compelled BEML to find an alternate source, which would be done through imports and may cause problem to BEML.

The Committee, therefore, desire that the Ministry of Defence should take up this matter with Ministry of Railways to help BEML to procure these wheel sets as early as possible so that production schedule as well as long term strategy of BEML does not suffer.

MISHRA DHATU NIGAM LIMITED (MIDHANI)

### Upgradation and Modernisation of MIDHANI

#### Recommendation (Para No. 6.13)

36. The Committee had noted that MIDHANI was supplying special steels, super alloys and titanium alloys for strategic sectors, which formed the core material not only for defence needs but also for space and atomic energy programmes, and these alloys were very crucial in timely completion of various projects of strategic importance. The Committee were constrained to note that despite the critical importance, the plant, machinery and facilities of MIDHANI had not been upgraded and modernized for the last two decades. The Committee also noted that a Committee set up by the Ministry to review the working of MIDHANI had recommended for the upgradation and modernization of the outdated and obsolete facilities of it with adequate investment. For this purpose, the Ministry had moved a Cabinet note for providing a budgetary grant of Rs. 66.63 crore to MIDHANI for its modernization plan. The Committee, had therefore, recommended that MIDHANI should be allocated adequate budgetary grants expeditiously so that plant, machinery and facilities of MIDHANI could be upgraded and modernised to save strategic products from being jeopardised.

37. The Ministry in their, action taken reply, have stated:

“On the Cabinet note moved by the Department of Defence Production for seeking budgetary grant of Rs. 66.63 crore, the Ministry of Finance suggested that MIDHANI should consider the option of merger with a larger DPSU such as HAL as long-term solution.

However, with proactive initiative of the Ministry a meeting of the strategic customers of MIDHANI was called for to seek their financial assistance for the Modernization plans of MIDHANI. In the meeting held in February 2006, the strategic customers of MIDHANI such as HAL, DRDO and Ordnance Factory Board agreed to provide necessary financial assistance in the regard.

As a matter of mutual benefit, the above customers agreed to fund the modernization of MIDHANI with Company passing on a certain portion of the benefit of improved productivity and yield due to modernization to these customers in the form of price reduction and Customers being assured of supply of consistent quality material and with faster deliveries from MIDHANI. HAL have agreed to consider extending interest free loan of Rs. 25 crore, DRDO has agreed to consider providing equipment worth Rs. 15 crore, as part of Modernization to MIDHANI to facilitate production of materials required for their programmes and Ordnance Factory Board has agreed to consider placing their equipment worth Rs. 15 crore at MIDHANI as part of MIDHANI Modernization to ensure quality materials supply for ordnance factories current and future programmes. The balance funds required for modernization would be met from the Internal resources of the MIDHANI.

The modernization plan of MIDHANI has already commenced and orders for the major equipment being funded by the Department of Space have been placed and others are being ordered. It is expected that the entire modernization plan would be completed in two years.”

#### **Comments of the Committee**

**38. The Committee had expressed their concern over not upgrading, modernizing plant and machineries and other facilities of MIDHANI for the last two decades. The Committee note that for the purpose, a cabinet note was moved by the Department of Defence Production for seeking budgetary grant of Rs. 66.63 crore. However, the Ministry of Finance suggested that MIDHANI should consider**

the option of merger with larger defence Public Sector Undertaking (PSU) such as Hindustan Aeronautics Limited (HAL) as a long term solution. The Committee further note that the strategic customers of MIDHANI such as HAL, Defence Research and Development Organisation (DRDO) and Ordnance Factory Board have agreed to provide necessary financial assistance for modernization and upgradation of MIDHANI. The Ministry have informed that modernization plan of MIDHANI has already commenced and it is expected that the entire modernization plan would be completed in two years. The Committee are dismayed to note that despite the critical and strategic importance of MIDHANI plant, machineries and other facilities have not been upgraded and modernized for the last two decades and for this purpose, MIDHANI is financially dependent on the mercy of HAL, DRDO and Ordnance Factory Board. It is expected that entire modernization plan would be completed in two years.

39. The Committee, keeping in view the forgoing position strongly recommend that Ministry of Defence should provide full financial support to MIDHANI for modernization and upgradation of its plant on priority basis in a time-bound manner. The Committee are also of the view that MIDHANI should make a adequate and prudent planning to generate its own financial resources in order to become self reliant and to modernize its own plant within its own resources so that situation may not arise to consider the option to merge it with the other larger defence PSU. The Committee hope and trust that MIDHANI would follow the recommendation of the Committee in letter and spirit.

GOA SHIPYARD LIMITED (GSL)

**Need to improve capacity utilisation of GSL**

**Recommendation (Para No. 7.21 & 7.22 )**

40. The Committee had noted that the order book position of Goa Shipyard Limited was not healthy and there was constant shrinking of capacity utilisation, which has gone down from 91.01% in 2001-02 to 30.31% in 2003-04. To improve capacity utilisation, the Committee desired that the order for construction of small and medium vessels required by Navy and Coast Guard as reflected in 10th and 11th Acquisition Plan of Navy and Coast Guard, may be given to GSL. The Committee further desired that the Ministry should make it obligatory for each DPSU shipyard to constitute a Committee which besides examining the need for creating resources for healthy order book



position, should also suggest ways and means for full and effective utilisation of the installed capacity and submit its report to the Government.

41. The Committee were constrained to note that GSL had not made any export during the last five years despite the keen interest shown by some countries on their products. As stated by the GSL, the main reason, therefore, was the non-availability of financial assistance to these countries for procurement of GSL ships. The Committee noted that if soft finance was provided to these countries, the interest shown by the countries can materialise in orders. The Committee also note that two of our nationalised banks namely PNB and SBI are ready to provide soft loans. In view of long term advantage to Indian shipping industry in general and GSL in particular in terms of export of vessels, the Committee recommended that the Government should give necessary approval to the DPSUs to avail bank facility to extend soft loan to the importing countries. The Committee further desired that GSL should chalk out a clear cut plan to increase its export to fully book its production capacity.

42. The Ministry in their, action taken reply, have stated:

“The Committee’s comments are noted. The Ministry is constantly monitoring the capacity of the yards. As recently as on 22.05.2006, Secretary (DP) chaired a meeting with CWP&A, in which the CMD of GSL gave a presentation on capacity of the yard with reference to the Maritime Capability Perspective Plan of the Navy. Interaction between the Navy/Coast Guard and GSL is constant.

The Committee’s recommendations are noted. The Govt. has set up the Indian Development and Economic Assistance Scheme (IDEAS) as a window for the buyer country to avail lines of credit through agencies like EXIM Bank.”

43. On a specific question about effective steps taken by Goa Shipyard Limited to improve its order book position, the Ministry replied as under:

- “(i) The order book position in respect of GSL has improved. The following are details of orders in hand and those expected.
- (ii) Goa Shipyard Limited has bagged this year an order for building 3-nos of 90m Offshore Patrol Vessels for Indian Coast Guard. It was won in an open tender wherein private

shipyards also participated. Production of 1st vessel has commenced in Nov., 06. Discussions are underway to get order for one more of the same class of vessel.

- (iii) An order has also been received for constructing 3-nos of Naval Offshore Patrol Vessels from Indian Navy. Production of the 1st commenced in Dec., 06. Discussions are in progress for obtaining order for one more of the same class of vessel.
- (iv) Based on the performance of our earlier vessel, Indian Navy has nominated GSL for building one more Sail Training Ship. Price negotiation will commence in mid Mar., 07.
- (v) Negotiation is in progress between GSL and Indian Coast Guard for placing order for 4-nos of Fast Patrol Vessels (FPVs). This is a follow-up of 5 FPVs which we built recently and delivered 5-6 months ahead of schedule.
- (vi) Indian Coast Guard has requirement for 16 nos of Inshore Patrol Vessels (IPVs). They have selected GSL and GRSE for construction of these vessels and asked the companies to quote.
- (vii) GSL have also been nominated for construction of Mine Counter Measure Vessels (MCMVs) for Indian Navy. Dedicated infrastructure facilities will be made available after fructification of our modernization plan."

44. On the progress and outcome of setting up the Indian Development and Economic Assistance Scheme (IDEAS), the Ministry stated as under:

"As on date, GSL does not have any export order."

#### **Comments of the Committee**

45. **The Committee are not satisfied with the reply furnished by the Ministry of Defence on efforts being made to increase capacity utilisation of Goa Shipyard. The Committee are concerned to note that Ministry of Defence have not constituted a Committee to examine the need for creating resources for healthy order book position of the Shipyard and to suggest ways and means for full and effective utilisation of the installed capacity of the Goa Shipyard Limited as recommended by the Committee. The Committee further note from the reply that instead of implementing the recommendation of the Committee with due seriousness, the Ministry seem to be**

contended to submit that 'Committee's comments are noted' and monitoring the capacity of the yard is being done. The Ministry in their reply nowhere have mentioned about the existing capacity of the yard, capacity utilised, capacity to be utilised and the effective & concrete steps taken to get the orders from the services, in order to fully utilise the installed capacity. More galling fact is that as on date GSL does not have any export order.

46. Keeping in view the foregoing situation, the Committee strongly reiterate that Ministry of Defence should set up a Committee which besides examining the need for creating resources for healthy order book position, should also suggest ways and means for full and effective utilisation of the installed capacity and submit its report to the Government.

The Committee also recommend that long term export policy should be chalked out by the Ministry to attract and enhance the export ships of GSL, which will not only result in higher foreign exchange but also keep the order book position good and healthy.

**Need for creating a strong R&D base of GSL**

**Recommendation (Para No. 7.23)**

47. The Committee were surprised to note that GSL had not incurred any expenditure on the important and vital area of R&D, which showed that it had not taken up any R&D initiative of its own and was relying on the designs supplied by vendors or depending on the obsolete designs. As R&D was the base of technology upgradation and modernisation of equipment and plant, the Committee had strongly recommended that GSL must allocate substantial amount on R&D and should undertake selected R&D project in close coordination with DRDO and other Defence shipyards so as to upgrade and modernize their products. The Committee had therefore desired that there must be a Research and Development centre in every defence shipyard especially in GSL with modern CAD/CAM facilities for constant improvement in present level of designing so that they can compete with the best in the world.

48. The Ministry in their, action taken reply, have stated:

"Committee/s recommendations are noted. The company will take suitable decisions on R&D based on their resources and prospects and these decisions will have to be taken by the Board."

49. The Committee desired to know that steps are being taken by GSL to give more thrust on R&D. The Ministry replied as under:

“GSL is one of the few shipyards in the country which carries out design of their own ships. Till date, it has designed Fast Patrol Vessels, 90m Offshore Patrol Vessels, 102m Advanced Offshore Patrol Vessels, 105m Advanced Offshore Patrol Vessels and 105m Naval Offshore Patrol Vessels. Design of all the vessel that are undergoing construction are borne out of our R&D efforts. GSL has also bagged the coveted Society of Defence Technologists (SODET) award in the gold category for Technology Development and Innovation.”

#### **Comments of the Committee**

50. The Committee note that GSL is one of the few shipyards in the country which carries out design of their own ships and till date, it has designed Fast Patrol Vessels, 90m Offshore Patrol Vessels, 102m Advanced Offshore Patrol Vessels, 105m Advanced Offshore Patrol Vessels and 105m Naval Offshore Patrol Vessels. Design of all the vessels that are undergoing construction are borne out of its R&D efforts. However, in reply to other query on amount spent by DPSUs on R&D, the Committee note that the R&D in Shipyards is primarily driven by professional Directorates of Navy. Navy also provides concept design and the shipyards prepare detailed construction design. The shipyards are in the process of exploring opportunities to set up companies in partnership with global design majors.

51. The Committee observe that reply furnished by the GSL on investment in R&D and carry out design of their own Ship is not clear. The Committee note that on the one hand as per the Ministry GSL has not incurred any specific expenditure on R&D and improvement of design are effected through vendors and on the other hand it has been stated that GSL is one of the few Shipyards in the country which carry out design of their own. The Committee, therefore, like to be apprised of the actual status of GSL for its own R&D and carry out design of their own or totally dependent on vendors in this regard. The Committee also recommend that a fixed percentage of turnover should be earmarked for R&D activities in each defence shipyard to make them state of the art and globally competitive.

MAZAGON DOCK LIMITED (MDL)

**Modernisation/Upgradation of MDL**

**Recommendation (Para No. 9.24)**

52. The Committee had noted that MDL had not been able to qualify as the main bidder in shipbuilding tenders due to non-availability of adequate infrastructure as compared to the private/foreign shipyards. The Committee further noted that other shipyards were blessed with low labour input cost and overheads and cut in octroi duties and various subsidies. The Committee, therefore, recommended that Ministry should chalk out a plan for development and strengthening of infrastructure of Defence shipyard, not only for effective participation in shipbuilding tenders but also to qualify as the main bidder. The Committee had also recommended that a study group should be constituted to examine the possibility of extending exemptions to defence shipyards in the matter of subsidies, tax benefits and excise duties etc. in order to make it cost effective and competitive with foreign/private shipyards.

53. The Ministry in their, action taken reply, have stated:

“Development and Strengthening of Infrastructure at MDL:

Government has approved 10-year modernization and capital investment plan of the company to maximize productivity of existing capital assets by providing balancing equipments and judicial essential replacements.

The infrastructure under development are as follows:

- (i) Modular workshop with EOT cranes
- (ii) Additional wet basin with Level Luffing cranes
- (iii) Cradle assembly shop & stores for submarines
- (iv) Upgradation of Design Software
- (v) Upgradation of welding stations in submarine yard

Constitution of study group to examine possibilities of extending financial benefits to defence shipyard:

The recommendations of the committee would enhance competitiveness of the shipyards in a big way.

**Formation of Study Group** - The Finance Ministry is considering reduction of tax exemptions and to make Indian Industry

competitive at the global level. However, the Ministry of Shipping has already constituted a committee to examine the present Ship Subsidy scheme. At present the Shipbuilding Subsidy Scheme envisages 30% subsidy for domestic orders for ships of length more than 80 metres obtained through global tender process for construction of seagoing vessels as defined in Section 3(41) of the Merchant Shipping Act 1958. The present scheme expires in Aug. 2007 and is under revision by the Shipping Ministry. Seen in this perspective, constituting a study group to examine possibility of extending exemptions to Defence Shipyards alone in the matter of subsidies, tax benefits and excise duties may be unfounded. Primarily Naval Shipbuilding is a specialized activity and at present customs duty concessions have been extended on certain material & components. In this connection Ministry of Finance has written to this Ministry to consider withdrawing tax concession presently extended."

54. On the present tax concessions given to Naval Ship Building industry, the Ministry informed as under:

"In Shipyards, the following tax concessions are granted for construction of ships for the Indian Navy & Coast Guard:—

- (a) Sale of "Cost Plus" ships are exempted from West Bengal VAT.
- (b) Procurement of materials, equipment for fitment onboard are exempted from:—
  - (i) Custom Duty
  - (ii) Excise Duty against certificate from competent authority.
  - (iii) Octroi

Municipal Corporation of Greater Mumbai has exempted the material brought for naval ships from octroi duty based on the certificates given by Navy."

#### Comments of the Committee

55. The Committee keeping in view of the fact that Mazgaon Dock Limited (MDL) as compared to other shipyards is not blessed with low labour input cost, less overheads, cut in octroi duties and various other subsidies, had recommended the Ministry to constitute a study group to examine the possibility of extending exemptions to defence shipyards in the matter of subsidies, tax benefits and excise

duties etc. The Committee, however, are surprised to note that instead of extending tax exemption to Defence Shipyards, as recommended by the Committee, the Ministry of Finance are considering reduction of tax exemptions and also have written to the Ministry of Defence to consider withdrawing tax concession presently extended. The Committee take a serious note of the fact and callous attitude of the Ministry of Finance towards the considered recommendation of the Committee for giving tax exemption to the MDL.

The Committee, therefore, strongly reiterate their recommendation that the tax concessions already available to Naval Shipbuilding Industry should not only be retained but the additional tax benefits as suggested by the Committee should also be extended to Defence Shipyards especially Mazgaon Dock Limited in order to make this industry cost effective and competitive at the global level.

#### PRIVATE SECTOR PARTICIPATION IN DEFENCE PRODUCTION

##### **Recommendation (Para No. 10.7)**

56. The Committee had noted that over the years the private sector has grown in size and reach to form an important part of country's industrial base. The Committee were of the view that their capabilities and resources should be made use of in strengthening the country's defence production. The Committee felt that with their expertise and capability, the public/private sector/DRDO can contribute in building self reliance and home grown technologies in major defence systems. The Committee had also felt that there was a need to create an environment where both public and private sector/DRDO can grow together and be partner with each other. Further R&D efforts of both the public and private sector should be synergised and, coordinated by the DRDO. The Committee, had therefore, recommended the Government to chalk out a National Defence Production policy to synergise the capabilities of public and private sector and DRDO in defence production with greater emphasis on indigenous content. The Committee had also recommended the Government to explore the possibility of promoting defence R&D by involving private sector in selective R&D projects.

57. The Ministry in their, action taken reply, have stated:

"The recommendations made by the Committee to synergise the capabilities of public and private sector and DRDO in defence production with greater emphasis on indigenous content and to

explore the possibility of promoting defence R&D by involving private sector in selective R&D projects are agreed to in principle by DRDO. Modalities for their implementation need to be worked out."

**Recommendation (Para No. 10.8)**

58. The Committee had noted that at present 45% of the production work was outsourced to private sector. The Committee had desired the Government to explore the possibility of outsourcing more and more work to the private sector particularly in areas where they have sufficient infrastructure and technology to supply the required products.

59. The Ministry in their, action taken reply, have stated:

"The recommendation has been noted. Greater emphasis is being laid on outsourcing the production work to the private sector and to progressively increase the same."

60. During the oral evidence before the Committee, the representatives of Trade Unions Forum on implementation of Kelkar Committee Report and encouragement of private sector in Defence Production, R&D, they submitted the following for consideration:—

"The composition of Kelkar Committee itself is questionable as it did not include the major stake holder i.e. the employees. The report is totally flawed in its approach when instead of reducing import through strengthening the existing public sector defence industry, it has embarked upon a policy of giving maximum space to private sector in Defence. It has given undue stress on export of arm which is not a sphere where country like India would try to project itself like USA or Israel.

\*\*

\*\*

\*\*

\*\*

It deprives DPSUs and OFB of a level playing field with private industries. OFB and DPSUs are captive industries of defence services. Unless they reach optimal capacity utilisation, technological upgradation and necessary autonomy, the question of so called competition with private sector does not arise."

61. On being asked by the Committee regarding capacity utilisation and Order Book position and outsourcing of work to private sector by the Ordnance Factories, the representative of Trade Unions/Forum stated as under:

"It is that in spite of the fact that the PSUs or the Ordnance Factories have the capabilities, they are not being utilized as in



the case of Hindustan Aeronautics Limited. I am not quoting from my figures. It is a figure from the C&AG. Where the capacity is there, even that capacity is being outsourced and tomorrow the RURs will be placed position.

We have no quarrel about quality and time. These are the factors for any unit to develop. Lastly, we would sum up with the request that please see that the existing orders and existing capacity is totally utilized before passing it to anyone else. Please put pressure on the Government on this issue."

62. He further stated :

"Our point is for increasing self-reliance. The first and foremost requirement is that we must increase the capacity utilization, we must increase the technological upgradation and we must improve our own in house to see that whatever can be produced in our public sector units, which have been functioning for the last 45 to 50 years, is utilized optimally before you go in for some other source.

I would like this hon. Committee to go through the C&AG Report on Defence Units wherein it has been specifically mentioned that in the case of Hindustan Aeronautics Ltd., the capacity utilization is not being made, and without seeing the capacity inside they are going in for outsourcing and private parties.

The same reference is there in respect of the Bharat Earth Movers Ltd. This is the recent C&AG Report which has come during this month. Our submission is that there must be an assessment of the internal production capabilities and upgradation and also giving autonomy to these institutions. Only after that, any further access to private sector should be given."

#### **Comments of the Committee**

**63. The Committee had desired the Government to explore the possibility of outsourcing more and more work to the private sector particularly in areas where they have sufficient infrastructure and Technology to supply the required products. The Committee, however briefed by the representatives of Trade Unions that the government are outsourcing the work to private sector inspite of the fact that DPSUs have in house capacity to manufacture these products and due to this outsourcing their manpower is sitting idle and optimal capacity is being under-utilised, which has caused some anxiety in the mind of the workers/trade unions.**

64. The Committee, therefore, desire that DPSUs at the first instance must ensure to produce self certified quality products on competitive rates to meet the requirement of armed forces and ensure optimum utilisation of their existing capacity and thereafter explore the possibility of outsourcing work to the Private Sector where they have sufficient capability as well as consider Joint Ventures with them. The Committee also feel that outsourcing should be done only in those areas where capability of the private sector is proved and after the optimal capacity of the DPSUs utilised. The Committee, again reiterate that DPSUs during the process of outsourcing, must ensure strict adherence to the stringent quality standards of the outsourced work. The Committee would like to be apprised about the action taken by the government in this regard.

## CHAPTER II

### RECOMMENDATIONS/OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY GOVERNMENT

#### **Recommendation (Sl. No. 1, Para No. 1.7)**

The Committee feel that in R&D matters DPSUs should not depend only on DRDO/foreign technology. They are of the view that in the fast changing technology regime, there is an imperative need for in-house R&D centres in each of DPSUs so that they may also themselves undertake technology upgradation. For this purpose, a minimum percentage of the profit earned by the DPSUs should be allowed to be utilized by them for their R&D centres. This will also enable the DPSUs to avail benefit of the inbuilt provision in the income tax law whereby they can seek admissible exemption in the income tax for investments made in R&D. In this way DPSUs will be able to spend more money on R&D, thereby taking the country further on the path of self reliance in defence technology. The Committee also feel that DPSUs should maintain effective coordination among themselves in the R&D field to have optimum results therefrom. The Committee desire that in all DRDO projects, users and DPSUs should always be involved at the time of conceptualisation of the project.

#### **Reply of the Government**

DRDO can take up development of the basic technologies which are commercially not viable but are of strategic importance. All the application oriented technologies are to be developed by the DPSUs/industry on a commercial basis.

2. Hindustan Aeronautics Limited (HAL) has a policy of spending 2 percent of its sales or 20 percent of its profits, whichever is higher, towards R&D. Similarly, Bharat Electronics Ltd. (BEL) could achieve high level of turnover from indigenously developed products due to in-house R&D efforts. Revenue accrued due to indigenous R&D during 2005-06 is 73 percent. Out of this, 37 percent is from BEL in-house developed products and 36 percent from DRDO developed products. BEL spends 4-5 percent of its turnover on R&D. BEL has entered into an MoU with HAL and OFB with an arrangement for mutual cooperation and work share in the respective core areas of business. BEL is also closely working with the Shipyards for providing electronic

systems required for their various shipbuilding programmes. BEL has evolved with DRDO a methodology to participate in development projects from the time of conceptualisation of the projects in the areas of Radars, Sonars, Electronic Warfare Systems, Network Centric Systems, Tank Programmes etc.

3. Four different variants of Offshore Patrol vessels namely; 90 mtrs, 102 mtrs and 105 mtrs Naval version and 105 mtrs Coast Guard version to suit the customer requirements have been developed by Goa Shipyard Limited (GSL). It incurs substantial expenditure in proving these designs by conducting model tests. 'Society of Defence Technologies' award in the gold category for development of Technology & Innovation was awarded to GSL in 2004-05 in recognition of its effort in R&D.

4. Garden Reach Shipbuilders & Engineers Limited (GRSE) is manufacturing Defence Warships/Patrol Vessels based on orders from the Indian Navy/Coast Guard. The build specification and the equipment outfit are specified. GRSE has limited R&D role. GRSE's R&D activities are limited to ship design & limited product development of engineering/deck machinery items like Halo Traversing System and Bailey Bridges. GRSE will work in liaison with DRDO for R&D projects.

5. MIDHANI has so far developed more than 150 alloys through in-house R&D efforts that constitute major part of the present sales turnover. The in-house R&D has played an important role not only in providing well defined technological parameters and procedures for their commercial scale production and over the years but it has also played an important role by developing several grades and standardizing process parameters for better quality and yield.

6. MIDHANI undertakes certain R&D activities that entail huge investments in collaboration with DRDO so as to ensure that synergies that exists between a Developmental Laboratory and a Production unit are fully exploited. Currently, MIDHANI has been sanctioned an amount of Rs. 1455 Lakh by DRDO for Development of Supercast 247A (GTM-SU-DS-247 LC MH) for Turbine Blade/Vane Applications (Project No. TD-P1-2004/DMR-217) jointly with Defence Metallurgical Research Laboratory (DMRL), Hyderabad.

7. Bharat Earth Movers Limited (BEML) is proposing to spend 2% of its sales turnover on R&D. BEML has a well established and equipped R&D centre set up with UNDP assistance and in-house R&D. It has developed a number of products and many more are on the anvil.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

The Ministry was asked to give break up of R&D spending, they supplied the following information:

**“(i) Hindustan Aeronautics Limited (HAL)**

HAL has nine R&D centres established for design & development of combat aircraft, helicopters, aero engines, gas turbines, engine test beds, aircraft communication and navigation systems and mechanical system accessories. The R&D centres are equipped with modern facilities, backed by competent engineers and designers having requisite experience in various disciplines of aeronautics.

Data for HAL is as follows:

	2003-04	2004-05	2005-06
R&D Expenditure (Rs. in crore)	313.81	306.63	433.58
% of R&D Expenditure to sales	8.25	6.76	8.12

**(ii) Bharat Earth Movers Limited (BEML)**

BEML has a well established and equipped R&D centre set up with UNDP assistance. The in-house R&D has developed a number of products and many are on the anvil.

Data for BEML is as follows:

	2003-04	2004-05	2005-06
Amount (Rs. in crore)	14.98	16.88	19.85
% of sales	0.85%	0.90%	0.90%

**(iii) Bharat Dynamics Limited (BDL)**

- (i) BDL has got in-house R&D.
- (ii) BDL has proposed to earmark a minimum of 1.5% of Turnover from existing 0.9% towards R&D expenditure.
- (iii) Data for BDL is as follows:-

	2003-04	2004-05	2005-06
Amount (Rs. in crore)	4.08	3.89	4.57
% of turnover	0.78	0.86	0.86

**(iv) Mishra Dhatu Nigam Limited (MIDHANI)**

MIDHANI has so far developed more than 150 alloys through in-house R&D efforts that constitute major part of the present sales turnover.

The in house R&D has played an important role not only in providing well defined technological parameters and procedures for their commercial scale production and over the years but it has also played an important role by developing several grades and standardizing process parameters for better quality and yield.

The expenditure incurred in the last five years and percentage R&D expenditure to sale is as under:

	2003-04	2004-05	2005-06
R&D Expenditure (Rs. in crore)	1.05	1.75	1.69
% of R&D expenditure to sales	0.83	1.33	1.11

It can be seen from the above table the R&D expenditure has been consistently increasing as a percentage of Sales.

Further, certain R&D activities that entail huge investments are undertaken in collaboration with DRDO so as to ensure that synergy that exists between a Developmental Laboratory and a Production unit is fully exploited. MIDHANI has now been sanctioned an amount of Rs. 14.55 crore by DRDO for Development of Supercast 247A (GTM-SU-DS-247 LC MH) for Turbine Blade/Vane Applications (Projects No. TD-P1-2004/DMR-217) jointly with Defence Metallurgical Research Laboratory (DMRL), Hyderabad. The Project is progressing on the expected lines.

**(v) Bharat Electronics Ltd. (BEL)**

BEL has evolved a three-layer set up to effectively address the technology and product needs of the customers.

- All the 9 manufacturing units have their own unit Development and Engineering (D&E) groups developing new products in their respective areas.
- Central D&E group at Bangalore is working to develop specialized technology modules for the unit D&E groups.
- Two Central Research Laboratories (CRLs) at Bangalore and Ghaziabad are set up for undertaking research in futuristic areas with a view to identify and realize enabling technologies relevant to the company's products.

BEL has been introducing continuously new products to sustain growth through its proactive development initiatives. BEL could achieve high level of turnover from indigenously developed products due to its concentrated efforts on R&D. Revenue accrued due to indigenous R&D during 2005-06 is 73%. Out of this, 37% is from BEL in-house developed products and 36% from DRDO developed products. The company is availing income tax benefits for investments made in R&D. Estimated tax benefits for the year 2005-06 are Rs. 22 crore.

The Company spends on an average 4-5% of its turnover on R&D. The entire funding for R&D is totally through its internal accruals. The total expenditure on R&D during the last five years is Rs. 586 crore. Data for BEL is as follows:

	2003-04	2004-05	2005-06
R&D Expenditure (Rs. in crore)	130.61	127.14	130.13
% of turnover	4.66	3.96	3.68

#### **(vi) Defence Shipyards**

Goa Shipyards Limited (GSL), Mazagaon Dock Limited (MDL) and Garden Reach Shipbuilders & Engg. Ltd. (GRSE).

R&D in Shipyards is primarily driven by professional Directorates of Navy. Navy provides concept design and the shipyards prepare detailed construction design. The shipyards are in the process of exploring opportunities to set up companies in partnership with global design majors.

#### **Comments of the Committee**

(Please see Para 16 of Chapter- I)

#### **Recommendation (Sl. No. 1, Para No. 1.8)**

The Committee recommend that Government should formulate a well planned export policy for defence products in consultation with DPSUs and outside experts in the field. A strategy should be evolved to give export orientation to the defence products and market them effectively in the international market. In this connection, the Committee also desire that, like in many countries, matters relating to defence exports should be actively taken up with foreign countries at Government level. The Committee also desire that Government should appoint authorized agents to promote defence exports in international market.

### Reply of the Government

There are some DPSUs engaged in exports. Hindustan Aeronautics Limited (HAL) takes the assistance of Indian Missions abroad for promoting HAL's business interests and appoints suitable selling agents abroad for pursuing its products and services to potential customers. The agent is appointed by HAL after confirming the credentials of the agent from the Indian Mission of the concerned country.

2. Bharat Electronics Limited (BEL) interacts *inter-alia* with the Ministry of External Affairs (MEA) and Indian Embassies to identify the export opportunities. BEL has appointed local representatives/agents in few countries like Sri Lanka, Indonesia, Nepal etc.

3. Garden Reach Shipbuilders & Engineers Limited (GRSE) has been making efforts for export to Seychelles, Indonesia, Myanmar, Bangladesh. The three defence shipyards – MDL, GRSE & GSL – also engaged M/s RITES as Export Agent to promote defence export in the international markets.

4. The only promising avenue for exports as far as Mishra Dhatu Nigam Limited (MIDHANI) is concerned is Maraging Steel MDN 250. However, Maraging Steel is in the restricted list of items for export as per Government policy.

5. Bharat Earth Movers Limited (BEML) has been exporting a number of Mining and Construction equipments to more than 30 countries around the world. The export made so far is around Rs. 750 crs. Efforts are also on to export, defence and railway products to increase its exports turnover.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Recommendation (Sl. No. 1, Para No. 1.9)**

The Committee note that an offset clause has been introduced in new Defence Procurement Policy—2005. Government should give necessary freedom to the defence establishments so that they may utilise this clause in the best possible and effective manner to ensure maximum benefit for the country. Besides, for more effective utilization of the offset clause, defence PSUs should be given autonomy to enter into MOUs with other DPSUs, ordnance factories, private sector and foreign countries.



### **Reply of the Government**

This is an area, which will help DPSUs to increase their business volumes. Any policy decision to involve DPSUs to reap the benefits of offset clause is most desirable. As regards entering of MoU with various agencies, no restrictions have been imposed.

2. In view of the large volume of offsets envisaged through major Defence procurements, HAL is formulating the strategies for liquidation of such offsets. HAL has initiated discussion with potential companies from domestic and private companies for strategic alliances to address the future requirements. Similarly, BEL is interacting with international suppliers like M/s EADS, France, M/s Boeing IDS, USA and M/s Raytheon, USA etc. to take advantage of offset opportunities. GRSE will utilize the off-set clause which has been introduced in the defence procurement policy 2005 when entering into MoUs with Private Sector and foreign countries.

The Ministry of Civil Aviation has commenced the process of acquisition of civilian aircraft for Indian Airlines, MIDHANI has as such requested help from the State Trading Corporation of India Ltd. (STC).

STC being the nodal agency for Counter Trade/Offset in respect of Ministry of Civil Aviation has requested Ministry of Commerce to include MIDHANI to undertake offset arrangements. BEML has concluded MoUs with DPSUs, private sector companies and foreign companies wherever it is found beneficial for the growth of the organization.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

### **Recommendation (Sl. No. 1, Para No. 1.10)**

The Committee emphasize that defence products manufactured by DPSUs should be of top quality, at par with the international standards. The Committee also desire that Government should formulate a policy for all defence units including DPSUs to allow them to move towards self certification of all their defence products. It will increase the accountability/responsibility of DPSUs/Ordnance Factories/Private Sector in maintaining the quality of the products and will go a long way in establishing their creditability and quality assurance with the defence services.

### **Reply of the Government**

In HAL self certifications in non-critical areas/products is already in vogue as a part of Approved Firm Inspection Organisation (AFIO) concept covering majority of the work areas. A bare minimum inspection and Quality Assurance coverage is provided by DGAQA to flight safety areas including flight clearance. This is about 10% of the total Quality Control (QC) activities based on risk analysis. At this stage, it would be pre-mature to grant full self-certification to HAL. BEL has been practicing Total Quality Management (TQM) under the acronym Total Organisational Quality Enhancement (TORQUE), for more than two decades. All the manufacturing units of the company have been certified to the new ISO 9000-2000.

BEL has been working in the direction of Self-Certification and obtained Self-Certification status for few of its products. The company is in the process of getting 'Self-Certification' status for some more products.

The company has adopted Business Excellence Model as laid down by the CII-EXIM Bank Excellence Award criteria. Over the past few years, five of the Units/SBUs have got recognition for their strong commitment towards Total Quality Management principles. By adopting the above strategies, it will help BEL in achieving global level standards.

GSL's Quality Management System (QMS) is certified in accordance with the international standard ISO 9001-2000. Quality Assurance Plans (QAP) of suppliers of equipments are approved by GSL before manufacture. These QAPs are continuously reviewed and updated for improving the processes.

GRSE is strengthening its QA Department towards self-certification of their products. The activity regarding Quality Assurance is under General Manager level. GRSE has acquired ISO 9001:2000 Certificates for Bailey Bridge, Deck Machinery & Diesel Engine Products.

MIDHANI has already obtained self-certification status from Director General of Quality Assurance (DGQA).

Most of Mining and Construction equipments manufactured by BEML are self-certified. With regard to defence, products, the equipments manufactured by BEML are quality tested by DGQA agencies.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 1, Para No. 1.11)**

The Committee note that DPSUs, in addition to defence equipment, are also making hi tech equipment for non-defence sector, and thereby diluting their status and character as DPSUs. The Committee, therefore, desire that DPSUs should slowly get rid of the non-defence sector items and focus only on defence requirements. The Committee further stress that only after meeting their prime responsibility towards defence sector, the DPSUs may use their spare capacity if any, for other sectors for generating additional revenue.

**Reply of the Government**

In its bid to become a global player in the aerospace field, HAL have identified diversification into civil aviation as one of the strategies for growth. Participation in civil aviation will not dilute the technological capability of the company as the requirements of civil aviation in the present scenario are as stringent as for the defence sector.

HAL has been providing support to the Indian Defence Services by way of design & development, manufacture, repair/overhaul and spares supply for both indigenous and licence manufactured products. Upgrade programs, supply of spares and indigenization of spares and rotables are taken up for non-HAL manufactured aircraft/helicopters also.

GRSE is engaged for defence work and making Naval and Coast Guard Ships, Deck Machinery items for onboard ships as their main products. GRSE uses their spare machining capacity for outside industries for generating additional revenue.

GSL has been catering mainly to the requirements of Indian Coast Guard and Indian Navy.

MIDHANI is committed to meet the requirements of Defence, Space and Atomic Energy Sector. On an average, about 80 to 85% of the sales turnover constitute sales to these strategic sectors. However, in respect of materials such as Molybdenum etc., company has been making use of the capacities that are available after meeting the requirements of the strategic sectors to meet the needs of non-strategic sectors also.

In order to achieve higher sales, BEML intends to expand, diversify and tap all the markets instead of depending on defence sector for orders.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 1, Para No. 1.12)**

The Committee desire that the Government while granting the status of Mini Ratna, should not follow the criteria of Independent Directors of the Company Board, in the case of defence establishment. The Committee are of the strong view that for this strategic industry, Government should evolve different criteria for granting the status of Mini Ratna.

**Reply of the Government**

In Compliance with DPE guidelines, action has been taken to appoint independent Directors on the Boards of HAL, MIDHANI, MDL, GSL & BDL. Independent Directors are in position in GRSE, BEML & BEL.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 1, Para No. 1.13)**

The Committee note that there are three DPSUs namely Mazagaon Dock Limited (MDL), Goa Shipyard Limited (GSL) and Garden Reach Shipbuilders and Engineers Limited (GRSE) engaged in shipbuilding. The Committee desire that those DPSUs which are producing the same or similar kind of products or supplementary to each other should be restructured/integrated in order to synergise their resources. Such an integration/restructuring will enormously help in modernisation of the existing facilities, besides resulting in optimum utilisation of Human Resource and production capacity. The Committee also desire that during the process of restructuring of DPSUs, the interests of the labourers and workmen must be taken in account by the Government.

**Reply of the Government**

There is no DPSU except HAL which produces aeronautical products and its integration with other DPSU would not be feasible.

The defence shipyards have their own capabilities based on their infrastructure. Depending upon work load, shipyards have in the past offloaded work one to another. GSL has supplied stern gear to Project 17 ships being constructed by MDL and to FACs being manufactured by GRSE. Issues like sharing of resources, know how etc. are discussed with CMDs of other DPSUs.

MIDHANI manufactures critical materials required for the strategic sectors including Defence.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

### **Comments of the Committee**

(Please see Para 19 of Chapter-I)

#### **Recommendation (Sl. No. 2, Para No. 2.19)**

The Committee are happy to note that Hindustan Aeronautics Limited (HAL) has evolved itself into a large Aeronautics complex and in many areas, it has built up indigenous comprehensive skills in design, manufacturing and overhaul of fighters, trainers, helicopters, transport aircraft, engines, avionics and system equipment. The Committee, however, observe that there are still some areas which need to be addressed in right perspective in order to have optimum utilisation and better exploitation of capability and potentiality of the HAL such as increase in self reliance or indigenisation of product and technology through more emphasis on R&D and exploitation of global market through export.

### **Reply of the Government**

HAL has identified Research & Development and Exports as thrust areas to position itself as a global player as per its Mission. HAL has drawn up a Design Perspective Plan identifying the products and technologies to be developed in the coming years. The plan envisages Company financed R&D expenditure of Rs. 1000 Cr. for development of new products and technologies upto the period 2012. In addition to in-house plans, co-development with major international companies are being planned in the areas of helicopters, simulators, display technologies, etc.

To promote exports, HAL has drawn up an action plan and some of the actions are listed below:

- Setting up a Joint Venture Marketing company for promotion of ALH with Israel Aircraft Industries.
- Setting up export oriented shops for manufacture of engine components and composites.
- Developing vendors in India to participate in the export programmes with HAL as the nodal agency.
- Obtaining AS-9100 and NADCAP certifications.

To increase the exports, mutual recognition of civil aviation certifications is required. DGCA through M/o Civil Aviation is being requested to get.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

### **Comments of the Committee**

(Please *see* Para 24 of Chapter-I)

#### **Recommendation (Sl. No. 2, Para No. 2.21)**

The Committee are also given to understand that proposal for incorporation of direct offset clause while finalising the purchase agreement for military/civil aviation products is pending for clearance with the Government. Keeping in view the fact that this offset clause would result in increased revenue technology upgradation and creation of new business opportunities, the Committee strongly recommend that Government should accord its approval therefore expeditiously.

#### **Reply of the Government**

Offset clauses in all high value purchases of military and civil aviation products is required for the growth and upgradation of aviation industries in India. Defence Procurement Procedure 2005 (DPP-2005) gives guidelines for offsets in Defence procurements.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Recommendation (Sl. No. 2, Para No. 2.22)**

Further the Committee, in view of the technological expertise gained by the HAL, desire that it should invariably be involved at the negotiations/discussions stage in order to obtain maximum advantages during procurement of military/civil aviation products. The Committee further recommend that technical expertise of not only HAL but also of other Defence PSUs should be gainfully utilised by associating them at negotiations/discussions stage while finalising agreements for purchase of high tech equipments in their field.

#### **Reply of the Government**

All possible efforts are taken to obtain maximum advantage of the Defence Public Sector Undertakings (DPSUs) while acquiring high tech military products.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 2, Para No. 2.23)**

The Committee also note that in most of the cases, indigenisation is between 70 to 85%. The Committee feel that the remaining 15 to 20% are the critical components for which the country is totally dependent on imports which can at any time be denied by foreign countries. Thus, there is a need to spend more money on R&D efforts so that country's dependence on foreign sources can be minimised.

**Reply of the Government**

Indigenisation is an on-going activity at HAL. HAL has drawn up a Design Perspective Plan identifying the products and technologies to be developed in the coming years. Development of Accessories and Avionics like flight control actuators, pumps, radars, flight data recorders, etc have been planned. The plan envisages Company financed R&D expenditure of Rs. 1000 crore for development of new products and technologies upto the period 2012.

Development of some of the critical technologies involve long periods of R&D work with associated large investments. HAL takes up the development work based on the market potential and financial feasibility. HAL is developing many of the technologies/products for use on its platforms in partnership with DRDO laboratories private industries and academic institutions.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 2, Para No. 2.24)**

The Committee is happy to learn that HAL has developed ALH Dhruv, which is a well equipped advanced Helicopter with capability to operate in extremities of temperatures suitable to Indian conditions. However the Committee note that production target of ALH Dhruv in 2004-05 could not be achieved due to delay in supply of 470 mm diameter collector gear bearing by SNFA, France. The Committee, therefore, recommend that HAL should try to develop such items indigenously through Transfer of Technology or inhouse R&D to avoid such delays. The Committee desire that besides DRDO, private sector should also be involved in R&D/supply of the critical components so that their expertise/capacity could be beneficially utilised. Keeping in view the highly advanced technology and multipurpose role of ALH (Dhruv) to meet the requirements of modern era, the Committee desire that HAL should vigorously pursue for export of ALH. The Committee

also desire that HAL should enter into strategic alliances/business cooperation for enhancing their export in international market.

### **Reply of the Government**

Aerospace bearing technology is a highly specialized area which has been mastered by only a few players worldwide. Developing the bearing technology involves large investments towards facilities for testing and manufacturing. Low volume requirements of bearings by the Indian aircraft industry make it difficult for any industry to take up the development and manufacture. However, HAL has been pioneering in the field of indigenisation wherever the scale of economy is favourable to the industry.

HAL's major thrust is on marketing of Dhruv. The helicopter has got good export potential because of its multi-mission, multi-role capabilities and HAL is fully geared up for export of Dhruv to various countries.

HAL has identified target customers for promotion of Dhruv in both civil and military applications. HAL is pursuing with these customers aiming to meet their total requirement in terms of training of pilots and maintenance personnel, Ground Handling and Support Equipment (GHE/GSE), logistic support etc.

HAL has signed an MoU with Israel Aircraft Industries (IAI) for joint marketing of Dhruv in international market. Accordingly, supply of Dhruv to various identified countries is being pursued jointly with IAI.

HAL is participating in various international Air Shows and showcasing its capabilities to the international aviation community. Live demo of Dhruv was made in two consecutive Air Shows in Paris during 2003 and 2005 and in Singapore Air Show 2004, Air Show in Dubai and in Chile which have drawn major attention and created keen interest among various civil and military operators. This is being further followed up by submitting proposals, presentations to the customers etc.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

### **Recommendation (Sl. No. 2, Para No. 2.25)**

The Committee further note that HAL has taken up the development of Intermediate Jet Engine called HJT-36. This project



was sanctioned in 1999 and as of now, two prototypes have been developed and trials are going on with different engines. The Committee desire that for development of IJT a time frame be fixed and should be strictly adhered to so that cost escalation etc. could be checked.

### **Reply of the Government**

The Initial Operation Clearance (IOC) for IJT aircraft is planned to be achieved by Mar. 2008 and the Final Operation Clearance (FOC) by Mar. 2009.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

### **Comments of the Committee**

(Please see Para 31 of Chapter-I)

### **Recommendation (Sl. No. 2, Para No. 2.26)**

The Committee note that the engine for Intermediate Jet Trainer IJT or HJT 36 aircraft is being imported by HAL in order to minimise developmental risks. The Committee however desire, that HAL should strive for an indigenous engine for this aircraft to make the country self reliant in production of Intermediate Jet Trainer. The Committee also desire that regular supply of engines from MIS Snecma, France and LPO Sateern, Russia should be ensured to avoid future developmental and production difficulties.

### **Reply of the Government**

AL-55 I engine selected to power the Intermediate Jet Trainer (IJT) in the production phase will be manufactured at the Engine Division of HAL in Koraput. Inter-Government Agreement for the Transfer of Technology (ToT) for the manufacture and Repair/Overhaul of this engine has been signed in Aug 05 between the Russian and Indian Governments. AL-55 I engine is under development and major milestones as per the Contract for development.

HAL is co-ordinating with the Russian side for timely completion of the engine development and also for the supply of engines and setting up of manufacturing facilities at HAL.

HAL has acquired capabilities in design and development of small gas turbine engines and test beds. HAL developed PTAE-7 gas turbine

engine is being used on the Lakshya (Pilotless Target Aircraft). Development of engines of the class used on IJT and other similar aircraft will require a timeframe of 8 to 10 years. Initiating development work now will not match with the requirements of the IJT programme.

Gas Turbine Research Establishment under the DRDO is developing the Kaveri engine for the Light Combat Aircraft (LCA). On successful completion of productionisation of this engine, a scaled down version of the Kaveri engine could be developed for powering smaller aircraft in future.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Comments of the Committee**

(Please *see* Para 31 of Chapter-I)

#### **Recommendation (Sl. No. 2, Para No. 2.27)**

The Committee strongly feel that HAL should now strive to develop Advanced Jet Trainer indigenously. In this connection, the Committee desire that concerted efforts of DRDO/HAL and other related agencies be made to translate it into reality.

#### **Reply of the Government**

HAL has proposed to develop an indigenous AJT as a follow up project of IJT. A decision on a new version of AJT would be taken in 2008-09, when the Air Force requirement is firmed up.

#### **Comments of the Committee**

(Please *see* Para 31 of Chapter-I)

#### **Recommendation (Sl. No. 3, Para No. 3.19)**

The Committee note that 80% of BEL production in 2004-05 was meant for defence forces. The Committee further note that BEL has taken a number of steps to meet the demands of civilian electronics sector also. The Committee feel, that while meeting the demand of civilian sector, priority should always be given to the defence sector.

#### **Recommendation (Sl. No. 3, Para No. 3.20)**

The Committee are happy to note that BEL has established strong relationship with DRDO and its labs in R&D activities and is also

doing concurrent product developments. The Committee, feel that BEL, in partnership with DRDO, should intensify their R&D programme so that more and more electronic systems used in defence equipments can be indigenously manufactured. The Committee note that BEL has put up proposal for Rs. 1000 crore grant to Planning Commission for undertaking research in some strategic areas for which the Commission has not given its decision even after a lapse of six months. The Committee are of the view that such a project which undertakes research to develop technology in strategic area, involving very high expenditure, should be funded at Government level with close and effective monitoring. They, therefore, desire the Planning Commission to urgently take a decision on BEL proposal and make available requisite funds so that work on the project can start at an early date. The Committee further desire that BEL should also invest in R&D from the profit earned by the company. In this regard, BEL can also take advantage of inbuilt provision in income tax laws wherein they can seek suitable exemption in the income tax for the investments made in R&D. The Committee feel that BEL, besides DRDO, should also coordinate with other defence public sector undertakings in R&D field. It should invest money only on those areas which have not been covered by any of the PSUs so as to avoid duplication of efforts. The Committee also desire the Ministry to explore the possibility of involving private sector in various selective R&D projects and manufacturing of various products.

**Recommendation (Sl. No. 3, Para No. 3.21)**

The Committee also feel that quality upgradation and costeffectiveness of defence products are imperative to keep the Defence PSUs, including BEL, vigilant, agile and responsive to the needs and concern of Defence forces. The Committee therefore desire that BEL should continuously introduce new or upgraded products every year based on in-house/indigenous technology in its efforts to be in the forefront of Technology. The Committee feel that to achieve the goals of modernisation, concerted efforts need to be made with a clear mandate. Production of items should be undertaken side by side with quality upgradation and cost effectiveness so as to attract global market also.

**Reply of the Government (Para Nos. 3.19 to 3.21)**

BEL continues to give priority to the Defence Sector. Planning Commission has since regretted their ability to fund investment in strategic areas. BEL invests about 4-5% of its' turnover on R&D. The

Committee's recommendations regarding avoiding duplication of investment is noted.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 4, Para No. 4.12)**

The Committee note that BEML Bangalore was established basically as a manufacturing unit for rail coaches and related rail products. The Committee, however, observe that since 1998-99, the installed capacity of BEML for 400 coaches has not been fully exploited due to lack of orders from Indian Railways. The Committee feel that Ministry of Defence should take up the matter with the Ministry of Railways at the highest level so that sufficient orders are placed on BEML and its capacity could be utilised fully. The Committee would like to have details of efforts made by the Ministry in this regard.

**Reply of the Government**

On persistent follow up and timely intervention by MoD, BEML has been getting orders for around 300 rail coaches from Indian Railways from the last 2 years. However, company has the capacity to easily produce another 100 more rail coaches which may be looked into by IR.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 4, Para No. 4.13)**

The Committee note that BEML also produces Metro Coaches which are at par with imported coaches in terms of quality and performance and has full order book position. The Committee, however, note that a major bottleneck is being faced by BEML in achieving the production quantities as per delivery schedule *i.e.* delay in receipt of "free supply items" such as steel, wheel sets, etc. from Indian Railways. The Committee, therefore, stress that in order to supply full order of coaches to Metro, it is essential that the matter may be taken up with the Ministry of Railways to redress the bottleneck coming in the way of achieving the production quantities as per delivery schedule.

**Reply of the Government**

The Ministry had taken up the matter with the Ministry of Railways to expedite free supply materials and wheel sets for manufacture of

rail coaches. However, for Metro coaches, the necessary inputs will be organized by BEML by interacting with the overseas suppliers M/s. Rotem, South Korea.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Comments of the Committee**

(Please *see* Para 35 of Chapter-I)

#### **Recommendation (Sl. No. 4, Para No. 4.14)**

The Committee note that BEML which is supplying critical and essential ground support equipment to the Defence services, is facing problem of placement of continuous orders from them. The Committee, therefore, desire that the Ministry should ensure that sufficient orders are made available to BEML in consonance with the perspective plan of Defence services.

#### **Reply of the Government**

There has been drastic improvement in placement of orders by MoD on BEML in the year 2005-06 and the trend is likely to continue in the coming year.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Recommendation (Sl. No. 4, Para No. 4.15)**

The Committee are concerned to note that there has been a continuous rise in import content due to increase in the sales turnover of the company. The Committee are of the view that there is an imperative need to prepare a long term perspective plan to reduce import content in a planned and phased manner and to make the company self-reliant.

#### **Reply of the Government**

Phased indigenisation programme for all the products being supplied to defence *viz.*, Tatra vehicles, Armoured recovery vehicles, etc., has been drawn up to achieve self reliance and required technical inputs/support is being received from our collaborators. Manufacturing shops are being geared up for this purpose.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 5, Para No. 5.8)**

The Committee note with concern that capacity utilisation of the Bharat Dynamics Limited (BDL) in terms of both manpower and machine has been decreasing since 2002-03 and the order book position has also gone down from Rs. 2479.46 on 1 April 2004 to Rs. 1957.00 on 1 April 2005. To maximise the utilisation of the capacity of BDL, the Committee recommend that all missiles and torpedoes that are indigenously developed or planned for procurement from abroad under ToT, should be given for production to BDL.

**Reply of the Government**

As observed by the Committee, the reduction in capacity utilization of BDL is due to the reason that the major on going projects *viz.* Milan 2 and Konkurs ATGMs have been tapering off keeping in tune the operational requirements of the Services. However, new projects like Konkurs-M and INVAR have been awarded to BDL, which in turn help the company to improve its capacity utilization. It may please be noted that these projects are being taken up in a phased manner of technology transfer wherein initially utilization will be low but progressively when these projects enter the component level indigenous production, a substantial rise in capacity utilization would occur. In procurement of missiles systems with ToT leading to licensed production in the country. BDL would be the proposed production agency, though the decision will be made on a case-to-case basic as provided for in the Defence Procurement Procedure 2005.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 5, Para No. 5.12)**

The Committee note that the Government has not granted status of Mini Ratna to BDL as it does not fulfil the prescribed criteria of independent Directors on the Company Board. The Committee have also been informed of the advantage of Mini Ratna status to PSUs *i.e.* it provides them more functional autonomy and enables them to form joint ventures. The Committee are of the strong view that for strategic industry like BDL, different criteria for granting Mini Ratna status should be prescribed. Because of its very nature, defence industry cannot have independent Directors on Company Board. The Committee, therefore, recommend the Government to review the criteria for granting status of Mini Ratna particularly to the defence industries including BDL so as to enable it to avail the benefit of Mini Ratna.

### **Reply of the Government**

Action for restructure for Board of Directors is being done as per the guidelines of the Department of Public Enterprises (DPE).

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

### **Recommendation (Sl. No. 6, Para No. 6.14)**

The Committee note that the Indian Army and other Para Military Forces are using heavier jackets weighing more than 9 kgs which are being manufactured by MIDHANI. The Committee are given to understand that light weighted imported bullet proof jackets are being demanded by the Indian Army and other Para Military Forces and MIDHANI has not been able to produce that quality of LWBPJ. Therefore, the Committee desire that MIDHANI should collaborate with the foreign manufacturer for making light weight BPJs, so that our forces could increase their work efficiency by getting lighter BPJs and country can become self-reliant in this field also.

### **Reply of the Government**

MIDHANI is in the business of 100% indigenous manufacture and supply of Body Armour Jackets and Bullet Proof Patka (Head Gear) for several years. The company has so far manufactured and supplied over 70,000 of them to Armed Forces and Para Military Forces in the country. These Jackets are manufactured with heavy Armour steel and weigh about 9 to 9.5 Kgs.

Indian Army and other Para Military Forces have been seeking Light Weight Bullet Proof Jackets (LWBPJ) which weigh about 3.5 to 4.5 Kgs. These LWBPJs are manufactured with Soft Armour Panel (SAP). SAP are made of hybrid materials like aramid and unidirectional polyethylene and are in the nature of composites and not materials.

MIDHANI's core business is Development and Manufacture of Super Alloys, Titanium and Titanium Alloys, Molybdenum and other special steels. The technology required for Composites are different and are not compatible with MIDHANI's current core business.

Ordnance Factory Board is currently assigned with the responsibility of meeting the requirement of LWBPJ's of the Indian Armed Forces.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 7, Para No. 7.23)**

The Committee are surprised to note that GSL has not incurred any expenditure on the important and vital area of R&D, which shows that it has not taken up any R&D initiative of its own and is relying on the designs supplied by vendors or depending on the obsolete designs. As R&D is the base of technology upgradation and modernisation of equipment and plant, the Committee strongly recommend that GSL must allocate substantial amount on R&D and should undertake selected R&D project in close coordination with DRDO and other Defence shipyards so as to upgrade and modernize their products. The Committee further desire that there must be a Research and Development centre in every Defence shipyard, especially in GSL with modern CAD/CAM facilities for constant improvement in present level of designing so that they can compete with the best in the world.

**Reply of the Government**

Committee's recommendations are noted. The company will take suitable decisions on R&D based on their resources and prospects and these decisions will have to be taken by the Board.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Comments of the Committee**

(Please see Paras 50 & 51 of Chapter-I)

**Recommendation (Sl. No. 7, Para No. 7.24)**

The Committee note that GSL is taking various steps to modernise its facilities with an investment of Rs. 241 crore, which is to be arranged internally during the 10th and 12th Five Year Plan period for high technology ships. The Committee hope that concerted and timely action will be taken by the GSL to implement its modernisation and upgradation plan in order to generate its internal resources for the purpose. The Committee are of the opinion that besides special modernisation plan there is a need to put concerted efforts by GSL to make modernisation activities as a part of the annual budgetary exercise of the company.

**Reply of the Government**

Noted. The company will take a suitable decision based on resources and constraints and these decisions will have to be ratified



by the Board of Directors. The modernization plan of GSL is expected to be ready soon.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 8, Para No. 8.12)**

The Committee note that there has been underutilisation of capacity of Garden Reach Shipbuilders and Engineers Limited (GRSE) since 2001-2002 due to shortage of workload. The Committee are given to understand that the Navy did not acquire any ships in GRSE's range of production during this period. The Committee further note that there has been a negligible R&D expenditure by GRSE during the last five years. As regards the modernisation and upgradation of the GRSE, the Committee note that phase I of the modernisation of project has already been completed, phase II was expected to be completed by July 2005 and about phase III, the detailed project report has since been submitted by the consultant from UK with certain added features and the same is to be approved by the Board before its finalisation. The Committee are informed that on completion of modernisation plan, GRSE will be able to drastically bring down the total production time of warships, which in turn will help to obtain optimum capacity utilisation of existing infrastructure and available manpower. The Committee, therefore, strongly recommend that Ministry should make all concerted efforts to finalise and implement the modernisation plan in a time bound manner without further showing time and cost overrun so that intended benefits could be availed by the company. The Committee also desire that the Indian Navy and Coast Guard should prepare and give their actual shipbuilding requirements to the GRSE, so that it may also prepare its perspective plan accordingly and available capacity and manpower may not go underutilised. As regards the constraints being faced by GRSE, the Committee desire the Ministry to take initiative for signing and finalisation of MoU between the GRSE and Kolkata Port Trust (KPT) so that its refit constraints due to non-availability of dry dock facilities, could be resolved.

**Reply of the Government**

Modernisation Phase I & II has been completed. Phase-III proposal is under preparation by Consultant, Gifford, UK. The modernisation plan is expected to be completed by 2010 which will help GRSE drastically to bring down the total production time of warships. GRSE has received orders for 4 ASW Corvette and 10 Waterjet FAC in addition to the existing 3 LSTL under production. The available capacity

will be utilised to the fullest extent and in addition possession of Rajabagan Dockyard is in the advanced stage.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 9, Para No. 9.24)**

The Committee note that MDL has not been able to qualify as the main bidder in shipbuilding tenders due to non-availability of adequate infrastructure as compared to the private/foreign shipyards. The Committee further note that other shipyards are blessed with low labour input cost and overheads and cut in octroi duties and various subsidies. The Committee, therefore, recommend that Ministry should chalk out a plan for development and strengthening of infrastructure of Defence shipyard, not only for effective participation in shipbuilding tenders but also to qualify as the main bidder. The Committee also recommend that a study group should be constituted to examine the possibility of extending exemptions to defence shipyards in the matter of subsidies, tax benefits and excise duties etc. in order to make it cost effective and competitive with foreign/private shipyards.

**Reply of the Government**

Development and Strengthening of Infrastructure at MDL:

Government has approved 10-years modernization and capital investment plan of the company to maximize productivity of existing capital assets by providing balancing equipments and judicial essential replacements.

The infrastructure under development are as follows:

- (VI) Modular workshop with EOT cranes
- (VII) Additional wet basin with Level Luffing cranes
- (VIII) Cradle assembly shop & stores for submarines
- (IX) Upgradation of Design Software
- (X) Upgradation of welding stations in submarine yard

**Constitution of study group to examine possibilities of extending financial benefits to defence shipyard:**

The recommendations of the Committee would enhance competitiveness of the shipyards in a big way.

**Formation of Study Group**—The Finance Ministry is considering reduction of tax exemptions and to make Indian Industry competitive at the global level. However, the Ministry of Shipping has already constituted a committee to examine the present Ship Subsidy Scheme. At present the Shipbuilding Subsidy Scheme envisages 30% subsidy for domestic orders for ships of length more than 80 metres obtained through global tender process for construction of seagoing vessels as defined in Section 3(41) of the Merchant Shipping Act 1958. The present scheme expires in Aug. 2007 and is under revision by the Shipping Ministry. Seen in this perspective, constituting a study group to examine possibility of extending exemptions to Defence Shipyards alone in the matter of subsidies, tax benefits and excise duties may be unfounded. Primarily Naval Shipbuilding is a specialized activity and at present customs duty concessions have been extended on certain material & components. In this connection Ministry of Finance has written to this Ministry to consider withdrawing tax concession presently extended.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Comments of the Committee**

(Please *see* Para 55 of Chapter-I)

#### **Recommendation (Sl. No. 9, Para No. 9.25)**

The Committee also note that there has not been any export by the company during the last five years. The Committee hope that after substantial investment for modernisation of shipyard MDL, it would be possible to initiate and enhance the export at the optimum level. For this purpose, the Committee desire that Government should explore the possibility of subsidising shipyards heavily and to extend soft loan credit facility to the buyers as is being done by some other countries.

#### **Reply of the Government**

At present there is no provision for extension of soft loan credit facility to the buyers at the Govt. to Govt. level. The Govt. has set up the Indian Development and Economic Assistance Scheme (IDEAS) as a window for the buyer country to avail lines of credit through agencies like EXIM Bank of India for buying products of Indian manufacturers.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 9, Para No. 9.26)**

The Committee note that perspective plan of MDL is based on the Navy's acquisition plans for the Tenth and Eleventh plan period. The Committee desire that not only proposed Navy acquisition plan should be implemented effectively but also Committee should be apprised about effective steps taken by the Ministry in this regard.

**Reply of the Government**

Apprising of the committee on effective implementation of proposed Naval Acquisition Plan:

(i) Construction of three frigates of P17 class and three destroyers of P15A class is progressing at MDL as follows:

(i)

Sl. No.	Class of Ship	Yard No.	Keel laid on	Launched on	Delivery Target
1.	P 17	12617	11/07/2001	18/04/2003	Sep.-08
2.		12627	31/10/2002	04/06/2004	May-09
3.		12637	30/09/2003	27/05/2005	Dec.-09
4.	P15A	12701	26/09/2003	30/03/2006	May-10
5.		12702	25/10/2006		May-11
6.		12703			May-12

(ii) Further discussions are in progress with Indian Navy for construction of P17A and P15B class of ships.

(iii) Preparatory activities of construction of 6 Nos. Scorpene submarines are in progress and construction of the first boat will commence 15th December 2006.

The Secretary (Defence Production) has conducted a meeting on 22.05.2006 of all CMDs of Shipyards to assess their capacity in the light of maritime capability perspective plan of the Indian Navy recently. It is also proposed to hold a separate meeting under the chairmanship for Chief of Naval Staff to make firm projections in the light of present capacity of shipyards, orders under execution and projection of Navy's requirements in the maritime capability Perspective Plan.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 9, Para No. 9.27)**

The Committee note the difficulties posed by the CMD, MDL regarding expansion of the shipyard since at present the draught of the shipyard is only 4.5 metres and there is no scope of further increase in draught as well as in length and breadth as it is surrounded by Mumbai Port Trust and ship-breaking yard of Darukhana. The Committee also note that MDL is looking for Green Field site for deeper draught to hit the global market and to make bigger ships. The Committee, therefore, recommend that the Government should explore the possibility of arranging a site at the Gujarat Coast or East Coast, so that the trained manpower and resources of MDL could be utilised for shipbuilding of more than 1000 tonnes for exports, thereby enabling the MDL to hit the global market.

**Reply of the Government**

(a) ONGC has written to MDL to return 18.3 hectares of land at Nhava which ONGC had informally leased to MDL in 1980. ONGC has plans for modernizing and upgrading Nhava Supply base in view of increased activities in offshore areas. MDL has made considerable investment by building a Jetty, temporary slipway and necessary workshops in the area. These were used for offshore work relating to ONGC. Nhava provides an ideal water-front for shipbuilding and ship repair activities. Since the area is located just across the channels from MDL. Ministry has taken up with ONGC on 14.07.2006 for allowing MDL to continue to utilize the facilities.

(b) The investment in Pipavav Shipyard Ltd. has been received in this Deptt. after observations of the Finance Ministry. In the light of the observations of the Ministry of Finance, the proposal is under consideration of the Board of MDL.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 9, Para No. 9.28)**

The Committee note that submarine building facility in MDL has been lying idle for more than eleven years as no order was given to them. The Committee have been informed that a decision has now been taken to manufacture Scorpene class submarine with French technology and French parts in MDL. Since the acquisition of submarine has been long delayed, the Committee desire the Ministry to take urgent steps to upgrade the facilities at submarine building of MDL in

a time-bound manner with adequate allocation of funds and induction of technical manpower so that any further delay in manufacturing of submarine may be avoided.

#### **Reply of the Government**

MDL has placed order for upgradation of welding stations at submarine yard and also trained concerned welding officers on the latest technology employed for construction of Scorpene submarines in France. Construction of Cradle assembly shop and stores for submarines is under tendering stage. As far as induction of technical manpower is concerned the same has been split into stages and first stage recruitment of 40 officers has been completed. Proceedings in respect of posts in the AGM level awaiting Board's approval. This is expected to be over soon and induction will begin in August.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Recommendation (Sl. No. 10, Para No. 10.7)**

The Committee note that over the years the private sector has grown in size and reach to form an important part of country's industrial base. The Committee are of the view that their capabilities and resources should be made use of in strengthening the country's defence production. The Committee feel that with their expertise and capability, the public/private sector/DRDO can contribute in building self reliance and home grown technologies in major defence systems. The Committee also feel that now there is a need to create an environment where both public and private sector/DRDO can grow together and be partner with each other. Further R&D efforts of both the public and private sector should be synergised and, coordinated by the DRDO. The Committee, therefore, recommend the Government to chalk out a National Defence Production policy to synergise the capabilities of public and private sector and DRDO in defence production with greater emphasis on indigenous content. The Committee also recommend the Government to explore the possibility of promoting defence R&D by involving private sector in selective R&D projects.

#### **Reply of the Government**

The recommendations made by the Committee to synergise the capabilities of public and private sector and DRDO in defence production with greater emphasis on indigenous content and to explore

the possibility of promoting defence R&D by involving private sector in selective R&D projects are agreed to in principle by DRDO. Modalities for their implementation need to be worked out.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Comments of the Committee**

(Please see Para 63 & 64 of Chapter-I)

#### **Recommendation (Sl. No. 10, Para No. 10.8)**

The Committee note that at present 45% of the production work is outsourced to private sector. The Committee desire the Government to explore the possibility of outsourcing more and more work to the private sector particularly in areas where they have sufficient infrastructure and technology to supply the required products.

#### **Reply of the Government**

The recommendations has been noted. Greater emphasis is being laid on outsourcing the production work to the private sector and to progressively increase the same.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

### CHAPTER III

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

##### **Recommendation (Sl. No. 4, Para No. 4.16)**

The Committee also note that the profitability of BEML depends on purchase preference policy of government and the same has not been renewed beyond 31 March 2005. Since BEML is supplying critical ground support equipment to defence services, Government should renew purchase preference policy in favour of the company. The Committee also desire that BEML should also strive to consolidate its strength to face competition so that it may not have to depend on Government purchase preference policy in future. The Committee are of the view the BEML should also strive to be closely and exclusively associated with defence industry and supply critical and essential ground support to the defence services. In this connection, the Committee desire that Government should examine this issue and try to separate non defence production of the BEML. The Committee also desire that there should be a separate organization for production of non-defence products like rail coaches and other rail products.

##### **Reply of the Government**

Purchase preference policy has been extended beyond 31st March 2006.

Two business segments of BEML *viz.* defence and non-defence, work at arm length to each other and a few production facilities are similar to meet the production requirement of these two segments. For purpose of sustenance, most companies involved in manufacturing defence products diversify and produce products, which has a sustained market on the civil sector. Dependence only on Defence supplies would not be advisable.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

##### **Recommendation (Sl. No. 5, Para No. 5.9)**

The Committee note that BDL manufactures products like Milan and Konkurs ATGMs under licence from French and Russian



Companies and before these products can be exported, BDL requires clearance from the Original Equipment Manufacture (OEM) and Ministry of Defence. The Committee, therefore, desire that BDL should scrupulously examine and identify the products, which have the export potential, on case to case basis and get the approval of OEM and Ministry of Defence, in order to augment its revenue resources. The Committee, further desire that Ministry while making procurement under Buy and Make category, should examine the feasibility of inserting suitable clause to avoid clearance from the Original Equipment Manufacturer for exporting these products.

#### **Reply of the Government**

The earlier agreements for license production of Milan and Konkurs envisage production of these missiles only for internal consumption. Hence, any export of these systems needed clearance from the OEMs in addition to approval by Government of India. The OFF-SET condition included in the recently promulgated DDP 2005 would help in binding the OEMs to source products from India. This would certainly augment the export revenues of the Indian industry.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Recommendation (Sl. No. 5, Para No. 5.10)**

The Committee feel that in view of increasing threat perception of missiles from enemy, ballistic missile defences are essential in order to defend the country. The Committee, therefore, recommend that a time bound programme must be chalked out urgently to develop the Missile Defence System, so that our defence forces can counter any possible attack from any hostile country.

#### **Reply of the Government**

Regarding the observation made in Point 5.10 it is stated that this aspect is always considered by the Indian Forces and as per their requirement action is taken.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

## CHAPTER IV

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

#### **Recommendation (Sl. No. 1, Para No. 1.5)**

The Committee note that the Ministry of Defence has eight Public Sector Undertakings (DPSUs) which cater to the basic strategic requirements of Defence Forces. The Committee also note that defence production is a highly sophisticated sector, which requires state-of-the-art technology. A major challenge before these DPSUs is therefore to constantly upgrade their technology and products so that their products may be of world standards and may successfully compete in the international market.

#### **Reply of the Government**

The Defence Public Sector Undertakings (DPSUs) have taken up several steps to upgrade their technology and products. Out of the eight DPSUs, three are Defence Shipyards.

2. It includes Hindustan Aeronautics Limited (HAL)'s upgrading Design and Production facilities with systems and machineries required for a modern aerospace industry. Besides, HAL have commissioned computer aided design packages (Catia, Unigraphics), CNC profilers, CNC machining centers, Coordinate Measuring Machines, Laser marking and cutting machines, Water Jet cutting machines, Electron Beam Welding machines and other sophisticated machines. Apart from this, HAL has developed the Advanced Light Helicopter (Dhruv) and under development is intermediate Jet Trainer.

3. Another DPSU, Bharat Electronics Limited (BEL) takes up development of new products proactively. Some of its recently upgraded products are Flycatcher Radar, Frequently Hopping VHF equipment, VHF Portable Set (VPS) Mk III etc.

4. Shipbuilding is a complex activity comprising Naval Architecture, Mechanical, Electrical and Weapon disciplines. The shipyards focus is towards construction of a desired platform capable of operating in a specified environmental condition and capacity to house the state of

art machinery/equipment/weapons. Upgradation of Production Technology and Design features are the issues of concern in shipbuilding.

5. One of the Defence Shipyards, Goa Shipyard Limited (GSL) has taken the following action for upgrading its technology:—

- Implemented ERP covering the entire gamut of its operation.
- Upgraded TRIBON software for design of ships and laying out compartments.
- Integrated ERP system, Primavera Project Management Tool, TRIBON software.
- Upgraded production technology by introducing ceramic back up strip welding, Gullco automatic welding attachment, bevelling machine, established modern electronic workshop, updated Pipe shop etc.
- Appointed M/s Royal Haskoning, UK as consultants for modernization.

6. Another Defence Shipyard, Garden Reach Shipbuilders & Engineers Limited (GRSE) has undertaken:—

- (f) Number of licenced software (Tribon) for Computer Aided Design;
- (g) ERP System (SAP R/4) for better integration/coordination among Production, Planning, Design and Material;
- (h) Project Planning & Control of Shipbuilding activities using PRIMA VERA software;
- (i) Modular Concept in Ship Production to increase the Outfitting activities to 60-80% at prelaunch aids with
  - (i) Modern CNC Plasms cutting machines.
  - (ii) CNC Pipe Bending machines.
  - (iii) CNC Oxy Acetylene plate cutting machine.
  - (iv) Boring machine with sighting facility.
- (j) Extensive use of TIG/MIG welding.

Having taken strides towards updating the Production Technology, GRSE now proposes to venture into exporting a few of its products in the international market.

7. With the Financial support received from the Strategic Customers and also with injection of the internal resources generated by Mishra Dhatu Nigam Limited (MIDHANI) the Company has been able to commence the Modernization plan. The modernization plan is expected to be completed within two years. The modernization of the Company's equipment and facilities would enable improved productivity and yield while at the same time ensure supply of quality materials to its customers with faster deliveries.

8. The DPSU Bharat Earth Movers Limited (BEML) is upgrading its products based on feedback from its marketing network by incorporating additional features that are on the competitor equipments. New equipments are designed and produced to meet specific customer requirements. Apart from this, tie ups are made with international companies for new products and these are indigenised progressively by obtaining necessary technical inputs from collaborators.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Comments of the Committee**

(Please *see* Para 11 & 12 of Chapter-I)

#### **Recommendation (Sl. No. 1, Para No. 1.6)**

To achieve the above objectives, DPSUs need sufficient resources/ funds to undertake modernization of their plants and make investment in R&D, manpower training etc. Therefore, the Committee are of the view that DPSUs should be given more financial autonomy and allowed to raise resources through market-borrowing by way of equity/bonds/ loan from public. The Committee recommend that the Government should permit DPSUs to utilize a certain percentage of the money received from market borrowing for modernization purposes. It will ensure accountability and also increase the resource bases of the organizations. It will also make them self-sufficient and reduce their dependency on government funds. The DPSUs should also be given more autonomy in decision making and in matters like entering into joint venture/co-development and coproduction agreements with foreign countries. The Committee further desire that DPSUs should appoint a Committee of experts including some outside experts also which may, from time to time, give well considered advice to improve their products and bring efficiency in the work.

### **Reply of the Government**

Two Mini Ratna DPSUs, Hindustan Aeronautics Limited (HAL) and Bharat Electronics Limited (BEL) have sufficient funds available to undertake their activities and modernization of their plants and products.

2. Another DPSU, Mishra Dhatu Nigam Limited (MIDHANI) has been able to wipe out its cumulative losses and to register improvements in its Reserves and Surplus. These funds are being ploughed back into business for procurement of capital equipment as a part of its Modernization plan to replace its outdated and obsolete equipment as a part of its Modernization plan to replace its outdated and obsolete equipment. However, due to its weak financial health and its inability to service debts, MIDHANI's strategic customers have extended financial assistance both in the form of Grant and interest free loan/advances. MIDHANI could consider borrowing from markets/public in the form of equity/loan/bonds once its financial health improves and for next phase of modernization plan.

3. One more DPSU Bharat Earth Movers Limited (BEML) has sought assistance for funds for setting up an independent R&D center of excellence at Bangalore for Metro Rail coaches and such high tech rail products and for upgrading metro manufacturing facility at its Bangalore unit. These two proposals are with the Department of Heavy Industry. BEML propose to invest around Rs. 167 crore for modernization/upgradation of its manufacturing facilities from its own resources. Also, BEML is engaging Consultants/Professionals in areas where in-house talent/expertise is found wanting.

4. One of the Defence shipyards, Goa Shipyard Limited (GSL) has initiated to raise sources from capital market. The GSL propose to appoint SBI Capital Market to render advisory services and also to undertake the Capital restructuring exercise to enable issue of shares held by MOD by way of offer to the public and also by GSL itself.

5. A comprehensive plan for modernization of GSL is in hand which when completed in a phased manner by mid 2010 would give the yard a quantum jumps in building and repairing medium sized sophisticated vessels at competitive price with reduced build period.

6. M/s Royal Haskoning, UK, have been appointed as consultant for GSL modernisation. The Preliminary Project Report submitted by the Consultant has been duly approved by Board of Directors. The Detailed Project Reports is under preparation.

7. Modernisation programme envisaged by GSL involves an outlay of app. Rs. 525 crore. GSL is making efforts to garner Indian Navy's support to fund part of the project to construct MCMVs to the extent of Rs. 237 crore. GSL have also approached Indian Coast Guard with a proposal to part fund the modernization for long term repair/maintenance of Coast Guard ships to the extent of Rs. 80 crore. It is planned to mobilize the remaining Rs. 208 crore through external commercial borrowings or by issue of additional shares to the public.

8. Regarding joint ventures, GSL has signed following MOU/collaboration agreements

- M/s. Wartsila LIPS Defence, France:  
MoU signed with M/s. Wartsila LIPS Defence for collaborating as their partner in India on project-to-project basis and to pool resources for the purpose of securing orders and manufacturing full stern gear in India.
- M/s. Alstom Power Conversion, France:  
MoU signed with M/s. Alstom Power Conversion, France for collaborating as their partner in India for providing after sales service support to the Propulsion Control and Monitoring System supplied by ALSTOM to Indian Navy and Coast Guard.
- M/s. Lv-Nevesbu, Netherlands:  
MoU signed with M/s. Lv-Nevesbu, Netherlands for collaborating as their partner in India on project-to-project basis and to pool resources for the purpose of securing orders for System Integration of P28 ASW Corvette.
- M/s. Rolls-Royce Power Engineering Plc, U.K:  
MoU signed with M/s. Rolls-Royce Power Engineering Plc, U.K. for manufacturing/procurement of certain components, sub-assemblies and final assembly and test of motion control equipment for use in Naval and Coast Guard vessels manufactured in India.
- M/s. VT Helmatic, U.K:  
MoU signed with M/s. VT Helmatic, UK for design, manufacture, test, trials and after sales support service for GRP boats being built for Indian market.

- M/s THORNYCROFT MARITIME & ASSOCIATES (AUST) PTY LTD Fremantle, Western Australia, Australia:

MOU signed with M/s Thornycroft Maritime & Associates (AUST) Pty Ltd. Fremantle, Western Australia, Australia for collaborating as partner on project to project basis to pool resources in regards to shipbuilding projects for Indian market as well as for export.

9. Similarly, another Defence Shipyard Garden Reach Shipbuilders & Engineers Limited (GRSE) has embarked on modernization plan at a value of more than Rs. 300 crore and also in the process of setting up ship repairing facility at Haldia Port through joint ventures/co-development and co-production agreement with foreign countries if required. GRSE has appointed UK based consultant M/s Giord for drawing up a modernization plan and the SBI Cap for Haldia Project.

10. A Committee to give well-considered advice to improve products regularly undertake benchmarking meetings between the defence shipyards to introduce the best practices prevailing in each shipyard. In addition to that, external consultants have been appointed, on need basis in areas of energy saving, improving safety etc.

11. MIDHANI in its quest to increase its turnover has been taking up supply of value added items like Rings, Plates, Kanchan Armour, large machined items etc., to its Strategic Customers like Space, Defence and Atomic Energy. In this direction MIDHANI has been making use of the facilities, that do not exist in MIDHANI, but that are available at different PSUs (RSP, Rourkela) and Government Organizations (Nuclear Fuel Complex, Hyderabad) and other private sector/small and medium sectors (in and around Hyderabad) and adequate delegation of powers exists to the Chief Executives in this regard. Though, these are not in the nature of Joint Ventures, its facilities co-development and co-production with efficient utilization of the resources available within the country.

12. MIDHANI has sought the induction of experts in the field of metallurgy management, finance, marketing etc., as independent directors on the Board of MIDHANI. With the induction of these Independent directors MIDHANI would be benefited with their independent advice, foresight and expertise for the improvement of the company.

#### **Comments of the Committee**

(Please see Para 11 & 12 of Chapter-I)

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 2, Para No. 2.20)**

The Committee further note that HAL's exports, in comparison to its total sales, are very small. During the year 2003-04, the company's total sales were Rs. 3799.78 crores and the exports were only Rs. 215.34 crores which is less than 6% of the total sales. The Committee hold the view that HAL by virtue of its vast capability and expertise should play a vital role in global market which can be achieved by increased thrust on exports of their products. The Committee therefore, desire the HAL to formulate a well planned strategy in consultation with experts so as to give export orientation to their products and market them effectively in the global market. For giving wide publicity to their products, Defence attaché posted in various countries should be actively involved to play a positive role in this regard. The Committee would like that a clear cut export policy be laid down to tap the vast export potential not only for the HAL but also for all Defence PSUs products.

**Reply of the Government**

HAL's exports have grown progressively over the years. Export has been considered as thrust area for HAL. HAL's perspective plan envisages significant growth in exports for which strategies have been formulated. Export shops for manufacture of engine components and composites are being planned to be set up at HAL. HAL is making its best efforts for aggressive marketing of its products and services for which target markets have been identified and strategies for penetration in the target market have been formulated. On a continuous basis, HAL appraises the Indian Missions abroad regarding the progress made in its efforts in promotion products and services and seek their help in taking HAL's proposals forward.

**Comments of the Committee**

(Please see Para 24 of Chapter-I)

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

**Recommendation (Sl. No. 6, Para No. 6.13)**

The Committee note that MIDHANI is supplying special steels, super alloys and titanium alloys for strategic sectors, which forms the core material not only for defence needs but also for space and atomic energy programmes, and these alloys are very crucial in timely



completion of various projects of strategic importance. The Committee are constrained to note that despite the critical importance, the plant, machinery and facilities of MIDHANI have not been up-graded and modernized for the last two decades. The Committee also note that a Committee set up by the Ministry to review the working of MIDHANI has recommended for the upgradation and modernization of the outdated and obsolete facilities of it with adequate investment. For this purpose, the Ministry has moved a Cabinet note for providing a budgetary grant of Rs. 66.63 crore to MIDHANI for its modernization plan. The Committee, therefore, recommend that MIDHANI should be allocated adequate budgetary grants expeditiously so that plant, machinery and facilities of MIDHANI could be upgraded and modernised to save strategic products from being jeopardised.

#### **Reply of the Government**

On the Cabinet note moved by the Department of Defence Production for seeking budgetary grant of Rs. 66.63 crore, the Ministry of Finance suggested that MIDHANI should consider the option of merger with a larger DPSU such as HAL as long-term solution.

However, with proactive initiative of the Ministry a meeting of the strategic customers of MIDHANI was called for to seek their financial assistance for the Modernization plans of MIDHANI. In the meeting held in February 2006, the strategic customers of MIDHANI such as HAL, DRDO and Ordnance Factory Board agreed to provide necessary financial assistance in this regard.

As a matter of mutual benefit, the above customers agreed to fund the modernization of MIDHANI with Company passing on a certain portion of the benefit of improved productivity and yield due to modernization to these customers in the form of price reduction and Customers being assured of supply of consistent quality material and with faster deliveries from MIDHANI. HAL have agreed to consider extending interest free loan of Rs. 25 crore, DRDO has agreed to consider providing equipment worth Rs. 15 crore, as part of Modernization to MIDHANI to facilitate production of materials required for their programmes and Ordnance Factory Board has agreed to consider placing their equipment worth Rs. 15 crore at MIDHANI as part of MIDHANI Modernization to ensure quality materials supply for ordnance factories current and future programmes. The balance funds required for modernization would be met from the Internal resources of the MIDHANI.

The modernization plan of MIDHANI has already commenced and orders for the major equipment being funded by the Department of Space have been placed and others are being ordered. It is expected that the entire modernization plan would be completed in two years.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Comments of the Committee**

(Please *see* Para 38 & 39 of Chapter-I)

#### **Recommendation (Sl. No. 7, Para No. 7.21)**

The Committee note that the order book position of Goa Shipyard Limited is not healthy and there is constant shrinking of capacity utilisation, which has gone down from 91.01% in 2001-02 to 30.31% in 2003-04. To improve capacity utilisation, the Committee desire that the order for construction of small and medium vessels required by Navy and Coast Guard as reflected in 10th and 11th Acquisition Plan of Navy and Coast Guard, may be given to GSL. The Committee further desire that the Ministry should make it obligatory for each DPSU shipyard to constitute a Committee which besides examining the need for creating resources for healthy order book position, should also suggest ways and means for full and effective utilisation of the installed capacity and submit its report to the Government.

#### **Reply of the Government**

The Committee's comments are noted. The Ministry is constantly monitoring the capacity of the yards. As recently as on 22.05.2006, Secretary (DP) chaired a meeting with CWP&A, in which the CMD of GSL gave a presentation on capacity of the yard with reference to the Maritime Capability Perspective Plan of the Navy. Interaction between the Navy/Coast Guard and GSL is constant.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Comments of the Committee**

(Please *see* Para 45 & 46 of Chapter-I)

#### **Recommendation (Sl. No. 7, Para No. 7.22)**

The Committee are constrained to note that GSL has not made any export during the last five years despite the keen interest shown

by some countries on their products. As stated by the GSL, the main reason, therefore, was the non-availability of financial assistance to these countries for procurement of GSL ships. The Committee note that if soft finance is provided to these countries, the interest shown by the countries can materialise in orders. The Committee also note that two of our nationalised banks namely PNB and SBI are ready to provide soft loans. In view of long term advantage to Indian shipping industry in general and GSL in particular in terms of export of vessels, the Committee recommend that the Government should give necessary approval to the DPSUs to avail bank facility to extend soft loan to the importing countries. The Committee further desire that GSL should chalk out a clear cut plan to increase its export to fully book its production capacity.

#### **Reply of the Government**

The Committee's recommendations are noted. The Govt. has set up the Indian Development and Economic Assistance Scheme (IDEAS) as a window for the buyer country to avail lines of credit through agencies like EXIM Bank.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

#### **Comments of the Committee**

(Please see Para 45 & 46 of Chapter-I)

## CHAPTER V

### RECOMMENDATION/OBSERVATION IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

#### **Recommendation (Sl. No. 5, Para No. 5.11)**

The Committee note, that the number of new projects undertaken by the BDL are in different stages of progress and none of the project has been completed in toto. The Committee, therefore, would like that all out efforts should be made by the Ministry/BDL to complete these projects and in a time bound manner. The Committee would also like to have details of commissioning stage of the projects, targets fixed for completion, reasons for delay in completion and corrective measures taken in this regard.

#### **Reply of the Government**

The details of new projects are mentioned in Point 5.3. On these projects it is stated that the proposals are under consideration at different levels and once the proposals are finalized/contracted the targets etc. will be fixed and progress will be monitored as per the targets.

[Ministry of Defence OM No. H-11013/6/2006/D(Parl.)  
dated 30.8.2006]

NEW DELHI;  
12 July, 2007  

---

21 Asadha, 1929 (Saka)

BALASAHEB VIKHE PATIL,  
Chairman,  
Standing Committee on Defence.

MINUTES OF TWENTIETH SITTING OF THE STANDING  
COMMITTEE ON DEFENCE (2006-2007)

The Committee sat on Monday, the 12th February 2007 from 1100 to 1430 hrs. in 'Main' Committee Room, Parliament House Annexe, New Delhi.

PRESENT

Shri Balasaheb Vikhe Patil – *Chairman*

MEMBERS

*Lok Sabha*

2. Shri S. Bangarappa
3. Shri Santosh Kumar Gangwar
4. Dr. K.S. Manoj
5. Shri Asaduddin Owaisi
6. Shri Adhalrao Shivaji Patil
7. Shri Mahadeorao Shiwankar
8. Shri Rajesh Verma

*Rajya Sabha*

9. Dr. Farooq Abdullah
10. Shri Abu Asim Azmi
11. Shri R.K. Dhawan
12. Smt. N.P. Durga
13. Shri K.B. Shanappa

SECRETARIAT

1. Shri P.K. Bhandari — *Joint Secretary*
2. Shri Gopal Singh — *Director*

WITNESSES

**REPRESENTATIVES OF MINISTRY OF DEFENCE**

1. Shri Shekhar Dutt — *Defence Secretary*
2. Shri K.P. Singh — *Secretary (DP)*

3. Dr. M. Natarajan	—	SA to RM
4. Shri S. Banerjee	—	DG (ACQ)
5. Shri V.K. Mishra	—	Secretary (Def. Fin.)
6. Dr. (Mrs.) Rekha Bhargava	—	Special Secretary (B)
7. Shri P.K. Rastogi	—	Addl Secy. (B)
8. Dr. W. Selvamurthy	—	CCR&D (LS&HR)
9. Shri Gautam Chatterjee	—	JS (O/N)
10. Shri Binoy Kumar	—	JS (E)
11. Shri Harcharanjit Singh	—	Secy (BRDB) / JS (ESW)
12. Shri S.N. Mishra	—	Addl FA(M)
13. Shri Alok Perti	—	JS (SY)
14. Dr. (Mrs.) Kiran Chadha	—	JS (X)
15. Shri T. Ramachandru	—	JS (S)
16. Shri Ranjan Chatterjee	—	JS (HAL)
17. Shri Mohd. Haleem Khan	—	Addl FA (H)
18. Smt. Anuradha Mitra	—	Addl FA (AM)
19. Shri Amit Cowshish	—	Addl FA (A)
20. Shri S. Ghosh	—	Chairman/OFB
21. Shri V. Somasudaram	—	JS (OF)
22. Shri B. Saha	—	Secy, OFB
23. Shri Sharad Ghodke	—	OSD (P)
24. Shri Ashok K. Baweja	—	Chairman, HAL
25. Shri V.R.S. Natarajan	—	CMD, BEML
26. Shri M. Narayana Rao	—	CMD, MIDHANI
27. Shri VVR Sastry	—	CMD (BEL)
28. Rear Adm (Retd.) A.K. Handa	—	CMD, GSL
29. Rear Adm T.S. Ganeshan	—	CMD, GRSE
30. Vice Admn S.K.K. Krishnan	—	CMD, MDL
31. Maj. Gen (Retd.) R. Gossain	—	CMD, BDL
32. Shri PRK Hara Gopal	—	Dir (Fin.), BEL
33. Shri SK Mehta	—	Dir (R&D), BEL
34. Shri Devjit Ghosh	—	LO. MIDHANI
35. Commdt. Sunil Mane Sinda	—	CM, GSL
36. Shri Yogesh Sharma	—	Regional CM, MDL

37. Commander Hardev Inder	— IN (Retd.), Addl GM
38. Lt. Gen. HS Lidder	— CISC
39. Lt. Gen. Deepak Kapoor	— VCOAS
40. V. Adml. Nirmal Verma	— VCNS
41. Air Mshl AK Nagalia	— DCAS
42. Lt. Gen. SS Dhillon	— MGO
43. Lt. Gen. Thomas Mathew	— AG
44. Air Mshl VR Iyer	— AOP
45. Vice Adml Sunil K. Damle	— COP
46. Surg Vice Adml VK Singh	— DGAFMS
47. Lt. Gen. LP Sadhotra	— DGMS (Army)
48. Air Marshal HK Maini	— DGMS (Air)
49. Surg Vice Adml Yogendra Singh	— DGMS (Navy)
50. Maj. Gen. Suresh Chandra	— Addl DGAFMS
51. Maj. Gen. J. Jayram	— Addl DGAFMS (MR)
52. Maj. Gen. R.K. Kalra	— MD-ECHS
53. Maj. Gen. A.K. Mehra	— ADG WE
54. AVM N. Vijaya Kumar	— ACAS (FP)
55. R. Adml. R.K. Dhowan	— ACNS(P&P)
56. Brig. Kunwar Karni Singh	— Dy. DGAFMS (P&T)
57. Brig. Satish Malik	— Dy. MD-ECHS
58. Col. A.K. Verma	— Dir MS (H)
59. Col. Pawan Kapoor	— Dir AFMS (P)
60. Col. G. Ghosh	— Dir. ECHS
61. Lt. Col. SI Subhani	— CRD Cell
62. Capt. Abhishek Saxena	— SO to VCOAS
63. Shri S. Ahuja	— INAS, DGONA

2. At the outset, Hon'ble Chairman welcomed the representatives of the Ministry of Defence to the sitting of the Committee and drew their attention to Direction 58 of Directions by the Speaker, Lok Sabha.

3. The Committee then took evidence of the representatives of Ministry of Defence on Action Taken Replies furnished by the Ministry of Defence on Ninth Report on 'Defence Public Sector Undertakings'

\*\*\*\*

- 4. \* \* \* \*
- 5. \* \* \* \*

6. The Committee thereafter sought clarifications on the Action Taken Replies to the observations/recommendations contained in the Ninth Report on Defence Public Sector Undertakings and \*\*\*\* to which the representatives of the Ministry of Defence answered one by one.

*The witnesses then withdrew.*

7. The verbatim record of the proceedings was kept.

- 8. \* \* \* \*
- 9. \* \* \* \*

*The Committee then adjourned.*

---

\*\*\*\*Not related with the subject.



MINUTES OF THIRTY-THIRD SITTING OF THE STANDING  
COMMITTEE ON DEFENCE (2006-2007)

The Committee sat on Wednesday, the 06th June 2007 from 1100 to 1215 hrs. in Committee Room 'C', Parliament House Annexe, New Delhi.

PRESENT

Shri Balasaheb Vikhe Patil — *Chairman*

MEMBERS

*Lok Sabha*

2. Shri Santosh Kumar Gangwar
3. Shri C. Kuppusami
4. Dr. K.S. Manoj
5. Dr. H.T. Sangliana
6. Shri Rajesh Verma

*Rajya Sabha*

7. Shri Abu Asim Azmi
8. Shri R.K. Dhawan
9. Shri K.B. Shanappa
10. Smt. Viplove Thakur

SECRETARIAT

1. Shri P.K. Bhandari — *Joint Secretary*
2. Shri Gopal Singh — *Director*
3. Shri D.R. Shekhar — *Deputy Secretary-II*
4. Smt. J.M. Sinha — *Under Secretary*

WITNESSES

**NON-OFFICIAL WITNESSES**

1. Shri Dipankar Mukherjee, Ex-M.P., Convenor, Trade Union Forum for Self-reliance in Defence, New Delhi

2. Shri A.D. Nagpal, Secretary, HMS, New Delhi
3. Shri S.N. Pathak, President, AIDDEF, New Delhi
4. Shri C. Srikumar, General Secretary, AIDDEF, New Delhi
5. Shri Saila Bhattacharya, General Secretary, AIDDEF, New Delhi
6. Shri D. Ananthapadmnabha, Coordinator, JAF, Bangalore
7. Shri S. Prasanna Kumar, Convenor, JAF, Bangalore
8. Shri Sukumaran Pillai, General Secretary, BEL Worker's Union
9. Shri Laxman Gauda, Working President, BEWUF
10. Shri S.R. Viswanath, President, HAEA, Bangalore
11. Shri Jagdish, President, BEML Employees Association, Mysore
12. Shri R. Sadanandan, General Secretary, BEL Head Office Staff Association, Bangalore
13. Shri V. Prabhakar, President, Bharat Electronics Employees Union, Hyderabad
14. Shri Rudresh, General Secretary, BEML Staff Association, Bangalore
15. Shri J. Ramesh, Joint Secretary, BEMEA, KGF
16. Shri M. Shrinivasa Reddy, Treasurer, BEMEA, Bangalore
17. Shri C. Narayan Swamy, Organising Secretary, HAEA, Bangalore
18. Shri C.V. Krishnappa, Joint Secretary, BEWUF, Bangalore
19. Shri Gurudayal Singh, Vice President, INDWF (INTUC), Dehradun

2. At the outset, Hon'ble Chairman welcomed the representatives of various Trade Unions/Employees Unions of Defence Public Sector Undertakings to the sitting of the Committee to render oral evidence/suggestions on the subjects ordnance factories and Defence Public Sector undertakings and drew their attention to Direction 58 of Directions by the Speaker, Lok Sabha regarding maintaining confidentiality of the deliberations of the sitting of the Committee.

3. The representatives of Trade Union Forum for self-reliance in Defence mentioned the following points before the Committee:—

- (i) The moto of the Trade Union is to ensure self-reliance.
- (ii) In the name of creating Raksha Utpadana Ratna, the Government should not outsource to Private Sector.
- (iii) Under-utilisation of the capacity in Ordnance Factories/ Defence Public Sector Undertakings.

- (iv) There must be full capacity utilisation, technological upgradation and improvement in-house production before going for outsourcing the work to private sector. They did not express reservation on entering into joint venture with the private sector/foreign company for upgradation of technology etc.
- (v) There must be an assessment of internal production capabilities and upgradation and also give autonomy to these institutions.
- (vi) They sighted many cases where low technology orders were given to private firms but they had failed to produce the quality items as per the requirement.

*The witnesses then withdrew.*

4. The verbatim record of the proceedings was kept.

*The Committee then adjourned.*

MINUTES OF THIRTY-EIGHTH SITTING OF THE STANDING  
COMMITTEE ON DEFENCE (2006-2007)

The Committee sat on Wednesday, the 11th July 2007 from 1500 hrs. to 1530 hrs. in Committee Room 'E', Parliament House Annexe, New Delhi.

PRESENT

Shri. Balasaheb Vikhe Patil — *Chairman*

MEMBERS

*Lok Sabha*

2. Shri. Santosh Kumar Gangwar
3. Shri Suresh Kalmadi
4. Dr. K.S. Manoj
5. Ms. Ingrid Mcleod
6. Shri Asaduddin Owaisi
7. Shri Adhalrao Shivaji Patil
8. Shri Shriniwas Patil
9. Shri Mahadeorao Shiwankar
10. Shri Rajesh Verma

*Rajya Sabha*

11. Shri Jai Parkash Aggarwal
12. Smt. N.P. Durga
13. Shri S.P.M. Syed Khan
14. Shri. K.B. Shanappa

SECRETARIAT

1. Shri P.K. Bhandari — *Joint Secretary*
2. Shri Gopal Singh — *Director*
3. Shri D.R. Shekhar — *Deputy Secretary-II*
4. Smt. J.M. Sinha — *Under Secretary*

2. At the outset, Hon'ble Chairman welcomed the members to the sitting of the committee. The Committee, thereafter, considered the draft 'Action Taken Report on the recommendations contained in the Ninth Report of the Committee on Defence Public Sector Undertakings' and adopted the same with some additions/modifications as suggested by the members.

3. The Committee then authorised the Hon'ble Chairman to finalise the report and present the same to the Parliament.

*The Committee then adjourned.*

## APPENDIX

### ANALYSIS OF THE ACTION TAKEN BY THE GOVERNMENT ON THE RECOMMENDATIONS CONTAINED IN THE 9th REPORT OF THE STANDING COMMITTEE ON DEFENCE (FOURTEENTH LOK SABHA) ON 'DEFENCE PUBLIC SECTOR UNDERTAKINGS'

		Percentage of Total
(i)	Total number of recommendations	45
(ii)	Recommendations/Observations which have been accepted by the Government; (Para Nos. 1.7 to 1.13, 2.19, 2.21 to 2.27, 3.19 to 3.21, 4.12 to 4.15, 5.8, 5.12, 6.14, 7.23 & 7.24, 8.12, 9.24 to 9.28, 10.7 & 10.8)	35 78
(iii)	Recommendations/Observations which the Committee do not desire to pursue in view of Government replies (Para Nos. 4.16, 5.9 & 5.10)	3 07
(iv)	Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee: (Para Nos. 1.5, 1.6, 2.20, 6.13, 7.21 & 7.22)	6 13
(v)	Recommendations/Observations in respect of which final replies of Government are still awaited:  (Para No. 5.11)	1 02