In this chapter an attempt is made to present the growth of public sector enterprises and the profile of Railway Wagon Workshop, Guntapalli, Vijayawada.

(a) Growth of Public Sector Enterprises in India

The public enterprise occupied pivotal position in the economy of India and they have been operated predominantly in the infrastructural industries, supplying basic inputs to commerce and industry such as coal, steel, minerals, metals and heavy capital equipment. When public sector came into being soon after the attainment of independence, it was looked upon as only important channel best utilization of resources of money and manpower. It could never then be conceived that public sector would virtually turn out to be the harbinger of various ailments and evils in the body politic of the economy. But with the passage of time and emerging performance of public sector enterprises, the aforesaid ideology stared lost its importance. The economists those who previously advocated for growth and expansion of public sector, now started raising voice against existence of public sector. In the existing circumstances their views changed and now they are vigorously demanding for earliest privatization of hitherto state owned activities. Everyone in this large nation has extreme repulsion for the growth of public sector. In fact performance of public sector enterprise in the post reform period forced them to express aforesaid view A new era of work environment has started in the post reform period. As a part of reform measures full managerial and commercial autonomy devolved to successful profit making companies operating in a competitive environment. Public Enterprises of good track record have been categorized as Navratna and Miniratna and granted enhanced autonomy and delegation of financial power and other facilities in their working. Several measures have been taken to professionalize the Board of public enterprises. MoU system has been introduced for performance evaluation. Disinvestment measures
has been adopted on selective basis. All these measures contributed positively to improvement in financial and non-financial performance of public enterprises in India. These improvement noticed in the form of higher return on investment, dividend payout, contribution to central exchequer and gross internal resource generation etc. during the post reform period as compared to pre reform period.

In India, the trend of state intervention operated much before the outbreak of the World War-I but it became more apparent since 1939 when the country became participant in the World War-II and also with a military base in 1941 with the entry of Japan in the world war. After independence, through various Industrial Policy Resolutions, an attempt has been made to demarcate the role of the public enterprises in the country. The successive governments in independent India have made the policy statements, starting with one in 1948. In India, like in most developing countries, the 60s and 70s were characterized by interventions by the State in the market place and the public sectors seem to have grown at a rapid pace. Even though the Indian public sector attracted the best human resource in brains, talents and skills, the problem of poor performance, lack of competitiveness and low productivity was entirely due to management control structure characterized by multiple principles and multiple goals, which forced them into a bureaucratic rather than commercial mode of behavior characteristics of which were lack of autonomy and accountability. A large number of CPSEs have been set up as Greenfield projects consequent to the initiative taken during the Five Year Plans such as NTC Ltd., Coal India have however been taken over from the private sector, consequent to their nationalization. Many industrial units e.g. IPCL, Hindustan Zinc, Bharat Aluminum Co., Maruti, etc. ceased to be CPSEs after their privatization.

The post-1991 period has witnessed significant changes in the public sector policy. The areas reserved for public sector were reduced. The Central Public Sector Enterprises (CPSEs) were expected to look for internal resources and borrowings and concentrate on improvement in operations and efficiency on commercial lines of operation aimed at earning profit. In pursuance of the Industrial Policy Statement of 24.7.1991, detailed guidelines on composition of Board of Directors were issued by the Department of Public Enterprises (DPE) in
March 1992. These guidelines inter-alia provided that at least one-third of the Directors on the Board of a CPSE should be non-official Directors. The Navratna and Miniratna schemes evolved by the Government in 1997 provided that these CPSEs should set up Audit Committees. Based on the SEBI guidelines, further instructions were issued by DPE in November 2001 stating that at least half of the Board of listed CPSEs with executive Chairman should be Independent Directors.

The Public Sector Enterprises are categorized into four schedules namely 'A', 'B', 'C' & 'D'. The pay scales of chief executives and full time functional Directors of CPSEs are linked with the schedule of the concerned enterprise. Normally the Chief Executive of the enterprise is given the scale of pay attached to the schedule of the company while the functional Directors are allowed the scale of pay attached to the next below schedule. At times the posts of Chief Executives or functional Directors are upgraded on personal basis so that exceptionally capable executives are retained in the CPSEs where they had rendered meritorious service. Such arrangements also help in attracting talent to sick or high-tech enterprises. The initial categorization of CPSEs in the mid-Sixties was made on the basis of their importance to the economy and complexities of their problems. Over the years the Department of Public Enterprises has evolved norms for the purpose of categorization/recategorization of CPSEs. Categorization is based on criteria such as quantitative factors like investment, capital employed, net sales, profit, number of employees and qualitative factors like national importance, complexity of problems, level of technology, prospects for expansion and diversification of activities and competition from other sectors, etc.

In addition, a criterion relating to the strategic importance of the CPSE is also taken into account. The present procedure involves consideration of the proposals in the administrative Ministry concerned and the Department of Public Enterprises which consults the Public Enterprises Selection Board. At present (as on 31.1.2010) there are 59 Schedule 'A', 70 Schedule 'B\45 Schedule 'C\6 Schedule 'D' and 67 uncategorized PSEs. During the year, one CPSE has been upgraded from Schedule 'B' to 'A' and one CPSE has been upgraded from Schedule 'C' to 'B'. Apart from this, two Chief Executives have been given higher schedule on personal basis and four posts of Functional Directors have been created.
The total investment proposed in the First Five Year Plan (1951-56) for the public enterprises, rose from 5 units in the beginning of the Plan to 21 units by the end of the Plan period. In the Second Five Year Plan, the Planning commission expanded the role of the public sector by increasing the total outlay in the Plan a little over 46 per cent to 54 per cent amounting to Rs.720 crores. The number of public enterprises consequently grew up from 21 to 48. In the Third Five Year Plan, the Planning Commission made the major outlay for the completion of ongoing projects in the public sector. The total outlay was Rs.7,815 crore and the number of public enterprises grew to 74 with an investment of Rs.2,415 crores. In the Fourth Five Year Plan, the total outlay in the public sector was Rs.13,469 crore, major share having been earmarked for the completion of ongoing projects. The number of enterprises in the public sector grew up to 122 and their investment to Rs.6,237 crore. In the Fifth Five Year Plan, the total outlay was Rs.36,703 crore, but due to early termination of the plan, the total expenditure on the public sector remained only Rs.31,4000 crore and the number of the enterprises went up to 176 by March 1978. In the Fifth Five Year Plan (1978-83) the total outlay was originally Rs. 69,380 crore, which was revised to Rs.71,000 crore. The new government, which took over office, terminated this plan midway in 1980. In the Sixth Five Year Plan commanding heights of economy were assigned to the public sector. It envisaged an outlay of Rs.97,500 crore in the public sector. The number of enterprises went up to 221 during the plan period. In the Seventh Plan period, an outlay of Rs.1,80,000 crore was provided for the public sector. The number of enterprises rose to 224 during the plan period. In the Eighth Plan (1992-97), an outlay of Rs.3,61,000 crore has been provided for the public sector and the number of public enterprises stood at 242 as on 31st April, 1992. In the Ninth Plan (1997-02) the public sector outlay was Rs.4, 92,221 crore and number of public enterprises was 240. During the Tenth Plan period (2002-07), the outlay for public sector was Rs.9, 21,291 crores. The number of public enterprises stood at 247. As on 31st March 2009, there were as many as 246 CPSEs (excluding 7 Insurance Companies) with a total investment of Rs.5,28,951 crore.

In order to facilitate the study on Employee perception and attitude towards Human Resources Development system and practices followed of a public sector
organisation, a brief description of the organisation has been given in this Chapter which included Genesis of RWW, Products profile, Processing details, Safety and Environmental management, Marketing Performance, Social services, Corporate governance and HRD practices followed in RWW.

(b) Profile of Railway Wagon Workshop, Guntupalli, Vijayawada

Indian Railways is Lifeline of the Nation’s economy. It is quite evident that Railway revenue earnings are largely based on freight traffic. In order to keep Wagons in good fettle, the periodical maintenance and overhauling of these Wagons are very much essential. In order to keep Wagons in good fettle to gear up the goods traffic for earning revenues to the Railways, periodical maintenance and over-hauling of this Wagons are very much essential and hence the commissioning of the Wagon Workshop on different Zonal railways took place. One such Workshop was commissioned at GUNTUPALLI near Vijayawada to facilitate repair and maintenance of Wagons at a stipulated interval to keep them fit for Traffic.

Wagon Workshop for South Central Railway was inaugurated at Guntupalli near Vijayawada on 16-07-1976 by Sri K.S.Rajan, the GM/ S.C.Rly, to facilitate periodic over-hauling of Wagons.

It is one of the Premier Workshops on Indian Railways initially planned to enter for repairs to Board Gauge Wagons at the rate of 40 four wheeler Units (Wagon) per day plus 4 BOX wagons equivalent to 10 Four Wheeler Units per day. The capacity of the shops is 10,000 Four Wheeler Units per annum.

The Wagon Workshop was sanctioned by the Ministry of Railways in the year 1973 at an estimated cost of Rs. 14 Crores, which was further revised to Rs. 26 Crores. The foundation stone was laid by Smt. Indira Gandhi, the Prime Minister of India on 07-04-1974.

ACTIVATION

18th May 1976, is a Red Letter day in the annals of this Workshop since it was on this day, the first batch of 5 Wagons were turned out after POH from this Workshop.
The journey in the Nation Building activity which commenced on that day has now progressively reached capacity level of overhauling 10000 FW Units per annum.

**MAN POWER**

The total manpower of the RWW consists of 2795 employees and they are broadly classified into two categories namely Managerial including Supervisors and Workers including others (Contract Bases).

1. Employees who come under Managerial/Supervisory grade are as follows:

   - **Managerial**: 16
   - **Supervisory**: 227

2. Workers including Others (Contract bases) category of employees includes the following:

   - Operator
   - Machine Operator
   - Technician
   - Punch
   - Verifier Operator
   - Store Keeper
   - Assistant Chemist
   - Draughtsman
   - Helpers

Workers (Permanent) cadre of employees is only taken for the study.

<table>
<thead>
<tr>
<th>Classification of Employees</th>
<th>Total No of Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled</td>
<td>1974</td>
</tr>
<tr>
<td>Unskilled</td>
<td>156</td>
</tr>
<tr>
<td>Others (Contract Bases)</td>
<td>422</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2552</strong></td>
</tr>
</tbody>
</table>

**SPECIALITY**

Noteworthy feature of this workshop is that all the wagons are certified Zero defect by Neutral Control Organization which is an independent Quality Control Organization reporting directly to the Railway Board.

This workshop has been achieving this certification since 1989. This was the first Board Gauge Wagon Workshop on Indian railways to be conferred with this distinction.
OBJECTIVES

This workshop has been planned to cater for repairs to broad-gauge wagons at the rate of 40 four wheeler units (wagons) per day plus four box wagons equivalent to 10 four wheeler units per day. The annual output thus estimated to 13,000 four wheeler units and on average, the output of over-hauled four wheeler units per day.

The other statistical data of the wagon workshop is given as under

- Total area of land acquired ➞ 250 hectares
- Total area of workshop ➞ 120 hectares
- Total area of residential colony with facilities for expansion ➞ 130 hectares
- Total covered area of workshop (Sq. mts) ➞ 54,000
- Total area of service building (Sq. mts) ➞ 16,000
- Residential quarters for staff (Units) ➞ 1,023
- Total eventual number of staff ➞ 4,500
- Max. Water requirement per day (Gallons) ➞ 5 Lakh
- Electricity requirement for workshop ➞ 2,000 KVA
- Electricity requirement for Colony ➞ 400 KVA

As this workshop has been latest addition on Indian Railways, every care was taken to commission this workshop with latest technology and hence many machinery and plants required for carrying out repair activity where procured from foreign countries like Poland, Japan, Germany etc., and other machinery from indigenous enterprises like Hindustan Machine Tools – Bangalore, Heavy Engineering Corporation – Ranchi, Kirloskar Machine Tools etc.,

To operate this Machinery and plants, which are most sophisticated ones, skilled labor force was necessary in order to achieve productivity and hence skilled technicians were drawn from other railway workshops among their surplus staff.

POH  PROCEDURE OF WAGONS IN RWW:
Wagon requires are generally two types:
1. Break down maintenance repairs.
2. Preventive maintenance repairs by periodically.
To avoid failures and to get free services, wagon required maintenance periodically to keep the stock in good fettle.

POH means Periodical Over Hauling. The first POH period of wagon is 6 years and subsequently by every 4 years. The codal life of wagons is 25 years.

1. **PRE-INSPECTION:**

   As soon as the formation received for POH required into shop grid lines, firstly a joint check or pre – inspection done by the RPF and mechanical (PCD) staff/ representatives for nothing of any deficiencies or left of unwanted materials if any. The mechanical staff of the yard also notifies the previous history of wagon.

   The inspection staff belongs to SSE/Inspection & PCO staff will segregate the wagons in to class of repair like Heavy repair, Medium repair or Light repair. Unloadable wagons also segregated into B, C category: After this, wagons are fed to stripping bay wise for stripping process.

2. **MARKING AND STRIPPING:**

   After receiving the wagons for stripping, firstly they should be cleaned with buster to remove the rust. Then the section in charge will inspect visually all the corroded, weaker sections, then allot a staff for marking the items by a standard specified sizes as per the work inspections. The marking should be done by a white chalk duly dividing the wagon in to three categories.

   1. Side Body corrosions,
   2. End Body corrosions,

   The above mentioned are marked according to standard sizes and stripped with oxyacetylene. After the completion of striping, the wagons are sending to Body shop by traversor.

3. **WAGON REPAIRS:**

   After receiving the wagons for POH repairs Body shop, firstly the Bogies will be uncoupled by under gear staff at lifting area and the body will be uncoupled by under gear staff at lifting area and the body will be lifter up from the Bogies and
placed on the trusties of the concerned section with the help of EOT crane by lifting and lowering staff while giving the safety caution orders. The Bogies will be run out to the Bogie shop for re – conditioning of Bogie.

In wagon body shop, two types of repairs work should be attended by the staff.
1. Repairs should be attended by concerned section staff (Body repairs).
2. Auxiliary shop staffs should attend repairs.

4. **BODY REPAIRS:**
   a) Broken/ corrosive/ dented/ bended side stanchions are replaced fully or partially as per Requirement, fitting with m 10 x 50 bolts.
   b) Various standard sizes of body patches commonly used in wagon work shop, Guntupalli:
      
      | Size Description | Dimensions          |
      |------------------|---------------------|
      | 650 x 1500 x 5mm | 1250 x 1500 x 5mm   |
      | 600 x 1500 x 5mm | 900 x 1500 x 5mm    |
      | 730 x 1500 x 5mm | 450 x 1500 x 5mm    |
      | 100 x 50mm       | 720 x 1940 x 5mm    |
      | 1100 x 1940 x 5mm|                     |

   c) Replacement of striker casting, Head stock, sole bar piece full length or partial, sole bar patch like double flange, bottom gussets, cross bars, providing patch to center still are done as per requirement or heat and level if minor bends.
   d) All the rivets of the different components are checked and rivet freshly where it is necessary.
   e) Replacement of additional sole bar outside strengthening patches 209 x1500 x 6mm at door wayside. Check and provide door hinge foots, liners, rivets, door catches, and door check springs if necessary.
   f) Replace the required Brake rigging components, pins and do oiling and greasing.
   g) In case of full floor damaged wagon, set the full floor patches by 6 mm thickness of carton steel.
   h) Center pivot, side bearers should be drop and fit, but in case of Transom plate damaged, the transom plate also cut by gas cutting a drop and fit by new plate of 10 mm thickness.
i) Weld the Corner joints, top channels and its liner 125 x 150 x 5 mm.

j) Body alignment was disordered in any case leveling should be done by expand ring or chain pulling and brought it to original shape.

k) Check & provide/ heat and level of all the components like rope cleats, door locking pins, H.B. wheel footsteps, ladder footsteps, towing hook, hand holds, LV brackets, LH covers etc.

l) After completion of setting work, allot welders for welding ark and then complete the riveting work where it is needed.

AUXILIARY SHOP REPAIRS:

A) CBC SECTION:

CBC staff will come and attend for CBC work, checking of CBC components drop & fitting of CBC unit, draft gear and changing of NHT to HT draw gears.

B) AIR – BRAKE SECTION:

Air – Break section staff will come and check the Air – branch pipes, Branch pipes and drop all the air brake components like BC, DC, DC, CAC, Air hose pipes, AR & CR, Common pipe bracket etc and they take out to Air – Brake section and make POH again they will come fit the relevant components to the wagon under frame.

C) PLATING SHOP:

This shop will supply all standard patches, some wagon components, door (New or Repaired) channels of different sizes and all miscellaneous components.

D) UNDER GEAR STORES:

If will supply DA & Oxygen gas cylinders, Electrodes, all the indent, purchased items duly collecting from ACOS stores.

E) SMITHT SHOP:

This shop will do smithy work, heating & leveling of components, manufacturing of door check springs, re – conditioning of LB springs and some wagon components.
F) BOGLE SHOP:
All the Bogies inspected and dismantled in this shop. Bogies POH done by this shop. After completion of Bogie POH they send the bogies to Body shop duly fixing wheel sets for the lowering of wagon body.

G) WHEEL SHOP:
The wheel shop staffs do all the repairing activities like UT. Re – diskung, wheel flange welding, wheel profile turning, CTRD POH etc and send the wheel sets to Bogie shop for lowering of Bogies.

H) SAB SECTION:
This shop will done the Over – hauling of ELB & SAB.

I) ASSEMBLING:
All the related wagon components are received from different auxiliary shops are assembled to wagon body perfectly by the staff.

J) LOWERING:
After completion of body repairs & Auxiliary shops repairs the wagon body will be lowered on the specified bogies at lowering point by the EOT crane and then sent it to paint shop for painting.

K) PAINTING & STENCILLING:
The wagon completely painted after making surface cleaning, the wagon body painted with green paint and Bogies with red – oxide. Approx. 35 liters of pain required for BOXN wagon.

After drying the paint, stenciling should be made by Silver paint. Particulars like wagon railway, wagon code, date of return, CBC details, POH details, and load particulars. In case of HS, indicated by yellow paint.

L) SWTR:
The wagon should be tested for single wagon test rig by Air – Brake staff. After ensuring different types of Brake tests, record the piston stroke in empty and load movement in connection with SAB and brake rigging.
MILE STONES:

This workshop achieved some special significance with its innovative features, some of which are listed below:

1. First Vlodern wagon repair workshop on Indian Railways.

2. First workshop to achieve zero defect certification from NCO in 1989.

3. First workshop to convert flat wagons into 3 tier/ 4 tier Rail Carriers for carrying long welded rails for the use of Engineering Department.

4. First workshop to develop repair facilities for High Capacity Draft Gears (RF-361 & Mark-50) despite constrains for vital spares.

5. First workshop to ensure 100% compliance of central buffer coupler.

6. First workshop to ensure 100% compliance of RDSO Modifications.

7. 100% dropping of Air Brake Auxiliary Reservoirs of Air Brake wagons besides testing/ certifying them under guidance of boiler inspector.

8. 100% sand blasting of coil springs of casnub bogies is undertaken by this workshop for increasing the life of the springs. This reduces maintenance cost and renewal of springs. Also, all draft gear components are sand blasted for increasing their life. This reduces the online failures of draft gears.

9. Assembling of Air Brake working Modules. These were supplied to a number of training centers for demonstration to Trainees.

10. Gadget for crimping Air Houses.

11. Jigs & Fixtures for conversion of BOX wagons into Container Flats to ensure correct dimensions of brackets, web plates & end – doors.

12. Developing advanced facilities for repairs of Air Brake Equipment besides testing equipments for Distributor Values by providing Air Conditioned accommodation with Air Curtains for Dust – free atmosphere.

13. This is the first wagon workshop on Indian Railways to achieve the distinction of securing ISO2002 certification for Entire Workshop on 23rd March 1999 for ensuring quality of repairs.
14. RITES Redesigned Group Incentive Scheme is being successfully implemented from 1st July 2002.

15. First railway Workshop on Indian Railways, to convert Oil Tank Wagons into Fly Ash Carriers.

16. The Wagon Workshop at Guntupalli has become the first ISO-9002 certified workshop for periodical overhauling of Broad Gauge wagons on Indian Railways on 24.03.1999 for turning out quality repairs.

17. Shram Shree Award was presented by the Prime Minister of India to Shri. G. Sudhakar, Machinist of this Workshop for the year 1998 for his innovative abilities and contribution in the field of productivity by developing a Tread Wheel Diameter Measuring Gauge.

18. Railway Minister’s Award was received by this Workshop during the years 1994 – 95 & 1996 – 97 for implementation of Rajbhuasha in the C – Region that carries a cash award of Rs. 7,000/-.
ORGANISATION CHART OF RAILWAY WAGON WORKSHOP,
GUNTUPALLI

CHIEF WORKSHOP MANAGER
(SAG)
M. AMARENTRA

Dy.CME
(JAG)
J. PRADEEP KUMAR

WAO
(SS)
V. V. K. R. VARMA

STORES DEPT
Dy.CMM, M&G
(JAG)
R. R. K. SINGH

MM (SALES)
(SS)
K. R. V. RAMANA

SMM (Sales)
(SS)
K. R. V. RAMANA

AMM
(J. S)
ZEESHANUDDIN

WM (J. S)
VACANT

AWM(R)
(JS)
A. RUPA RAJ

HM, RLY. HIGH SCHOOL
V. S. T. SAI

MEDICAL DEPT
Sr. MS
(SAG)
Dr. B. JANARDHANA

ADM
(J. S)
DR. V. DEEPTHI
Note:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>CWM</td>
<td>Chief Work Manager</td>
</tr>
<tr>
<td>Dy.CME</td>
<td>Deputy Chief Mechanical Engineer</td>
</tr>
<tr>
<td>SAG</td>
<td>Senior Administrative Grade</td>
</tr>
<tr>
<td>JAG</td>
<td>Junior Administrative Grade</td>
</tr>
<tr>
<td>Dy. CMM</td>
<td>Deputy Chief Material Manager</td>
</tr>
<tr>
<td>Sr. MS</td>
<td>Senior Medical Superintend</td>
</tr>
<tr>
<td>PE</td>
<td>Production Engineer</td>
</tr>
<tr>
<td>CMT</td>
<td>Chemist Materialist</td>
</tr>
<tr>
<td>WAO</td>
<td>Workshop Accounts Officer</td>
</tr>
<tr>
<td>WPO</td>
<td>Workshop Personnel Officer</td>
</tr>
<tr>
<td>SMM</td>
<td>Senior Material Manager</td>
</tr>
<tr>
<td>SS</td>
<td>Senior Scale Officer</td>
</tr>
<tr>
<td>JS</td>
<td>Junior Scale Officer</td>
</tr>
<tr>
<td>AWM(P)</td>
<td>Assistant Works Manager(Production)</td>
</tr>
<tr>
<td>AWM(R)</td>
<td>Assistant Works Manager(Repair)</td>
</tr>
<tr>
<td>AWM(M)</td>
<td>Assistant Works Manager(Mechanical)</td>
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<tr>
<td>ADEE</td>
<td>Assistant Divisional Electrical Engineer</td>
</tr>
<tr>
<td>AMM</td>
<td>Assistant Material Manager</td>
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<tr>
<td>ADMO</td>
<td>Assistant Divisional Medical Officer</td>
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