HUMAN RESOURCE MANAGEMENT PRACTICES IN INDIAN RAILWAYS

ABSTRACT

THESIS
SUBMITTED FOR THE AWARD OF THE DEGREE OF
Doctor of Philosophy
IN
COMMERCED

BY
MAHBOOB AHMAD

UNDER THE SUPERVISION OF
PROF. A. FAROOQ KHAN
Dean & Chairman

DEPARTMENT OF COMMERCE
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ALIGARH (INDIA)
1997
ABSTRACT
Management plays an important role in the success of a business. One of the functional areas of management is the management of human resources. Human Resource is the most vital resource and the most valuable asset of a business. The management of human resources is a challenging task. The successful management depends greatly upon the ability to predict, control and direct behaviour towards business goals. The management of human resources is the key to the success of a business. Management of human resources includes guiding human resources towards organisation objectives with a high degree of commitment, morale and satisfaction of concerned personnel.

Indian Railways are the biggest service industry employing 16.6 lakhs workers spread over the length and breadth of the country. It is imperative that the customers are given the maximum comfort by ensuring safety, security and punctual running of the trains both freight and passenger. A dynamic, effective workforce and their management is essential for the success of Indian Railways.

The thesis entitled "Human Resource Management Practices in Indian Railways" is an attempt to study the human resource utilisation and their management in the Indian Railways. In this study, attempts have been made to
critically examine the efficiency of human resource as well as Indian Railways in the fast-changing business environment.

The data and relevant statistics for this study have been collected from different sources. Information has been collected from the Railway Board Library, New Delhi, Maulana Azad Library, Aligarh Muslim University, Aligarh, the Seminar Library of the Department of Commerce, Aligarh Muslim University, Aligarh and various other libraries. Manuals, codes, office procedure legislation, Annual Reports, proceedings of the Railway Board meetings, Administrative Reports and various other publications have also been consulted.

From the study of Indian Railways and its management practices, the work is divided into six chapters covering almost every aspect of human resource management practices in Indian Railways.

The Chapter I which is introductory in nature deals with the importance of HRM, the problem and its objectives, hypotheses, scope, research methodology and presentation of the study.

Human Resources contribute significantly in the production of goods and services in an organisation. Physical and monetary resources by themselves can not contribute towards organisational growth and development.
It is through the combined and concerted efforts of people that monetary or material resources are harnessed to achieve organisational goals. But these efforts, attitudes and skills have to be sharpened from time to time to optimise the effectiveness of human resources to meet greater challenges. The enterprise is a community of human beings, its performance is largely determined by the performance of human beings and human resource performance is the result of proper human resources management. Management of human resources in changing times is highly complex and difficult task. The changes that are taking place in education, science, technology, business and society have rendered many age-old concepts and practices obsolete. The human resources planners should develop understanding of the new perspectives both in regard to the challenge of change and the changing attitudes of people.

Chapter II deals with the review of literature, exploring the work and studies undertaken in this area. Besides, the need and importance of research in this area are also discussed.

Human resource management is the process of managing the employees of an organisation with a humane approach. HRM approach to manpower enables the manager to view his employees as the most important resource. It is a benevolent approach which embodies the organisational and personal goals simultaneously. Human resource management
can be defined as that part of management process which manages and develops the human elements of enterprise in terms of total knowledge, skills, creative abilities, talents, aptitudes and potentialities for effectively undertaking the assigned tasks and responsibilities.

The human resource management is based on the concept to harness the talent of the employees and iron out the deficiencies. Actually HRD is the most crucial aspect of management. The large enterprises necessitate that there should be specialisation and professionalisation of management at various levels. To run the department, the owners themselves acquire management training to fill the gap between the traditional techniques and modern techniques of management. Therefore, the broad strategy indicated in this thesis suggests long term measures for they involve far-reaching consequences. Any abrupt or sudden introduction of these measures without adequate preparation may be counter-productive.

The third chapter makes a detailed study of Indian Railways since 1844. The Indian Railways which have established the largest system of transportation in India are of recent origin and do not have a glorious past. It has gradually reached to its present place.

The early efforts for the introduction of railways may be traced back to the year 1832 when the contraction of
railway line between Madras and Bangalore was contemplated. In fact it was the period of 'Railway Mania' as pointed out by Horace Bell.

The East Indian Railway Company and the Great Indian Peninsula Railway Company were incorporated in England for the construction of Railway lines in India. These companies entered into a contract with the East India Company on 17th August, 1849 for the construction of railways in India. Indian Railways development thus started from this date. By 1853 a railway line from Bombay V.T. (Now C.P.S.T.) to Thana, a distance of 21 miles was opened for traffic and the first railway train in India was inaugurated on the 16th April, 1853. In that railway train there was three engines and 14 coaches only. Since then a drastic change has taken place.

Now Indian Railways have undertaken a considerable expansion and modernisation. The route length which was only 32 Kms. in 1853 was increased to 388 electrified and 53208 Kms. non-electrified by 1950-51 and these route length has increased rapidly. In 1988-89 the electrified route was 8898 Kms. and 53099 non-electrified route. Now upto date i.e. 1997 the total length route is 62597 kms. including 14227 kms. route either double or multi-tracks. About 56% of the total route is on the broad gauge. There are 8590 locomotives, 37953 coaches, 3,49,560 wagons and
7076 railway stations. Besides these, there are 225 repair loco shed, 401 carriage wagons and 49 workshops.

Chapter IV deals with the human resource management practices in Indian Railways. Organisational structure, recruitment, selection, training and development of human resources in Indian Railways are broadly discussed. The human resources in Indian Railways are divided into four groups i.e. Group A, Group B, Group C and Group D. Under Group A and B gazetted officers are recruited and in Group C and D non-gazetted employees are recruited through various techniques.

Recruitment is the first step in the employment of labour, and naturally the methods and organisations by means of which labour is brought into industry has a lot to do with ultimate success or failure of such employment.

After recruitment and selection, the training is imparted to employees, so that they can do their job in the better way. Actually training enables an individual to do a job in a correct, effective and efficient manner. Therefore, employees must be systematically and scientifically trained to handle the job. For providing training to the employees, Indian Railways have established specialised training institutions under the command of Railway Board within the country.
Employees' welfare aspects are being taken care by the Indian Railways. Indian Railways have recognised the importance of health, which has received due attention as a prerequisite for the employee upliftment. Railways spend about 2 per cent of its budget on health and medical services. Not only medical services are provided by the railways but others too. Indian railways promote their employees on the basis of performance. Besides that, penalties are also imposed on employees for negligence and default of duties.

The Chapter V deals with the organisation and management of Indian Railways. Indian Railways at present are under complete state ownership and control, although in the past there have been changes in the system of administration and control from time to time during the British period.

In the beginning, Indian railways were managed by guarantee railway companies. The Government of India under the provisions of the contracts with the companies, obtained full control over the management of the railways. This system exercised till 1921 when the Government of India Act, 1919 came into force.

The transfer of railway ownership to Government was resorted to gradually. The nationalisation of railways was completed over many years. At the time of independence in 1947, there were 42 independent railway system in the
country. For the efficient administration of the railways, it was felt necessary to reorganise the entire railway system. In April 1952, the entire railway network was divided into six zones. But these zones were very big and was hard to handle the increasing traffic efficiently. And hence, three more zones created later on by bifurcating the existing zones. These 9 zones also found inadequate to handle the management effectively. Present Railway Minister Shri Ram Vilas Paswan in his maiden Budget speech in July 1996 announced the formation of six more new zones raising the total to fifteen. These zones are further divided into various divisions for internal management and control. At present there is four-tier management in Indian Railways. On the apex of the railway administration there is Railway Ministry which is under the charge of a Railway Minister assisted by Minister of State for Railways and Deputy Railway Minister.

At second stage there is Railway Board. The real administration of railways is in the hands of the Railway Board. It was created in 1905 and since then has undergone various changes. It functions in close cooperation with Ministry of Railways.

At third and fourth stage there are zonal administration and divisional administration. Divisions are the suitable size of a zone and this is the actual working unit of the railways.
The last chapter is devoted to conclusions and suggestions. After detailed study it is observed that Indian Railways are facing many problems like under utilisation of human resources, low operating efficiency, frequent accidents, ticketless travel, rampant corruption, lack of safety and security of passengers, lack of welfare schemes and inadequate research. If the railways want to be efficient they must provide speedy, frequent, convenient, punctual, safe and adequate transport services to the public at reasonable cost to justify their existence and place as the world's largest transport network.
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Certificate

This is to certify that the Ph.D. thesis entitled, "Human Resource Management Practices in Indian Railways" submitted by Mr. Mahboob Ahmad, has been completed under my supervision. To my knowledge, this is his original work and is suitable for submission for the award of degree of Ph.D. in Commerce.

(Prof. A. Farooq Khan)
Supervisor
Dean & Chairman
CONTENTS

ACKNOWLEDGEMENTS ............................................... i - ii

Chapter I  INTRODUCTION ............................................. 1 - 8
   i) Importance of Human Resources Management
   ii) Statement of the Problem
   iii) Objectives of the Study
   iv) Hypothesis
   v) Scope of the Study
   vi) Research Methodology
   vii) Presentation of the study

Chapter II  HUMAN RESOURCES MANAGEMENT: A CONCEPTUAL FRAMEWORK ............................................. 9 - 37
   i) Review of Literature
   ii) Meaning of Human Resources Management
   iii) Definition of Human Resources Management
   iv) Emerging Concepts of Human Resources Management
   v) Need for Human Resources Approach
   vi) The strategy for Human Resource Management

Chapter III  HISTORICAL DEVELOPMENT OF INDIAN RAILWAYS ......................................................... 38 - 117
   i) Pre-Independence Era
   ii) Post-Independence Era
<table>
<thead>
<tr>
<th>Chapter IV</th>
<th>HUMAN RESOURCES MANAGEMENT IN INDIAN RAILWAYS</th>
<th>...</th>
<th>118 - 161</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Organisational Structure, Recruitment and Selection Modes, Training, Development, Promotion and Penalties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chapter V</td>
<td>ORGANISATION AND MANAGEMENT OF INDIAN RAILWAYS</td>
<td>...</td>
<td>162 - 197</td>
</tr>
<tr>
<td>Chapter VI</td>
<td>CONCLUSIONS AND SUGGESTIONS</td>
<td>...</td>
<td>198 - 219</td>
</tr>
<tr>
<td></td>
<td>BIBLIOGRAPHY</td>
<td>...</td>
<td>220 - 224</td>
</tr>
</tbody>
</table>

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(MAHBOOB AHMAD)
Chapter I
INTRODUCTION
Chapter - I

INTRODUCTION

Management plays an important role in the success of a business. One of the functional areas of management is the management of human resources. Human Resource is the most vital resource of a business. It is the most valuable asset of a business. The management of human resources is a challenging activity. The successful management depends greatly upon the ability to predict, control and direct behaviour towards business goals. The management of human resources is the key to the success of a business.

Management of human resources includes guiding human resources towards organisation objectives with a high degree of commitment, morale and satisfaction of concerned personnel, "Earnest Dole" views management as the process of getting things done through other people".

(i) Importance of Human Resources Management

Human resources, contribute significantly in the production of goods and services in an organisation. Physical and monetary resources by themselves can not contribute towards organisational growth and development. It is through the combined and concerted efforts of people that monetary or material resources are harnessed to
achieve organisational goals. But these efforts, attitudes and skills have to be sharpened from time to time to optimise the effectiveness of human resources to meet greater challenges.

Experience shows that the quality of human resources management mainly determines the rate of economic progress in a country. The enterprise is a community of human beings, its performance is largely determined by the performance of human beings and human resource performance is the result of proper human resources management. Management of a highly productive input like human resources is very much crucial. In fact, efficient management of human resources has been a concern of many enterprises. It has been recognised that progress in important sectors of the economy is outcome of the dynamic initiative taken by its manpower. The desire for the economic upliftment of the people of developing economy needs the vital support of its manpower. This has made the human factor in the process of development as the key input of management.

The development efforts may remain futile if human resources are not directed in a positive way. Human resources are the key factors of production. On it, depends the efficiency of other factors of production. In the absence of proper management of human factor, goals can not be achieved and desired results could not be attained.
Of all factors of production, management of manpower is the most challenging task. It needs a planned effort by those who occupy position of responsibility and authority. Improved job performance and motivation are the key to organisational growth and development. Strategy of human resource development (HRD) should offer adequate opportunities for full utilisation of human potential and talents in the key areas of business.

In brief, human resources management plays a crucial role in an organisation in the following ways:

(i) Sound human resource policies can help in attracting and retaining the best people in the organisation. This requires proper human resource planning and its implementation.

(ii) Appropriate recruitment and selection policies identify the right people for the right jobs and make sure they are placed in suitable positions.

(iii) Scientific performance appraisal and training and development policies develop the needed skills, knowledge and attitudes of the people towards greater organizational effectiveness.

(iv) Effective human resource policies also motivate organisational members for improved task and performance.

(ii) Statement of the Problem

Management of Human Resources in changing times is
highly complex and difficult task. The changes that are taking place in education, science, technology, business and society have rendered many age-old concepts and practices obsolete. The human resources planners should develop understanding of the new perspectives both in regard to the challenge of change and the changing attitudes of people.

The major problems confronted by the human resources "development management" are (i) How to make people work? (ii) How to make them more efficient? (iii) How to keep them satisfied? (iv) How to improve their performance? (v) How to harness their expertise? (vi) How to train them for a better future and how to retain them?

Self-management is the best management. While other resources are managed by people, human resources should be managed by people themselves. People themselves should analyse their attitudes, behaviour, nature and their relations with other people. Organizations should react positively to the changing conditions and techniques of management in the fast changing business environment. Further, in the present times, where the principles of democracy influence the management of labour, the relations between employees and employer's is conceived of "as partnership to promote the satisfaction of the economic needs of the community in the best possible manner". 
(iii) Objectives of the Study

The specific objectives of the study are as follows:

1. To review the concept of human resources management (HRM) in the changing business environment.
2. To study the organisational structure, employment, selection, training and development of human resources in Indian Railways.
3. To trace the development of Indian Railways since 1844.
4. To review the railway management in the pre and post-independence era.
5. To conclude the findings of the study and suggest suitable measures for the management of human resources in Indian Railways.

(iv) Hypotheses

The aim of the present study is to examine the Human Resource Management practices in Indian Railways on the basis of the following hypotheses:

1. Underutilization of human resources is adversely affecting the working of Indian Railways.
2. Obsolete rolling stock, know-how and mismanagement have hindered the managerial motivation and organisational effectiveness.
3. Excessive Government controls in the working of Railways have adversely affected the performance of Indian Railways.

4. Monopoly of railways has affected the human resource management practices and its development process.

(v) Scope of the Study

Transport plays its dominant role not only in the economic and political spheres but also in the social sphere where it has considerably influenced the life of the people. As transport helps in getting raw materials and finished products in large quantities and varieties, it has raised the standard of living of the different peoples of the world. It carries ideas and inventions to the peoples of different countries; and has considerably contributed to the evolution of civilization.

Keeping in view the importance and problem of transport and human resource management, it was felt necessary to make a macro study of the role of Human Resource Management practices in Indian Railways and railways themselves. This study is first of its kind, in nature which provides factual information about the management of human resource practices in Indian Railways.

(vi) Research Methodology

The present study is based mainly on secondary data. The data and relevant statistics for this study have
been collected from different sources. Information has been gathered from the Railway Board library, I.I.P.A. Library Baroda House Library, New Delhi, Maulana Azad Library, Aligarh Muslim University, Aligarh, the Seminar Library of the Department of Commerce, Aligarh Muslim University, Aligarh and various other libraries.

Manuals, codes, office procedure legislation, Annual Reports, proceedings of the Board meetings, Year Books, Railway Budget and Accounts have been used. Reports of the Administrative Reforms Committee, the Annual Administrative Reports published by the Board and various others publication have also been consulted.

(vii) Presentation of the Study

The present study has been divided into six chapters.

The first chapter deals with the introduction of HRM. The second chapter deals with the review of literature, meaning, definition, concept, aspect, strategy and need for human resource management.

The third chapter presents the Railways Development in the pre and post-independence era.

The fourth chapter deals with the organisational structure, recruitment and selection modes, training, development, promotion and penalties in Indian Railways.
Chapter fifth deals with the organisation and management of Indian Railways.

Chapter Sixth presents the conclusions and suggestions.

Summary

The human resources of an organisation represent one of its largest investment. The objectives of HRM include getting the organisation right, paying and treating them fairly, and getting them involved in working productively. The attainment of these objectives necessitates the performance of several functions.

Human resources, along with financial and material resources, contribute to the production of goods and services in an organisation. Physical and monetary resources by themselves can not improve efficiency or contribute to an increased rate of return on investment. It is through the combined and concerted efforts of people that monetary or material resources are harnessed to achieve organisational goals. But these efforts, attitudes and skills have to be sharpened from time to time to optimise the effectiveness of human resources and to enable them to meet greater challenges.
Chapter II
HUMAN RESOURCES MANAGEMENT
A CONCEPTUAL FRAMEWORK
Chapter - II

HUMAN RESOURCES MANAGEMENT - A CONCEPTUAL FRAMEWORK

Efficient Human Resource Management is key to successful management. In the rapidly changing business scenario, human resource management has a crucial role to play. It must operate as a system, as a plan and as an effort, fully supported by those who are deeply interested in the protection of larger social interests rather than looking at their own selfish motives. This will need sincerity of purpose and integrity of action which are too valuable. Management of human resources, therefore, must be taken up as a social responsibility for the welfare of the people both in the public and private sectors.

Review of Literature

Human resources management is a new field of study which embodies the knowledge about behavioural sciences. It relates to the working of line and staff officials and union leaders to motivate the employees and develop their skills to attain organisational goals. The human resources management approach represents significant measure of utilising human resources to accomplish organisation goals through the application of behavioural sciences. The interaction of social, psychological and cultural factors
in organisations has assumed significance from the standpoint of this approach.

It is a highly comprehensive field involving the use of numerous concepts such as personnel management, personnel administration, labour relations, industrial relations, manpower management, employment relation and so on.

Many scholars have studied various aspects of Human Resources Management in India. It is, therefore, necessary to have a brief review of some of the important works done so far in this field.

M.J. Jucius has stated "H.R.M. as the field of management which relates to planning, organising, directing and controlling the functions of procurement, development, maintenance and utilisation of a labour force with a view to allowing organisational goals economically and effectively."

This definition involves three aspects - managerial, operative and objectives. The managerial aspect of human resources management involves four functions including planning, organising, directing and controlling. Here, planning refers to the determination in advance of a personnel programme. Organising means designing the structure of relationships among jobs, people and the physical factors so that systematic lines of
authority and communication are established to implement the plans. Directing refers to getting people to go to work willingly and relates to motivation and leadership both at the worker and management levels. Controlling relates to the regulation of activities in terms of personnel plans from the standpoint of predetermined objectives. Moreover, the operative aspects of personnel management involve four components including procurement, development, maintenance and utilisation. Obviously, for the effective attainment of goals it is imperative that a working force is procured, developed, maintained and utilised. In this context procurement refers to the obtaining of the right kind and right number of people to accomplish social, organisational and individual goals. It relates to such activities as locating sources of manpower, interviewing applicants and inducting selected candidates. Development refers to an increase in skills through requisite training to perform the assigned job effectively and efficiently. Maintenance means functions which support the skills and favourable attitudes of people through adequate wages and working conditions, supervision, fringe benefits and allied measures. Utilisation refers to the working effectiveness of the employees. Lastly, as regards to objectives, HRM purports to attain three-tier objectives including organisational, individual and social. Among organisational goals, the
most prominent one relates to success in producing a service or commodity which earns a reasonable profit. Individual goals involve non-financial as well as financial goals of people which should be taken into account while formulating management plans. The social goals involve proper contributions to social requirements from the local, regional, national and international standpoints.

Yonder and others\(^2\) have expressed that "Human Resources Management refers to direction and control of human resources in employment situations."

M.R. Carrell and F.E. Kuzmits\(^3\) have said that HRM is a set of programmes, functions and activities designed to maximise both personal and organisational goals.

Byars and Rue\(^4\) have observed that "HRM encompasses those activities designed to provide for and coordinate the human resources of an organisation........ Human resource functions refer to those tasks and duties performed in organisations to provide for and coordinate human resources.

E. Flippo\(^5\) has stated that HRM is the planning, organising, directing and controlling of the procurement, development, compensation, integration, maintenance and separation of human resources to the end that individual, organisational and social objectives are accomplished.
Ivancevich and Glueck have referred the HRM as the function performed in organisations that facilitates the most effective use of people (employees) to achieve organisational and individual goals. Pigors and Myers have observed "that it is a code of the ways of organising and treating individuals at work so that they will each get the greatest possible realization of their intrinsic abilities, thus attaining maximum efficiency for themselves and their group, and thereby giving to the enterprise of which they are a part of its determining competitive advantage and its optimum results."

Meaning of Human Resources Management

Human resources management is the process of managing the people of an organisation with a humane approach. Human resources approach to manpower enables the manager to view his people as a valuable resource. It is a benevolent approach to develop and effectively utilize the manpower not only for the benefit of the organisation but for the growth, development and self satisfaction of the concerned people. Thus, human resources management is a system that focuses on human resource development, on the one hand and effective management of people on the other.
Definition of Human Resources Management

The Human Resources Management is based on the concept to harness talent of the employees and iron out their deficiencies. HRM deals with values and beliefs with ethical choices.

However, the concepts upon which recent HRM theory is based have their roots in history. Several concepts used in the field of management of human resources embodying behavioural sciences knowledge relating to the working of line and staff officials and union leaders to motivate and develop employees to attain organisation goals, have been defined. These concepts include personnel management, personnel administration, labour relations, industrial relations, manpower management and employee relations. ⁸

Human Resources Management, broadly speaking, is the process of achieving the best fit between individuals, jobs, organisations together so that the goals of each are met.

According to E. Flippo ⁹ Human Resources Management is the planning, organising, directing and controlling of the procurement, development, compensation, integration, maintenance and separation of human resources to the end that individual organisational and societal objectives are accomplished.
M.R. Carrell and F.E. Kuzmits\textsuperscript{10} have defined the human resource management as a set of programs, functions and activities designed to maximise both personal and organisational goals.

Byars and Rue\textsuperscript{11} have said that human resources management encompasses those activities designed to provide for and coordinate the human resources of an organisation.....Human resource functions refer to those tasks and duties performed in organisations to provide for and coordinate human resources.

According to Ivancevich and Glueck\textsuperscript{12} the HRM is the functions performed in organisations that facilitates the most effective use of people (employees) to achieve organisational and individual goals.

In short, human resources management can be defined as that part of management process which develops, and manages the human elements of enterprise considering the resourcefulness of the organisation's own people in terms of total knowledge, skills, creative abilities, talents, aptitudes and potentialities for effectively actuating of an organisation.

Thus HRM emphasises three points\textsuperscript{13}:

(i) Action oriented

Effective HRM focuses on action, rather than on
record keeping, written procedures or rules. It emphasizes the solution of employment problems to help achieve organisational objectives and facilitate employee development and satisfaction.

(ii) Individual Oriented

HRM considers each employee as an individual and offers services and programmes to meet the individual's needs.

(iii) Future Oriented

Effective HRM is concerned with helping an organisation achieve its objectives in the future by providing competent, well-motivated and far-sighted personnel.

Emerging Concepts of HRM

Change is a must for the development of any discipline. The rationalisation of attitudes towards the labour and labour management relations at different stages have resulted in the emergence of various concepts of HRM. The early part of the century saw a concern for improved efficiency through careful design of work. During the middle part of the century emphasis shifted to the availability of managerial personnel and employee productivity. Recent decades have focused on the demand for technical personnel, responses to new legislation and
17

governmental regulations, increased concern for the quality of working life, and a renewed emphasis on productivity. Let's look into these trends more closely by examining the transformation of personnel function from one stage to another in a chronological sequence.\textsuperscript{15}

1. Commodity concept,
2. Factor of production concept,
3. Machinery concept,
4. The goodwill concept,
5. The natural resource concept,
6. Paternalistic concept,
7. The humanitarian concept,
8. The human relations concept,
9. The citizenship concept, and
10. The partnership concept.

The Commodity Concept

One of the consequences of the Industrial Revolution (1700-1800) is that "labour was considered a commodity to be bought and sold". And the then"...prevailing political philosophy of laissez-faire resulted in little action by Governments to protect the lot of workers"\textsuperscript{16}. It was observed that remuneration of labour was subjected to the law of demand and supply. In other words its price was determined by the market forces. This concept overlooked emotional and social
characteristics which had influence upon the productivity and hence "this view has proved untenable."\(^{17}\)

The Factor of Production Concept

This concept regarded employees as mere economic factors of production. It branded workers as glorified economic tools or machines. It has viewed that labour should be treated in the same way as the physical factors of production viz., materials, money, land etc., and had no special prominence over the latter. But this approach failed because it was found to be inadequate as a basis for performing the various operative functions of personnel management.\(^{18}\)

The Machinery Concept

Another significant development in the field of human resources management occurred due to the emergence of scientific management movement. This was very much concerned with developing techniques for the maximisation of productivity goal. According to it, contribution of human factor to the attainment of this goal could be increased sizeably through the appropriate use of selection, training and monetary incentives. Frederick W. Taylor\(^ {19}\) and other industrial engineers like Frank and Henry Gantt had little interest in the formation of personnel departments. But they insisted "that management
must pay attention to such matters as the selection of employees, training methods and the development of appropriate wage policy". This was in relation to a predominant concern with how machinery might be used effectively. So it was criticised that labour was treated as a slave, as a mere appendage in the production process.

In this concept the employer treats his employees largely as operating organisations of machines, capable of certain volume of production. This concept led to impersonal attitude towards human resources. In such an atmosphere of mistrust and callous neglect, the worker thinks about his security rather than output. "The resulting inefficiency together with the growing knowledge that"....."the machinery conception of labour was.....:" not ".....complete, led to the beginnings of the welfare movement." But it was felt that the scientific management contributed towards harmonious industrial relations since the workers also benefitted, through better working conditions, better pay, and incentives.

The growing strength of democracy and a sense of justice and fairness gave impetus to collective bargaining. The State recognised that the employee had a right to protection in his/her employment and to reasonable terms of service. The machinery set up in different countries to give effect to this recognition was different. However, "World War I gave impetus to
Governmental support of collective bargaining.\textsuperscript{23}

The Goodwill Concept

Employers began to provide various welfare measures to labour such as safety, first-aid, lunch rooms, rest rooms and the like by realising that the welfare of their employees had a direct effect upon their productivity. At this stage, the large employer, without a welfare movement was considered backward.\textsuperscript{24}

The Natural Resource Concept

Workers were treated as a natural resource and steps were taken to protect the workers. Thus child-labour laws, working hours for women, workmen's compensation and health and accident legislations were passed. Occasionally employers tried a new paternalistic idea. Further, the concept of paternalism to labour was developed.\textsuperscript{25}

Paternalistic Concept

Trade Unions started gaining strength with the breakdown of mechanical approach due to the influence of outside forces. Then the employers began to provide various benefits to employees voluntarily.

Paternalism is the concept that management must assume a fatherly and protective attitude towards employees.\textsuperscript{26} The paternalism does not mean merely
providing benefits but it means meeting various needs of
the employees as the parents meet the requirements of the
children. Management makes the decision regarding the type
of benefits, quantum and mode of providing them in the
capacity of parents. The father makes the decision which
he feels best for his child\textsuperscript{27}. Early paternalist
programmes included health facilities, washup and locker
room arrangements, lunch rooms, recreational facilities,
group insurance plans and pension programmes. But
unfortunately, some employers offered these benefits to
their employees to placate them into accepting long hours,
low wages and bad working conditions. Eventually, managers
became disillusioned when baseball and horseshoe pitching
leagues, company picnics, reading rooms, saving
associations and company housing did not substantially
increase productivity and efficiency. On the other hand,
employees became equally disillusioned when they sensed
that employer interest in them was not always genuine."

A Modified Version of Paternalism

This version emphasises the relationship between
the employer and employee as one that exists between the
body and the heart. Both are bound intimately with each
other and depend on each other for their very existence.
This implies that human resource is as crucial to the
organisation as the heart is to the body. While there can
be no body without a heart and no heart without a body, both employers and employees must realise that they cannot exist without each other.

The Humanitarian Concept

The humanitarian concept to labour captured the imagination of employees during 1910-1917. It was believed that arbitrary or paternalistic control by management was likely to lead to trouble. It declared that the physical and mental health of employees must be considered by management and that the state of their minds had much to do with the value of their services. The humanitarian concept stated that the workers had certain "inalienable" rights as human beings and these rights were as important as the rights of other persons and that it was management's duty to recognise these rights. The doctrine held that all human beings were equal in the sense that they have many of the same impulses and reactions.

Each employee has two lives, organisational life and life outside the organisation. The organisational life gets affected by the needs and aspirations of the employee outside the organisation as an individual of the society. The effectiveness of HRM in the organisation depends on its efficiency in developing such welfare programmes for the workers as might integrate the two lives of the
individual. As it was evident that the employees' productivity depended quite as much upon their environment and lives in the eight hours in work. Many of these programmes reached beyond the factory into the homes of the employees and included also their wives and children.\(^{30}\)

**Human Relations Concept**

According to Keith Davis\(^{31}\), 'Human Relations is motivating people in organisations in order to develop team work which effectively fulfils their needs and achieves organisational goals'. It strives to treat people as human beings and recognises their needs to belong, and to feel important by listening to and heeding their complaints wherever possible and by involving in certain decisions concerning working conditions and other matters. The focus is on people, the emphasis is on creating a workforce with high morale. There is a sincere attempt to democratise the organisation, to keep people content as a part of 'one big happy family'.

The latest trend in the concepts of human resources has been one of treating the worker as a member of industrial society and as a partner in the management of industry. It has been felt that, the objectives of an economy can be achieved through the maintenance of industrial peace and harmony. Peace and harmony can be
achieved by the industrial democracy and by recognising the employee as a citizen of industrial society.

The Citizenship Concept

"As a citizen in a democracy has certain inalienable rights and a voice in determining and exercising these rights, so do workers, as industrial citizens, have a right to be consulted in determining the rules and regulations under which they work". The legal recognition of this concept of labour is relatively of recent origin. This concept recognises that the individual worker's investment, i.e., his human resource gives him certain rights and responsibilities, just as investment of capital resources of stockholders and their rights and responsibilities.

The Partnership Concept

The partnership concept implies mutual responsibilities as well as sharing the fruits of a joint endeavour. Thus in this approach the labour is being recognised as a co-human being and partner in the maintenance of an organisation. Recently profit sharing has come into prominence. The recent effort to translate this idea into action has been fostering of stock-ownership schemes. But there is much opposition to these schemes by both labour and management and still they have not gained wide publicity. However,
this approach will gain confidence of both the parties in the time to time since, management and labour are mutually interested in producing a product that will meet the public approval and result in better profits and higher wages. Thus the relationship between employees and employers is conceived of as a "partnership in a constructive endeavour to promote the satisfaction of the economic needs of the community in the best possible manner." A more satisfying approach to HRM would allow employees to take over the reins of control of corporations. When employees are given a legitimate share in stock ownership, they begin to feel that the organisation is their own and they have to work sincerely for their own well-being. These changes in the concepts of HRM from commodity concept to the citizen concept have led to the growth of distinct approaches to the study of HRM. Human resources management is viewed in entirely different perspective. Though organisational interest is important in all the management policies, HRM projects the development of individuals in accordance with individual needs and aspirations so that the individuals are motivated towards the accomplishment of common goals. While personnel function was designed to respond to the organisational objectives like profit maximisation, HRM
visualised human elements of enterprise as important resources. Hence, HRD is the most crucial aspect of human resources management.

Need for HRM Approach

The human resources management approach which has been gaining the attention of management professionals during the last decades has become the need of the time due to various reasons.

Widespread industrial unrest, growing trade union influence on workforce, strained worker-management relationship, increasing gulf between management and their people, emergence of militancy in trade unionism, and the growing conflict in the industrial relations scene have resulted in the workers getting out of gear of the management in many organisations in India. This has made the management to think in terms of carrying their workers with them. Convincing the workers of the management's concern for them may, perhaps, go a long way in getting along with them and ensuring their better performance. This has naturally resulted in the present human resources management.

Humanisation of work environment in counties like Japan, quality of work life movement in countries like United States, and the quality circles approach in India itself have initiated action to attain better
organisational commitment among the work force. The human resources approach is in consistency with these movements.

Changes in business environment have substantially affected the approach to manpower. Technological changes are prominent among them. Computer revolution, introduction of microprocessor CNC machines in manufacturing operations, mechanisation and automation of office operations, quick communication systems like satellite communication and facsimile introduction of Robots, electronic revolution, and such other new developments have revolutionised the vital areas of business. Operational efficiency of manpower must cope with such a revolutionary change in the technology which necessitated a new approach to manpower.

Political philosophy has also undergone a substantial change not only in India, but elsewhere in the world, which necessitated a renewal in approach to human side of enterprise. Government of India under the leadership of Prime Minister Rajiv Gandhi gave a new emphasis for human resources development at the national level, and a separate ministry was founded under a senior cabinet minister. Human resources development has, thus, received unprecedented emphasis in India, which opened up a door for a fresh approach to human resources development in the industrial sector too.
Globalisation of business is another important aspect of change which is taking place in the today's business scenario, necessitating a human resources approach to manpower. It is not only that Indian firms operate and compete abroad, but they have to compete with multinationals and foreign firms in India itself. Business philosophy, skills, expertise, efficiency and particularly global corporate citizenship philosophy fostered by internationally successful firms necessitate Indian firms to deliberately update their perspective to suit the internationally emerging trends. In conformity with the human resources approach emerging globally, Indian managers must also foster a human resources philosophy to guide their management practices.

A widespread feeling now influences at least some management practitioners that the technological development has gone to the extent of machines taking over the human jobs. For example: highly skilled milling, grinding and lathe machines are replaced by CNC machine tools which can take over, not only manual functions but even the intelligent human functions, and robot can take up human functions in place of real human beings. Increasing influence of illusions tend to reduce the importance of human role. In fact, no machine can replace man. The more the technological development, the greater would be the dependence on man. One simple error
computer makes can lead to havoc, where skill and intelligence of man are indispensible. Greater the technological development, greater skill and technical capability are required of people who operate it. Obviously greater human approach to people would be required.

Moreover installation and monitoring of machine, production, operation, maintenance and controlling the operations need large number of trained and skillful people. Technicians, repairers and service people are also necessary. The more the technical development and automation, the more would be the dependence on human beings. There would, therefore, be greater need for human approach to manpower. Similarly, use of more capital intensive method would result in greater productivity of men necessitating greater motivating and greater human resources approach to management.

Large scale production, increasing effects of recession, technical and technological developments and so on have opened up new training needs for the people at work. Human resources development programmes have, therefore, become the need of the hour. Government policy of importing technology has also necessitated to introduce new facilities and awareness for training and development. Fresh initiatives and emphasis on research and development
in the realm of industry also led to a new policy of human resources development to cope with the increasing demand for technically capable people. Resultantly a need arose for a new approach to human resources. 36

Strategy for Human Resource Management

A behavioural orientation towards human resources management has been necessitated due to the changes in the technological climate which in consequence has changed the economic, social and political climate too. The productivity of the organisation would to a great extent depend on how well this is tackled. Today this is often attempted to be dealt with by institutional training but that itself will not be sufficient.

At this stage, one can give broad strategy and not a definite prescription since many issues are open-ended issues.

First of all there is the question of goal setting and monitoring of performance. This is to be done not merely at the corporate level but also at all levels including the unit level. However, this requires as a prerequisite, an open culture and a package of value system comprising certain criteria such as openness, confrontation, trust, authenticity, proaction, authority and collaboration. A slow consistent and sincere effort can be made over a predetermined period of time to move
towards an ideal climate. Thus, if interdependence is of essential nature, coordination can be achieved only if there is an atmosphere of openness conducive to exchange of information. In real life situation, the problem is to identify the level at which such an effort should start and each functionary may prefer to watch while other functionaries start practicing it. The solution lies in commencing simultaneously at all levels in an organisation.

A joint effort is needed in arriving at the targets to be achieved and periodically to evaluate the performance against the backdrop of such objectives, especially at the unit level. This can be an extremely helpful exercise given the willingness and initiative.

In the process the total problem of man management processes such as: (i) personnel administration, i.e., drawing up and administration of rules and regulations, (ii) Industrial relations, i.e., managing trade union activities, (iii) human resource development, i.e., identification of individuals with the roles and ultimately with the organisation, (iv) training and development, i.e., development of knowledge, skills and attitudes necessary for the tasks to be performed are necessary. In this, human resource development, training and development are highly inter-related.
The break down of man management into four elements - water-tight compartment may have been unavoidable for the development of special aptitudes, but today it has led to the four channels of expertise dealing with the same item, viz. human resource. Therefore, the ultimate and total objective of human resource management is not very clearly perceptible to any one and the result has been the disjointed effort for its attainment. Thus, there is need for synthesis among these four activities.

Today with the spread of formal education as well as socio-political consciousness, a short sighted and simplistic system of issuing orders and expecting the employees to behave will break down at the earliest. As a corollary the trade unionism tends to take a violent turn. This position often arises merely as a response to the organisation's inability to cope with the personnel dynamics resulting in politicalisation of issues with unwillingness to understand social and emotional demands.

The three basic planks on which the trade unionism stands and sustains itself are the protection, projection and promotion of the members interests. No organisation would work against such professionals. But the problem arises in the approach and attitudes. Implementation of personal rules and regulations is an area replete with such pitfalls. The extent and ability of the administrator
to appreciate the basic philosophy of these rules would determine how he applies them to the relevant personnel. Human resources management will effectively take care of this situation in the sense that identification of individual members with the organisation will be achieved integratedly with training and development as well as industrial relations.37

In conclusion it may be said that the complex character of the enterprise necessitated the professionalisation of management at various levels to run the departments. The owners themselves acquired management training and tried to fill the gap between the traditional technique and modern techniques of management. Therefore, the broad strategy indicated in this thesis is obviously long term measures for they involve radical and far-reaching consequences. Any abrupt or sudden introduction of all these measures without appropriate and previous preparation may be counterproductive.

Summary

Human resource management is the process of managing the employees of an organisation with a humane approach. HRM approach to manpower enables the manager to view his employees as the most important resource. It is a benevolent approach which embodies the organisational and personal goals simultaneously. Human resource management
can be defined as that part of management process which develops and manages the human elements of enterprise considering the resourcefulness of the organisation's own people in terms of total knowledge, skills, creative abilities, talents, aptitudes and potentialities for effectively actuating of an organisation.

The human resource management is based on the concept to harness talent of the employees and iron out the deficiencies. Actually HRD is the most crucial aspect of human resource management.

The modern complex character of the enterprise necessitated that there should be professionalisation of management at various levels. To run the department, the owners themselves acquired management training and tried to fill the gap between the traditional techniques and modern techniques of management. Therefore, the broad strategy indicated in this thesis is obviously long term measures for they involve radical and far-reaching measures. Any abrupt or sudden introduction of all these measures without appropriate and previous preparation may be counter-productive.
References


23. Wendell L. French, op.cit., p. 16.
25. Ibid., p. 37.
27. Ibid., p. 31.
32. This approach was recognised in India by the Second Five Year Plan, New Delhi, 1956-57.
33. Walter D. Scott, et al., op.cit., p. 4.
35. The First Five Year Plan in India has recognised this approach, New Delhi, 1951-52.
Chapter III
HISTORICAL DEVELOPMENT OF INDIAN RAILWAYS
Chapter - III

HISTORICAL DEVELOPMENT OF INDIAN RAILWAYS

The historical development of Indian Railway is discussed under the following two main heads:

i) Pre-independence era

ii) Post-independence era

i) Pre-independence Era

The Indian Railways occupy a significant and glorious place in India's system of transport. It is playing a significant role in transportation network of the country. Railways have reached to their present place gradually. The early efforts for the introduction of railways may be traced back to the year 1832 when the construction of railways line between Madras and Bangalore was contemplated. In fact it was the period of 'Railway Mania' as pointed out by Horace Bell. The railways had been introduced in 1825 in England in 1829 in France and in 1830 in America, in 1831 in Canada, in 1836 in Russia and were functioning successfully.

Industrial Revolution had taken place in England and the British industries needed raw materials and wanted a lucrative market for selling the finished products. India, then a colony of England, was full of resources and wealth but without proper means of transportation and
In order to achieve their goals, it was very much necessary for British industries to develop railway transport in India. British investors had invested in railways in many British colonies and had earned fabulous profits, so they were interested to invest in Indian Railways also. Not only this but political and military considerations were also the cause of Indian Railway's development.

The East Indian Railway Company and the Great Indian Peninsula Railway Company were incorporated in England for construction of two small lines near Calcutta and Bombay respectively. These companies entered into a contract with the East India Company on 17th August, 1849 for the construction of railways in India. Indian railway development, thus, started from this date. By 1853 a railway line from Bombay V.T. to Thana, a distance of 21 miles, was opened for traffic and the first railway train in India was inaugurated on the 16th April, 1853.

The history of railway development in India from 1844 to present time has been divided into several well defined periods to facilitate its thorough study.

Old Guarantee and Assistance Period of Railway Construction (1844-1869)

The railway construction in India started under the state guarantee and assistance. The private companies
which undertook construction work were not prepared to invest such a huge capital due to uncertainty of demand of railway service.\textsuperscript{17} No industrial Revolution had preceded the railways in India.\textsuperscript{16} Trade, industry and agriculture were in extremely poor condition and therefore, there was no certainty of the availability of goods traffic to railways in sufficient quantity and on regular basis.\textsuperscript{19} Likewise the demand for passenger traffic was also not certain due to time-worn habits, ideas, poverty, illiteracy, fear and religions dogmas of Indian People.\textsuperscript{20} Thus, uncertainty of demand and the heavy capital expenditure involved a great risk of capital being lost if railway failed to operate.\textsuperscript{21} Even the enterprising promoters of railway companies in British were not prepared to invest without a guarantee of return on investment from the Government of India.\textsuperscript{22} Moreover, unlike Great Britain, the USA, Germany and other advanced countries, the railway construction in India was not the result of indigenous enterprise or capital.\textsuperscript{23} Then, the railways in India were viewed not from the angle of commercial benefit but from the standpoint of efficient administration of British rule in India, movement of military troops and materials and for serving other alien interests.\textsuperscript{24} Therefore, the demand of private companies for guarantee of interest on capital investment was accepted.\textsuperscript{25}

"Government relieved the shareholders of all risks, gave them some expectation of profit over all above
the interest, and in return claimed reasonable powers of control and the right of purchases." 7

The first proposal for the construction of railways in India were submitted in 1844 to the East India company by Mr. R.M. Stephenson, which included the construction of lines by railway companies to be incorporated for the purpose. 7 A contract for the construction of an experimental line of 160 kilometers from Calcutta to Mirzapur or Raj Mahal at an estimated cost of £1 million was entered into with the East India Company in 1840. 7 A similar contract was made with the Great Indian Peninsula Railway for the construction of a line from Bombay to Kalyan at an estimated cost of $0.5 million. 7

These two companies were the earliest and the most important among the old guaranteed companies. 7 Within a decade, eight companies were formed. 7 The Eastern Indian Railway, 7 the Great Indian Peninsula Railway, 7 the Madras Railway, 7 the Bombay Baroda and Central Indian Railway, 7 the Scindia Railway, 7 the Eastern Bengal Railway, 7 the South Indian Railway 7 and the Calcutta 7 and South Eastern Railway. 7 By 1869 there were as many as eleven companies incorporated in England for the purpose of constructing and managing railways in different part of India. 7

The terms of contracts entered into between the Government and railway companies were as follows:
i) The Government would give free land for the construction of station buildings and quarters, and for laying down railway lines.

ii) The agreement shall be binding on both parties for a period of 99 years.

iii) Railway companies were guaranteed interest on capital outlay @ 4½ to 5%.

iv) The Government would exercise full powers of supervision and control on railway lines and allied works.

v) No railway company would be entitled to construct new lines or extend old one's without permission from the Government.

vi) After 99 years the entire land on which railway stations and quarters would be build and railway lines laid would become the Government property.

vii) The Government had reserved its right to purchase these lines after a period of 25 or 50 years and payment to the companies concerned was to be made of the average rate of the last three years.

viii) Railway companies would pay 50% profits to the Government.

ix) A railway company might hand over the management to the Government at any time, and realise the capital invested by it.

x) For exchange purpose 1 rupee was equal to 1 sh.10d.
The British capital was invited at an exorbitant rate of interest ranging from $4\frac{1}{2}$ to 5 in the money deposited in the Government Treasury for the purpose. This "killed effort for economy promoted recklessness, and involved the country in liabilities much beyond what the people of India could bear of the needs of the times could justify".\textsuperscript{5,7}

The shareholders were fully satisfied because their interest was guaranteed.\textsuperscript{5,4} The Rights Honourable William N. Masey considered that the East India Railway Company had cost twice in much as it ought to have cost.\textsuperscript{5,5} According to him, "all the money come from the English capitalists, and so long they were guaranteed five percent from the revenues of India, it was immaterial to them whether the funds that they lent were thrown into the Hoogly or converted into brick and motor".\textsuperscript{5,6}

2. Unlimited Financial Liability:

There were neither limit on the maximum amount of investment nor the maximum period of guarantee.\textsuperscript{5,7} The guarantee started at the time when money deposited into Government treasury by the companies, although in the most of the cases the actual construction was undertaken after a considerable delay.\textsuperscript{5,8} And it placed a heavy yoke for Indian tax payer.\textsuperscript{5,9} The loss to Government went on increasing year by year.\textsuperscript{5,0} The total loss between 1849 to 1870 amounted to Rs. 16 crores.\textsuperscript{6,1}
Besides, these losses, the government had to spend on the purchase of land, survey and on supervision and also considerable loss was sustained on account of the rise in the rate of the exchange. C.N. Vakil, has stated that "Giving a flat rate of interest and inviting entrepreneurs was act of economic suicide".

3. Incentives to British Capital Only:

The investment of foreign capital had enough justification because the indigenous investors were reluctant to risk their capital. But it is equally true that no proper system and attempts were made to attract Indian capital to enter the field. Of the total capital of more than £ 26 million raised up to 1869 less than one percent was subscribed in India.

4. Inactive Management:

There was lack of energetic management. The railways were being managed by private companies, which were incorporated in England. Though these companies were incorporated for Indian Railway development but these companies had no interest in India. It had only monetary considerations. Under guarantee system 5% interest was guaranteed, so the shareholders did not take any interest. Due to this the engineers and the agents of the companies had no drive to do their work economically and efficiently.
5. Indian Interests Ignored:

The main aim of construction of railway lines in India was to serve the British interest. The early railway construction was done in such a way which may facilitate the civil and military administration to consolidate the British rule in India. The important parts and markets were linked so that British industries could get raw materials easily and dispose the finished goods. No systematic policy was adopted to serve the needs of Indian industries, trade, or agriculture. Neither the Indian capital and other resources were properly used nor were the Indians given a share and place in employment.

6. Slow Progress:

Due to the inadequate government control, indifference and incompetence of companies and faulty planning of railway development, the progress of construction of railway lines was very slow. During 17 years between 1853 and 1869 only 4287 miles of railway lines could be constructed. The average comes to about 250 miles of lines per year. The progress till 1860 was only 100 miles of lines per year. However, this average rose to 400 miles of lines per year during the remaining period. The country actually needed an extensive scheme of light lines at a moderate cost. But what actually happened was the slow construction of broad gauge lines at very high,
initial cost which was against the need and the capacity of the country.

State Construction Period and Administration Period (1869-81)

Due to several drawbacks the guarantee system was ultimately abandoned by the year 1869. During this period no fresh contracts were entered into with the guaranteed companies, but the government itself undertook the responsibility of railway construction. The public as well as eminent authorities were criticising the guarantee system. As early as in 1858 Lord Canning took notice of the carelessness of the companies in the management of capital, and objected to the working of guarantee system. He suggested that in any future contracts involving a guarantee by state and essential element should be a scrutiny and careful examination of the estimate before hand, and that the state should limit the guarantee strictly to such amount of capital as had been previously found necessary. The members of the Viceroy Council were even stronger in their views.

Sir J.P. Grant President of the Council condemned the guarantee system as involving the great evil of double management. The Finance Member Naing said that as the management was non-resident and the data as to first cost and probable traffic were very uncertain, the shareholders
depended almost exclusively on guarantee. All the advantages of private enterprise were, thus, neutralised.

While the evils of the original guarantee system were under discussion, several attempts were made to form private companies for railway construction without guarantee. In 1864, the Secretary of State for India decided to encourage new construction only with some assistance other than a guarantee.

In case of the Indian Branch Railway company a subsidy of £100 per annum per mile opened for 20 years from the date of opening, was proposed, together in the additional sum of £1000 for every bridge that required £10,000 or more for construction. The East India Tramway company was also offered similar terms. An important feature of these proposals was that, they would involved no interference by Government except such as was useful for the safety of the public, while projectors were required to complete their works, economically and rapidly within the time fixed. But these efforts did not bear fruits and could not succeed. Then the Secretary extended the period of guarantee of old companies. Thereupon the Government of India, headed by viceroy lord lawrance, strongly refuted the arguments of railway companies and considered all the advantage accruing their from as illusive. He ably made a case for state construction and
management. He wrote:

"The Govt. of India has for several years been striving to induce capitalists to undertake the construction of railways in India at their own risk and on their own responsibility with a minimum of Govt. interference. But the attempt has entirely failed and it has become obvious that no capital can be obtained for such undertaking otherwise than under a guarantee of interest fully equal to that which the Govt. would have to pay, if it borrows directly on its own account."

Lord Lawrance prior to his departure from India recorded his conviction in a very able minute dated 19th Jan., 1869, and showed at great length the necessity for direct state construction of Indian railways. He advocated that it was totally unreasonable and inconsistent with the true interests of India to continue a system under which the revenues have to bear the whole risk of loss and could derive no direct benefit, in preference to the one which with no greater and probably much reduced risks could entitle the public to the whole of the direct profits, making them available for reducing taxation or preventing the imposition of new burdens. With the appointment of the Duke of Argule as Secretary of State for India in 1869 and the succession of Lord Mayo as the viceroy, the history of Indian railway took a turn for a better. Lord, Mayo's Government entirely agreed with the policy of Lord Lawrance and in March of the same year, the Govt. of India again pressed for a definite change. Ultimately the policy of direct state construction and management for new lines
was accepted by the Secretary of State. Approving the policy of state construction and management the secretary of state observed: "The time now has arrived, when both in raising and in expending such additional capital as may be required for new lines in India, the Govt. should secure for itself the full benefits of the credit which it lends, and of the cheaper agencies which are to be at its command." He also expressed the hope that "with the Govt. construction there would be a single authority and single management, and a considerable reduction in cost of Indian railways."

Break of gauge accepted as a necessary evil:

During this period meter gauge lines (3 ft 3 inches in width) were laid instead of broad gauge lines (5 ft. 6 inches in width) because the meter gauge was economical and, was expected to contribute towards the earlier consummation of the necessary extensions. All the lines constructed in the next decade were meter gauge lines. The cost of construction was relatively cheaper. It was only £ 6,470 per mile, while most economically constructed lines under the old guarantee period had cost more than £ 13,000 per mile. However, the evils of break of gauge were well known to the government of India, but the circumstances had forced it to adopt the break of gauge due to financial difficulties.
Financial policy and arrangements:

With the adoption of the new policy of state construction large schemes were at once undertaken and for financing them capital was raised directly by the Government. In 1871 a select committee of the British Parliament was appointed to review the schemes of railway construction. In order to implement its recommendations the Secretary of State for India Lord Salisbury made the following suggestions in 1874.

a) Only those lines should be laid which would become productive in the near future, and the sum of money borrowed should be paid back during the period of their construction.

b) Money should be borrowed within India.

c) Money spent on famines should be paid out of the annual income from the railways.

d) The annual expenditure on railway construction should be limited to £ 25 lakhs per year.

Although this expenditure was limited to £ 25 lakhs per year, yet the actual expenditure was higher, and in 1879-80 it was in no way less than £ 35 lakhs. It is interesting to note that the average expenditure for this period came to be more than £ 40 lakhs.

This happened as the Govt. of India had to suffer heavy losses due to continued fall in the value of silver;
construction of strategic and unproductive lines, such as in the Punjab and Sindh and other expenditure caused by Afghan War; and heavy expenditure on famine prevention and relief. It was, however, decided to bring down expenditure on "extraordinary works" within the amount which can be borrowed in India on advantageous terms. Another important change was announced that the construction of railways by private capital should be encouraged on the exclusive security of the success of the undertaking without a guarantee. The financial assistance from provincial governments and Indian States were also undertaken.

Progress during this Period:

From 1869 to 1881 the total mileage of Railways in India increased from about 4,287 to 9,875 miles, the average increase being 468 miles per annum, compared with nearly 250 miles per annum of the previous period. Of the total length opened up to 1881, company lines accounted for 6,132 miles. Indian state lines aggregated 446 miles, and the remaining 3,297 miles were state lines. Of those about 7,000 miles were on the broad gauge, and a little less than 3,000 miles on narrow gauge and the remainder of about 2,737 miles on the meter gauge. Towards the close of the period more than 2,000 miles of new lines were under construction.
The cost of construction during this period was less than that previous period. The financial results to the state had, on the whole, been slightly encouraging although the state lines did not come up to the expectation.

Appraisal

The experiment of state enterprise was considered a good change. Railways grew rapidly and especially the state railways were a paying concern from the very beginning. The adoption of meter gauge lines proved economical and it extensively knitted various centres through the railway lines. The extension of railways was not done to serve the needs of Indian trade, industries and agriculture but the policy of serving British interests continued. However, rapid expansion of railways helped the growth of Indian trade and industries also.

New Guarantee Period (1881-1900)

The Govt. had to face various difficulties. These were mainly financial in nature. The recurrence of famines, unproductive expenditure caused by the Frontier War with Afghanistan, and falling value of the rupee were the main factors which had increased the financial burden of the Government, and consequently it became extremely difficult to push expansion of railways rapidly. The chronic financial inadequacy forced the Government to take
help from private companies for rapid expansion of railways which had become necessary.\textsuperscript{146}

During this period contracts were entered into with the following six private companies:–

(i) Bengal Central Railway Company (1881), the Bengal and North Western Railway Company (1882), the Rohilkhand and Kumaon Railway Company (1882) the Southern Maratta Railway Company (1882), the Indian Midland Railway Company (1885) and the Bengal Nagpur Railway Company (1887).\textsuperscript{147} Different contracts were made on different modified terms.\textsuperscript{148} No definite policy was followed either of financing or that of management and construction.\textsuperscript{149}

In 1881, Lord Hartington, the then Secretary of State for India, formulated some rules for rail construction.\textsuperscript{146} He divided railway into 3 categories: a) Productive, b) Unproductive and c) Protective.\textsuperscript{147}

A railway line which could yield 4\% interest on the capital expended on it, within 5 years of its completion, was called productive.\textsuperscript{148} The railway lines which could not yield any returns was termed as protective.\textsuperscript{149} Such lines were meant for protecting the lives of people from famines and were constructed in those places where there was danger of the occurrence of famines.\textsuperscript{150}

The Government of India proposed to leave to private enterprise all such lines as were profitable to
attract it and to confine themselves to the construction of those railways which private agencies were unwilling to undertake because of their unprofitable character. The corner stone of new policy, was the exclusion of the state from the field of productive tenes and its confinement merely to those railways which were protective or unproductive. The two together were expected to meet the demand adequately and in time.

"In the beginning of this period, a scheme for the construction of 6400 kilometers of railway lines was submitted to the Secretary of state for India. This scheme was to be implemented within 6 years; total expenditure being estimated at £ 320 lakhs. The proposal was for two types of railway lines: (i) railways which were important from the point of view of protection and safety of the country and (b) railways which were to be constructed for the development of trade and commerce and provided travelling facilities to passengers.

Since the plan was too ambitious a select committee of the British Parliament was appointed in 1884 with the following terms of reference "to inquire into and report upon the necessary for a more rapid extension of railway communication in India and the means by which the objects may be best accomplished, with reference to the report of the Famine commission and with due regard to the financial conditions of India."
Recommendations:

After carefully studying the question of a more rapid expansion of railway communication, and examining the financial position of the country, the committee made the following recommendations.

i) The work of rail construction should be shared both by the government and railway companies.

ii) The Government should undertake the construction of self-supporting lines.

iii) Railway kilometrage should be increased for the development of internal and foreign trade of India for saving the country from the ravages of famines.

iv) The government can borrow £30 lakhs per year for rail construction but this money should be borrowed within India only.

(v) Main routes should have broad gauge line.

(vi) The extension of railway should not involve additional taxation.

The Committee also remarked: "For political as well as financial reasons it was desirable that loan should be raised in India. On the other hand, when the difference between the rate of interest in India and in England is so considerable as to afford full compensation for the comparative disadvantages of borrowing in England, the Secretary of State should not hesitate to borrow such
moderate sums in this country (England) as will enable the
Government to complete such public works as have been
sanctioned.162

Most of the recommendations of the committee were
accepted.166

Progress of Construction

The progress of construction during this period
was steady.167 On an average 744 miles of railroads were laid
per year as compared with the average of 468 miles of the
previous period of state construction. There were
altogether 96 different lines operating to traffic,
administered by 33 railway administered of various types.169
Except the BB & CI and Madras Railway, all the guaranteed
lines come under state ownership by the end of this period.170
These two also subsequently come under state ownership in
1905 and 1907 respectively.171 But the management of railways
in most of the cases was entrusted to old companies under
new contracts.172

The worst effects of the guarantee system were
removed by the revised term which were more favourable to
the state.173 only a few lines were transferred to direct
state management. The total mileage had gone upto 39603 by
1900, which was 9,875 miles in 1881. The trunk and feeder
lines were constructed on broad gauge, hilly railway lines
were constructed on meter gauge (2'-6") and sub-urban and
light railway lines were laid on narrow gauge (2').176
Appraisal

Although the progress under this period was quite steady and in no way discouraging, yet the policy of the railway construction, ownership management and financing was not definite which led to many complications. Regarding the policy of ownership and management Chesney has rightly remarked: "To see a railway one day and buy another the next, to build a railway and then lease, these inconsequential proceedings are sufficient indication of the total want of a systematic policy and good judgement which has characterised the railway administration of the Indian Government". Thus, the policy followed by the Government was unstable and vacillating. The century ended with the end of sorrowful days of railways.

4. Pre-war Period (1900-1914)

"The twentieth century dawned with the prosperity of Indian railways. With it started a new era of development of Indian railways which brought net gains to the state and ceased to be a burden on it."

From 1849 to 1900 the Government of India suffered financial losses on account of Indian railways traffic was increasing year after year. This forced upon the authorities the need for increasing efficiency and capacity so that traffic may be properly handled.
Robertson Committee 1901:

In 1901, Mr. Thomas Robertson was appointed to investigate into the railway administrative organisation and system. He criticised the duality of the system then prevailing in India; and ascribed the majority of the evils found on the Indian railways to it. After a careful study of the entire situation he recommended as follows:

i) A Railway Fund should be created for the improvement of old lines and the construction of new ones.

ii) All lines should be leased out to railway companies.

iii) A Railway Board should be established.

iv) Step should be taken to improve the operational efficiency of railways.

v) Guarantee system should continue for the construction of new lines.

The first three suggestions were very significant. Sufficient amount of money was not available from the General Reserve Fund for the development of railways. With the creation of a separate railway fund the pace of railway construction and improvement could have been accelerated. Upto that time, railway management was inefficient as part of the railway was company managed; and the rest was under state management. The Indian public was completely against the view that the entire railway system should be handed over to railway companies. The Government did not consider it worthwhile to create a
separate railway fund; but it established a Railway Board in 1905 with 3 members - 1 president and 2 members; and put it under the Department of Commerce and Industries. Even after the establishment of Railway Board, railway efficiency did not improve. No attention was paid to the provision of passenger amenities.

Mackay Committee 1907

When the financial position of the Indian railways did not improve, the Mackay Committee was appointed in 1907 under the chairmanship of Sir James Mackay (later known as lord Inchcape) to examine and study the financial and administrative problems of the Indian railways. Submitting its report in 1908, the committee recommended:

i) At least 16000 kilometers of railway lines should be laid to provide increased transport facilities in this vast country.

ii) Instead of Rs. 4 crores to be spent on railway construction per year as allocated earlier, an amount of Rs. 18.75 crores should be provided.

iii) Big railway companies should construct branch lines with their own capital.

iv) Railway lines directly controlled by the Government should be handed over to railway companies to relieve the former of the heavy burden of responsibilities.
v) The powers of the Railway Board should be increased so that it might help the railways to improve the standard of their operational and administrative efficiency which had been vehemently criticised earlier.

Progress:

The Railway Board was reorganised in 1908 within 6 years (from 1908 to 1914) the Government invested Rs. 92 crores; and laid about 16,000 kilometres of branch and feeder lines. Railway kilomettage rose from 39603 in 1900 to 56456 in 1915 and capital outlay from Rs. 329.53 crores to 495.09 crores. During the first 40 years of railway existence, financial loss to the Government amounted to Rs. 58 crores. After 1900, the Government began to gain, and railway construction received impetus.

Appraisal

The main policy of management, ownership and financing remained, however, undisturbed Government took over the ownership of the lines whenever it found convenient and handed them over to companies for management under new contracts. The Government policy of financing was criticised as it did not sanction enough funds for repairs, reconstruction and development of railway which caused difficulties to the public. The policy of management by English companies was also vehemently criticised.
5. First World War Period and After (1914-1921)

The performance of the Indian Railways got seriously affected during the war period due to heavy movements of troops, materials, food grains, and agriculture produce. Part of railway staff, rails, and rolling stock were despatched to East Africa. Goods wagons were used to carry passengers. Owing to the shortage of wagons, goods were rotting in railway godowns before they could be loaded. Regarding this breakdown, the Acworth Committee observed:

"There are scores of bridges with girders unfit to carry train loads up to modern requirements. There are many miles of rails, hundreds of engines, and thousands of wagons whose rightful date for renewal is long over past.".

In order to fulfill the war requirements, railway workshops were used to work at full pressure for the manufacture of portable huts, armoured cars, and several other kinds of military equipment. The Government was forced to reduce passenger services, withdraw concessions, and increase fares. All these difficulties invited complaints from public and trading community. There was widespread dissatisfaction with the working of railways and therefore, the public opinion became hostile to the management of state railways by foreign companies, and demanded the state to take over the management from the companies. However, some strategic lines were added during
the war period also. With the result that the length of railways upto 58,776 kilometers, and the capital investment rose upto Rs. 566.38 crores.  

6. Overhauling of Railway Policy Period (1921-1925)

During war period the condition of Indian railways was seriously deteriorated, and it reached to its extreme point at the end of war. Public was making complaints against the working, management, financial condition and efficiency of railways which were too far from satisfaction. So the Secretary to state for India, appointed Indian Railway inquiry committee under the chairmanship of Sir William Acworth on the 1st November, 1920 with the following terms of reference:

1. To consider, as regards railways owned by the state, the relative advantages financial and administrative, in the special circumstances of India of the following methods of arrangements:

   a) Direct Stage Management.

   b) Management through a company domiciled in England and with a Board sitting in London.

   c) Management through a company dominated in India and with a Board sitting in India.

   d) Management through a combination of (b) & (c) and advise as to the policy to be adopted as and when the existing contracts with several companies can be determined.
2. To examine the functions, status and constitution of Railway Board, and the system of control exercised by the Government of India over the railway administration, and to recommend such modifications, if any, as are necessary for the adequate disposal of the railway business of the Government.

3. To consider arrangements for the financing of railways in India, and in particular the feasibility of the greater utilization of private enterprise of capital in the construction of new lines.

Main recommendation of the Acworth Committee

After a very exhaustive study of the Indian railways the committee submitted its report in 1921 with the following recommendation.

i) State Management:

On the management of railways the committee was divided. Half of the members favoured direct state management of railways while the rest recommended that the management should be entrusted to the companies which were domiciled in India. The President himself favoured state management. It was his casting vote which decided the issue in favour of state management. The reason was that the private companies would simply follow a commercial policy to earn high dividends. Cheaper rates and fares, better facilities and impartial treatment could be
provided by the state only. Company management could not promote Indian enterprise which was necessary for railway development in India. Regarding the management by companies domiciled in England and having a Board sitting in England, a distance of 9,000 Km away was mostly inconvenient and unconducive to the growth of Indian trade and commerce. The majority report observed, whatever may have been the position in the past, we think the advantage of English management are now outweighed by the great disadvantage of absentee control and the difficulty of keeping in close touch with the modern social and trade conditions of India. Further, it pointed out that "our experience and investigation have led us to the quite definite conclusions that the system has never worked satisfactorily and can not be made to do so. The utmost wisdom at the part of the Government can not prevent injury caused by unwise and unprogressive policy of "company's abroad".

ii) Separation of Railway finances from general of state finances -

In this regard the committee observed, "we recommend that the finance department should cease to control the internal finance of the railway that the railways should have separate budget of their own, be responsible for earning and expending their own income and for providing such not revenue as is required to meet the
interests on the debt incurred, or to be incurred by the
government of railway purposes and that the railway budget
should be presented to the legislation assembly not by the
finance member of the council but by the Member in charge
of the railways." Further, the committee recommended that,
subject to independent audit by the Government of India,
the Railway Department should employ its own accounting
staff and be responsible for its own accounts."

iii) Replacement of Railway board by a railway
commission:

The Railway Board should be changed into a Railway
commission. In this connection the committee remarked "we
propose great changes in the constitution, status and
functions of the Railway Board. We recommend that at the
head of the Railway Department there shall be a member of
council in constant touch with railway affairs, and we
suggest that with this object a new department of
communication will be created which will be responsible
for railway posts and inland navigation, road transport
(as far as the central government deals with this subject)
and posts and telegraphs. We think that the member in
charge of communications must be an experienced
administrator and be able to represent his department both
in the legislature and with the public. We do not think be
need be expected to be a technical experts. The committee
further recommended that the Railway Board should be
called the Railway commission.
iv) Establishment of railway rates tribunal and advisory committees:

A railway rates tribunal consisting of an experienced lawyer as Chairman and two members to represent railway and commercial interests should be established to consider the disputes of rates and fares. For better public relations, the establishment of central and local advisory committees having representatives of public was also recommended.

v) Policy of rapid Indianisation:

The committee considered it advisable to adopt a gradual Indianisation policy by taking Indians in the management cadre of railways.

vi) Establishment of reserve and depreciation funds:

The committee recommended the establishment of Reserve Fund and Depreciation Fund for facilitating the organisation and repairs of the rolling stock etc.

vii) Construction of branch lines by main lines:

The committee recommended that the gauge question should be further investigated in periods of easy money. The branch lines should be worked as far as possible by the main lines to which they are tributaries.

The recommendations made by the Acworth committee for overhauling the whole railway policy in India were an important landmark in the history of Indian railways.
policy followed thereafter was based on these recommendations which brought major changes in railway management and system of financing.\(^9\)

Acceptance of recommendations

The Government of India accepted almost all recommendations of the committee.\(^0\) In 1925, the government took over the managements of the East Indian and great Indian peninsula Railways.\(^1\) More attention was paid to passenger's amenities and more comfortable seating accommodation in railway compartments were provided.\(^2\) With the state management new jobs for the Indians were created.\(^3\)

The government did not accept the recommendation of the committee regarding the establishment of a Railway Rates Tribunal.\(^4\) It however, appointed a Rates Advisory Committee with limited powers.\(^5\) The Railway Board was reconstituted.\(^6\) Besides, the central and Local Advisory Committees were also formed to help the railway administration.\(^7\)

Railway finances were separated from general finances so that railway did not depend upon the unappreciative liberality of the Finance Department.\(^8\) It was a reality that the government officials were ill qualified to tackle the complicated problems of the railways.\(^9\) It was therefore essential to make the railways completely free for their internal arrangement.\(^10\)
In 1925, the total length of railways was 61,232 kilometers and capital outlay amounted to Rs. 733.37 crores.

7. Separation convention period (1925-1930)

This was a period of prosperity for the Indian railway. The Acworth committee had recommended in 1921 that railway finances should be separated from general finances of the country. Railways being commercial undertakings, could not function independently as their finances depended upon general finance. Moreover, by separating railway finances, the Government could also be freed from the inconveniences and embarrassments of the old system. The question of separation was first placed before the Assembly in 1921 in the form of a resolution. A joint committee of the two house Railway Finance Committee was appointed to investigate the question of finance separation. The committee declared that immediate separation was impracticable, but it recommended a guaranteed programme of Rs. 150 crores, the amount to be spent, within a period of 5 years, on railway improvement.

In 1924, the proposal for the separation of railway finances was passed with the following conditions:

a) The railway would contribute to the General Revenue a definite ascertainable annual income roughly 10% on capital at charge.
b) The Government would also receive 20% of surplus profits but the loss incurred on the strategic lines or the interest on the amount invested in them would be deducted.

c) A Railway Reserve Fund would be started with the remaining amount, and if this amount was more than Rs. 3 crores per year, 2/3 of the surplus would go to the Railway Reserve Fund and 1/3 of the General Reserve Fund.

d) The Railway Reserve Fund would be used for improving the economic condition of the railways and making payments to the Depreciation and General Fund.

e) The Railway Budget would be presented before the general budget, and separate days would be fixed for its discussion.

f) A depreciation fund should be established.

g) If the amount allotted to a scheme in the budget fell short, money might be borrowed from the Reserve Fund.

The separation of railway budget from the general budget was the most important change of the post-war period and heralded a new era in the financial administration of Indian railways. But the value of this single change was impaired by the rigid provision of fixed contribution to the general finance, irrespective of the efficiency of the railway working.
Progress:

The Government took over the management of East Indian Railway in 1924 and that of Great Indian Peninsular Railway in 1925. It also purchased Delhi Ambala Kalka Railway in 1926 and took over the management from Burma Railway Company on termination of the contract in 1928. Thus, the policy of nationalisation of railway ownership and management was vigorously pushed ahead.

Another remarkable feature of this period was the introduction of electric branch trains in the areas of Bombay and Madras. In 1929-30 route kilometrage had gone up to 16,758 and capital investment had amounted to Rs. 856.75 crores.

8. Depression Period (1931-1936)

This period witnessed the great economic depression which adversely affected the Indian railways. During the six years commencing from 1930-31, when the slump was in full swing, the railways were in a bad financial plight and new construction and investment were practically negligible. The traffic had decreased due to low trade and rail road competition. Floods and earthquakes further deteriorated the financial condition of the railways. The condition was so bad that substantial sums had to be borrowed from the Reserve Fund and the Depreciation Fund to meet the interest liability on capital. The net revenue earned during these period was less than the interest the
railways had to pay on their capital at charge and there was no question, therefore, of making contribution to the state. However, according to separation convention these unpaid contributions were treated as arrears and were accumulating.

Retrenchment sub-committee 1931:

The Government appointed the Retrenchment sub-committee in 1931 under the chairmanship of Lord Inchicape to explore all the possible avenues of economy in expenditure consistent with the efficiency of the railroad system.

Recommendation:

The sub-committee recommended as follows:

i) The number of members of the Railway Board should be reduced from 3 to 2.

ii) In place of Railway Rates committee, an ad hoc committee should be formed.

iii) The salaries of railway staff should be gradually reduced from $31\frac{1}{2}\%$ to $20\%$.

iv) The publicity Bureau should be abolished, and its work be entrusted to the Railway Board.

v) The number of directors should be reduced from 5 to 3 and that of Deputy Directors from 5 to 4.

vi) The post of Deputy Secretary Directors of Railway Audit and Assistant Director of Finance should be abolished.
vii) The post of Chief Controller, Deputy Controller, Assistant Chief Controller in the Control Standards office should be abolished and replaced by the Deputy Director of Accounts in the Railway Board office.

viii) The total cost of establishment in all these offices should not exceed Rs. 5 lakhs.

ix) The total other charges should be limited to Rs. 5.50 lakh.

x) Expenditure on publicity should be reduced by Rs. 5 lakh and the staff of the staff college, Dehradun should be reduced.

The Government accepted at these recommendations.

The implementation of most of them resulted in a saving of about Rs. 3 crores.

Pope Committee 1932

The Government of India invited Mr. Pope in 1932 to investigate the working of Indian railways and suggest measures for retrenchment and economy. Pope committee which was in 1932 recommended as follows:

i) Stress should be laid on job analysis so that efficiency might improve and economy might be effected in the working of the railways.

ii) Parcel offices should be opened in cities and return journey tickets should be issued for a week.
iii) Freight rate should be reduced to increase goods traffic.

iv) Special trains should be run to places of pilgrimages.

v) A comprehensive study should be undertaken to find out the quantum of goods traffic, and the capacity of railways to carry it.

vi) Measures should be adopted to check ticketless travelling.

vii) Research and experiments should be undertaken and the Railway Board should arrange to disseminate technical knowledge.

viii) Alteration in rolling stock should be made in such a way according to standardisation and improvement in design that the least serviceable material was scrapped.

ix) An increase in carriage and wagon hot boxes had been causing commercial and operational inconvenience. In order to check it, coordinate efforts should be through the Railway conference Association.

x) Manpower in railways should be reduced.

xi) Plant and experiment should be maintained efficiently in accordance with the principle of spending money for saving money.

The Government accepted these recommendations and implemented them. Weekened tickets were issued booking
offices were started in big cities, pooling of locomotives was effected and job analysis adopted. 

9) Recovery Period (1936-1939)

Till 1936 almost the period of depression was overs, the period of recovery set in. A British financial expert named Sir Otto Nilmeyer, was appointed in 1935 to advise the Government of India on the distribution of income tax between centre and provinces, he observed. "The position of railways is frankly disquesting. It is not enough to contemplate that in five years time they may merely cease to be in deficit. Such a result would also tend to prejudice or delay the relief which the provinces are entitled to expect. I believe both the early establishment of effective coordination between the various modes of transport and the thorough going overhaul of railway expenditure in itself are vital elements in the whole provincial problems."

He also recommended that if the railways were able to contribute to the General Revenues, half the income tax realised in a year should be distributed among the various provinces.

**Public Account Committee 1936**

The public accounts committee commented strongly the railways for their inability to earn profit and control expenses. Again in 1936 it urged the Government of
India that, "The Government of India should immediately obtain the services of an acknowledged expert in railway management to conduct an examination of the whole field and recommend steps which will secure definite (i.e. other than mere hopes of increased revenue due to improving trade) improvements in railways finances to the extent of something like Rs. 3 crores a year immediately and ultimately of such magnitude as is required to maintain full solvency on a strict accounting basis. And to avoid misconception, we add that the terms of reference should exclude the possibility of securing this by a mere transfer of liabilities to General Revenues".

Wedgwood Committee 1936:

The Government of India accepted the suggestions of Public Accounts Committee. On 20th October, 1936 a committee was appointed under the chairmanship of Sri R.L. Wedgwood, the then Chief General Manager of the London and Northern-Eastern Railway. The report was published in June 1937 with the following for reaching recommendations:

a) The Railway should stop paying towards General Revenue.

b) The General Revenues Fund and Depreciation Fund should be strengthened. Rs. 30 crores should be deposited every year.

c) Road completion should be met in all possible ways.

d) More service should be got out of the rolling stock.
e) Closer contact should be maintained with the press and businessmen.

f) A Central Economy Research Committee should be appointed.

In this regard the committee remarked. Each of the principal administrations should maintain the special economy research organisation set up under the auspices of the Pope Enquiry. In case of the some of the smaller administration this may be thought to involve excessive expenses if so, they should be called upon to set up a special organisation of a less expensive kind, but still directed to examining the possibility of effecting further economies. It would also be desirable to have a Central Economy Research Committee consisting of representatives from each one of the principal administrations whose duty it would be to speed up the progress made by the various individual organisations on certain approved lines of general enquiry.

g) Surplus staff should be retrenched.

h) The procedure adopted by the Railway Rates Advisory Committee (1926) should be simplified.

i) Press liaison and railway information officers should be appointed.

j) A publicity bureau should be established.

k) The European staff should be increased.

l) Railways should not be an amalgamated as it would result in inefficient administration.
The recommendations of the committee were of far-reaching importance to improve the financial position of railways. The financial condition of railways improved and by 1942-43 all the debts were repaid by railways taken from general Reserve and Depreciation Funds and the balance dividend to General Revenues. During this period 2,080 kilometres of railway lines were laid. In 1937, Burma was separated from India due to which total railway kilometrage was curtailed by 3200 kilometres. In 1939, the total route kilometrage of the Indian railways was 65,850.

10) Second World War and After (1939-47)

After the period of depression, the financial position of IR had shown a distinct improvement after 1937 and the railways were endeavouring to make good the arrears of maintenance and replacement. But the second World War broke out in 1939 and the railways were put under heavy strains due to improper maintenance and non-replacement of parts on account of the war emergencies. During the period of the second world war to meet any emergency requirements, Sir Guthrie Russel, the then Chief Commissioner of their Railways observed that the Indian railways with their existing capacity, if the necessity arose, could absorb all the coast wise traffic, except coal. Other means of transport contracted to an embarrassing extent and military movements to strategic paths increased, during 1941-42. For transporting war
materials many wagons were reserved and only a few wagons were left for private use.\textsuperscript{366}

The rolling stock and equipments which were worn out and whose replacements long overdue could not be replaced at all.\textsuperscript{367} Moreover, Indian Railways had to send locomotives and railway lines to the Middle East and for this purpose 26 branch lines were dismantled.\textsuperscript{368} There was created an artificial shortage of skilled workers in workshops as some of them were reserved for the production of war material. This was another acute problem for the Indian railways.\textsuperscript{370}

The War Transport Board was created in 1942 for organising alternative means of transport, creating administrative machinery, and devising means to carry troops and essential commodities by rail.\textsuperscript{371} On the recommendation of this board a Central Transport Organisation was set up in February, 1942 to relieve congestion on all Indian railways.\textsuperscript{372} A policy of rationalisation of transport and the system of priorities was also adopted.\textsuperscript{372} But the Bengal Famine of 1943-44 created another problem for the railways.\textsuperscript{374} Besides, the movements of military and military materials and civilians, food grains had to be transported to feed the famine stricken areas. It was really a very hard time for the railways to keep the wagons moving" and "Travel when you must", were the cries of the Government.\textsuperscript{376} Even then the passenger
traffic increased tremendously. Although the passengers were put to great inconveniences, and it caused a great strain on Indian railways in the absence of proper maintenance, yet they earned fabulously during the war period. The annual earnings rose from Rs. 111.52 crores in 1939-40 to Rs. 232.62 crores in 1944-45. The route mileage was reduced to 40509 in 1944-45 from 41,134 in 1939-40.

11) Partition and After (1947-1951)

Many more problems originated during war time were hoped to have been solved scientifically and methodically by the Indianised Railway Board, but nothing was achieved upto 1947. At the close of war a plan was formulated which included the following.

i) Construction of 8,000 kilometres of railway lines in under developed areas.

ii) Establishment of engineering work for production engineer and boilers.

iii) Provision of more passenger amenities at stations and in railway compartments.

iv) Provision of increased facilities for transporting material.

v) Replacement of old engines, passenger coaches and wagons.

vi) Establishment of welfare organisations, and

vii) Regrouping of railways.
The problems which engaged the urgent attention of the government were three-fold:

a) rehabilitation of rolling stock, b) elimination of superfluous staff, and c) improvement in workshop efficiency. But before anything could be done, the partition of country took place which created many new problems and difficulties as a result of which all the plans were upset.

Effect of Partition

Partition brought about severe communal unrest. The migration of population followed this great political upheaval. It created difficulties for the Indian railways which were also divided. Important strategic lines were divided and most of the partition went to Pakistan, workshops were divided on the basis of location and the rolling stock on the basis of kilometrage cum-traffic.

The following table shows the partition of railways between Indian and Pakistan:

<table>
<thead>
<tr>
<th></th>
<th>Engines</th>
<th>Coaches</th>
<th>Wagons</th>
<th>Route Kilometrage</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>7248</td>
<td>20166</td>
<td>210099</td>
<td>68933</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1339</td>
<td>4280</td>
<td>40221</td>
<td>11133</td>
</tr>
</tbody>
</table>

Owing to communal unrest the migration of railway workers took place on a large scale.
126000 railway workers living in Pakistan opted for India; but only 1,08,000 arrived here. Of these 104000 were quickly absorbed by the Indian railways. From India 83000 railway workers migrated to Pakistan.

HISTORICAL DEVELOPMENT OF INDIAN RAILWAYS - Post Independence

The Indian Railways occupy a significant and prestigious place in the transportation network of the country. A railway system is a large-scale undertaking possessing all the characteristics of a large industry operating under the law of increasing returns. It tries to carry the maximum possible traffic which reduces the cost of operation. Although, the first railway train in India was inaugurated on the 16th April 1853, but no significant improvement was made till freedom. After independence, a systematic effort has been made for the development of Indian Railways under plan periods.

First Five Year Plan:

The first five year plan of the Indian Railways was started in April 1951. Planning is a pre-determined course of action to achieve certain goals or to give certain direction to interpret certain activities.

Before independence there was no such kind of planned development for the Railways. On account of the world wide depression in 1930's Railways had not been able
to maintain their normal expenditure on maintenance and renewals. At the time of depression the main problem was financial assistance as the prevailing economic conditions led to decline in the revenues of the railways and forced them to reduce their capital outlay to the minimum.

Under First Five year Plan the thrust was given mainly on rehabilitation of assets and indigenous development of railway equipment through the establishment of various production units by railways themselves. This task was heavy for the planners since large amount of capital was required for rehabilitation of rolling stock and tracks. On the other hand industrial and agricultural production increased and as a result pressure on rail transport was felt particularly from the third year of this plan. To meet the situation additional allotments were made for the railways to accelerate the programmes for procurement of rolling stock and special measures were undertaken to increase carrying capacity on the more busy routes. The other objective of this plan was to provide better amenities to the travelling public and better housing and welfare for the staff.
<table>
<thead>
<tr>
<th>Rehabilitation and additions</th>
<th>Allocation in 1st plan (Rs. in crores)</th>
<th>Total outlay (Rs. in crores)</th>
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</thead>
<tbody>
<tr>
<td>Rolling Stock Plant and Machinery</td>
<td>207.96</td>
<td>253.44</td>
</tr>
<tr>
<td>Track Bridges</td>
<td>70.47</td>
<td>64.41</td>
</tr>
<tr>
<td>Other structure and Engineering works including internal coach factory etc.</td>
<td>45.90</td>
<td>49.96</td>
</tr>
<tr>
<td>Restoration of Dismantled lines and new lines and electrification</td>
<td>34.18</td>
<td>33.20</td>
</tr>
<tr>
<td>Passenger amenities</td>
<td>15.00</td>
<td>13.29</td>
</tr>
<tr>
<td>Staff quarters and staff welfare works</td>
<td>24.09</td>
<td>20.52</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2.40</td>
<td>2.75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400.00</strong></td>
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</tbody>
</table>


In the first five year plan, the outlay sanctioned was 432.07 crores. Five hundred locomotives were manufactured and 1090 imported, 4350 coaches were manufactured and 490 imported, 41,200 wagons were manufactured and 20,520 imported, 380 miles of new lines were laid. Just because of the heavy replacement demands, the need for expansion of new lines could not be fully met.
At the end of this plan about 40,000 quarters were built for the Railway employees. The capital at charge was Rs. 96.90 million. The gross earning of railway rose from Rs. 264.62 crores in 1951 to Rs. 315.29 crores in 1955-56. The working expenses rose from Rs. 214.3 crores in 1950-51 to Rs. 258.22 crores in 1955-56.

Second Five Year Plan:

The Second Five Year Plan of Railway covered a period from 1956-61. At the start of this plan main stress was given on the development and modernisation of the Railways in order to meet with the heavy demand of agriculture as well as of industrial production and to face the additional traffic likely to be generated.

The second five year plan made a total provision of Rs. 1125 crores for the development of the Indian Railway, out of which Rs. 225 crores were to be withdrawn from the Depreciation fund, and another Rs. 150 crores were to be made available from railway surpluses. The plan proposed the doubling of 2,571 kilometres, track conversion of 424 kilometres of meter gauge into broad gauge, electrification of 1321.6 kilometres, Dieselisation of 2068.8 kilometres of railways, construction of 1,347 kilometres of new lines and track renewal of 12800 kilometres. Rolling stock was to be supplemented with 2258 locomotives, 11,364 passenger coaches and 107247 wagons. The plan also provided for
the establishment of 6 new railway workshops, a metre
gauge coach building factory and the expansion of the
chittranjan locomotive workshop.

The target of production for this workshop and the
coach building factory were placed at 300 and 350 per year
respectively. The Tata Engineering and Locomotive Co. was
expected to manufacture 100 railway engines (metre gauge)
per year. It was further expected that by the end of the
second plan the production of passenger coaches would rise
from 1250 to 1806 and that of wagons from 13,526 to 25,000
per year.41

The plan further provided a sum of Rs. 9 crores
for the construction of the Ganga Bridge at Mokama, Rs.
35 crores for the construction of 66,000 quarters and Rs.
15 crores for staff welfare.42 The plan envisaged the
establishment of 13 railways hospitals and 75
dispensaries.42

The break-up of the total expenditure Rs. 1125
crores is given in the following table:

Second Five Year Plan

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Outlay (headwise allocation Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rolling stock</td>
<td>380</td>
</tr>
<tr>
<td>2. Workshop plant and machinery</td>
<td>65</td>
</tr>
<tr>
<td>3. Track renewals</td>
<td>100</td>
</tr>
<tr>
<td>4. Bridge works</td>
<td>33</td>
</tr>
<tr>
<td>---------------------</td>
<td>----</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>18</td>
</tr>
<tr>
<td>Ganga Bridge</td>
<td>9</td>
</tr>
<tr>
<td>New Bridge</td>
<td>6</td>
</tr>
<tr>
<td>5. Line capacity work including expansion of goods sheds</td>
<td>186</td>
</tr>
<tr>
<td>6. Signalling and safety works</td>
<td>25</td>
</tr>
<tr>
<td>7. Electrification</td>
<td>80</td>
</tr>
<tr>
<td>8. New Constructions</td>
<td>66</td>
</tr>
<tr>
<td>9. Staff welfare and staff quarters</td>
<td>50</td>
</tr>
<tr>
<td>10. Training Schools</td>
<td>3</td>
</tr>
<tr>
<td>11. Store depots</td>
<td>7</td>
</tr>
<tr>
<td>12. Railway users amenities</td>
<td>15</td>
</tr>
<tr>
<td>13. Other projects including Vishakhapatnam Port</td>
<td>15</td>
</tr>
<tr>
<td>14. Railway shares in Road Transport Undertakings</td>
<td>10</td>
</tr>
<tr>
<td>15. Stores suspense</td>
<td>50</td>
</tr>
<tr>
<td>16. Extra for imported steel</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1125</strong></td>
</tr>
</tbody>
</table>


As a result of the establishment of new workshop a new furnishing unit in the Integral coach building factory and the expansion of the Chittranjan Locomotive Works, the periodical overhauling capacity was expected to increase by 23 and 71 percent respectively for broad gauge and
metre gauge locomotives, 69 percent and 125 per cent respectively for broad and metre gauge coaches and 89 and 92 per cent respectively for broad and metre gauge wagons. 43

Achievements under the Second Five Year Plan

During 1955-56, 221.5 kilometres of new lines were opened and 930.7 kilometres of lines were under construction. In addition during the same year, 668 locomotives (437 broad gauge, 221 metre gauge and 10 narrow gauge), 1241 passenger coaches (449 B.G., 744 M.G., and 48 N.G.) and 20,150 wagons (10,518 B.G. and 9,632 M.G.) were placed on line. 44

During 1956-67, 153.31 kilometres of lines were opened to traffic and 911.12 kilometres of lines were under construction. The new rolling stock placed in line consisted of 579 locomotive, 1301 passenger coaches and 32024 wagons. 45

During 1957-58 lines of 269 kilometres were opened to traffic the rolling stock place on line comprised 603 locomotives, 1408 passenger coaches and 29634 was wagons. 46

During 1958-59, 306 kilometres of new lines were opened to traffic. The rolling stock placed on line consisted of 371 locomotives, 1740 coaches and 16701 wagons. 47
The rail road Ganga bridge at Mokameh was opened to traffic on May 1, 1959, and the foundation stone for the Brahmaputra Bridge at Pandu was laid on January 10, 1960. During 1958-59, 11,481 quarters were built for the railways staff.48

Development Programmes during the Third Five Year Plan

The Third Five Year Plan covered a period from 1961 to 1966 in which stress was laid to keep rail transport capacity ahead of demand. A beginning was made toward, modernisation of track with dieselisation and delectrification improvement in rolling stock was also initiated. This has continued to be the objective during the subsequent Annual Plan years 1966-67, 1967-68 and 1968-69.49

During the Third Five Year Plan the development programme had been formulated on the basis of figures of second five year plan. The volume of traffic was expected to increase to 91 million tonnes by 1965-66 i.e. by 59 per cent. The goods traffic was to reach a figure of about 24.5 crores; tonnes in 1965-66 the last year of the third plan. Railway development programmes of Third Five Year Plan also provided for an increase of 3 per cent per annum of non-urban traffic. During this plan it was envisaged to provide maximum possible frequency of train services at peak period. The programme of rolling stock provided for
the procurement of 1764 locomotives 7879 coaching vehicles and 11744 wagons in terms of (4 wheelers). These figures include replacement alongwith addition.50

Third Five Year Plan provided for a sum of Rs. 1220 crores to be spent on the following items.

**Development Programmes during Third Five Year Plan**

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Allocation (Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rolling stock</td>
<td>482</td>
</tr>
<tr>
<td>2. Electrification</td>
<td>70</td>
</tr>
<tr>
<td>3. Signalling and safety works</td>
<td>25</td>
</tr>
<tr>
<td>4. New lines</td>
<td>120</td>
</tr>
<tr>
<td>5. Workshop plan and machinery</td>
<td>50</td>
</tr>
<tr>
<td>6. Track renewals</td>
<td>170</td>
</tr>
<tr>
<td>7. Line capacity works</td>
<td></td>
</tr>
<tr>
<td>8. Bridge works</td>
<td></td>
</tr>
<tr>
<td>9. Other structural works</td>
<td>228</td>
</tr>
<tr>
<td>10. Other electrical works</td>
<td></td>
</tr>
<tr>
<td>11. Staff quarters and staff welfare</td>
<td>50</td>
</tr>
<tr>
<td>12. Users amenities</td>
<td>15</td>
</tr>
<tr>
<td>13. Road services</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1220</strong></td>
</tr>
</tbody>
</table>

Source: Planning Commission, Third Five Year Plan, p.244.
At the end of the Third Five Year Plan the capital at charge was Rs. 2680.23 crores as against Rs. 1250.87 crores in 1960-61. Rupees 61 crores were spent on staff quarters and other amenities for staff, 71550 quarters were built during third plan and there was also progress in providing amenities to the passengers.51

Fourth Five Year Plan (1969-1974)

Fourth Five Year Plan commenced from 1969 to 1974. The main thrust of this plan had been on the demand of freight and passenger traffic. Besides other objectives of this plan are as follows:

i) To modernise the prevailing system in respect of equipment and practices to the maximum extent possible with the available resources in order to improve efficiency and to reduce cost.

ii) To extent the more efficient broad gauge system to areas of rapid economic development and high traffic potential by converting some of the assisting metre gauge lines to broad gauge and constructing new lines.

iii) To provide capacity for freight coaching traffic anticipated during the plan period.52

The Fourth Five Year Plan provided an outlay of Rs. 1,000 crores for railway development programmes excluding an expenditure of Rs. 525 crores to be met by railways from their Depreciation Reserve Fund. In
addition, a provision of Rs. 50 crores was made for schemes for mass transit facilities in the metropolitan cities of Bombay, Calcutta, Madras and Delhi. The main components of the outlay were:

<table>
<thead>
<tr>
<th>Items</th>
<th>Plan outlay</th>
<th>From Depreciation and Reserve Fund</th>
<th>Total (Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling stock</td>
<td>397</td>
<td>223</td>
<td>620</td>
</tr>
<tr>
<td>Workshops</td>
<td>28</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>Machinery and Plant</td>
<td>7</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Track Renewals</td>
<td>-</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Bridge works</td>
<td>8</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>Line capacity works</td>
<td>275</td>
<td>40</td>
<td>315</td>
</tr>
<tr>
<td>Signalling and safety</td>
<td>27</td>
<td>13</td>
<td>40</td>
</tr>
<tr>
<td>Electrification</td>
<td>81</td>
<td>1</td>
<td>82</td>
</tr>
<tr>
<td>Other Electric works</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>New Lines</td>
<td>83</td>
<td>-</td>
<td>83</td>
</tr>
<tr>
<td>Staff Welfare</td>
<td>13</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Staff quarters</td>
<td>27</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>User's amenities</td>
<td>20</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Other specific works</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Road services</td>
<td>10</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Inventories</td>
<td>15</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
<td>525</td>
<td>1525</td>
</tr>
<tr>
<td>Metropolitan Transport</td>
<td>50</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1050</td>
<td>525</td>
<td>1575</td>
</tr>
</tbody>
</table>

In so far as the rolling stock programme is concerned the plan provided for the following additions and replacements:

Additions and Replacements in the Rolling Stock Programme

<table>
<thead>
<tr>
<th>Items</th>
<th>Rolling stock on line at the end of 1968-69</th>
<th>Programme for IV PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Addition</td>
</tr>
<tr>
<td>Locomotives</td>
<td>11555</td>
<td>652</td>
</tr>
<tr>
<td>Steam</td>
<td>10046</td>
<td>-</td>
</tr>
<tr>
<td>Diesel</td>
<td>996</td>
<td>369</td>
</tr>
<tr>
<td>Electrical</td>
<td>513</td>
<td>283</td>
</tr>
<tr>
<td>Wagons (in terms of 4 wheelers)</td>
<td>484985</td>
<td>76982</td>
</tr>
<tr>
<td>Passenger coaches, Rail cars</td>
<td>32729</td>
<td>3250</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Electric Multiple writs</td>
<td>1562</td>
<td>596</td>
</tr>
</tbody>
</table>

Source: Fourth Five Year Plan, p. 343.

A programme of converting 1500 kilometres of metre gauge line into broad gauge line would be taken as a part of the long terms plan. Doubling of tracks during this plan was proposed on 1800 kilometres. At the early stage of Fourth Five Year Plan, new lines construction was in progress and it was estimated to increase to a length of 1022 kilometres by the end of the Fourth Five Year Plan.
By the end of the IV Five year Plan a tremendous development has taken place. Modernisation and improvement to signalling telecommunication had been much better. At the end of this plan the multichannel microwave links were operated on 7506 Kms. The task of providing basic amenities such as proper booking arrangements waiting rooms and supply of drinking water at all the stations was completed.  

Thus the Fourth Plan had given continuous emphasis not only in bringing the rail transport ahead of the traffic demands but also on modernisation to improve efficiency of the Railways.

Fifth Five Year Plan (1974-79)

The Fifth Five year Plan was started from 1974-79. The main trends upon which this plan focuses are as follows:

i) Development of rapid transit system in metropolitan cities where phenomenal growth of industry and commerce had taken place.

ii) Improvement in financial viability through cost reduction techniques, resource mobilisation, and optimum utilisation of assets.

iii) Achievement of national self-sufficiency in Railway equipments.

iv) Longer passenger trains on long distance routes and introduction of coaches with higher carrying capacity.
As a matter of fact all these factors play very important role for adequate functioning and increasing efficiency of the Railways.

For the first three years of the plan the expenditure on railway development was expected to be about Rs. 1149 crores, and for the next two years the proposed outlay was Rs. 1053 crores. By 1978-79, Indian railways were to be equipped to carry an estimated originating freight traffic of 250 to 260 million tonnes. Emphasis was laid on the better utilisation of the existing stock (Locomotives, wagons etc.) and on reducing the turn round time.

Full provisions were made for the completion of ongoing traffic and project oriented lines. Some provision was made for new lines of promotional character to the extent permitted by available resources. The planners expected that by the end of the plan, the Madras-Trivellore section would be fully electrified and the electrification of Waltair-Kirandul and Madras-Vijaiwada sections would have reached an advanced stage.

It should be added that adequate provision was also made for meeting the Railway share of investment in Road Transport Corporation. The outlay of Rs. 50 crores was provided for metropolitan rail transport schemes. Whereas the Draft plan had provided for Rs. 2550 crores for
railway development, the proposed outlay comes to Rs. 2202 crores as detailed below.  

<table>
<thead>
<tr>
<th>Period</th>
<th>Outlay (crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-77 (3 yrs)</td>
<td>1149</td>
</tr>
<tr>
<td>1977-79 (2 yrs)</td>
<td>1053</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2202</strong></td>
</tr>
</tbody>
</table>

During the fifth five year plan development programme consisted of the freight traffic volume to the tune of about 330 million of originating tonnage, so that the development of transport infrastructure should not act as a hurdle to the development of other sectors of the economy. In this plan it was also felt necessary on the part of the main users of railways namely steel plants power houses etc, to modernise their handling facilities in a bid to reduce detention of wagons to the minimum. Under the Fifth Five Year Plan period it was proposed to electrify about 1800 kms route of the Indian Railways. The question of setting up some capacity power stations for Railways to assist in the uninterrupted supply of electric power on the electrified routes was also visualised in this plan.  

The Fifth Five year Plan was terminated one year earlier when a new Government came into power and it introduced the concept of rolling plan which remained in force till 1980. 

During this four year period of the Fifth Five Year Plan
the railways had broken all previous records of achievement. The electrified routes had increased by more than 12 times. Since the beginning of the Fifth Five Year Plan the number of diesel locomotives had gone up by more than 100 times from a mere 17 in 1951 to 2025 in 1977-78 and electric locomotive by more than twelve times from 72 to 901 at the end of the Fifth Plan. Modernisation and improvement of signalling and telecommunication had also made much headway.\textsuperscript{59}

In 1977-78 the passenger traffic was 35 crores as against 12.5 crores in 1950-51. The earning from second class passengers were 557 crores in 1977-78 as compared to 84.47 crores in 1950-51. The freight traffic grew rapidly which from 73.2 million tonnes in 1950-51 had gone up to 210.8 million tonnes in 1977-78.\textsuperscript{60}

Annual Plan (1979-80)

The annual plan for Railways (1979-80) provided for Rs. 650 crores including Rs. 18 crores for metropolitan transport and Rs. 5 crores for passenger amenities.

New broad and metre gauge line were proposed to be constructed in Assam, Meghalaya, Tripura and Mizoram. In some states gauge were being converted. A sum of Rs. 42 crores, has been provided for the construction of new
lines. New sections - Delhi-Mathura Vadodara-Ratlam, and Godhra Anand were to be electrified during the year under review.

Sixth Five Year Plan (1980-85)

The Six Five Year Plan covered the period of 1980-85 and was described as a rehabilitation plan on account of much needed emphasis on renewals and replacements of the Railway assets. The Sixth Five Year Plan also focussed attention on different aspects of Railway Development which are as under:

i) To enhance the capacity for handling the anticipated increase in freight passenger traffic.

ii) To modernise the railway system in respect of its equipments and practices.

iii) To promote better utilisation of existing assets and to move further in the direction of self sufficiency in equipments by undertakings increased local production of critical items, and

iv) To stimulate research and development in the field of modernisation and improvement of technology.

The sixth five year plan of Railways had a total outlay of Rs. 5100 crores.

At the beginning of Sixth Five year Plan there was immediate need of 5680 coaches and 780 diesel and electric locomotives. Under this plan a proposal was made for track
renewal of about 14000 km and a new wheel and axle plant was set up in Bangalore to meet the demand of wheels and axles. For the electrification programme it was proposed to energise about 2,800 kms during this plan period.

During the Sixth Plan, Development Programme also included conversion of narrow and metre gauge into broad gauge, expansion and modernisation workshops, automation of signalling and improvement of telecommunication, Metropolitan Transport projects, better staff welfare and moral passenger amenities and overall improvement of Railway service.62

Sixth Five Year Plan

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Major Heads</th>
<th>Rs. (in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rolling stock</td>
<td>2100</td>
</tr>
<tr>
<td>2.</td>
<td>Workshops and sheds</td>
<td>280</td>
</tr>
<tr>
<td>3.</td>
<td>Plant and machinery</td>
<td>230</td>
</tr>
<tr>
<td>4.</td>
<td>Track renewal</td>
<td>500</td>
</tr>
<tr>
<td>5.</td>
<td>Bridge works</td>
<td>90</td>
</tr>
<tr>
<td>6.</td>
<td>Traffic facilities</td>
<td>480</td>
</tr>
<tr>
<td>7.</td>
<td>Signalling and Telecommunication</td>
<td>90</td>
</tr>
<tr>
<td>8.</td>
<td>Electrification</td>
<td>405</td>
</tr>
<tr>
<td>9.</td>
<td>Other Electrical works</td>
<td>20</td>
</tr>
</tbody>
</table>

contd...
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>New lines</td>
<td>380</td>
</tr>
<tr>
<td>11.</td>
<td>Staff Welfare</td>
<td>30</td>
</tr>
<tr>
<td>12.</td>
<td>Staff quarters</td>
<td>60</td>
</tr>
<tr>
<td>13.</td>
<td>Users amenities</td>
<td>25</td>
</tr>
<tr>
<td>14.</td>
<td>Other specified works</td>
<td>20</td>
</tr>
<tr>
<td>15.</td>
<td>Inventories</td>
<td>40</td>
</tr>
<tr>
<td>16.</td>
<td>Investment in road services</td>
<td>50</td>
</tr>
<tr>
<td>17.</td>
<td>Metropolitan transport project</td>
<td>225</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>5100</strong></td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------</td>
<td>--------</td>
</tr>
</tbody>
</table>


Achievements during Sixth Plan

The total length of the Indian Railways had increased from 53,596 kms in 1950-51 to 61,650 kms in 1984-85, out of this 6440 kms were electrified by the end of this plan. The matter of rolling stock Indian Railways had 8209 locomotives, 19628 coaching vehicles, and 205596 wagons in 1950-51 when by the end of sixth plan, the number of locomotives rose to 10,128 and that of coaches and wagons increased to 38,583 and 365390 respectively.

During this plan about 900 kms of new lines were constructed. The freight traffic carried 264.76 million tonnes in the terminal year of the sixth plan. The freight revenue was 236.4 million tonnes in 1984-85 as against 73.2
million tonnes in 1950-51. During this plan 1499 kms of metre gauge routes were converted into broad gauge and 681 kms of double line were completed during this plan. Nearly 26000 quarters had been added during the sixth plan period.

Seventh Five Year Plan

The Seventh Five Year Plan had been drawn in the light of the view observed by several committees like Rail Traffic Enquiry Committee, Railway Reform Committee, Transport Policy Committee, Working Group of Energy Policy Committee and lastly the Parliamentary Committees.

The main objectives of this plan were to meet Rail Transport needs of urban and rural areas and to provide transport infrastructure necessary for the growth of the economy and accessibility to the remotest backward areas and this needs the integrated development of all modes of transport.

Seventh Plan also selected areas of Railway development and gave priority to electrification of high density routes. Introduction of heavier trains, development of rapid handling terminals, improved maintenance facilities and practices and adoption of computer based information system. In this plan it is also reviewed that in case of delay in the matter of accessibility and opening of areas for development by rail transport, alternative
modes of transport which could be more economic should be considered. 66

During Seventh Five Year Plan it is proposed to acquire 96,000 wagons (in terms of four wheels) 6970 passenger coaches 950, electrical multiple units and 1235 diesel/electric locomotives. This plan has a target of about 19,000 to 21,000 kms of track renewal with priority to high density areas. In place of wooden sleepers, concrete sleepers would be used. About 3400 kms would be electrified and preference would be given to the busy as well as high density routes. The capacity of the manufacture of passenger coaches and electric locomotives would be increased and computer based freight information system will be brought into operation. 67

Seventh Five Year Plan
(outlay head-wise)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item</th>
<th>(Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rolling stock</td>
<td>4290.30</td>
</tr>
<tr>
<td>2.</td>
<td>Workshops and sheds</td>
<td>1200.00</td>
</tr>
<tr>
<td>3.</td>
<td>Machinery and plant</td>
<td>1200.00</td>
</tr>
<tr>
<td>4.</td>
<td>Track renewal</td>
<td>2500.00</td>
</tr>
<tr>
<td>5.</td>
<td>Bridge works</td>
<td>284.00</td>
</tr>
<tr>
<td>6.</td>
<td>Lime Capacity Work</td>
<td>1300.00</td>
</tr>
<tr>
<td>7.</td>
<td>Signalling and Safety</td>
<td>400.00</td>
</tr>
<tr>
<td>8.</td>
<td>Freight operation information system</td>
<td>400.00</td>
</tr>
</tbody>
</table>

contd....
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Outlay (Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Electrification</td>
<td>830.00</td>
</tr>
<tr>
<td>10</td>
<td>Other electric works</td>
<td>80.00</td>
</tr>
<tr>
<td>11</td>
<td>New lines</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Staff quarters</td>
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</tr>
<tr>
<td>13</td>
<td>User amenities</td>
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</tr>
<tr>
<td>14</td>
<td>Staff welfare</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Other specified works</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Railway Research</td>
<td>75.00</td>
</tr>
<tr>
<td>17</td>
<td>Inventories</td>
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</tr>
<tr>
<td>18</td>
<td>Metropolitan Transport projects</td>
<td>400.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>12334.30</strong></td>
</tr>
</tbody>
</table>

Source: Seventh Five Year Plan, p. 215.

A total outlay of Rs. 12,334.30 crores was provided under the various heads during Seventh Plan to enhance the various development programmes of the railways. In January 1987, the Planning Commission approved an additional outlay of 1200 crores to meet the further demands of the Railways.

In 1986-87 the second year of Seventh Five Year Plan, the Planning Commission allocated an annual outlay of Rs. 2650 crores for the Railways. This year showed a massive increase in freight loading on Indian Railways when the loading increased from 286.4 million tonnes in 1985-86 to 307.31 million tonnes in 1986-87. This comprised 277.75
million tonnes of revenue earning traffic and Rs. 29.56 million tonnes of non-revenue earning traffic which works out an increase of 7.3 per cent during the year. The transport output when measured in terms of net tonnes kms reached 223.1 million registering an increase of 8.35 per cent over the last year. The main efficiency indicator viz. net tonne kms. per wagon per day reached all time high 1420 (B.G.) as against 1296 (B.G.) in 1985-86 thereby showing a further increase of 9.6 per cent.69

During the year under review, railway acquired 241 locomotives, 1193 coaches, 96 EMUS and 16,045 wagons (in terms of 4 wheelers). The pace of electrification had also been stepped up and during the year 573 kms were energised against 461 route kms in the previous year. Similarly 3978 kms of track renewals were completed during the year as against 3,578 in 1985-86.70

Eighth Five Year Plan

This plan was formulated to improve the overall capacity of Indian Railways. Priority were given to the computerization of railway stations, conversion of narrow and meter gauge into broad gauge. This plan also paid heed towards the electrification of highly density routes. In last two years of the eighth plan, i.e. in 1995-96 and in 1996-97, annual plan outlay had fixed at Rs. 7500 and 8130
crores respectively. The biggest construction project undertaken in the eighth plan was the construction of broad gauge railway line between Udhampur and Srinagar - Baramula in the state of Jammu & Kashmir. The second one is the construction of a railway bridge over the Ganga at Patna in Bihar, and the third is the conversion of the 1500 volts Direct Current (DC) system of the electrified sections in the Mumbai area both on the Central and Western Railways.

Qazigund is the highest point on the line and also the highest broad gauge railway station (on completion of the project) over the Indian Railways. Qazigund will be 730 metres or 2700 feet higher than Similiguda, at present the highest station on the broad gauge system, on the Visakhapatnam - Kottavalasa - Kirandul line of the South Eastern Railways.

The problem will be how to tackle the steep gradients the line has to negotiate in order to reach this height. The easier way is to take an alignment which has very steep gradients of even one in fifty (one unit length of vertical journey for fifty units of horizontal travel) and build a line only about 90 kilometres long between Udhampur and Qazigund, 60 kilometres from Srinagar. The line would be shorter, but the cost high. (It was Rs. 1100 crores at 1987-88 prices when a survey was made by RITES followed by one by the Northern Railway).
However, the current practice is to take a line with the minimum gradient, even though the line may be longer. Thus a largely 1 in 100 gradient alignment was chosen for a 150 kilometre stretch between these two points at an estimated cost of Rs. 780 crore. The Planning Commission, in its wisdom, had declined to accord clearance to this line in 1988.

The Chenab is the major river that has to be bridged for taking the line to gahigund. It will be about 900 metres long and may not pose insurmountable problems, although swift-flowing streams might.

1996-97 which was the last year of the Eighth Plan, had a grand project for the construction of longest tunnel. The longer alignment may have a total of 103 tunnels, the longest being 14.50 kilometres below the Patni range and the next longer, the one through the Pir Panjal range.

New Technology

When during the second plan period, the Calcutta areas were being electrified, the 3000 volts DC system was chosen. This was in 1957-58. However, about that time the French National Railway SNCF came up with the 25,000 Volt Alternate Current (AC) 50 cycles system and in a remarkable bold decision, IR agreed to adopt it, India being the
second country after France (the Soviet Union too had adopted it about that time) to go in for this new technology. Since then, all electrification works on IR have been undertaken under this system (the latest technology of 2 x 25,000 AC Volt system too has been adopted by IR on the Katni-Bilaspur section of South Eastern Railway as a beginning).

Because of this, the Mumbai area remains isolated from the mainstream electrified routes, as it were. Locos have to be changed at Igatpuri for the Central Railway terminus, and sometimes, when dual voltage locos are available, the changeover takes place near Vihar through a gap between the two systems. We often find diesel locos on Western Railway hauling superfast trains from Mumbai Central upto Vadodara where the 25 KV-suitable electric locos take over.

IR has now decided to convert the entire 1500 Volt DC system in the Mumbai area extending to nearly 400 kilometres, and has allocated Rs. 623.51 crore for this scheme over both the Central and Western Railways. This will enable the Railways to place substations at longer distances than at present, and also facilitate increasing the load of suburban trains from 9 to 12 coaches each.

Besides, the high-horse power electric locos of 5000 horse power being built indigenously at the
Chittaranjan Locomotive Works and the 6000 HP three-phase AC locos being imported and assembled there will be able to operate right up to the two termini in Mumbai hauling trains with higher trailing loads and at greater speed.\cite{71}

**Ninth Five Year Plan**

The plan outlay for 1997-98 has been fixed at Rs. 8300 crore. For the year 1997-98 which is the first year of the 9th Five Year Plan, the budgetary support is Rs. 1831 crore which is approximately Rs. 400 crore higher than 1996-97 budgetary support. The amount of Rs. 3419 crore will be internally generated by the Railways to finance the plan outlay. Remaining amount of Rs. 3050 crores is proposed to be raised through the issue of bonds by Indian Railway Finance Corporation and private investment, under BOLT/OYW schemes.

Like last year of eighth plan in this first year of 9th plan also the thrust will be on augmentation and updating of rolling stock, doubling, track renewals, gauge conversion, electrification and new lines.

Following is the highlight of the Budget speech delivered by the Railway Minister, Ram Vilas Paswan\cite{72}:

- **Annual Plan**: Rs. 8300 crore
- **Internal Resource**: Rs. 3419 crore
- **Budgetary Support**: Rs. 1831 crore
Freight Target : Rs. 430 million tonnes
Provision for New Lines : Rs. 400 crore
Northeast : Over Rs. 300 crore

26,000 wagons, 2000 passenger coaches and over 300 locomotives to be procured.

Source: Indian Railways, February-March, 1997, p. 6)

Taking into account the budgetary support of Rs. 1831 crore, the total resources available with the Railways thus measure up to Rs. 6500 crore against the annual plan size of Rs. 8300 crore for 1997-98. This therefore leaves a gap of Rs. 1800 crore.

It has necessitated raising of additional resources amounting to Rs. 1800 crore, as the Railway Minister pointed out, through very modest and selected adjustments in fares and freight rates.

To mark the celebration of Golden Jubilee of Indian Independence the Railway Budget 197-98 has announced introduction of five Golden Jubilee trains from Ahmedabad, Secunderabad, Bangalore, Ranchi and Visakhapatnam to Delhi. The Budget, seeking to improve the lot of the casual labourers also proposes to regularise 56,000 casual labourers by the end of March, 1998. A special announcement made in the new Budget refers to the travel concession to
licensed porters who will be now able to travel free once in a year.

Among other highlights of the Budget are the target of gauge conversion set at 1200 kms and new development projects in the Northeast and Jammu and Kashmir. To speed up the work on the Udhampur-Srinagar-Baramullah line, the Budget has provided Rs. 75 crore during 1997-98. Taking adequate note on the rolling stock requirement, the new Budget also provides for the procurement of 26,000 wagons, 2000 coaches and 300 locomotives during 1997-98.

During the presentation of Railway Budget for 1996-97 the Railway Minister had clearly mentioned that he wanted the Railways to function not only as a commercial institution but also an efficient and public welfare organisation for the development of backward regions.

Even after fifty years of independence the railways are yet to reach the far off places. Be it the north-east regions of Tripura, Mizoram, Nagaland, Manipur, Meghalaya, Arunachal Pradesh or Sikkim, railways have not reached these States. Similarly, Kashmir also does not have any railway line. The region of Bihar adjoining Nepal and Uttarakhand is also backward as far as railway network is concerned. It will not be possible to develop rail infrastructure in these backward regions as long as financial viability of a railway line is the norm and these regions will continue to remain backward.
Keeping these in view, the Government has decided to construct Udhampur-Baramulla railway line in J & K State and Kumarghat-Agartala, Lumding-Silchar, Harmuti-Itanagar and Begibeel Bridge on Brahmaputra river in North-East region. The Government is also providing sufficient funds for completion of these projects. The Government is making a provision of Rs. 400 crore as against Rs. 220 crore for the last year. This is the highest ever provision made for new lines. More than 300 crore have been allotted for development and expansion of rail infrastructure in North-Eastern States alone. More than Rs. 100 crore have been provided for expansion of railway line in Jammu & Kashmir this year. Similarly, the Government has provided increased outlays as far as possible for the backward regions of different States.

On the one hand, development of backward regions is being stressed, on the other the need to gradually increase the transportation capacity of railways for freight and passenger traffic is also being kept in view to meet the growing demand. The railway had made a provision of Rs. 4100 crore to be spent on rolling stock as against a provision of Rs. 2900 crore during 1995-96. It has provided necessary funds for procurement of 26,000 wagons, more than 2000 passenger coaches and more than 300 locos during the year 1997-98. It is hoped that this will enable to
discharge the role in the sphere of transport and contribute to economic progress of the nation.\textsuperscript{73}

Indian Railways are truly on the hi-tech path to the 21st century.

**Summary**

The Indian Railways which have established the most significant and glorious place in the system of transportation in India, are of recent origin and do not have a glorious past.\textsuperscript{1} It has reached to its present place gradually.\textsuperscript{7}

The early efforts for the introduction of railways may be traced back to the year 1832 when the contraction of railway line between Madras and Bangalore was contemplated.\textsuperscript{5} In fact it was the period of 'Railway Mania' as pointed out by Horace Bell.\textsuperscript{4}

The East Indian Railway Company and the Great Indian Peninsula Railway Company were incorporated in England for the construction of Railway lines in India.\textsuperscript{5} These companies entered into a contract with the East India Company on 17th August, 1849 for the construction of railways in India.\textsuperscript{6} Indian Railways development thus started from this date.\textsuperscript{7} By 1853 a railway line from Bombay V.T. (Now C.P.S.T.) to Thana, a distance of 21 miles was opened for traffic and the first railway train in India was inaugurated on the
16th April, 1853. In that railway train there was three engines and 14 coaches only. Since then a drastic change has taken place.\textsuperscript{9}

Now Indian Railway have undertaken a considerable expansion and modernisation.\textsuperscript{10} The route length which was only 32 Kms. in 1853 was increased to 388 electrified and 53208 Kms.\textsuperscript{11} non-electrified by 1950-51 and these route length has increased rapidly.\textsuperscript{12} In 1988-89 the electrified route was 8898 Kms. and 53099 non-electrified route.\textsuperscript{13} Now upto date (1997) the total length route is 62597 Kms. including 14227 Kms.\textsuperscript{14} route either double or multi-tracks. About 56% of the total route is on the broad gauge. There are 8590 locomotives, 37953 coaches, 3,49,560 wagons and 7076 railway stations. Besides these, there are 225 repair loco shed, 401 carriage wagons and 49 workshops.\textsuperscript{16}
References:

4. Horace Bell, op.cit., 1894, p. 60.
6. R.D. Tewari, "Railways in Modern India", 1941, p. 53.
7. Prof. N. Sangal, "Indian Railways", p. 17.
11. Minute of Lord Canning No. 2 of 29th November, 1858.
12. Minute of Hon'ble S. Naing, April 1861.
17. N. Sanyal, op.cit., p. 84.
19. Ibid., p. 62.
22. Chesney, "Indian Polity", p. 311.
28. Ibid, para 58.
32. Ibid, para 50.
33. Railway Budget 1940-41, para 2.
35. First Five Year Plan, p. 170.
36. Second Five Year Plan, Govt. of India, p. 461.
37. Ibid, p. 462.
39. 1308 miles according to the Railway Budget 1957-58 and 1442 miles according to India 1960, p. 353.
41. Ibid., p. 469.
42. Ibid., p. 473.
43. India 1960, p. 353.
44. India 1957, pp. 343-44.
46. India 1959, pp. 359-60.
47. India 1960, pp. 352-53.
48. Ibid., p. 354.
50. Third Five year Plan, p. 545.
51. Fourth Five Year Plan, p.365.
53. Fourth Five Year Plan, p. 343.
55. Fifth Five Year Plan, p. 70.
56. Ibid., p. 151.
57. Indian Railway Year Book 1981-82, p.17.
58. Fifth Five year Plan, p. 174.
60. Indian Railway Year Book 1981-82, p. 79.
62. S.M. Imamul Haque, "Management of Indian Railways", 1989, p. 34.
63. Indian Railway Year Book 1984-85, p. 38.
64. I.P. Gupta, Railway's Seventh Five Year Plan, Indian Railway, April 1985, p. 15.
65. Ibid., p. 15.
66. Seventh Five Year Plan, Govt.of India, Planning Commission, p. 218.
68. Indian Railway Year Book 1986-87, p. 15.
73. Ibid., p. 6.
Chapter IV
HUMAN RESOURCES MANAGEMENT IN INDIAN RAILWAYS
CHAPTER - IV

HUMAN RESOURCE MANAGEMENT IN INDIAN RAILWAYS

The Railways in India continue to be the principal mode of inland transport. The economic and social development of the country primarily depend on the Railway's performance and efficiency. Railways contribute substantially to the defence efforts in the country. Railways also play a vital role in the national integration.

Indian Railway is the biggest service industry employing 16.6 lakh workers spread over the length and breadth of the country. It is imperative that the customers are given the maximum comfort by ensuring safety, security and punctual running of the trains both freight and passenger. A dynamic, effective work force and their management is essential for the success of Indian Railways. In order to meet the objectives the human resource in Indian Railways is divided into four groups. The employment structure in railways is given below:

Groupwise Break-up

Group A
Group B
Group C
i) Workshop and artisan
ii) Running
iii) Others
Group D
i) Workshop and artisan
ii) Running
iii) Others

Table- I

<table>
<thead>
<tr>
<th>Departmentwise Break-up</th>
<th>Eighth Plan</th>
<th>Ninth Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>51,238</td>
<td>51,574</td>
</tr>
<tr>
<td>Accounts</td>
<td>30,970</td>
<td>31,173</td>
</tr>
<tr>
<td>Engineering</td>
<td>4,17,974</td>
<td>4,20,712</td>
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<tr>
<td>Signal and Telecom</td>
<td>76,686</td>
<td>76,888</td>
</tr>
<tr>
<td>Transportation</td>
<td>1,94,969</td>
<td>1,96,218</td>
</tr>
<tr>
<td>Commercial</td>
<td>1,14,286</td>
<td>1,15,035</td>
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<tr>
<td>Mechanical Engineering</td>
<td>4,40,921</td>
<td>4,43,810</td>
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<tr>
<td>Stores</td>
<td>39,120</td>
<td>39,376</td>
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<tr>
<td>Electrical</td>
<td>1,53,777</td>
<td>1,54,784</td>
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<tr>
<td>Medical</td>
<td>54,178</td>
<td>54,533</td>
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<tr>
<td>R.P.F.</td>
<td>59,174</td>
<td>59,562</td>
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<tr>
<td>Railway Board/Other Railways Offices,including RPSF</td>
<td>15,902</td>
<td>16,006</td>
</tr>
<tr>
<td></td>
<td><strong>16,49,195</strong></td>
<td><strong>16,59,671</strong></td>
</tr>
</tbody>
</table>

Source : Indian Railways Annual Reports and Accounts 1992-93, p. 35.

Indian Railways had 16,49,195 persons under various departments in the beginning of eighth plan. There were 51,238 personnel employed in administration, 30,970 in accounts, 4,17,974 in Engineering, 76,686 in signal and
Recruitment Modes of Human Resource in Indian Railways

Recruitment is the first step in the employment of labour, and naturally the methods and organisations by means of which labour is brought into industry has a lot to do with ultimate success or failure of such employment.

Recruitment may be defined as an activity that brings the job-seeker and job giver face to face with one another to achieve certain goals. The main principal modes of recruitment on railways for various services, viz. Group 'A', Group 'B', Group 'C' and Group 'D' are as under:

i) The Union Public Service Commission for the posts in Group 'A', and a very limited extent in Group B, for posts of section officers in Railway Board.

ii) Vacancies in Group 'B' are filled by promotion from within the ranks by positive act of selection.

iii) The Railway Services Commission situated in various states for Group 'C' posts.

iv) Appointment on compassionate grounds.

v) Appointment of physically handicapped persons through employment exchange.
vi) Appointment against sports quota.

vii) Appointment of persons possessing culture and artistic talents.

viii) Appointment of apprentices like mechanics, electrician etc.

ix) By direct appointment in Group 'D' category by holding selection departmentally specially in production units and workshops.

x) By screening casual labour and substitutes and their absorption against Group 'D' vacancies.

Recruitment of Gazetted Officer, i.e. Group 'A' Services

The recruitment of Group 'A' services is being done by union public service commission on All India basis. Lists of the requirement for the all services in Group 'A' are placed before the Railway Board. Forty per cent to fifty percent posts of Group 'A' are filled by promotion of Group 'B' officers who have put in minimum 3 years services in class II, on the recommendation of the U.P.S.C.

Recruitment of Group 'B' Services

There is no direct recruitment in Group 'B' vacancies. In the group 'B' posts are filled by promotions of Group 'C' staff on the recommendation of the Departmental Selection Board.

Recruitment of Group 'C' Services through the R.S.C.

The employees under Group 'C' is directly recruited by the Railway Service Commission, Railway
Recruitment Boards at 19 places which are located in different states like Calcutta, Bombay, Madras, Muzaffarpur, Dangpur, Allahabad, Guwahati, Secundrabad and Bangalore. "Recruitment is conducted for about 90 categories of staff pay scales vary from Rs. 950-1500 to Rs. 2375-3500. Qualifications which vary from Matriculation to Graduation and Diploma/Degree in Engineering and prescribed in such a manner that these meet the demands of the jobs".

The selection process covers both written test and interview. For safety categories such as Assistant Station Master and Assistant Drivers, there is an additional provision of psychological tests which measure the intelligence of the candidates, their power of concentration, ego strength, power of observation and sense of responsibility which are so essential for ensuring safety of trains.  

Direct Recruitment in Class 'D'

There is a direct recruitment procedure for Group 'D'. It is confined to workshop and production units only. In this case vacancies are first assessed taking into account the number of existing and anticipated vacancies. The assessment is approved by the concerning authority. Then a selection Board is nominated consisting of one Executive Officer of the concerned department, one
personnel officer and one officer from the reserved community.

Besides these the General Manager and the Personnel officer have certain powers regarding the recruitment in special circumstances, by relaxing or modifying the rules of recruitment. The reason to relax or modify rules of Group 'C' and 'D' staff in individual cases are to be recorded in writing.  

Appointment against sports quota

Certain appointments are made for sports person. There is a sport quota and this quota is filled by every zone during a calendar year. The sports quota are reserved only for those candidates who are outstanding players and who have taken part in the international or state level events. They should have played in Inter Club, inter district, Inter School, Inter College or in All Indian National Championships.

Appointment on Compassionate Grounds

Recruitment on compassionate ground can be made both in Group 'C' and Group 'D' by the General Manager and the Divisional Railway Manager. Priority for appointment on compassionate basis is as follows:

a) Dependents of railways employees who die or permanently crippled in the course of duty.
b) Dependents of the railway employees who die in harness while in service before retirement.

c) Dependents on railway employees who die in service due to natural causes/prolonged illness or permanently crippled or become medically unfit for the job and are not in a position to hold even an alternative job, would be given the same emolument.  

Appointment of Physically Handicapped Persons

Physically handicapped persons who are sponsored by the special Employment Exchange can be given employment in Group 'C' or Group 'D' to the extent of fifteen percent of the posts in the nominated categories. The categories are notified by Railway Board and the power of appointment is given to the General Manager of each zone.  

Railway Recruitment Board (RRB) and its Objectives

Railway Recruitment Board (RRB) is an agency for recruitment designed to be an independent organisation. These RRBs, are, therefore, manned by chairman and member secretaries, whose selection is finalised in consultation with the U.P.S.C. Chairman Railway Recruitment Boards are the final authorities in recommending the candidates for appointment.  

The main objectives of this organisation is that recruitment should be time bound so that the aspirations of the candidates are satisfied at the earliest. Railway
Recruitment Boards finalise 90% of selections within periods varying from 3 to 12 months which represents an improved situation compared to similar agencies. Railway recruitment has been increasing from time to time. This results from the increase in demand on railway services covering a variety of posts such as commercial clerks, ticket collectors, Train Clerks, Assistant Station Masters, Assistant Drivers, Guards, TXRS, IOW etc.

RRBs Asked for Fairplay

The Railway Minister Shri Ram Vilas Paswan has called upon the Chairman and Members of all the 19 Railway Recruitment Boards (RRBs) to dispense social justice and fairplay to candidates of Scheduled Castes and Scheduled Tribes and other Backward Classes in the reserved categories and minorities.

Addressing a Conference of Chairman and non-official Members of the RRBs at New Delhi on February 12, 1997, Shri Paswan said that Members in the interview board were like judges to do justice with fairplay. He asked them to maintain transparency in the system of recruitment by eliminating malpractices and responding to complaints.

There are 19 RRBs all over the country. The RRBs recruit Group 'C' staff both technical and non-technical in the Railways. The RRBs enjoy parity with Staff Selection...
Commission besides Chairman and Member Secretary. Each RRB comprises nine non-official Members, three each representing the interests of Scheduled Castes/Tribes and other Backward Classes and minorities.

The Railway Minister, in the first ever such meeting of its kind with the Chairman and Members of the RRBs, said that Government was considering provision of facilities to members, like local accommodation, transport and two complimentary passes in a year.

Management Training

HRD envisages progress in skills, knowledge and aptitude from one stage to another till an officer reaches the highest stage available to him.

While the initial training would equip him to understand the objectives of his organisation, subsequent training would enable him to handle posts of higher responsibilities effectively. Training is, thus, designed to be mandatory. It has to ensure qualitative improvement and sharpen the managerial skills of the officers, to inculcate in them high professional approach. Officers are also sent to outside training institutes, to promote interaction with other organisations and also to avail of the specialised training facilities existing in the non-railway institutions.
Keeping this view into consideration, personnel management of Indian Railways have established different levels from the top management to lower level. At present, the Indian Railways have four tier system of training programmes to cope with the training and development needs of its personnel, Area schools, Zonal training schools and systems training schools cater to the training of staff and supervisors.

There are five specialised training institutions in the Railways directly under the command of Railway board within the country.

Training of officers is conducted in the following five centralised Training Institutions (CTIs).

i) Railway Staff College, Vadodara.
ii) Indian Railway Institute of Civil Engineering, Pune.
iii) Indian Railways Institute of Signal Engineering and Telecommunications, Secunderabad.
iv) Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur.
v) Indian Railway Institute of Electrical Engineering, Nasik.

Railway staff college, Vadodara conducts course in interdisciplinary subjects in addition to foundation and Induction training course for newly recruited officers. The Management Development Faculty of the College offers Management courses and conducts seminars/workshops for
senior officers on important areas like energy conservation safety, corporate planning, productivity, costing, industrial relations etc. Function related courses for promotion to GMs, AGMs, PHOD and DRM were conducted. The other institutions conducted specialiseld courses to update technical knowledge of the officers in Civil, Signal, Telecommunication, Mechanical and Electrical Engineering.

4814 officers were trained in CTIs during 1992-93, 160 training centres entered to the needs of training of non-Gazetted staff.

Madular system of training based on actual needs was introduced and a scheme for covering the entire training process by scientifically developed lesson plans and trained trainers in under implementation. In 1992-93, 104394 such employees were trained in various Railway Training Schools.

To aid retraining and redevelopment, computerised manpower planning information system is being installed in all the Divisions of Indian Railways.9

The aim of training programmes is to update the professional knowledge and sharing the same in an inter-disciplinary academic atmosphere of Railway employees. It employs modern tools of management to enable the Railway system to derive optimum advantage from capital and manpower resources. The Railway Board has prescribed training courses for all groups of employees temporary as
well as permanent. Both initial and in service training have to be undergone by all the officers. In case of Group 'A', services, the final merit list of selected candidates is made available to the Railway Board. It immediately allots the candidates to the different Railway Administration, from where they are directed to the various institutions and placed for training.  

The training college of the Railways also conducts a number of the theme based programmes and seminars aimed at imparting particular skills or to update knowledge of Railway officers of different departments. Seminars are based on subjects like Financial Management, Human Resource, Quality Control, Purchase Management etc. Most of these programmes are of one week.

The aim of these programmes is to brush up their knowledge and to keep them well informed of the day to day technological changes and development. It runs various general programmes, such as foundation courses, induction courses, orientation courses and management executive development programmes for officers.
Training Plan for Group 'A' Officers

<table>
<thead>
<tr>
<th>Stage</th>
<th>Age Range</th>
<th>Course/Programme</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>5 to 8 yrs</td>
<td>J.A. Grade Promotional course</td>
<td>4 weeks</td>
</tr>
<tr>
<td>Stage II</td>
<td>9 to 13 yrs</td>
<td>Sr.Professional course (Pre-selection grade)</td>
<td>To be decided by the respective training Institute</td>
</tr>
<tr>
<td>Stage III</td>
<td>14-18 yrs</td>
<td>Executive Development Programme (SA Grade Professional course)</td>
<td>4 weeks</td>
</tr>
<tr>
<td>Stage IV</td>
<td>19-25 yrs</td>
<td>Sr.Management Development Programme</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Stage V</td>
<td>25 yrs. &amp; above</td>
<td>Workshop Seminar</td>
<td>1 week</td>
</tr>
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</table>


Acquisition of required training models, machines, equipments, simulators, etc. is also planned as a part of the project. To imbibe and assimilate modern technology, officers, supervisors and staff are also sent for training to developed countries. Participation in various workshops both Indian and International, to get exposure to specialised technologies and modern concepts, is also encouraged.

All these contribute to job enrichment, higher productivity of resources and ensure dignity of labour.
Training plan for the senior officers of the Indian Railways should cover the following:

Training in Management which will include:
- Strategic Management
- Management of change
- Power and influence
- Human Resource Management
- Groups and decision making
- Asset Management
- Quality Management
- Competition and change
- Management style

Business sector analysis
- Private and public sector enterprises
- Finance and accounting principles
- Setting personal objectives
- Management Information technology
- Creative action

Budgeting and control
- Marketing strategy
- Government/business interface
- Public relations
- Capital investment appraisal
- Technology transfer
- Presentation skills
Our efforts should be to organise management training in Railway Staff College through assistance of Indian Institute of Management, Ahmedabad.

Other areas of training should include marketing, containerisation and multimodal transport including inland container depots operation, information system management, transport law and legal framework, etc. At present we do not have arrangement in any railway training institution for imparting such type of training. University of Wales College of Cardiff is providing training support in these areas and efforts should be made to transfer these training programmes to Railway Staff College as early as possible.

The third area of training which needs attention is training in Project planning, management and monitoring project implementation. We have been organising training programmes on project planning at the Institute of Civil Engineers, Pune. The faculty will be expanded to include Finance and Management faculty of Railway Staff College so that adequate training could be given not only in engineering aspects of project management but in Finance and management aspects also.12

Another major area of consideration in the training and development of Indian Railway Managers is to develop means to measure and assess competence of individual managers. In U.K. the Management Charter Initiative (MCI) was formed in 1988 to improve the quality of U.K. Managers.
Its objective is to increase quality, quantity, relevance and accessibility of management education and development. The MCI is a non-profit making organisation funded by subscriptions from private and public sector organisations and a grant from the Employment Department. MCI brings together all those interested in the management education—chief executives, human resource specialists from commerce and industry, higher educational institutions, business schools, awarding bodies, professional institutes and representatives from Government Departments. MCI has 70 branches around the country to provide a focus to management development techniques at local levels. Establishment of similar organisation will be necessary in India.

Indian Railways may, perhaps, with the assistance of All India Management Association have collaboration with the MCI in U.K. and introduce MCI programme in India to assess and measure the competence of individual managers.

Manpower Planning on Indian Railways

Rail India Technical and Economic Services Ltd. (RITES) was commissioned to make a diagnostic study on manpower planning on Indian Railways. RITES' report was received and was examined by the Railways. The various recommendations contained in the report were being processed for implementation. It will be a continued exercise. Each Directorate has drawn up Action Plan for
implementation of the recommendations. During the various interactions with the Zonal Railways, certain areas have been identified for speedy implementation. These areas are as under:

There are many Railway sidings which are not in use for a number of years whereas the maintenance manpower continues to be on roll. These sidings as identified could be spiked and the manpower pertaining to such sidings could be surrendered.

In some cases, railways have started new activities beyond the projects approved under the Five Year Plans to re-deploy the surplus staff. New activities should not be started purely to keep staff occupied.

In order to co-ordinate action in the area of manpower planning, each department may create a manpower planning cell manned by an inspector both at Divisional and Headquarters level. These posts may be created by redeployment of existing sanctions or by matching surrenders. It may be pointed out that it is proposed to set up division based computerised manpower information systems.

The creation of a cell would go a long way in focussing attention on this important area. An account of the manpower rendered surplus on account of closure of steam loco sheds, yards and sidings should be maintained. A review of the manpower in workshops/production units will
be necessary. Steam locos are planned to be phased out by 1997 or 2000, the POH work will be eliminated. Similarly review of manpower at each depot and at each workshop should be systematically conducted and a zero based manpower budget be prepared.

At no stage these exercises would lead to retrenchment of any employee. The staff rendered surplus will be redeployed in productive work and gainful employment in order to make the Railways a viable commercial organisation. This will be in the long term interest of the workers.

Once the Indian Railways' financial viability is maintained, there will be more employment opportunities on a continuous basis. Therefore, the labour force should support the Manpower Planning of Indian Railways.\textsuperscript{13}

Management by Objectives

In this modern era, culture is a word commonly used. It can be heritage, tradition, corporate culture and many times we talk on work culture in a system. Some organisations take credit maintaining safety culture. Indian Railways, a symbolic representation of the system might have had a different goal, aim, ambition, dedication, oneness and pride. And it is in this context the topic of management by objectives deserves to be examined in depth.
Coming back to the culture of an organisation like Railways quite naturally the work culture raises a minimum of four questions. What is work and what is culture? What is their relation with reference to a system like Railways? Does work make the people cultured or otherwise? Or the culture produced the right kind of work? There is hardly any clarity. If one keeps on doing what one's elders did, can it be called cultured? The vanishing earlier generation of managers had this fear in changing culture with the present generation and an erosion of culture built by them. It is in this context the concept of Management by Objectives (MBO) comes to stay.

There should be a congruence between the personal goals and aspirations of individual executives and that of the organisation (Railways). Integrating these two can never be an easy task and the only aid available today appears to be MBO.

We are close to twentyfirst century. The successful planning for a smooth transition to twentyfirst century calls for dedicated efforts and optimum utilisation of our scarce resources. Demographics will dictate many corporate priorities. Among the most important demographic trends for business are the shortage of entry level workers, the prospects for increasing workforce, diversity and the aging and more and more occupations would require entry level educational qualifications.
Changing Facets

Due to automation and technological changes in the nature of work in future, the number of white collar workers are expected to increase to a point where they will outnumber blue collar workers. The workers' standard of general knowledge and technical education will be high. The other major change in the demography of tomorrow's workforce is the continuing influx of women employees. The portrait of an average railway worker in the coming century would be that of a man having a sense of confidence, borne out of the realisation of skills, knowledge and power. The changing facets of workforce are sure to become a source of major concern and controversy and the organisation like railways. If we do not change their systems to accommodate we are sure be drowned by an unprecedented ideal wave of change which the twentyfirst century is going to bring about.

It is in this context that there is an urgent need to review critically the railway's strategic and tactical plans. Railway is a multi-departmental organisation which has been functioning efficiently for more than a century, moulding itself to varied requirements of the vast nation and culture. At the outset the Indian Railways were developed by companies and after independence it was amalgamated into a cohesive organisation. The subsequent five year plans have contributed enormously towards its own
development and the development of the country. The system has grown in stages and have come to stay.

Many of the public sector undertakings which were set up with lot of care and dedicated planning turned to be sick units and are going to be disinvested or already have been disinvested. A cursory look on the management of these units will explain the malady. An organisation like Railways spanning over the country in all directions in a system with a dedicated brand of rules and managers who come and go over the system; perfect it for improvement. Of late with the large scale upgradation and more number of supervisory staff and officers being available, there seems to be an erosion of discipline and standard.

Changing Management Approach

During the remainder of 1990s and well into the next decade, we will witness a change in the way management conducts its business. Some of the management values, attitudes, interests and approaches will be direct results of changing management values. Methods, techniques and approaches have undergone refinement through increasing research within the profession and from the contribution of related professions. A true administrative scene approach is emerging especially in the case of the strategic decision making used by the top management.

The increased challenges demand that human resource managers acquire further advanced levels of education and
training contributing towards innovations, broad understanding, insight and inter-personal skills. The emerging competition will stimulate organisational interests in developing and adopting innovative changes in management like quality circles, MBO, productivity groups, counselling programmes, etc. Informed authorities predict that around the year 2000, an average executive will spend a week in full time study to stay abreast of his field of management, may return to university for at least one year of full time study twice during the career.

MBO in essence is a practical approach to the fundamentals of good general management. It integrates activities often regarded as separate, manager development and strategic business executive. It provides a valuable and continuing stimulus for companies to challenge traditional assumptions. It bridges the result orientation of the quantitative school and the teamwork and personal motivation concepts of the behavioural scientists. And it helps to develop a forward looking vital spirit amongst the managers.

Railways, a conglomeration of different departments aims to provide quick and safest transport network for carrying the public and goods in a most economical way. While the recruitment of the officers who manage the system of the various disciplines is done centrally by UPSC and RRBs. The growth of the managerial capability, of posting
of the managers to run the system cohesively interfaced with various departments rests with the managers themselves. The system was and is functioning satisfactorily but of late we find there are certain shortfalls in the quality of the managers who have grown on their departments and do not want to leave their loyalty when they function as managers and continue to exhibit a biased approach. More so when a large number of young officers and supervisors are inducted on to the system they follow suit affecting the management of the system in a great way which is one of the problems facing the top management. It will be highly difficult to implement a new policy affecting the entire network. Existing management system was found to be in order and what we may lack in its perception and the behaviour of the managers and the organisational set-up which may and shall need improvement and strategy. It is in this context, MBO as a concept comes handy.

"An abundant and increasing supply of highly educated people has become the absolute prerequisite of social and economic development in our world. It is rapidly becoming a condition of national survival. The essential new tactic is that a developed society and economy are less than fully effective if any one is educated to less than the limits of his potential. The uneducated person is fast becoming an economic liability and unproductive. Society
must be an educated one today - to progress, to grow, even to survive" - Peter Ferdinand Drucker. It is very valid for the Railway system. In the earlier management style, requisite departments like Engineering, Mech., Operating, could be to some extent managed by uneducated staff at lower levels and by experience they gained loyalty of the system and became lower level managers. In today's context of modernisation taking place, we need a fully qualified individual for manning any asset. Or in other words we have to define the system requirement fully having strategic look for two decades ahead.

In view of the emerging trends, one can safely predict that during the nineties and beyond, there will clearly be an increasing need for a flexible, innovative and rational approach to the management of personnel. There will be refinement in the recruitment process by increased application of modern techniques and the area of attention will be focussed on the individual capacity for the betterment of the system and the selection process will be a mere exercise to fill up the posts. We must also create an organisational environment that will help to make work more satisfying. Managing personnel would require sensitivity to the complex and changing values, aspirations and attitudes that the people will bring to the work place.
Of late we find there has been gradually a greater understanding that the manager is a member of a team, rather than an isolated individual with limited and selfish ends. Unfortunately this has led some people to underestimate the manager's contribution with his personal leadership. In such a situation his personal contribution can be educational, in generating purposefulness, creativity and with the aim of achieving the best for the system.

With many forces working to keep it alive, the people who run it can readily escape the task of defining its purpose. This evasion stems partly from the hard intellectual labour involved, a labour that seems but to increase the burden of already onerous daily operations. In part also, there is the wish to avoid conflicts with those in and out of the organisation who would be threatened by a sharp definition of purpose, with its attendant claims and responsibilities.

Above all, the real key to success in business is the more effective use of human resource; the talent and drive are there if only we release them. Railways, an organisation with immense potential and vested with a vast human resource at its disposal can find the system like MBO easily adaptable for the overall efficiency.
Development

The then Railway Minister shri C.K. Jaffer Sharief addressing a conference on July 1, 1992, said "that Railway Personnel Administration should become more open and responsive to the needs of staff. For this, attention must be paid to the effects of environment on the performance of workers. It was upto the Railway administration to take care of the health and the welfare of Railway employees, so that they could give their best, he said.

He directed the CPOs to visit Railway colonies to enquire into the problems faced by Railwaymen and families. He also stressed that there is a need for the officials to change their outlook in welfare area.

Development means, to grow gradually, to be more mature and more advanced. Here development is concerned to Railways employees, welfare or Railways staff welfare.

Staff welfare is desirable for increased welfare of the Railways employees and for maintaining the operational efficiency of railways. Railways are essential services and no agitation, strike or go slow tactics should be restored to or adopted by the employees. Indian Railways have paid a greater attention towards its staff's welfare during recent past years. Several schemes are in operation for the well-being of Railways staff. Among the important amenities are the provision of housing and medical facilities, holiday homes at hill stations and schools and hostels.
The welfare schemes cover a wide spectrum of activities, viz. educational facilities and assistance to the children of Railway employees, handicrafts centres for augmenting family income, financial assistance in sickness, subsidised housing and canteen facilities at work places and medical cover for employees and their families during services and after retirement.\textsuperscript{15}

Medicare and Family Welfare

One of the first essentials of life is health which has received appropriate attention of Government of India as a prerequisite for the national upliftment. Indian Railways which are committed to keep up country's life line through round the clock services lay adequate emphasis on their people's physical as well as mental well being. Railways have accepted social obligation of the medical care of Railwaymen and their families. It is free of charge during their service life, and after retirement on normal contributory basis. Indian Railways spend about 2 per cent of its budget on health and medical services.\textsuperscript{16}

The Health Department of Indian Railways had an insignificant beginning. First of all medical officers were appointed at construction sites only to provide necessary treatment to the employees and casual labours. At other places, the Railways used to change civil surgeon or civil assistant surgeons to look after the railwaymen. The standard of care was insufficient and the railwaymen
depended for their needs mostly on non-railway institutions and doctors.

Till the independence of the country in 1947, the Health Department made hardly any headway as the railway rules provided for only such treatment free to the railwaymen as might be available in a particular hospital/ dispensary. After independence, the railway gradually took over the responsibility of providing treatment to the employees alongwith their family members and some dependents. The railways thereafter gradually developed their own institutions. And now the Indian Railways have established a network of medical services for the welfare of Railways employees throughout the length and breadth of the country. Between 1951 and 1981 there were 103 hospital and 562 health units which have been increased upto 122 hospitals and 672 health units by 1992-93, and further raised to 135 and 790 by 1997-98.

<table>
<thead>
<tr>
<th>Years</th>
<th>No. of Hospital</th>
<th>Health Units</th>
<th>No. of Beds</th>
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<tr>
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<td>71</td>
<td>345</td>
<td>2435</td>
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<tr>
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<td>77</td>
<td>489</td>
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<td>1970-71</td>
<td>98</td>
<td>555</td>
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<td>101</td>
<td>564</td>
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<td>109</td>
<td>571</td>
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<td>1989-92</td>
<td>114</td>
<td>670</td>
<td>11128</td>
</tr>
<tr>
<td>1992-93</td>
<td>122</td>
<td>672</td>
<td>11206</td>
</tr>
<tr>
<td>1997-98</td>
<td>135(Proposed)</td>
<td>790</td>
<td>11335</td>
</tr>
</tbody>
</table>

Source: Indian Railway Journals.
The Medical services are handled by 2400 doctors and 50,000 para-medical staff, which constitute a major cadre in the Railways. Railways doctors are recruited through the combined Medical Services Examination conducted annually by U.P.S.C.

During 1992-93, some of the important additions made to existing medical facilities were:

i) Introduction of laser surgery and IOL implantation at Central Hospitals on Northern and Southern Railways, Ultrasonography investigation at Central Hospital Gorakhpur, and Gastroentrology unit at J.R. Hospital, Bombay.

ii) Latest sophisticated equipments like ultrasound, computerised stress testing machine, retroperfusion, holtor monitor contact laser, fibreaptic endoscopes and latemtery system provided in various Railway hospitals.

iii) Provision made for 205 additional beds in Railway Hospitals.

iv) 4 New hospitals and 2 Health units started. During 1992-93, Indian Railways achieved targets to the tune of 96.83% in sterilisation 87.87% in IUD, 96.20% Oral Pill users and 92.12% in Conventional Contraceptive users.

Maternity and Child Health Services are also rendered for protection of children and mothers.
Marching Ahead in Family Welfare

The Railways recorded a marked improvement in family welfare and expanded programme of immunisation during 1991-92.

The coverage in sterilisation was 27075 (0.75%) in UD 13751 won (91.97 percent) in oral pills 4680 (276.49 percent) and in conventional contraceptive users 3,40,907 (83.27 per cent). Similarly the Railways protected 61695 (94.19 per cent) children against diptheria and whooping cough, 62,077 (94.77 per cent) children against polio and 60,831 (90.79 per cent) pregnant women against tetanus.

To combat malnutrition 230619 (184.49 per cent) pregnant women were provided iron and folic acid in addition to 3,08,362 children (145.45 per cent) already provided the same. Besides 721469 (170.15 per cent) children were administered vitamin 'A', for prevention of blindness during the year.

The national targets fixed by the Ministry of Health and Family Welfare for the Railways in 1991-92 financial year in family welfare and immunisation were 36,600 sterilisation, 17,325 IUD, 5000 oral pills users, 3,50,700 conventional contraceptive users, 65,500 immunisation of children against diptheria, 65,500 immunisation of children against polio and 67000 immunisation to pregnant women against tetanus.
To combat malnutrition 125,000 women are to be covered by iron and folic acid as well as 2,17,000 children. In addition 212,000 children will also be administered vitamin 'A', for prevention of blindness during the year 1991-92, 42 medical personnel were trained in logistic management and laparoscopic operation and as many paramedical personnel trained in universal immunisation programme.

For attainment of real demographic impact major stress was laid on younger couples with low parity, motivation of specified railwaysmen through progress oriented publicity and message dissemination through volunteers of field groups.

The Railways have provided (1991-92) a comprehensive health care services through its extensive network of 114 hospitals 670 health units 62 family welfare centres, 38 sub-centres, 2633 Nirodh Depots, 122 oral pills distribution centres and 75 MTP centres. 18

Prestigious Units

Indian Railways have established some prestigious units in the field of medical which are given below:

1) Heart Surgery Unit at Perambur
2) Plastic surgery unit at Bombay.
3) Traumatic and Re-constructive surgery unit at Howrah.

They have not only drawn the administration of suffering humanity on the Railways, but also from
non-Railway people. Cancer Institute at Varanasi and Micro and vascular unit at Delhi join this great group. There is a continuous expansion of medical services both in quality and quantity. More sophisticated, diagnostic and therapeutic facilities have also been developed.

Hospital on Wheels

The Ministry of Railways in association with impact India Foundation, a voluntary organisation have launched a unique project "Jeevan Rekha" for free health care in rural and backward areas through "Hospital on Wheels". This functions with three special railway coaches fully equipped with diagnostic medical and surgical facilities at selected railway stations of Bihar.

These hospitals run with the help of skilled doctors, technicians and other paramedical staff and offer free diagnostic and surgical treatment for the diseased and disability pertaining to sight, hearing and mobility. The hospital will also take up child immunisation and other health care programmes during its stay at each centre.

This is very much useful when any accident takes place. Then this mobile hospital reaches to the place for treatment of Railways passengers.

Health and Family Welfare are the two major components of 20 point programme of Government of India which will always receive the highest priority in the
Railway functioning, so that the country's goal of 'Health for all by 2000 A.D. is achieved and the major communication link of the nation remains unaffected.' It is hopeful of receiving everybody's cooperation in the matter and to keep up Railways tradition in the field of Health care services too.

Staff Welfare

The welfare schemes of Indian Railways include several amenities such as education, housing, medical facilities, sports and recreation, canteens and staff benefit Fund.

As far education is concerned Indian Railways have 685 educational institutions comprising schools and colleges including 1 Residential school at Jharipani (Mussoorie).

Reimbursement of tuition fees, scholarship and free uniforms are some of the amenities provided to the employee's children by Indian Railway. Indian Railways have created a staff benefit Fund whose aim is to provide extra benefits to the staff and their families in the area of medical, recreation, sports, education scouting and cultural activities. The scouts and guides movement is extensively encouraged in Indian Railways educational institutions. Indian Railways have paid its kind attention to the importance of recreation for their employees. It has provided excellent facilities through institutes/club
having sports and library services and holding homes so that employees and their families can stay in holiday and health resorts at nominal expense.

267 canteens serve subsidised meals and refreshments to employees at their work places. About 40% of staff enjoy the benefit of subsidised housing. More than 6 lakh employees have been housed. During 1992-93, 8,909 staff quarters were electrified, raising the total number of electrified quarters to 8,75,300.

Railway Ministers Welfare and Relief Fund

The aim of this fund is to give monetary assistance to Railway employees and their families at the time of distress. The source of fund is voluntary contribution from the Indian Railway employees and women's organisation of Railway. A sum of Rs. 1.2 lakhs was sanctioned from the fund as relief in 1992-93.

Pension Adalats

Long standing disputes or delays in the settlement of dues of superannuated employees are decided on the spot in pension Adalats organised at Zonal Railways.

Service matters

The rates of Dearness Allowance were enhanced from July 1, 1992 and January 1, 1993 to compensate for the rise in the cost of living. The rates of Dearness Relief to
Railway Pensioners and Family Pensioners were also enhanced simultaneously.

Cadre reviews of various Group C and Group D staff were also undertaken. This will provide benefit of promotion to a large number of employees. Railwaymen (excluding RPF/RPSF Personnel) were sanctioned PLB equivalent to 49 days wages for 1992-93. The wage ceiling limit for 1992-93 was raised to Rs. 4,500. About 16 lakh employees and Casual Labour were benefitted. RPF/RPSF personnel were sanctioned 29 days wages as adhoc Bonus.²²

Promotion

Promotion is a reward to the employees on behalf of their employers for their past performance.

Every concern gives promotion to its employees in order to make high their morale and reduce the grievances. The main aim of promotion is that the employees should work efficiently with zeal and confidence.

As we know that the Indian Railway is the biggest public sector in India and second largest in the world. It gives promotion to its employees in different ways such as promotion against clear vacancies, recommendatory, decisive, regulatory etc.

Promotion Against Clear Vacancies

When a post falls vacant due to death, resignation, removal retirement or new posts are created etc. and the
new staff are not available due to various causes then these posts are filled by the next lower regular staff. This type of promotion is called as promotion against clear vacancies.

**Recommendatory Promotion**

Sometimes the promotion is made on recommendation of the cabinet committee appointed by the Government. For example, promotion to the post of General manager must have the approval of the cabinet committee. Before the list goes to the appointment committee, the Railway Board has to prepare a panel of names based on service or performance records.

Promotion is also made to the senior scale from the junior administrative grade and is done by the Board through the selection process. In this case the officer's reports of a confidential nature are considered by the Railway Board and member of the staff constituting a Selection Committee. However, cases with adverse reports, may be by-passed and referred to the U.P.S.C. for consultation before a decision is taken.

Government of India has issued a cadre on June 17, 1946. According to this cadre every department of Government has to grant promotion from the lower to the higher one. For this purpose Indian Railway was constituted a Departmental Promotion Committee to give promotion of
class II officers to class I, and this is extent to 1/3 of the vacancies from II to I class.

This promotion committee includes three persons, one who works as the chairman of the committee is representative of the U.P.S.C. and of the other two persons, one is the functional director of the Railway Board and the other is the Director, Establishment of the Railway Board. This Departmental Promotion Committee meet at least once in a year and considers the seniority list of the employees, department wise. The committee studies confidential reports for the last three years, and if wishes to check all the records of an employee, they have the right to do so. The list of officers recommended by committee is forwarded to the U.P.S.C. for its consideration and approval. After that this list is transferred to the Additional Member of staff to check the procedures and at last this list is presented to the Railway Board for approval. If there is difference among the functional member of the staff then this list is taken to a full Board meeting.

Penalties

As the promotion is awarded to the employees for their better past performance in the same way penalty is also imposed to the employees for their negligence. In a case a railway employee is found guilty of causing an accident, destruction of Railway property or collision, may
be penalised. This penalty may be removal from post or suspension. He may be penalised in the form of minor penalties as well as part from the major penalty for the gravest negligence or dereliction of duty.

1. Minor penalties
   i) Censure
   ii) Withholding of promotion for a specified period.
   iii) Recovery from pay of the whole or part of any loss caused by him of the Government or Railway administration by negligence or breach of orders.
   iv) Withholding the privilege of passes or privilege ticket orders or both.
   v) Withholding of increments of pay for a specified period with further directions as to whether on the expiry of such period, this will or will not have the effect of postponing increments of his pay.  

Process for Imposing Minor Penalties

When an employee is about to be penalised for his negligence, first of all, he has to prepare standard form in which charges should be specified and should contain all relevant details. The standard form will be signed by the Disciplinary Authority himself and will be served through the employees superior and the employee will be asked to return the acknowledgement immediately on the receipt of the standard form.
The Disciplinary Authority gives him reasonable opportunity to make such representation as he may wish against the charge levelled in the Standard Form. His reply to it will be examined by the Disciplinary Authority. In case, the employee is not found guilty, the charges will be withdrawn and the employee will be informed of the decision. 27

In case of an employee found guilty of the charges, necessary orders would be given to impose penalty specifying reasons for arriving at a decision. The notice of imposing penalty would be signed by the Disciplinary Authority himself and the employee will be asked to acknowledge receipt. The notice also indicates the authority to whom appeal can be made. 28

**Item of Major Penalties**

i) Reduction to a lower stage in the time scale of pay for a specified period, with or without effect on the future increments of his pay.

ii) Reduction to a lower time scale of pay grade post or service with or without effect on his seniority and pay on his restoration to that grade post.

iii) Compulsory Retirement

iv) Removal from service

v) Dismissal from service.
Procedure for Imposing Major Penalties

As for the imposition of major penalties is concerned the following steps have to be adopted.

The first step in this regard is to go through the charges which are imposed on the employees they should be specified, clear and based on facts. The charge sheet should not be given orally, the standard form has to be prepared in the following manner:

i) Article of charges: This will contain the substance of the imputation of misconduct or misbehaviour.

ii) A statement of imputation of misconduct or misbehaviour shall contain.

(a) A statement of relevant facts including any admission or confusion made by the Railway employee.

(b) A list of documents and a list of witnesses by whom the articles of charges are proposed to be sustained.29

This standard form is transferred to the convicted employee through his immediate supervisor, and he is given opportunity to submit his defence papers within 10 days. The Disciplinary Authority may appointed a Board of Enquiry, and the decision of the Board should be passed by the majority of votes.

With the submission of the findings of the Enquiry Committee the Disciplinary Authority, if it decides to
impose the penalty or reduction in rank, removal or dismissal from service it has to issue a show cause notice, giving a further opportunity to the defaulting employee to submit his explanation.\textsuperscript{30}

In case of appeal, the Railway Board may receive a copy of appeal directly from the employees and another appeal copy comes through proper channel with comments of the concerning officers alongwith relevant records. The Railway Board as an appellate authority goes through the records and comments, and if there is any injustice, it tries to look into the case again for meeting out better justice, or suggest the relevant points of omission and commission. If an appeal is not in its jurisdiction, it may refer this case to the President of India as the supreme appellate authority.\textsuperscript{31}

Summary:

The human resources in Indian Railways are divided into four groups, i.e. Group A, Group B, Group C and Group D. Under Group A and B gazetted officers are recruited and in Group C and D non-gazetted employees are recruited through various techniques.

Recruitment is the first step in the employment of labour, and naturally the methods and organisations by means of which labour is brought into industry has a lot to do with ultimate success or failure of such employment.
After recruitment and selection, the training is given to them, so that they can do their job in the better way. Actually training enables an individual to do a job in a correct, effective and efficient manner. Therefore, employees must be systematically and scientifically trained to handle the job. For providing training to the employees, Indian Railways have established specialised training institutions under the command of Railway Board within the country.

Almost every aspect of employees' life is being catered to by the Indian Railways. Indian Railways have recognised that the first essential of life is health, which has received appropriate attention as a prerequisite for the national upliftment. Indian Railways spend about 2 per cent of its budget on health and medical services. Not only medical services are provided by the railways but others too. Indian railways provide promotion to their employees for their past performance. Contrary to these promotions, penalties are also imposed to employees for their fault and negligence.
References:

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7. Ibid., p. 7.
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22. Ibid., p. 37.
25. Ibid., pp. 88-89.
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29. Ibid., p. 104.
31. S.M. Imamul Haque, op.cit., p. 93.
Chapter V
ORGANISATION AND MANAGEMENT OF INDAIN RAILWAYS
CHAPTER - V

ORGANISATION AND MANAGEMENT OF INDIAN RAILWAYS

Railways, are the important public utility which are managed by the Government. From the earliest days of railway enterprise, there has been in almost every country a close contact between the railways and the state... In no country has the state left the railroads to the unrestricted commercial exploitation of their enterprise. ¹ State regulation becomes necessary in case of railways due to their public utility nature. The effective and efficient railway services should be provided to the public. Moreover, the political, strategic and administrative considerations also necessitate state regulation. The acquisition of land for railways can never be accomplished without state help and interference. Indian railways are also under complete state ownership and control although there have been changes in the system of administration and control from time to time during its long history.

1853-1921 : At the beginning, Indian railways were managed by guarantee railway companies. The Government of India under the provisions of the contracts with those companies secured from the very beginning detailed control over the management of the railways. Lord Dalhousie from the very outset, was of the view that railways were such an enterprise over which the Government should exercise a strigent and salutary control "at once for the interests of
the state and for the protection of the public". Railways in England were constructed by private companies but at their own risk and responsibility and without any assistance from the British Government. The Government had little financial stake in British railways and, therefore, the nature of control exercised by them was simple and confined to ensure that the public was not unduly exposed to any risk or inconvenience, and that it was not unduly exploited. But the case in India was quite different. The Government had given guarantee and free land to private companies for railway construction. From the very beginning the Government had financial stake in the railway undertaking and, therefore, it was considered necessary to exercise adequate supervision and control over their management. Under the terms of contracts Government was empowered to determine the route; the number, timings of trains, to approve the fares leviable, and to require a reduction in them when the line paid over ten per cent. The government was further empowered to have general supervision and control over the working of railway companies, and free access to all books, papers, accounts together with the appointment of an unpaid Government Director who had power to veto. Government bound itself to promote such legislation as might be necessary to enable the company to fulfill the objects of the undertaking.
Machinery of Control in England

Indian Railways, in their early years, were managed by private companies. The company had their Board of Directors in England. The local Agents were also appointed by British companies in India who acted under the direct guidance of the Board of Directors in England. Thus, the Indian railways were administered by the Board of Directors of British companies through their local agents, subject to the supervision and control of the Government of India.

The ultimate control lay in the hands of the Secretary of State for India. He exercised semi-automatic powers over the Indian railways till 1921 when the Government of India Act, 1919 came into force. He had the power to appoint an official Director on the Board of Directors of Railway companies with power of veto on all their proceedings. The Secretary of state two communicated directly to the Board of the Railway companies. All matters of importance, particularly those involving financial policy, were referred to him for final orders. In him rested the final authority over the Indian Government too who was responsible for the supervision of company railway in Indian and for the management of the State railways. On some occasions the Secretary of State autocratically acted and completely ignored the Government of India. Sometimes he supported the view taken by the companies as against the views of the Indian Government in matters of
administration. This naturally gave rise to a suspicion in the public mind that, under the influence of the shareholders and directors of the companies, he was prepared to act for the interests of the British capitalists. The agents of the companies also came to regard the authority of the Government of India as of secondary importance and habitually reframed suggestion as well as decisions of the Government not accepted by them to the consideration of the London Boards before carrying out instructions. In this way the London Boards had obtained a position in which they could paralyse the action of the Indian Government. Not only was the secretary of state control was an autocratic one and exercised for the benefit of English companies, it's jurisdiction too vast also. But the Government of India Act, 1919 greatly modified the responsibilities with regard to Indian railways.

Machinery of Control in India

In the early days the Indian Railways were managed by a Military Board. This Board was abolished by Lord Dalhousie in 1855, and at the same time a Central Public works secretariat was established with a Consulting Engineer. A Railway branch under a special Deputy Secretary was formed in 1866. In the same year, the first step towards decentralisation of control was taken by entrusting supervision on matters of detail to the Consulting Engineer under each local government. Some guiding rules were laid
down in order to ensure uniformity of control and smooth working. All the questions of detailed and routine works were left to these provincial Consulting Engineers, while the problems of general importance - alignment, positions, and arrangement of the more important stations and works had to be referred to the Government. The provincial engineers had to inspect every line before opening it for traffic, and had to carry a periodical examination of all works and construction. They exercised special powers too, to enquire into all cases of accident or injury, or matters relating to the safety of the line, convenience of public, and the well-being of the staff. The Government of India had appointed a Chief Consulting Engineer whose duty was to coordinate the activities of all provincial engineers, and carry out a uniform railway policy throughout the country. As each railway began to extend over two or more provinces, it was considered desirable to keep the control of each company under one consulting engineer irrespective of the territories their line covered. This general arrangement of Government supervision with slight modification went on till the introduction of state railways. The decentralisation of power in the hands of provincial governments became a point of criticism. The responsible authorities asked for explanations and details. A cry of ceaseless delay, of minute interference and obstruction was at once raised by the companies. Hence there was a need for more centralised control.
When the policy of state construction was adopted in 1869 the need for more centralised control became more imperative. A suitable machinery of management and control was also required for the state railways. A Consulting Engineer for State railways was also appointed in 1870 and the provincial consulting engineers, who were also placed under the direct control of Government of India the following year, were asked to exercise a measure of supervision over the new State lines, in addition of the guaranteed railways within their jurisdiction. Superintending engineers were appointed for the purpose of construction and working of lines. A Deputy Controller for each line was responsible for the accounts and financial management. Both the engineers and controllers were directly under the orders of the Government which acted on the advice of the Consulting Engineer for State Railways and the Accountant General. As the State railways developed, it became necessary to separate railway administration from the work of the Public Works Secretariat. In January 1874, a State Railway Directorate was formed. The Chief Consulting Engineer was associated with it for technical assistance. All important matters affecting policy and financial administration were to be referred to the Railway Branch of the Public Works Department. As the volume of work increased the method of control was further modified.
In 1877 the State railways were divided into three systems: Central, Western and North-Eastern. Each of them was placed under a Director, and a Director of State Railway Stores was appointed too. The system was good for construction purposes, but as regards management of the open lines the system did not work well. Therefore, in 1879, the offices of two Directors were abolished and the Government Consulting Engineers for guaranteed railways took over charge. A Director General for railways, both for the state and guaranteed, was appointed. The post of a Director of Traffic was also created to deal with the traffic problems. Thus, at the end of the period of State construction, the railways were supervised at the headquarters by a Director General of Railways, assisted by a Director of Stores, a Director of Traffic, an Acctt. General and a Consulting Engineer.

In 1897, the post of Secretary of the Government of India in the Public Works Department was created in place of Director General and all the posts of Consulting Engineer for State railways were abolished and their duties and powers were transferred to the Directors. The Accountant General, P.W.D. who attended to the supervision of accounts of the railways was designated as the Ex-officio Deputy Secretary to the Government of India.

Restructuring and slight shifting of posts here and there without any corresponding change of behavioural
pattern of personnel effected the Railway administrative hierarchy. These changes also resulted in mismanagement and lack of proper control which were severely criticised.

Evolution of Railway Board

In October 1901, Sir Thomas Robertson, the then Special Commissioner for Indian Railways, was appointed by the Secretary of State for India to evaluate the performance and working of the Railway.

Thomas Robertson after a long discussion and consideration submitted the report in 1903. The summary of recommendation is as follows:

i) That a railway fund be established for undertaking improvement of the old lines and for constructing new lines, where needed.

ii) That all the lines should be leased out to the railway companies for management.

iii) That a Railway Board be created with three members for overall administration of the railways, and

iv) The guarantee system may be allowed to continue for the construction of new lines.5

Robertson also recommended that state railways should be controlled by a Board of a management to whom extensive powers should be given and whose members should be paid a fixed salary and that only general control should be exercised over it in its work. It was to be left free
within the powers assigned to it to manage the railway under it in the best interest of the public and the country; but a private company should be controlled by an Agent in India and a Board of Directors in London administering its affair.

For the efficient and well-managed system of Railways, Robertson recommended creation of a small Board composed by specially qualified railwaymen. He also stressed that for the operation of this Board to be successful, it must necessarily be excluded from the general administration of the Government and the Board should manage the railways entirely on commercial lines.6

Regarding the composition of the Board, Robertson observed that it should consist of a President or Chief Commissioner who should have a thorough commercial knowledge of the working of the railways and should be a member of the council for railway matters and two other commissioners who should be men of high standing in the railways and should have a similar training like that of the President. The President and the Commissioner should undertake frequent tours for inspection of the Railways.7

After a thorough consideration of Robertson's report the Secretary of State for India sanctioned the formation of the Board consisting of a Chairman and two members to whom was entrusted the general control and administration of Railways in India.8
Accordingly, in 1905 the control of railways was transferred to a Railway Board consisting of a Chairman and two members; and the railway Branch of the public works Department of Government of India was abolished. In the same year Indian Railway Board Act (1905) was passed investing the Board with all necessary powers of supervision and control of Government under the Indian Railway Act, 1890. The Board was placed under the Department of commerce and Industry of Government of India.

The Railway Board performed the following functions: (i) preparation of railway programmes of expenditure; (ii) consideration of question of railway policy and administration; (iii) construction of new lines by the state agency and new works on open lines; (iv) improvement of railway management with regard to economy and public interest; (v) arrangement for through traffic; (vi) general supervision over the company-owned and managed lines; (vii) settlement of disputes concerning railway matters; and (viii) control and promotion of the staff or state railways.

MACKAY COMMITTEE, 1907

In 1907, a committee headed by Mr. James Mackay was brought into existence by the Secretary of state to evaluate the administrative performance of the Railway Board. The committee submitted its report within a year and declared that the working of the Railway Board was found to be unsatisfactory. The committee remarked that the Government
of India should interfere as little as possible with the action of the Board in technical matters and the Railway Board should be allowed to communicate directly with any department and that the Board should consist of a president and two members, one experienced in Railway construction and the other in Railway traffic.

Besides implementing these recommendations, the Secretary of State introduced the following changes:

i) The designation of the Chairman of the Railway Board was changed to that of the President of the Board and his powers were increased.

ii) The Railway Board was converted into a Department of the Board and it became independent of the Department of Commerce and Industry.

iii) The President of the Board had the right of direct access to the member of the Executive Council concerned and to the Governor-General.9

ACWORTH COMMITTEE, 1920

In 1920, the Government of India wanted to review the performance of the Railway administration. In this regard a committee was set up on November 1, 1920, by the Secretary of the State, under the chairmanship of Sir William Acworth, to examine the constitution and working of the Railway Board and enquire into the defects and drawbacks that had created problems in the development of Indian Railway system.10
After a very exhaustive study of the Railway management, the committee made a number of recommendations. It felt that the Railway Board should be replaced by a Railway Commission. The Committee recommended the creation of a new Department of Communication responsible to the Railway Commission, and suggested that Road Transport and Posts and Telegraphs be put under the charge of a member of Viceroy's Council.

The Committee recommended that the Board should consist of a Chief Commissioner assisted by four Commissioners - one Finance Commissioner and three State Level Commissioners. The Financial Commissioner was to be under the Chief Commissioner holding the second position in the hierarchy of the Board and to have the charge of the financial set up of the Railways.\textsuperscript{11}

Railway Management since 1921

The Acworth Committee by its recommendations laid the foundations of State management and state control of Indian railways. It set up the broad structure of a centralised railway administration and rationalised the entire system of railway financing. The recommendations of the Committee laid the broad basis on which the railway system of India developed.

The committee was against the management by private companies. It observed that a company investing its own
money, managing its own property and judging its officials by their success in producing results in the shape of dividends, usually conducts business with more enterprise, economy and flexibility than a business directly managed by the State. But the English companies had long ceased to be companies in this sense because property entrusted to their management was not their own and their financial stake in it was comparatively small. The management was only nominally entrusted to the companies as the Government, feeling themselves to be the real owners, had left no real incentive in the hands of the companies. Moreover, it was said that the control exercised from a distance of 6000 miles by a Board sitting in England was mostly inconvenient and not favourable to the growth of Indian trade and commerce.

The Acworth Committee further observed that "a large section of Indian public supports the adoption of state management because they believe that company management does not encourage the development of indigenous industries by sufficiently favourable treatment that it gives preferential treatment to import and export goods; that under the present system of company management large profits are made by British interests; and that hitherto the companies have not employed Indians in higher appointments, except to a very limited extent, and have not granted them adequate facilities for technical training."
There is also, in addition, a positive feeling caused by an awakened national self-consciousness that Indian should have more control of the management of the railways in their own country". Moreover, the experience in foreign countries like Germany, Canada, Australia, Russia, Brazil, Japan, had shown that the State ownership and management was by far the best method of running and developing the railway system. Thus, the Acworth Committee made an unassailable case for State ownership and management. The Government of India acting upon its recommendations started the gradual nationalisation of the railway system in India.

Nationalisation of Indian Railways

The transfer of railway ownership to Government was resorted to gradually. The nationalisation of railways was completed over many years. Under the old guarantee system, the Government was empowered to purchase the lines after 25 or 50 years on terms calculated to be equivalent of companies' interest therein. Hence, when the contracts with those companies expired, the Government in most of the cases exercised their right of terminating them. Railways constructed during 1869 to 1880 belonged to the State and were being managed by it. The property of Government, although the companies were given a certain guarantee interest on the capital invested and were allowed to manage the lines. The State had by 1944 come to be the owner of all the trunk lines and had brought them under State
management and the capital had become its property. The last of the contracts to expire, namely, that with the Bengal-Nagpur Railway company, was to terminate in 1950, but the State actually took over the line from the company on October 1, 1944.

As a result of the integration of Indian States into a small number of sizable units, their incorporation in the Indian union and the further integration with the Indian Union of their federal function, the railways which were owned by those States came under the control of the Central Government in addition to those which were already being worked by the Indian railways and were later merged into the contiguous nationalised Indian Railway system. Thus the Indian railways are now completely under state ownership and management and rank first among the nationalised undertakings of India.

Creation of Zones

As the time of independence in 1947, there were 42 independent railway system in the country. After the achievement of political independence and due to partition of the country the railway administration in India were confronted with several new problems. For the efficient administration of the railways, it was felt necessary to re-organise the entire railway system. In order to achieve the interest and efficiency of the railway operation, the entire railway network in April 1952 was divided into six zones. But these zones were considered to be very vast ones to handle the increasing traffic efficiently. Passenger and
goods traffic increased considerably as a result of agriculture and industrial development. It was felt that the standard of operational efficiency of railways was falling. It was anticipated that the traffic would further increase with the progress of planned development of the country. And hence three more zones were created later on by bifurcating the existing zones. These 9 zones also found inadequate and present Railway Minister Shri Ram Vilas Paswan in his maiden Budget speech in July, 1996 announced the formation of six more new zones raising the total to fifteen. These zones are further divided into various divisions for internal management and control. At present the Indian railways are divided into fifteen zones. The brief particulars of these zones are given below:

(1) **Southern Railway** : The Southern Railway, route kilometerage 6722, was formed on April 14, 1951, with its headquarters at Madras, by combining the Madras and Southern Mahratta Railways, South Indian Railway and the Mysore State Railway.

(2) **Central Railway** : The Central Railway, route kilometerage 6472, was formed on November 5, 1951, with its headquarters at Bombay, by combining the G.I.P., Nizam's Staff and the Scindia State Railways.

(3) **Western Railway** : The Western Railway, route kilometerage 10,295, was also formed on November 5, 1951 with its headquarters at Bombay, by combining the B.B. and
and C.I. Railway (less Delhi-Rewari-Fazilka and Kanpur-Achnera sections), Saurashtra, Jaipur State, Rajasthan and Cutch State Railways and the Marwar Phulad section of the Jodhpur Railway.

(4) Northern Railway: The Northern Railway, route kilometerage 10,977, was formed on April 14, 1952, with its headquarters at Delhi, by combining the East Punjab Railway, Bikaner State Railway, Jodhpur Railway (except Marwar-Phulad section), Moradabad, Lucknow and Allahabad divisions of the E.I.R. and the Delhi-Rewari-Fazilka station of the B.B. and C.I. Railway.

(5) The North-Eastern Railway: The North-Eastern Railway, route kilometerage 5163, was also formed on April 14, 1952, with its headquarters at Gorakhpur, by combining the Oudh-Tirhut Railway, Assam Railway and the Kanpur-Achner section of the B.B. and C.I. Railway. Later, on January 15, 1958 this zone was split up into two zones, namely, North-Eastern Railway and North-Eastern Frontier Railway.

(6) The Eastern Railway: The Eastern Railway, route kilometerage 4270 was also formed on April 14, 1952 with its headquarters at Calcutta, by combining the Bengal Nagpur Railway and the E.I.R. (except certain portions, which were transferred to Northern Railway). On August 1, 1955, however, Eastern Railway was split up into two zones, namely, the Eastern Railway and the South-Eastern Railway.
(7) South-Eastern Railway: The South-Eastern Railway, route kilometerage 7075, was formed on August 1, 1955, by splitting up the Eastern Railway. The headquarters of South-Eastern Railway are also at Calcutta. This combines Bengal-Nagpur Railway with minor adjustments. The division of the Eastern Railway was effected because according to the then Railway Minister, Shri Lal Bahadur Shastri, "a rapid rise in traffic on the Railways was expected under the impact of the Second Five Year Plan and the main brunt would fall on the Eastern Railways where the increase in traffic would be 75 per cent over the tonnage handled at the time of splitting. The work-load on the administrative machinery of the Eastern Railways which was already strained, would, it was observed, become unmanageable if the Railway was not divided".

(8) The North-East Frontier Railway: The North-East Frontier Railway with a route kilometerage of 3739 was formed on January 15, 1958 by splitting up the North-Eastern Railway. This has its headquarters at Maligaon and combines Assam Railway with minor adjustments. According to Shri Jagjivan Ram, the then Railway Minister, "the creation of the new Zonal Railway Administration though small in size compared to other units, has been necessitated by manifold considerations - strategic, administrative and operational. It is of vital importance that there should be a dependable, continuous and
all-weather line of communication between the eastern frontier and the rest of India. Besides, there is also the urgent need to augment rail transport capacity for economic expansion and industrial development of this area. It was, therefore, considered imperative to set up at Pandu a full-fledged administrative machinery to be in close touch with the day-to-day railway operation and competent to deal with the immediate as well as long term problem".

(9) South-Central Railway: The South Central Railway, route kilometerage 7137, was formed on October 2, 1966, by taking some of the portions of Southern and Central Railways. With the headquarters at Secunderabad.

Six more zones, i.e. at Bhubaneswar, Allahabad, Hajipur, Jaipur, Bangalore and Jabalpur to be operational in three years. These are the last six more zones to join the list. Eight new divisions at Pune, Rangiya, Guntur, Ranchi, Ahmadabad, Singrauli, Agra and Raipur are also created.

Each zone is headed by a General Manager for management and control. The General Manager is responsible to the Railway Board for operating, maintenance and financial soundness of his zone. He has been given wide powers in matters relating to engineering works, purchase of stores, and dealing with public claims for compensation and works as the chief authority at the Zonal level under the present setup.
The General Manager is assisted by a number of functional heads of the different departments as, Chief Operating Superintendent, Chief Commercial Superintendent, Chief Engineer, Controller of Stores, Chief Medical Officer, Chief Secretary and Financial Adviser. These officers are the heads of their respective departments and are in turn assisted by deputy heads of the departments and these officers are of the rank of Division Assistant Officer at the headquarters office. At the Zonal level, decisions about financial matters are taken by the General Manager keeping in view the suggestions of the Financial Adviser and the Chief Account Officer. If a matter does not fall within the jurisdiction of the General Manager it is reported directly to the Railway Board.

In the beginning of 1956, the post of the Secretary, Railway Board in the senior administrative grade, which had been abolished on the re-organisation of Board in 1951, was again revived. In the same year an important step taken to strengthen the Board was the appointment of five Additional Members in the rank of General Manager of the Railways.

In 1957, a separate Ministry was formed bifurcating the Union Ministry of Railway and Transport and this separate Union Ministry of Railways was responsible and answerable to the Parliament for the efficient working of the Railways.
In August 1958, the status of the Chairman was raised to that of Ex-officio Principal Secretary to the Government of India in the Ministry of the Railways and other Members of the Board were designated as Ex-officio Secretaries. In 1964, the post of Additional Member (Vigilance) in charge of vigilance organisation of the Railways were created.14

Present Management Structure of Indian Railways

Indian Railways are now managed by the Ministry of Railways through the Railway Board. The railways have been divided into fifteen zones for independent administration and each railway zone has been further divided into various divisions for internal organisation and control. We now study the railway administration and organisation under four heads, namely, Railway Ministry, Railway Board, Zonal Administration and Divisional Administration.

1. The Railway Ministry: On the apex of the railway administration is the Railway Board which functions under the guidance of Railway Ministry of the Government of India. The Ministry is under the charge of Railway Minister assisted by State Railway Minister and Deputy Railway Minister. The parliamentary control over railways is exercised through the Railway Ministry. In view of the specialized nature of railway working and development and in view of the fact that a heavy investment has been made in railways and that they are public utility concerns, a
separate ministry for railways was formed on April 17, 1957 by bifurcating the Union Ministry of Transport and Railways. The Railway Ministry is accountable to the Parliament for efficient administration and working of railways. The Railway Budget is presented to Parliament in advance of the General Budget by the Railway Minister. All the important matters are decided with the consultation of Railway Minister.

2. Railway Board: The real administration of Railways is in the hands of the Railway Board. It was created in 1905 and since then it has undergone various changes. It functions in close cooperation with and under the guidance of Railway Ministry. It is fully authorized for management and working of railway under the Indian Railways Act, 1890, Railway Board Act, 1905 and Indian Constitution, 1950. All the powers of the Government of India regarding regulation, construction, maintenance and working of railways are exercised through the Railway Board.

Members: At present the Board consists of the following members: Chairman, Financial Commissioner, Member (Engineering), Member (Staff), Member (Transportation), Member (Mechanical), Additional Member (Staff), Additional Member (Commercial), Additional Member (Finance), Additional Member (Mechanical), Additional Member (Vigilance), Additional Member (Works).
ZONAL MANAGEMENT

ORGANISATIONAL STRUCTURE AT THE HEADQUARTERS OF A ZONAL RAILWAY

General Manager


Operating & Safety  Commercial  Planning  Mechanical Personnel

Civil  Engrg.  Signal & Telecommunication  Engineering

Electrical  Engrg.  Stores

Figure I
The chairman functions ex-officio as Secretary to the Govt. of India in the Ministry of Railways. The Chairman is also responsible for the intra-Board coordination.\textsuperscript{15}

For efficient management the railways have been divided into fifteen management units called railway zones. For internal management the zone is an independent unit and is headed by a General Manager. The General managers of the zonal railway management enjoy a wide measure of authority in the internal organisation and working of their railways under the present set-up. They are assisted by the various heads of departments - Chief Operating Superintendent, Chief Commercial Superintendent, Chief Engineer (Construction), Chief Mechanical Engineer, Chief Electrical Engineer, Chief Signal and Tele-communication Engineer, Controller of Stores, Chief Medical Officer, Chief Security Officer and Chief Accounts Officer and Financial Adviser. These officers are the heads of their respective departments and are in turn assisted by deputy head of department and officers of the rank of Division and Assistant Officers at the headquarters office.

Decisions on financial matters are taken by the General Manager on the advice of his Financial Advisor and Chief Accounts Officer. In cases of disagreement, a reference is made to the Railway Board, apart from cases which do not lie within the General Manager's powers. The
entire revenue grant for the year is controlled by the General Manager with the help of his Financial Advisor and Chief Accounts Officer. In regard to capital works also the General Manager has been given certain powers to incur expenditure subject to necessary funds being available.

So far as disciplinary matters are concerned, all non-gazetted staff are under the administrative control of the General Manager while the powers regarding the enforcement of major penalties on officers are vested in the Central Government.

DIVISIONAL MANAGEMENT

For efficient operation and control each railway management has been further divided into divisions. This is a suitable size of territorial units of a zone, and this is the actual working units of the Railway. The division is managed and headed by a DS (Divisional Superintendent) of junior or intermediate managing rank. The name of Divisional Superintendent in Indian Railways has now been replaced by Divisional Railway Manager (DRM). The departments in the division are set up on the pattern of headquarters. The divisional officers of each department act as executive officers and technical advisers to the DRM. The division, thus, becomes an actual working unit of the railway. The divisional organisation, in fact, is an exact replica of the headquarters' organisation though at lower level and under its supervision.
The DRM is virtually a miniature GM (General Manager) in respect of his division and provides general coordination at the lower level of a division - the level at which the actual field work is conducted. The DRM is an officer of experience and status. He has powers to dispose of local operational and planning difficulties expeditiously. He can resolve most of the day-to-day problems in his area without reference to the headquarters.

Suitability of the present management structure:

The management structure of the railways as in force at present with the Ministry of Railways (Railway Board) at the top, the zonal railway management and the divisional management at the field level, is exceptionally suitable to Indian conditions. It ensures equitable development of railways in all parts of the country, common and uniform rules and regulations, dealings with the general public on a fair basis and unification of the vast areas of the Indian Union Territory. It ensures good parliamentary control, economies of large scale operation, least duplication, better coordination and effective control.16

The Advisory Committees

Some advisory committees have been set up to advise and guide the railway administration in various fields: (i) National Railway User's Consultative Council, (ii) Zonal

(i) National Railway Users Consultative Council:

The Central Advisory Council and the Local Advisory Committees were set up on the advice of the Acworth Committee to develop friendly relations among the railways, the public and the business community, and to help railway management. They operated till 1953. After regrouping these committees have been reconstituted. The Central Advisory Council was given a new name, viz. National Railways Users Council, and the various Local Advisory Committees are now called Zonal Railway Users' Consultative Committees and Regional Divisional Railway Users' Consultative Committees. Thus the present organisation is a three-tier pattern.

National Railway Users Consultative Council is an all-India body which is presided over by the Union Minister for Railways. There are 56 members of the Council consisting of Secretaries of Ministries of Food and Agriculture, Commerce, Finance, Steel, Mines and Fuel, Chairman and the members of the Railway Board; 18 members of Parliament; a representative of each of the Zonal Railway Users' Consultative Committee, one representative each of the coal, iron and steel, jute, cotton, sugar and cement industries, one each from three all-India Chambers of Commerce and Industry, and one to represent agricultural
interest. At the committee meetings are discussed problems relating to the general progress of the railways, their operational efficiency in terms of wagon miles per wagon day, wagon turn around, net ton-miles per wagon day, etc., passenger transport, and the problems of overcrowding, basic amenities afforded and the scope for further amenities, social education of passengers for more intelligent use of railway amenities, railway catering, administrative schemes, railway concessions, accidents etc.

The subjects discussed at the Council meetings indicate the increasing value attached by the public and the railway administration to this scheme. In addition, inspection tours are undertaken regularly by the members of the Railway Board to various important cities and state headquarters. These visits are notified in the press and through correspondence to the local governments, chambers of commerce and other public bodies and thus afford opportunities to the State governments and important traders to bring forward their suggestions to the touring members and to have direct discussions thereon.

(ii) Zonal Railway User's Consultative Committees:

Each of the zonal railways has a Zonal Railway User's Consultative Committee with the General Manager of the railway concerned as its chairman. It deals with (i) matters from the point of view of the zonal railway as a whole, (ii) matters arising out of discussions of the
regional committee, and (iii) matters referred for consideration by the railway management concerned. Members of this committee include one representative of each of the states served by the railway, one representative of state legislature, seven representatives of merchants' associations, chambers of commerce, etc., two elected representatives of the zonal committees, one representative of the port trust and one member of the Parliament. The general managers and the commercial and operating heads also undertake tours over their railways. These visits have rendered it possible to arrive at decisions more quickly on many important matters and to bring about a better understanding between the railway management, local governments and commercial and other bodies. Periodical meetings of representatives of zonal railways and chambers of commerce are also held.

(iii) Regional Divisional Railway Users' Consultative Committees:

The Railways having a divisional system have Divisional Railway Users' Consultative Committee for each division. Previously the railways which had a District system had Regional Railway Users' Consultative Committees to represent the general railway users in the Divisions or regions. Each committee is presided over by the Divisional or Regional Superintendent of the local division or region as the case may be. Each committee consists of 12 members
including representatives of trade, passenger associations and members representing any other special interest nominated by the General Manager. The pattern of the organisation is the same as in respect of committees discussed above. These committees are concerned more with local problems and grievances, viz., provision of amenities, matters affecting the services and facilities provided by the railways, changes in time tables, proposals regarding the opening of new railway stations, etc.

Thus the consultative machinery had been reorganised in 1953 through a three-tier system which renders invaluable assistance to better the relationship of railways and their customers. The railway management will have, thus, an opportunity to hear seemingly minor grievances which might be causing great inconvenience to the public. Moreover, still at lower level - railway station level - such committees can be formed and attached to Divisional Committees.

(iv) Miscellaneous Railway Committees:

A large number of advisory committees such as catering committees, suburban users' amenities committees, book stall advisory committees, time-table committees, railway equipment committees, etc. have also been appointed out of a wide cross section of railway users with a view to making railway management amenable to public opinion.
Utility of advisory committees and conferences:

Regular and formal discussions between railway management and the users through these committees and conferences serve a very useful purpose and are indispensable. They serve usually one of the three purposes, namely, (i) to develop from the group the best ideas, plans, procedure and standards, (ii) to instruct and drill each member of the group for acceptance and skill in using standard practices already approved, and (iii) to influence attitudes beneficial to the railways and mould character by broadening the group's understanding.

The main benefits to be derived from such organisations are: (i) aid in discovering problems, (ii) aid in solving problems, (iii) aid in obtaining increased acceptance of decisions made, and (iv) aid in improving the ability of the people who attend them. Periodical conferences at regular intervals improve railway working as well as win public opinion.

The valuable suggestions made by a touring group of non-official members of the Zonal Railway Users' Consultative Committee of Central Railway which visited several installations in Bombay and upcountry centres reveal the utility of such organisations. This touring group recommended "the modernising of lavatories by doing away with the basket system of disposal at present existing at some places, provision of additional roof cover
platforms at more important stations, better lighting on platforms, in waiting halls and booking offices, more benches in second class waiting halls and on platforms, lowering of sheet time-tables and fare lists and their resetting directly under a light for better visibility at night, placement of Hindi time-tables and fare lists, and a buzzer, bell or loudspeaker arrangement in the second class waiting halls when located far from the platforms to inform passengers of the impending departure of trains 10 minutes in advance".

(v) The Railway Rates Tribunal :

All the fares, freight etc. are determined under this tribunal.

Other Organisations :

Besides the above management machinery, there are six production units, namely,

i) the Chittaranjan Locomotive Works (West Bengal),

ii) the Diesel Locomotive Works (Varanasi, U.P.)

iii) the Integral Coach Factory (Perambur, Tamil Nadu),

iv) Rail Coach Factory, Kapurthala (Punjab),

v) Wheel and Axle Plant, Bangalore and

vi) Diesel Component Works, Patiala

They are independent organisations incorporated under the Companies Act, 1956 as public companies. These organisations administer the manufacturing of locomotives, their parts and components, and passenger coaches.
In order to provide technical financial and consultancy services in India and abroad on various aspects of railways, four public sector undertakings have also been established in the last decade:

i) Indian Railways Construction Company (IRCON),
ii) Rail India Technical and Economic Services (RITES),
iii) Indian Railway Finance Corporation (IRFC),
iv) The Container Corporation of India (CONCOR).

The Research, Design and Standards Organisation has been set up with its headquarters at Lucknow, mainly for research purposes. This organisation is responsible for engineering, designing, and setting standards for railway equipments. The standards and designs of railway bridges, lines, signals, buildings etc. are determined by this Organisation which also gives advice on technical and commercial matters relating to railway engineering. It maintains a library and publishes technical papers.18

Summary:

Indian Railways are under complete state ownership and control today, although there have been changes in the system of administration and control from time to time during the long years of their history.

At the beginning, Indian railways were managed by guarantee railway companies. The Government of India under the provisions of the contracts with those companies
secured from the very beginning detailed control over the management of the railways. This system exercised till 1921 when the Government of India Act, 1919 came into force.

The transfer of railway ownership to Government was resorted to gradually. The nationalisation of railways was completed over many years. At the time of independence in 1947, there were 42 independent railway systems in the country. For the efficient administration of the railways, it was felt necessary to reorganise the entire railway system. In April 1952, the entire railway network was divided into six zones. But these zones were very big and was hard to handle the increasing traffic efficiently. And hence, three more zones created later on by bifurcating the existing zones. These 9 zones also found inadequate to handle the management effectively. Present Railway Minister Shri Ram Vilas Paswan in his maiden Budget speech in July 1996 announced the formation of six more new zones raising the total to fifteen. These zones are further divided into various divisions for internal management and control. At present there is four-tier management in Indian Railways. On the apex of the railway administration there is Railway Ministry which is under the charge of a Railway Minister assisted by State Railway Minister and Deputy Railway Minister.

At second stage there is Railway Board. The real administration of railways is in the hands of the Railway
Board. It was created in 1905 and since it has undergone various changes. It functions in close cooperation with and under the guidance of Railway Ministry.

At third and fourth stage there are zonal administration and divisional administration. Divisions are the suitable size of a zone and this is the actual working unit of the railways.
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2. Lord Dalhousie's Minute, 4 July 1850, para 44.
4. Ibid., p. 174.
6. Ibid., para 53, p. 17.
7. Ibid., para 60, p. 19.
11. Ibid., p. 86.
16. Ibid., p. 190.
17. Ibid., pp. 190-93.
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Chapter VI
CONCLUSIONS AND SUGGESTIONS
CHAPTER - VI

CONCLUSIONS AND SUGGESTIONS

The following are the main conclusions and suggestions that emerge from this study.

Human resource is the most vital resource of an enterprise. The objectives of HRM include getting the right people for the right job at the right time. To attain these objectives, it requires a coordination among several systems. The main HRM systems are: (i) Appraisal System (ii) Career System (iii) Training System (iv) Work System (v) Culture System, and (vi) Self-renewal System.

All systems and sub-systems of HRM must be incorporated in the organisation while setting the goals and objectives. This also integrates the purposes and process and make HRM more meaningful. Human resource functions are many and varied and include such things as human resource planning, recruiting, selecting, training and counselling employees, compensation management and employer-employee relations. In small organisations, most human resource functions are performed by owners or operating managers. Large organisations usually have a human resource or personnel department that is responsible for coordinating and directing the human resource functions. However, little systematic information exists in the area of HRM policies and programmes that are generally
followed in organisations to achieve their corporate goals and objectives. Successful human resource management is essential to organisational growth and success. In the light of new challenges, there are indications that human resource people will play an increasingly important role in an organisation's long-range planning and policy-making activities.

Human resources, together with financial and material resources, contribute towards production of goods and services in an organisation. Physical and monetary resources by themselves can not improve efficiency or contribute to an increased rate of return on investment. It is through the combined and concerted efforts of people that monetary or material resources are harnessed to achieve organisational goals. But these efforts, and skills have to be sharpened from time to time to optimise the effectiveness of human resources and to enable them to meet greater challenges.

Experience shows that the quality of human resource management mainly determines the rate of economic progress in a country. The enterprise is a community of human beings. It's performance is largely determined by the performance of human beings and human resource performance is the result of proper human resources management. Management of a highly productive material like human resources is very much important. It has been well
recognised that progress in any sector of the economy is mainly due to the contributive shown by its human forces. Even the widely accepted desire for the economic development of an under-developed economy needs the vital support of its manpower. This has made the human factor in the process of development as the most sensitive branch of management.

All the development efforts remain futile if it is not directed in a positive way. Human resource is one of the main factors of production. It organises and manages the other factors of production. In the absence of this factor no goal can be achieved. If it is not properly managed then the desired result can not be achieved. Of all factors of production, management of manpower in an organisation is the most delicate one.

Management of Human Resources in changing times is highly complex and difficult. The revolutions taking place in education, science, technology, management, business and society have rendered many age old concepts and stereotypes obsolete. The human resource planner should have some understanding of the new perspectives both with regard to the challenges faced due to change and the changing attitudes of people.

The major problems faced in human resource "development management" are
(i) How to make people work?
(ii) How to make them more efficient?
(iii) How to keep them satisfied?
(iv) How to improve their performance?
(v) How to harness their expertise?
(vi) How to train them for a better future, and how to retain them in the business?

People are essentially self-managing, in other words while other resources are managed by people, human resources are managed by themselves. People themselves decide about the nature, time and place of their employment. And people react to the changing conditions and to the techniques of management unlike money, material and machine. Further in the present times where the principles of democracy have influenced every walk of life, the relation between employees and employers is also seen as a partnership in a constructive endeavour to promote the satisfaction of the economic needs of the community in the best possible manner.

Human resource management is the process of managing the people of an organisation with a humane approach. HRM approach to manpower enables the manager to view his people as an important, if not the most important, resource. It is a benevolent approach to develop and effectively utilize the manpower not only for the benefit of the organisation but for the growth, development and
self satisfaction of the concerned people. Thus human resource management is a system that focuses on human resource development on the one hand and effective management of people on the other. Human resource management, broadly speaking is the process of achieving the best fit between individuals goals and organisational goals.

Thus HRM emphasises three points, at first HRM focuses on action rather than on record keeping, written procedures or rules. It emphasises the solution of employment problems to help, achieve organisational objectives and facilitates employee development and satisfaction. Secondly, HRM considers each employee as an individual and offers services and programmes to meet the individual's needs. Thirdly, effective HRM is concerned with helping an organisation to achieve its objective in the future by providing for competent, well-motivated employees.

The Human Resource Management is based on the concept to make the strength of people productive and their weakness ironed out. Thus HRM deals with values and beliefs with ethical choices and responsibilities with goals and the means of attaining them.

Change is a must for the development of any discipline. The rationalisation of attitudes towards the labour and labour management relations at different stages
have resulted in the emergence of various concepts of HRM. The early part of the century saw a concern for improved efficiency through careful design of work. During the middle part of the century emphasis shifted to the availability of managerial personnel and employees productivity. Recent decades have focused on the demand for technical personnel, responses to new legislation and governmental regulations, increased concern for the quality of working life, and a renewed emphasis on productivity. These trends are more closely examined by transformation of personnel function from one stage to another, i.e. commodity concept, factor of production concept, machinery concept, the goodwill concept, the natural resource concept, paternalistic concept, the humanitarian concept, the human relations concept, the citizenship concept, and the partnership concept.

Human resource management is viewed in entirely different perspective. Though organisational interest is important in all the management policies. HRM projects the development of individuals in accordance with individual needs and aspirations so that the individuals would be motivated to make their best contribution towards the accomplishment of common goals. While personnel function is designed to respond to the organisational objectives like profit maximisation, HRM visualises human elements of enterprise as important resources. Hence, HRD is the most crucial aspect of human resources management.
The human resource management approach which has been gaining the attention of management professionals during the last decades has become the need of the hour due to various reasons.

Widespread industrial unrest, growing trade union influence on workforce, strained worker management relationship, increasing gulf between management and employee, emergence of militancy in trade unionism, and the growing conflict in the industrial relations scene have resulted in the workers getting out of gear of the management in many organisations in India. This has made the management to think in terms of carrying their workers with them. Convincing the workers of the management's concern for them may, perhaps, go a long way in getting along with them and ensuring their better performance. This has naturally resulted in the development of present human resources management.

The progress of science and technology and the changes in the technological climate with consequential changes in economic, social and political climate, must be responded to these changes successfully a behavioural reorientation is necessary. The productivity of the organisation would be to a great degree depend on how well this is tackled. Today this is often attempted to be dealt with by institutional training but that itself will not be sufficient.
First of all there is the question of goal setting and monitoring of performance. This is to be done not merely at the corporate level but also at all levels including the unit level. However, this requires as a pre-requisite, an open culture and a package of value system comprising certain criteria such as openness, confrontation, trust, authenticity, proaction, authority and collaboration.

In short it may be said the complex character of the enterprise necessiated that there should be professionalisation of management at various levels. To run the departments, the owners themselves acquired management training and tried to fill the gap between the traditional techniques and modern techniques of management. Therefore, the broad strategy indicated in this thesis is obviously long term measures for they involve radical and far-reaching measures. Any abrupt or sudden introduction of all these measures without appropriate and previous preparation may be counterproductive.

The aim of the present study is to examine the human resource management practices in the Indian Railways which are the biggest service industry employing 16.6 lakh workers spread over the length and breath of the country. It is imperative that the customers are given the maximum comfort by ensuring safety, security and punctual running
of the trains both freight and passenger. A dynamic, effective work force and their management is essential for the success of Indian Railways.

In order to meet the objectives the human resource in Indian Railways is divided into four groups i.e. Group A, Group B, Group C and Group D. Under Group A and B gazetted officers are recruited and in Group C and D non-gazetted employees are recruited through various techniques.

Recruitment is the first step in the employment of labour, and naturally the methods and organisations by means of which labour is brought into industry has a lot to do with ultimate success or failure of such employment.

The recruitment of Group A services is being done by Union Public Service Commission on all India basis, lists of the recruitment for all services in Group A replaced before the Railway Board. Forty per cent to fifty percent posts of Group A are filled by promotion of Group B officers who have put in minimum 3 years service in class II on the recommendation of the UPSC.

There is no direct recruitment in Group B vacancies. In the Group B, posts are filled by promotion of Group C staff on the recommendation of the Department Selection Board. The employees under Group C are directly recruited by the Railway Service Commission, Railway Recruitment Board at 19 places which are locating in different states.
There is a direct recruitment procedure for Group 'D'. It is confined to workshops and production units only, in this case vacancies are first assessed taking into account the number of existing and anticipated vacancies. The assessment is approved by the concerning authority. Then a selection board is nominated consisting of one Executive Officer of the concerned department, one Personnel Officer and one Officer from the reserved community. Certain appointments are made on sports ground, compassionate grounds and physically handicapped grounds also.

After recruitment and selection process is completed, the training is given to them, so that they can do their job in the better way. Actually training enables an individual to do a job in a correct, effective and efficient manner. Therefore, it is also regarded as the corner stone of sound personnel management. Employees must be systematically and scientifically trained to handle the job. For providing training to the employees, Indian Railways have established five specialised training institutions under the command of Railway Board within the country. They are Railway Staff College, Vadodara, Indian Railway Institute of Civil Engineering, Pune, Indian Railways Institute of Signal Engineering and Telecommunication Secunderabad, Indian Railways Institute of Mechanical and Electrical Engineering, Jamalpur, and Indian Railways Institute of Electrical Engineering, Nasik.
Significantly the dearness allowance is enhanced to compensate for the rise in the cost of living. The rates of Dearness Relief to Railway pensioners and family pensioners are also enhanced simultaneously. Cadre reviews of various Group C and Group D staff are also undertaken. This provides benefits of promotion to a large number of employees. Besides these benefits the Indian Railways provide promotion to their employees for their past performance. Contrary to these promotions penalties are also imposed to employees for their fault and negligence.

Indian Railways not only provide several amenities to its employees but also for itself. For the development of itself the Indian Railways have given a drastic attention too. As it was started on 16th April, 1853 with 14 coaches and 3 engines only. Since then till today a drastic change has taken place.

Indian Railways are growing rapidly, satisfactory performance, more facilities for passenger, safety against accidents, modern signalling, high speed locomotives and modern rolling stock of Indian Railways are the achievements. These achievements are gained due to management of human resource. Indian Railways are also played very conducive role for the social, political and economic development of the nation.
Railways, being in the nature of important public utility, have been either directly managed by the Government or substantially regulated through effective legislations. Indian railways are under complete state ownership and control today, although there have been changes in the system of administration and control from time to time during the long years of their history.

At the beginning, Indian railways were managed by guarantee railway companies. The Government of India under the provisions of the contracts with those companies secured from the very beginning detailed control over the management of the railways. This system exercised till 1921 when the Government of India Act, 1919 came into force.

The nationalisation of railways was a gradual process. At the time of independence in 1947, there were 42 independent railway systems in the country. After the achievements of political independence and due to partition of the country the railway administration in India were confronted with several new problems. For the efficient administration of the railways, it was felt necessary to reorganise the entire railway system. In order to achieve the interest and efficiency of the railway operation, the entire railway network was divided into six zones, in April 1952. But these zones were considered very big zones to handle the increasing traffic efficiently. Passenger and goods traffic increased considerably as a result of
agriculture and industrial development. It was felt that the standard of operation efficiency of railways was falling. It was anticipated that the traffic would further increase with the progress of planned development of the country. And hence three more zones were created later on by bifurcating the existing zones. These 9 zones also found inadequate to handle the management effectively. Present Railway Minister Shri Ram Vilas Paswan in his maiden Budget speech in July 1996 announced the formation of six more new zones raising the total to fifteen. These zones are further divided into various divisions for internal management and control. At present the Indian railways are divided into fifteen zones.

Indian Railways are now managed by the Ministry of Railways through the Railway Board. The Railways have been divided into fifteen zones for independent management and each railway zone has been further divided into various divisions for internal organisation and control. On the apex of the railway administration is the Railway Board which functions under the guidance of Railway Ministry of the Government of India. The Ministry is under the charge of Railway Minister assisted by State Railway Minister and Deputy Railway Minister. The parliamentary control over railways is exercised through the Railway Ministry.

The real administration of railways is in the hands of the Railway Board. It was created in 1905 and since then
it has undergone various changes. It functions in close cooperation with and under the guidance of Railway Ministry. It is fully authorised for management and working of railway under the Indian Railways Act, 1890, Railway Board Act, 1905 and Indian Constitution, 1950. All the powers of the Government of India regarding regulation, construction, maintenance and working of railways are exercised through the Railway Board.

For efficient operation and control each railway management has been further divided into divisions. This is a suitable size of territorial units of a zone, and this is the actual working unit of the Railway. The division is managed and headed by a DS (Divisional Superintendent) of junior or intermediate managing rank. The name of Divisional Superintendent in Indian Railways has now been replaced by Divisional Railway Manager (DRM). The departments in the division are set up on the pattern of headquarters. The divisional officers of each department act as executive officers and technical advisers to the DRM. The division, thus, becomes an actual working unit of the railway. The divisional organisation, in fact, is an exact replica of the headquarters' organisation, though at lower level and under its supervision.

The DRM is virtually a miniature GM (General Manager) in respect of his division and provides general coordination at the lower level of a division - the level
at which the actual field work is conducted. The DRM is an officer of experience and status. He can resolve most of the day-to-day problems in his area without reference to the headquarters.

Indian Railways are facing many problems like low operating efficiency, accident, ticketless travelling, gauge, corruption, safety and security of passengers, welfare and research. If the railways are to be called efficient they must provide cheap, speedy, frequent, convenient, punctual, safe and adequate transport service to the public and that too at reasonable cost and without suffering losses.

The operating efficiency of Indian railways is very low in comparison to developed nations. Technical efficiency which relates to the efficient utilisation of railway equipment, its serviceability and maintenance, signalling, line layout, fuel consumption etc. is not of desired order.

Organisational efficiency which relates to the efficient organisation of station, marshalling yards, goods station, traffic control, transshipment stations, workshop organisation and control organisation of tele-communication and other communication systems is not attained at the desired level.
Personal efficiency which relates to the proper selection, training, remunerating, promoting, maintaining discipline, controlling and coordinating the personnel are not functioning systematically.

Managerial efficiency which relates to proper planning of railway expansion and development in the country, setting up objectives, policies and programmes for railway service, and organisation for administrative control, coordination, supervision etc. is not good enough.

Indian Railways are short of accommodation both for passengers and goods. The Indian Railways could not keep pace with the growth of traffic and the accommodation fall short. The result has been congestion, delay and damage in goods traffic and overcrowding and inconvenience in the passenger traffic. During second world war "the long trains loaded to the brim, passengers on the top and the footboards, hauling like cattle inside and scaling like monkeys outside, and the locomotive panting like a cardiac asthmatic patient was the common sight in the country". The position is much improved now, but the overcrowding, particularly in second class, is more or less the same.

Overcrowding problem can be solved by introducing new and longer trains, by speeding up the trains, by providing separate space for luggage, vigorous checking of ticketless travellers, and by running shuttle trains between two important stations for short distance travellers.
And the problem of increasing goods traffic can be reduced by increasing wagon capacity, line capacity, double lining, electrification, better track standards and bigger trains.

The trains generally run hours late causing incalculable inconveniences and loss of time. Vigorous efforts should be made to maintain a high punctuality ratio. Chain pulling by ticketless travellers and other persons is one of the major causes of trains being late. It must be seriously dealt with by the railway authorities. Heavy fines and punishments should be imposed on defaulters.

As regard to speed the Indian railways are still poor in comparison to Japan, France, U.K., Canada, Russia, America and Germany. The main causes of the low speed are poor rolling stock, single line, weak railway tracks, chain pulling and absence of proper coordination and communication between offices. Average speed can be substantially improved by removing the above causes.

One can say that the fatal problem of Indian railways is accidents. Apart from the loss of lives, the accidents cause a good loss of economy too. Despite best efforts and safety devices accidents are not completely eliminated. Accidents occur due to technical and non-technical causes. As the technical causes are concerned, it may be defective permanent way, rolling
stock, interlocking installations, violation of rules and regulations laid down by the management. As far as non-technical causes, these may be floods, stones, fire, sabotage activities and other reasons.

Railway accidents cause untold sufferings to humanity by killing and making persons permanently crippled and disabled and by causing tremendous loss of railway property. The accidents must be completely eliminated. For the achievement of this goal the drivers and other operating staff should be carefully selected. Training facilities and refresher courses should be increased. The frequent and regular inspection of permanent ways, locomotive, signals, crossing, breaks, staff etc. should be organised. Introduction of modern safety devices like automatic warning control, automatic signalling, appointment of physically fit and vigilant gate men at all road crossing, speedometer to record automatically the speed of trains etc. will help in reducing the accidents.

Indian railways should also organise the seminars and discussion on the issue of accidents. There should be proper enquiries and defaulters must be punished in term of suspension, dismissal, fine and jail etc.

The third major problem before Indian railways is ticketless travelling. It causes a heavy leakage of railway revenue every year and a great nuisance to the genuine travelling passengers. In order to overcome the problem
there should be efficient fencing arrangements on all the railway stations so that the ticketless travellers may not go out of the stations except through the railway gate. Intensive checking should be increased. Better ticket selling arrangements should be at every stations so that travellers can purchase tickets easily. The railway police force should be increased to provide more protection to the railway checking staff. If even then there is such problem then the defaulters whether these are staff or passengers must be punished with dismissal, fine and prosecutions as may be the case.

Multiplicity of gauge is also a serious problem before Indian railways. There are four varying gauges prevalent in India, i.e. broad gauge, 5'6'', meter gauge 3'3-3/8'', narrow gauge 2'6'' and 2'10''. These various gauges are causing many problems in loading and unloading the goods. The wagons remain idle and their effective use is not possible as unless a wagon is unloaded and another loaded both the wagons have to wait at transhipment station. This also means unnecessary congestion, more and bigger requirement of marshalling yards, more wagons, more employees and staff, more maintenance of equipments etc. The main evil of break-of gauge is the detention of the rolling stock at every point of transhipment. The break-of gauge causes a great financial loss to the railways. This
increase tremendous capital expenditure and operating expenses.

This problem should be tackled in the long run by gradual conversion of meter and narrow gauge into broad gauge. A priority list should be framed and a time schedule prepared for conversion.

As for corruption is concerned, it is spread all over the world. But it is rather more widespread in railways than elsewhere. It is difficult to say that the railway employees alone are responsible for this evil of corruption. The persons who want illegal favour and pay illegal gratification are, indeed also responsible for this corruption.

In order to eradicate the corruption there should be strict observance of rules and regulations by the railway staff. There should be also proper investigation of railway employees who have accumulated wealth much more than their earning capacity. Mobile courts to hear the complaints of the railway management and the people will develop in reducing the corruption.

Improvement in Railway Police and, frequent transfer of staff and heavy punishment are the need of the day for improving situation.

The problem of safety and security of railway passengers has also become very serious during recent
years. There have been shocking incidents of murders, dacoities, petty robberies and other acts of crime taking place on the railways almost every day in one part of the country or other. Bihar has become the prime prey of these crimes in first six months of 1997. The Government should have to take the major and strong steps to eradicate these crimes. The safety and security of passengers must be handed over to RPF in place of GRP. Unless the functioning of the RPF and the GRP is coordinated properly, crimes on the railway trains can not be brought down in any significant measure.

Railways provide essential services and no agitation, strike or go slow tactics should be resorted to or adopted by the employees. It is, therefore, the duty of the railway administration to see that the railwaymen are provided with adequate housing, medical, educational and various other amenities.

Research is the very basis of creating and enriching knowledge. Research in the field of railway operation can hardly be over emphasised. Organised research can help in reducing the manufacturing cost of rolling stock, buildings, bridges and various other equipment of railways, and their maintenance cost. It will also assist in effective utilisation of local resources and thereby in achieving self-sufficiency and in reducing the dependence
The pace of rationalisation and modernisation depends upon the research activities.

There is a wide scope and field for research in railways. The Kunzru committee emphasising the need of research in railway said that "a vast field of research lies entirely unexplored and that investigations wisely directed and effectively controlled would provide solutions to railway problems which would result in increased efficiency and large economies". Research may be undertaken in the spheres of soil mechanics for the stabilisation of embankments, foundations and walls, in prestressed concrete girder spans for railway bridges for the conservation of steel for other urgent requirements; in developing chemically fire-proofed wooden sleepers to save them from cinders which fall from the locomotives, accidents, prevention and safety devices, automation, standardisation, simplification, fuel consumption, new designs of rolling stock, rationalisation of workshops, building construction and design etc. Research may also be conducted in the field of scientific loading and unloading devices, traffic control and communication, signalling, office organisation. Indeed, the field of railway research is unlimited.
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