CHAPTER - V

HUMAN RESOURCE PLANNING IN
INDIAN RAILWAYS
This chapter discusses the human resource planning in Indian Railways. It is observed that the human resource planning to be effective should be consistent with the socio-technical changes taking place locally and globally. Personnel department in Indian Railways has been attempting to enlarge its scope to make it a vibrant system and to positively affect the quality of service of Indian Railways. To attain optimal manpower, which is effective and efficient, the personnel department in Indian Railways is making concerted efforts through its manpower planning and policies. However, Indian Railways has been forced to address certain serious, nagging and complex issues of manpower planning like redundancies, multi skill, peculiarities of staffing pattern, and casual laborers, who are quite significant in number in the Indian Railways. These issues, which cannot be wished away, assume significance in the light of technological changes that are sweeping across making the existing manpower obsolete. An attempt is made in this chapter to discuss the different dimensions of these issues to highlight the challenges before manpower planning in Indian Railways in the changing context.

It is generally accepted that "in Human Resource planning the manager is concerned with motivating people. It is a process in which costs, numbers, control and systems interact and play a part. In Manpower Planning, the manager is concerned with the numerical elements of forecasting, supply - demand matching and control, in which people are a part"\(^1\). A 1988 IPM Survey attempted to establish and survey the use of 'systematic human resource planning' defined as long-term,

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strategic planning of human resources concerned more with the development of skill, quality and cultural change than statistical numerical forecasting, succession planning and hierarchical structures. The modern style human resource planning, as outlined in IPM guide, places considerable emphasis on proactive strategy, which anticipates and responds to changes in the environment, linked to corporate strategy designed to enhance competitive advantage or quality of service.

Human resource planning as we see now attempts a more strategic planning of employees within the organisation and states that the human resource department should be an integral part and member of the business strategy-making body. Equally, management must be aware of the needs of the organisation in the present, in the short term and, where possible, in the long-term. The planning processes are also related to concepts of human resource management, flexibility and decentralisation and development of functions previously carried out by the personnel department, but increasingly being undertaken by line management. Thus rather than decide upon the business strategy, i.e., new product market ambitions, growth and diversification plans, restructuring and relocation design, and then inform the man power planners at a later date to "pick up the pieces" and alter the employee resource patterns accordingly, strategic human resource planning seeks to integrate the employee resource function at board level. As Armstrong said, "it can, and often does, mean radical changes in

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thinking about the competence required in future to achieve sustainable growth and culture change.  

**Manpower Planning and Indian railways:**  

Viewed in the context of human resource planning, Indian Railways is presently on the threshold of major technological changes. Some categories of staff are likely to become surplus, there may be shortage in few categories and some new categories may get born as substantial inputs in areas like electrification, communications, computerisation, new production units become unavoidable in due course of time. While manpower productivity compared to international standards is low due to low levels of skills and antiquated work methods, the average cost for employee has risen sharply in recent years.  

The Average Annual Cost per employee has increased roughly 7 times over the last two decades. This figure is likely to go up further due to implementation of the Fifth Pay Commission. It is further seen that 65% (Rs.9,378.3 Crores) of the ordinary working expenses (Rs.14,374.9 Crores) was the wage Bill of the Railway employees for the year 1995-96. In terms of gross Traffic receipts, the wage Bill represents 42% of the Gross Traffic receipts of Rs.22417.85 Crores for the year 1995-96. Simultaneously, there is a fall in traffic. In the year 1950, Indian Railways carried over 80% of both passenger and freight traffic. Today, its share of originating passenger traffic is 20% and that of freight is 35%.

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Rail India Technical and Economic Services (RITES), a Public Sector Undertaking of the Ministry of Railways, was asked a few years back to study the manpower required for Indian Railways. It indicated future manpower requirements based on growth of traffic. The report suggested that there was a potential to reduce 2,94,000 personnel by 2000 A.D. The department-wise break-up as suggested by RITES is given in Table 5.1. The Fifth Central Pay Commission under Hon'ble Justice Shri Pandiyan also requested the Institute of Applied Manpower Research Institute (IAMR) to critically examine the projections made in the RITES study. IAMR was asked to update them in the light of latest technology upgradation and the likely volume of traffic to be handled by Indian Railways by 2000 A.D. Based on the Department-wise analysis, IAMR (March, 1996 report) suggested that keeping the size of the traffic handled by 2000 A.D., a projected manpower strength of 13.74 lakhs was adequate on Indian Railways meaning thereby a staff surplus of nearly 2.5 lakhs by 2000.

Table 5.1

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<thead>
<tr>
<th>Department</th>
<th>Potential (Nos.) for reductions</th>
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<tbody>
<tr>
<td>Commercial</td>
<td>27,000</td>
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<tr>
<td>Electrical</td>
<td>24,000</td>
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<tr>
<td>Engineering</td>
<td>1,32,000</td>
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<tr>
<td>Mechanical</td>
<td>1,10,000</td>
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<tr>
<td>Medical</td>
<td>29,000</td>
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<tr>
<td>Personnel</td>
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<tr>
<td>Traffic</td>
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<tr>
<td>Security</td>
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<tr>
<td>Stores</td>
<td>10,000</td>
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<tr>
<td>Signal and Telecommunication</td>
<td>4,000</td>
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Fifth Pay Commission has, accordingly, also recommended reduction of work force by 3% every year for the next 10 years. It is equally important to emphasize that one of the stated objectives of the 9th Five Year Plan (1997-2002) is "improvement of Manpower productivity, work culture and staff morale". Thus the need of slimming of the organisation may be widely felt at certain points, where it is considered surplus, there may also be a need to have a trade off with the socio-economic objective of developing economy, in which it has to operate.

Problem areas of Manpower Planning in Indian Railways:

On Indian Railways, there has been very little attempt at systematic identification of manpower problems. The organisation has managed so far by reacting to situations more or less on an ad hoc basis. Lack of means of processing manpower information for the purpose of analysis and for developing suitable responses has contributed a great deal to the present situation. Lack of know-how for analysing manpower problems has also been a contributing factor. Thus it is necessary to identify areas of inadequacies of human resource planning system on Indian Railways and suggest strategies to evolve a comprehensive human resource planning system to cater to short term and long term needs of the system in the changing technological environment. Certain problem areas, which appear to confront Indian Railways on the issue of human resource planning, are enumerated in the following paragraphs.
a) Surplus staff due to change in technology:

There are several areas where change in technology has resulted in redundancy of some type of work and categories. Simultaneously it has resulted in shortage of staff in many new categories, which have got generated to maintain the new activities. A few noteworthy examples are Telegraph operators, Permanent way staff following mechanisation of track maintenance (redeployed for track-patrolling), Shunting team despite automatic coupling and automatic operation of points, Marshalling yard staff and wagon inspection/maintenance staff following closure of yards and changed pattern of traffic. There is a need for quick redeployment of these staff rendered surplus in other categories/elsewhere after suitable training, if necessary.

In the Civil Engineering area the last few years have witnessed many changes in track-technology implemented on Indian Railways to meet the increased traffic demand arising out of the developmental activities in the country. The facets influencing the track-structure and track maintenance are:

- Higher traffic density on both MG and BG tracks comprising of freight and passenger movements,
- Introduction of heavy haul operation and adoption of BOX N or equivalent type wagons,
- Introduction of higher speeds of the order of 140 km./hr. on BG and 100 km./hr. on MG on selected routes,
- Adoption of improved track structure consisting of higher UTS rails welded into long lengths and laid on concrete sleepers at closer spacing over ballast of increased cushion,
- Progressive introduction of mechanical maintenance, and
- Changed socio-economic conditions of trackmen that demand a shift from manual to mechanised or semi-mechanised working.

Mechanised maintenance of track necessitates gagemen with better skills and new skills to be acquired by staff. There is a need for redeployment of permanent way staff and laying down new work procedures and curtailing visible areas of manpower excesses. In the wake of improved methods of reservation of tickets etc., computerisation has been introduced at all major stations of the country and it is gradually being extended to smaller stations as well. With the change in technology, new work procedures require to be evolved and staff have to acquire new skills which were not known hitherto. Manpower surpluses in earlier categories and deficits in the new categories have to be systematically worked out and adjusted. There is also a need to have computerisation in the Engineering Department in the design and drawing sides to keep pace with other technical organisations of Government of India.

There is a further need to identify the information needs for the various activities of the Civil Engineering Department and attempt computerisation. With the changing scenario, the manpower scene in terms of skill availability, number of staff in a particular category etc., will undergo a change and systematic manpower adjustment/redeployment will be needed.
In the Mechanical Engineering Department, Indian Railways are expected to go in for an improved design of bogie for goods stock, which would require lesser maintenance and therefore reduced workload. The traction scenario on Indian Railways has undergone a sea change during the last three decades. Steam traction is being phased out rapidly and replaced by diesel and electric locomotives in not only areas of heavy density traffic but also for shunting purposes. Approximately 50% of the total staff attached to the steam loco shed is for direct maintenance of steam locos. This staff shall be proportionately reduced with the reduction in steam-loco holding. At present approx. 5-6% of the staff is deployed on ministerial and fuel/lube oil accountal functions. By computerisation with the installation of a PC based system for pay roll, leave and other establishment matters and fuel/lube oil in accountal, it should be possible to reduce the staff requirement by 50% i.e., 2-3% overall reduction.

There are 52 workshop’s on Indian Railways which are in the main, undertaking ‘periodic overhaul’ of locomotives and rolling stock and also other maintenance support activities. Most of these workshops are there from the period of state/company owned railways and hence vary in size and facilities. With the phasing out of steam locomotives and introduction of electric and diesel locomotives, the existing facilities have had to be upgraded to meet the new technological needs. The modernisation programmes have enabled provision of high technology CNC machines and more productive equipment necessitating higher skills in operation and maintenance of such equipment. Also with the phasing out of the wooden bodied coaches, staff deployed in sawmills and carpentry work will be rendered surplus. There is a need to redeploy these men in alternative positions.
The staff deployed on steam loco POH and manufacture/repair parts will be rendered surplus when steam locos are phased out. It is seen that staff rendered surplus is being deployed on alternative short-term activities. It would be necessary to have long-term assessment of such activities. Presently the staffs deployed on painting of coaches are of the order of 15-20% of total staff. Improved quality of paints that last longer and also spray painting technique can reduce the workload as well as staff considerably. It is also seen that with the further reduction in steam traction and its final elimination by the year 2000, Group 'D' loco staff i.e., second fireman will get reduced to zero. With the increase in number of diesel shunting locomotives, which have a one-man crew instead of two men crew on steam shunting locomotives, the need for loco-running staff will further reduce.

Computerisation has slowly invaded in the generic fabric of Indian Railway system. It will be quite useful to bring in more and more areas under computerisation. To improve efficiency, increase awareness and to optimise manpower in offices, both in clerical and design/drawing sides, computerisation is indispensable. In the Personnel Department, computerised pay bill preparation is already at different stages of implementation. Personnel Management Information System is being developed by Computer Reservation Information System (CRIS) and it is planned to cover important personnel areas viz., leave account, settlement, database maintenance of service record etc. With this changeover, there may be reduction in the workload of personnel department but the staff rendered surplus may have to be redeployed within the personnel department for activities that are not getting adequate attention presently.
It is to be noted here that no manpower planning system exists these days on divisions. With a view to have a suitable manpower planning information system, a PC based computer system devoted to manpower planning functions and distinct from personnel management information system should be installed on divisions. On a future date these could be networked with other divisions and zonal Railways. This may obviate the need of Headquarters to rush for information from divisions on various indices and also minimise the wasteful efforts in duplicating information. Railways should also train staff and officers in the latest techniques on manpower modelling. Personnel branch staff and officers should be made aware as to how the important techniques of manpower planning dealing with career planning, succession planning, age distribution diagrams etc. could be usefully utilised in evolving recruitment/promotion policies and for affecting modification of these policies with passage of time. The various areas in different departments of Indian Railways that generate surplus staff have to be assessed further.

b) Redundancy arising out of changed pattern of working procedure:

There are various areas where there is ample evidence of the staff getting redundant on slight change in the existing pattern of working/procedure or as a result of progressive introduction of computerisation. These actions may point towards the potential for staff reduction in the coming years.

In the Civil Engineering Department, there is a trend to go in for contractual work in more and more areas thereby reducing the number of casual labourers. For
example, it is a matter for review whether the shallow screening of ballast is necessary at all with the steam traction reduced/stopped.

Shallow screening is not done on foreign Railways and they go in for full screening by machines. Also latest techniques and work methods should be adopted. Suitable building materials and finisher should be so chosen, as to give maintenance free service. Electrically operated hand tools should be provided to the artisans. Doors and windows of standard sizes should be adopted, so that prefabricated doors and windows can be procured. Computerisation in general on Indian Railways, particularly in a major technical department like Engineering awaits lot of thrust and encouragement from the highest level, by liberalising the existing regulations and embargo. Each department should be given their freedom to adapt their own software and hardware including procurement at Railway's level.

In the Mechanical Engineering Department, with the increased proportion of 8 wheeler bogie stock as also progressively increasing end to end block-rake running, the quantum as well as location of examination and repair points will consequently need to undergo a radical change/rationalisation. Currently only steel bodies coaches (with roller bearings) instead of wooden bodied coaches are being manufactured now. It has lower maintenance needs. The present day concept of preventive maintenance based on fixed periodicity, in terms of time in service and/or kilometres earned, is being progressively replaced abroad by need based maintenance. This has been made possible by using self-diagnostic equipment, which is able to detect the condition of components/assemblies without disassembly. It is possible to effect reduction in the
number of loco running staff by resorting to mail/express crew links to be zonal Railway based and not division based.

In the Personnel Department, there is a need to bring in more and more areas under computerisation. This should, however, be done in a phased and systematic manner. The quality of personnel dealing with this important area needs to be also improved. There are two cadres of welfare inspectors and personnel inspectors. It is better to have a unified cadre wherein they should look after the grievances of the staff in a more co-ordinated manner. Although on one hand there is a cry to maintain the efficiency of the system, the quality of the intake gets diluted with the constraints of compassionate appointments, handicapped quota, sports quota etc. There is also a need to have direct recruitment at the level of Head Clerks or Chief Clerks in the Personnel Department so as to have a good quality mix at various levels. The pay bill preparation work is presently being attended to by Personnel Department and its validation is done by Accounts Department. There is also a need to handover this work to the Accounts Department and to get it computerised wherever not done so far. In the present system of wage and salary administration, there is a large amount of duplication of efforts between Personnel Branch and Accounts Department.

In the Transportation Department, the pattern of traffic movement has changed considerably during the last two decades. Block load/unit train operation has increased considerably and there has been significant rationalisation of marshalling yards and freight booking stations. There is a need to review the Guard's links, throwing up the safaiwala's work to contract, withdrawal of Asst. Guards from M and E trains,
withdrawing signaller using train services or alternative communication channels. There is also a need to rationalise yard operations and close down small yards. In the commercial department, travelling ticket examiners can look after 3 vestibule coaches instead of two at present and works like those of porters and safaiwalas, watermen should better be contracted out. During the next decade traffic is expected to increase for freight and passenger services with parcel traffic remaining static. On this account additional staff may be required in categories of booking clerks, reservation clerks. A systematic assessment of the needs of various categories in future and the extent of shrinkage in present cadres of commercial department should therefore be done.

c) Peculiarities of staffing pattern and working on Indian Railways:

Historically Indian Railways have been in the vanguard of the Industrial development and technological progress in the country. In the absence of an all round industrial base and therefore the need for self-sufficiency, Indian Railways were compelled to undertake manufacturing, maintenance and ancillary activities to an extent uncommon to other railway systems in the world. As a result of the above background, 50% of the Indian Railway Personnel are 'unskilled' and in addition there are a large number of unskilled 'casual' employees. Such an adverse staff profile is a result of the low levels of mechanisation and automation and continuance of labour intensive work methods and a legacy of the feudalistic culture wherein skilled artisans are invariably assisted by unskilled helpers and officers liberally provided with 'messengers' and 'peons'. With the passage of time at higher levels upgradations were resorted to provide promotions to the staff. This has resulted in a distorted structure in various
departments. The hierarchical structure in a large system like Railways was a necessity in olden days, but in the changing environment a mix of less hierarchical system and a hierarchical system may perhaps, be desirable for a such type of organisation. For example, there is a need to eliminate a few levels viz., Senior Clerk, Assistant Supdt., and make the levels more responsible by delegating authority. It has become more important now to change the age profile and the 'skill-profile' at Class IV levels, in the coming few years. The promotion from Class IV to semiskilled and skilled grades which is done through trade testing will have to be quite rigorous and the future intake of persons at Class IV levels in technical trades should be ones with I.T.I. qualifications. Even at entry levels in the clerical cadres there is a need to have only those who are good in typing/data entry and are at least graduates. This will obviate the need to have a typing section in addition to the clerical cadre.

d) Development of norms:

At present there is no systematic/scientific method being practised in assessing the norms for productivity of staff. The norms for creation of staff in various grades are too antiquated, not based on systematic time study or work study techniques.

In many cases, it is just tradition bound. With passage of time, the work content of different jobs has undergone a sea change, but in most of the cases the yardsticks adopted still remain the same.

The yardsticks evolved for the Gangmen's post are very old. With the advent of Tie-tamping machines for maintenance of track, the revised Gang strength has to be
computed after taking into account various constraints and work study exercise. Posts for operation and maintenance of machines should be created in advance to provide gestation period for recruitment and training. It is the international practice to conduct work study only after providing the required equipments, laying down the work procedures and curtailing visible areas of manpower excess. There is a need for modifying the gang strength formula. No yardstick has so far been laid down or approved by the Board for staffing of Bridge cadre related to workload. The assessment of staff strength of works-cadre, even to a reasonable degree of accuracy is a problem. This is because of the mix up of works cadre with other cadres of Engineering Department. The age-old practice of attaching a helper to artisan should be dispensed with. Use of suitable gadgets and devices will substitute the helper. Artisans, who offer to work without helpers should be given incentives. Similarly there are no uniform yardsticks over the Indian Railways for the coaching stock manpower. The yardsticks wherever existing are as old as 20 years. Improved material handling, streamlined layouts, mechanical cleaning methods etc., would enable reduction in the requirements of the unskilled men. No yardsticks have so far been laid down for POH of the diesel and electric locomotive. The yardstick is be standardised.

In the Personnel Department of the Railways, the yardsticks for provision of clerks vary from Railway to Railway. The work of the personnel department has increased tremendously and the existing yardsticks do not stand anywhere to do justice to a situation. It is almost beyond normal imagination to think that a clerk is maintaining more than 1000 Service Records. Although, a solution to the problem lies in computerisation of various activities in a systematic manner, the evolving of the
computer effort should be independent of the routine duties which itself has assumed fire-fighting proportions. Instead of adding to the numbers in the Personnel Department, there is a better need to have good quality clerical staff at various levels so that speedy disposal of cases in a comprehensive manner takes place.

There is a need to evolve after scientifically organised industrial engineering study, where method-study precedes work-measurements conducted by trained professionals. Considering the vast variations in the level of deployment of staff for different activities, there appears considerable scope for improvement in productivity by properly fixed norms.

(e) The problem of 'multi-trade skills':

There is at present a considerable degree of departmentalisation in the functioning of maintenance and train operation activities. As a result the resources are not optimally deployed. A classic example of this situation is the maintenance of permanent way, OHE and signal equipment. An integrated approach towards such allied activities will enable optimisation of manpower resources to improve quality of work and reduce downtime as well. Likewise maintenance of coaching stock is presently undertaken separately as far as mechanical and electrical attention is concerned. 'Unified' control of these two parallel activities is yet to take roots. A corollary to 'integrated maintenance' approach is the concept of 'multiskilling', which has its origin in two basic situations wherein,
the type of work of two or more trades, in a given job situation, is so interrelated that the absence of one category would render the other idle.

- the quantum of work for the existing 'specialised categories/trades' is of intermittent nature and not enough to fully engage the particular worker and yet a minimum level of deployment is inevitable. On British Rail, there is movement towards 'craft inter change-ability'. An example of this is the 'coach-repair man' who has the full range of skills - coach repairing, trimming, plumbing as well as mechanical and electrical skills.

There was a time when it was considered appropriate to have a person exclusively for one trade. It was a good system for providing employment to people. With the manpower cost going up by leaps and bounds as also to have a shift to the latest concept to optimally utilise the human resources, the maintenance and operation functions should gainfully utilise 'multiskilling' concept. Many trades have overlapping functions and it is better to bunch these activities.

Maintenance and operation needs on Indian Railways are presently distributed over a very large number of categories and trades. There are roughly 700 categories of staff on Indian Railways and the trade-testing manual itself lists over 300 technical trades. With a view to cut down the idle time of human resources and have a shift from the old concept, specific areas where multiskilling can be gainfully introduced on the Indian Railways are as under:
Mechanical Department:

- Ancillary trades in diesel sheds (carpenter, painter, crane driver, pointsmen, shunter).
- Ancillary trades in coach maintenance (carpenter, mason, pipe fitter, painter)
- Stationary plant operators.

Electrical Department:

- Ancillary trades (wiremen, linesman, blacksmith)

Commercial Department:

- Coach attendant, T.T.E./Conductor.

Engineering Department:

- Ancillary trades (carpenter, plumber, fitter, welder, painter) in the works department.
- Trades associated with rivetting work (riveter, dollymen, rivet-warmer).

(f) Complicated work-procedures

While the Department of procedures and regulations has been the bed rock of railway working in respect of accountability to parliament, yet the principles of multi-tiered checks and balances have tended to multiply work, diffuse responsibility and authority and have hindered drive, initiative and a result-oriented approach. For
example, there are about 30 types of running-allowances applicable to running staff category (viz. drivers).

It is a highly cumbersome process to compute the monthly wages of a running staff. There is a crying need to simplify the procedure to compute the salary to avoid the drudgery and intricacies involved in the existing system. An exercise should be done to replace the existing system of computation by a simple system by taking into account the averages of the emoluments of an individual during the past few months. The amount of energy and time which is wasted in pay fixation of employees moving to overlapping scales is very high and frustrating for the affected employees. In all types of pay fixation on promotion, there is a need to have a very simple, straightforward rule, rather than multiplicity of rules embedded with intricacies by various agencies not reaching consensus. Even other day to day situations in Personnel Department is fraught with complicated procedures and unnecessary paperwork resulting in delays and frustration. The decision maker as close to the activity centre is the best man to make decisions and more delegation of authority is required to equip him to decide matters so that unnecessary references to Headquarters and high levels are minimised and tardy process becomes a bit fast. As change in technology and procedures brings in its wake new categories and skills, new posts are required to be created wherein the redundant staff have to be appropriately adjusted after necessary training or the posts filled from the open market in the event of skills being not available in the system. There is a system of 'vacancy bank' working on the Railways, but its actual operation on divisions is a highly tardy affair as the creation of posts is to be done by headquarters. Slow decision making at headquarters results in idling of the redundant
staff even for months/years before they could be fitted in alternative slots after training etc. There is a need to permit operation of the scheme at divisional level to enable quick decision making/adjustment in respect of redundant/surplus staff etc. There is also an urgent need to have specifically constituted 'Task Forces' to review procedures and regulations in respect of Stores - Purchases, investment decisions.

g) Manpower Information System:

On Indian Railways data needed for manpower planning are by and large available and are already kept for a number of different purposes by different individuals. The problem is that the nature of manpower planning demands that these be brought together and this form of manpower information system does not exist in any of the field units or Zonal Railway Headquarters. On divisions where a computer based payroll system has been installed, the system is designed for meeting the requirements of the specific job, i.e., managing the payroll.

This system has most of the information required by the manpower planning system. But this system cannot be used for effective manpower planning for two reasons, the first being that some of the information required for manpower planning is not available e.g., training details and second being that extracting and manipulating the information required for manpower planning would be tedious and inefficient because of constraints of systems design. Thus there is a need for having an information system specifically for manpower planning. This system would have only that information
which is needed for manpower planning. A few important outputs which could be made available on this type of computer based system are,

- Categorywise and overall manpower strength for work units, divisions and zones for a department.
- Gradewise manpower strength for a category in work units, divisions and zones.
- Categorywise age profiles in work units, divisions and zones.
- Categorywise education profile in work units, divisions and zones.
- Gradewise, categorywise projection of retirement for the next 5 years.
- Manpower cost information for work units, divisions and zones.

**h) Manpower policies:**

On Indian Railways, there has been very little attempt at systematic identification of manpower problems. The organisation has so far managed by reacting to situations more or less on an ad hoc basis. Lack of means of processing manpower information for the purpose of analysis and for developing suitable responses has contributed a great deal to the present situation. At present, the Railways are faced with a number of manpower problems of almost every kind. There is surplus staff in some categories that cannot be easily redeployed. There are shortages in many categories, which at times effect train operation. There are a large number of staff with very little education or technical skills who have been recruited in recent years for whom it may be difficult to find suitable work in the organisation in the coming years. There have
been large-scale up-gradations in the last few years to satisfy employee expectations for promotion, which have distorted the organisation structure and raised the staff cost.

It is, therefore, essential that the Railways develop adequate capability and know how for analysing the various forms of manpower planning at various levels of organisation.

For example, breaking age-structure by grade and drawing an age-grade-distribution significantly enhances its usefulness. It gives a good indication of the ages at which the promotion has commonly taken place and how senior positions are spread across different age groups. Further for any given recruitment and wastage distribution and growth rate, there is a steady state age distribution, which will be achieved, if the recruitment and wastage patterns are maintained.

There is an important method in manpower planning viz., career progression diagrams. It is possible to use age or length of service and level in the organisation as an indicator of speed with which the employees progress through the organisation structure. Simple career progression diagrams display a complete picture of the career policies within the organisation.

There are well-defined career structures on the Railways for most categories of staff. However, the Railways have so far not undertaken systematic management of career structures. Succession and career planning is an important aspect which is being tackled purely on ad hoc basis. The expertise of analysing career prospects with the
help of computer software package would have to be disseminated to the divisional level.

There is no long-term assessment of staff to be recruited in future years. There is no attempt at moderating the effect of large-scale recruitment at a particular time either due to heavy retirement or due to sudden expansion in workload. There is no long-term strategy for determining the level of external recruitment. In a situation of staff surpluses in some categories like steam sheds ad hoc bans are imposed on direct recruitment in most artisan categories without taking into consideration long term adverse effect of such policies on quality of work force. In making forecast of staff to be recruited, the actual wastage pattern of newly recruited staff is not taken into account. Wastage rate of newly recruited staff has tended to be much higher for certain categories. Rules for determining the proportions of staff to be recruited directly and to be promoted internally for various categories of staff have been laid down by the Railways. These have evolved over a period of time as a result of negotiations with the organised labour. These rules have not been framed after an objective analysis of the organisational need for a particular workforce profile. The present rules are heavily biased towards promotion from within. Also the minimum educational and technical skill levels stipulated for various categories of staff to be recruited directly are outdated and these are not based on an objective analysis of organisational need.

It may be possible for the Railways to upgrade the minimum qualifications laid down for recruitment to various categories so that investment expenditure on training can be optimised.
In the years to come, Indian Railways will be concerned primarily with skilled labour, market for which appears to be relatively tight despite the national effort to improve the availability of skilled persons. One more important aspect to be kept in view for future is the "skill mix and the "age mix/ skill profile" of the cutting edge of the organisation.

A recent sample survey of the artisan staff of Delhi divisions of Northern Railway showed that 48% of the staff were in the age group of 50-58. There is, therefore, a need to immediately closely control the inflow on account of attrition. For this purpose urgent reviews of present day requirements and projection of requirements upto year 2005 are necessary at zonal Railways level. There is also a need for retraining and redeployment in other areas where there may be requirements. The Railways may, therefore, have to take special steps to overcome this problem.

Problems of casual labourers on Indian Railways:

Substantial number of casual labours has been engaged on Railways in the past. There were about 57,000 casual labours on Indian Railways as on March 31, 1996. This number has come down to 30,000 in December '97. This was mainly due to commitment in Parliament for regularisation of all working casual labours on Indian Railways by the year 1998. Hopefully, it is expected that this would be achieved. But this may not end the problem. There are several thousand casual labours, who have worked at one time or the other, intermittently, but are presently disengaged. They also keep claiming their right of induction in Railways. Obviously, our in-depth study is
required to find long-term solutions. Casual labour is generally engaged to fill up the
posts, which are purely of casual nature and such labour is not appointed against the
regular permanent post. Most of such casual labourers are now monthly rated. It is
seen that the total treatment being given to this cadre is very haphazard. It is also seen
that most of the rules on the subject have become much complicated and their
interpretations are highly diverse leading to almost a state of confusion. As per rules
the casual labours on the open line side (viz., divisions etc.) are given 'temporary status'
after a period of four months. On the project casual labour side (viz. construction-
project, etc.), the 'temporary status' is accorded after 360 days. In between, the project
casual labour employee is being given scale-rate after 180 days. Keeping in view the
total neglected state of affairs, the above relief was given through a Supreme Court
judgement, namely, I.P. Yadav vs. Union of India, in the year 1987, and the Ministry of
Railways issued certain guidelines. With passage of time the casual labours, who have
been accorded 'temporary status' as per the number of days, have been made eligible
for most of the privileges as applicable to regular Class IV/Class III employee. But
important privileges like pension after retirement/death or appointment of a ward etc.,
have been still denied to them. The scenario becomes grim in the face of situation that
we have still casual labourers with 'temporary-status' who have put in more than 10 to
15 years of service. They have not yet been provided any 'lien', which enables them to
get pension or appointment of their son, etc., in the event of their death or otherwise. It
also looks very depressing as to why this section continues to face this dilemma of
getting a 'lien' somewhere after putting in many years of service, while in Group 'C'
and above levels, a person is appointed on temporary/regular basis with no intermediate
stages of first giving him 'temporary status' and then making him a regular through the
process of screening after many years of service. In many situations, the casual labour employee dies with a 'temporary status' resulting in no pension/appointment of a ward, etc. In a society where a person with meagre resources should require more protection at the hands of the government, is, perhaps, being given a very casual treatment.

As per the recent trend more and more works are being off-loaded through contract work, thus generating a need to reduce the number of casual labours in a phased manner. The number of casual labour may also come down with the mechanisation of permanent way and other areas on the Indian Railways. While it may be inescapable on the part of the Railways to engage casual labours in situations of monsoons - patrolling work, hot weather/cold weather patrols, security patrols, etc.. in all other situations there does not seem to be sufficient justifications to perpetuate existence of casual labour as 'temporary status' for umpteen number of years. As on date a 'construction-reserve' to the tune of 60% of the posts has been ordered by the Board in respect of the 'casual labour' staff in the construction organisation. This enables the casual labours to find a lien in the system and thereby getting the benefit of pension/appointment of a ward in the event of death et., but lot more is still to be done to replace the 'temporary status' of the casual labours with a 'regular status'. There is a need to further upgrade the 'construction reserve' to 80% in lieu of the 60% as hitherto. The absorption of the casual labour (both open line as also the project casual labour) is done in permanent cadre depending mainly on attrition. The attrition rate being very less, it will take large number of years for the casual labours to become regular. Here also there is a need to pump in more posts i.e., to convert the casual-posts into regular posts to the extent of all with four years of service in a blanket sanction through the
process of de-casualisation. The above action may result in at least providing a regular-status to most of the casual labour staff on Indian Railways.

Another problem which is being pursued with the least possible follow up is that at the time of opening of a new line/creation of assets by the construction organisation, the assets are handed over to the open line for maintenance. Number of regular posts for day-to-day maintenance of the assets has to be created as per the extant yardsticks. This enables the casual labour staff to be screened and made regular. It has, however, been seen that even for years together after the opening of the line such posts are not created and the constructions organisation continue to maintain the line even after its opening. It should rather be made mandatory action on the part of the concerned divisional authorities to see that the line is opened only after the regular posts are created for the maintenance of the line and the screening of the casual labours is completed before the line is opened formally to traffic.

An area that brings a major stigma is the question of re-engagement of the casual labours. As per the present rules, no fresh faces as casual labour can be employed without the prior approval of the General Manager. This rule should be kept up to see that no fresh faces are added in the system. As per the Railway Board's instructions those casual labours, who have happened to work in the Railways prior to 1/1/81 and were discharged from service for want of work etc., have to be placed on 'live-casual-labour register', which will be maintained by Divisions. This exercise was to be completed by March 1988 and no further names were to be added to this list. It is seen that few divisions have done this exercise but few still have not done it. With a
large number of forged casual labour cards being in operation, the validation of the casual labour card becomes a very difficult and time-consuming exercise. Most of the work of the Personnel department at divisional level on Indian Railways is being consumed in the validation of such casual labour cards. It is also very difficult to validate the record of a casual labour employee who happened to work some 10 or more years back at various places when it is difficult to adduce even a very recent record. With a view to see that this problem does not proliferate further, it is suggested that copies of 'live casual labour register' in as is where as form should be kept in the computer, one copy of the same given to the Chief Personnel Officer and Divisional Railway Manager and not a single addition to this live casual labour register should be resorted to without the prior approval of the Railway Board. The validity of this live casual labour register to serve as a reservoir for future class-IV casual positions should be at the most for a period of three to four years, after which this should be treated as a dead record for any operation and future recruitment at casual labour should be resorted to only through the concerned Employment-Exchanges. This action will take away large amount of energies which are being spent in maintenance of these casual labour records, validation of the records through Inspectors, etc., and the filling up of the vacancies. Further, not more than two chances (by registered post to the employee on live casual labour record) should be given for being considered for any casual labour vacancy which may come up and in case he does not turn up, the name should stand deleted from the live casual labour register.

Some of the suggestions made above will go a long way in solving this stigmatic problem on Indian Railways. While it is important that the lot of a casual-
labour is improved, it is also important to see that the railway's manpower productivity does not suffer as a long-term measure. It is observed that a large percentage of casual labours/class-IV men engaged in the onerous task of maintenance of track etc., is between the age group of 45-55 years. With such a age-profile in this category, it is becoming increasingly difficult to retain the efficiency of the system. Moreover the 'skill profile' is also to change fast due to coming technological changes in track-technology. With a view to keep pace with these changes, it is necessary that the present age-profile is substituted with younger age-profile at the earliest and the skill-mix of these employees also upgraded appropriately without further loss of time. A possible step could be to evolve a scheme wherein such casual labour with age more than 45 years may be retired by offering them a good compensation package and a son/ward (who may be a minimum I.T.I. etc. or skilled in some other trade) be given employment in railways in lieu of the casual labour employee. A special scheme of 'voluntary retirement' after 15 years of service with prorata pensionary benefits etc. and an incentive scheme could also perhaps, be formulated at Board's level for this category of employees. The above action may go a long way in solving the problem of casual labours as also the organisational problems in a significant manner.

In the Questionnaire (Annexure-III), the responses of `Staff other than working in Personnel Department', 'Union-members' and 'staff working in Personnel Department' were also sought on the following two issues related to casual labours:
(i) Whether the large number of casual labours, who still remain as casual labour even after putting five to ten years of casual labour service should be regularised after a certain number of casual labour service or not?

(ii) Whether the existing system of maintaining live casual labour registers, which serve as the reservoir for any further appointments against casual labour/regular vacancies should be continued to be maintained for a specific number of years or their names should be automatically deleted in case they do not get any appointment against any exigency.

A summary of the responses received on these two issues is tabulated below:-

Table 5.1

Summary of responses on the issue that it is desirable to regularise casual labours

<table>
<thead>
<tr>
<th>Issues</th>
<th>SOD</th>
<th>UM</th>
<th>SPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who have put in &gt; 3 years of casual service</td>
<td>56.25</td>
<td>92.85</td>
<td>41.67</td>
</tr>
<tr>
<td>Who have &gt; 5 years of casual service</td>
<td>21.25</td>
<td>03.57</td>
<td>16.67</td>
</tr>
<tr>
<td>Who have &gt; 10 years of casual service</td>
<td>15.00</td>
<td>03.57</td>
<td>16.67</td>
</tr>
<tr>
<td>No regularisation need be done</td>
<td>07.50</td>
<td>00.00</td>
<td>25.00</td>
</tr>
</tbody>
</table>

Sample size:  
N = 80 for SOD (Staff other than working in Personnel Department)  
N = 56 for UM (Union members)  
N = 60 for SPD (Personnel Department staff).
Table 5.2

Responses on the issue that the names of the persons on the live casual labour registers should be deleted (%ges)

<table>
<thead>
<tr>
<th>Issue</th>
<th>SOD</th>
<th>UM</th>
<th>SPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Within two years</td>
<td>46.25</td>
<td>14.29</td>
<td>35.00</td>
</tr>
<tr>
<td>ii) Within three years</td>
<td>20.00</td>
<td>03.57</td>
<td>30.00</td>
</tr>
<tr>
<td>iii) Names should be kept for ever</td>
<td>33.75</td>
<td>82.14</td>
<td>35.00</td>
</tr>
</tbody>
</table>

Sample size:  N = 80 for SOD (Staff other than working in Personnel Department  
             N = 56 for UM (Union members)  
             N = 60 for SPD (Personnel Department staff).

An analysis of the 1st Table shows that all the three sets of employees are in favour that they should be regularised after 3 years of casual service.

An analysis of the 2nd table however, gives a divergence of opinion between the various sets of employees: while (46.25%) of staff other than personnel and (35.00%) of Personnel Branch are in favour of deletion of their names after two years only (14.29%). Union group was in favour of these recommendations. Also while almost 1/3rd staff other than Personnel and Personnel Branch were in favour of continued retention of their names on the live casual labour registers, (82.14%) that of Union Group were in favour of this continued retention of names. In view of the responses on this issue, perhaps, there is a case for continued retention of the names for a few years more. When this could be considered for review. In the questionnaire (Annexure-III), the responses of 'staff other than personnel deptt', Unions and 'personnel branch staff' were also sought on the following two issues spelt above.
i) Forecasting manpower requirements:

An assessment of future manpower requirements is essential for planning recruitment levels, developing redeployment strategies, career planning etc. At present, the fire fighting operation is resorted to re-deploy the staff in alternative categories or other places only when the casual labour gets surplus from a project. No time frame planning is adapted to resettle/re-deploy the staff systematically by human resource rescheduling. Taking into account the uncertainties in a given time frame, there is a need to have a system wherein the manpower requirements for a given time frame could be predicted with respect to changes in technology, capital inputs, work methods etc.

j) Manpower cost, Budget and Control:

At present there is no system of manpower cost-centre wherein each work unit/activity centre becomes fully answerable for the cost of the services it provides. A system of performance budgeting as incorporated in the demands for grant is in vogue on Indian Railways. This includes allocation of funds, staff strength and performance indices. This system deals primarily with correlating financial costs to performance and is not focused on establishing similar correlation between staff strength and performances. There is a need to go into this area and make it more useful from managerial control angle. To keep the railways financially viable, the manpower cost has to be kept within manageable limits and surplus staff either diverted to deficit areas within the shortest possible time span. Computerisation has to play vital part in certain areas, where it
provide better efficiency and takes away human drudgery but a suitable trade off has to be
struck within the system that it does not add to the unemployment levels in the country.

In this chapter it was attempted to explain the peculiar conditions and variety of
constraints, in the light of which manpower planning needs to be analyzed and practiced in
a massive organization like Indian railways. Certain peculiar problems encountered by
Manpower Planning activity in the Indian railways like staffing pattern, multi trade skill,
redundancy in certain areas of operation, complicated work procedures, casual labour, etc.
are analyzed. It was observed that these problems are generally tackled through adhocism
and no standardized institutional structures are found to tackle these problems. This is a
major weak link in Manpower planning process. It is also discussed her the inevitability of
computerization and adoption of technology which may put stress on the quality and
quantity of manpower in the Railways.