

C H A P T E R - I

HISTORICAL RESUME OF INDIAN RAILWAYS

A Historical resume :

The significance and applicability of social work research is confined with the spectrum of social work field. Obviously the purpose of selecting a theme connected with Indian Railways will be discussed in details at second section of Second Chapter. The existing study was designed in the light of requirements and set in the syllabus for M.Phil. Degree in social work of Shivaji University.

The region known as Indian sub-continent consists of different cultural regions having certain geographic characters such as mountaineous regions area with high altitude, tropical climate, perinial rivers, scattered but dense forests, natural sea-coast, etc. The region includes the region from off-shore of Arabian sea, existing parts of Afghanistan, Baluchistan, Paktun and Pathan Tribal areas, North-west Fronties Agency, Ceylon, Burma (Manyamar), Nepal, Bhutan, Sikkim, Bangaladesh, besides undivided India as it was described historically at the end of 18th century. Historians and archeologists differ in judgement about the scope of Indian sub-continent and are not expected to deal

with that issue here. As regards with British entry into the sub-continent, it was long back during 1674, Mr. Oxindeen, who was the first Englishman to visit Konkan coast in Western India for the coronation ceremony of Chatrapati Shivaji at Raigad. However christianity first reached in India through Malbas West during the 1st century itself.

During ancient era the coastal contacts between the people from coastal regions in India were in existence with the West as well as East. However the entire ancient civilisation once were known world-wide due to the effective system of naval transport with the help of ships and vessels. During 3rd to 15th century, different dynasties ruled the sub-continent but these were very much peculiar in terms of organisation of a state which also acted as modern Government. However in terms of components and organs of modern Govt. they were neither equipped with the existence of organisations except the kings court and armoured force they used to be called as "Chaturang Senas" nor they needed effective apparatus for quick communication and transportation.

The Cholas and Pandavs, Pallaavas, rulers of India and during their period of glory their associations relations almost went upto Pacific ocean. Buddhism and

Jainism were once reputed religious sects, the followers of which reached crossing the frontiers of Indian sub-continent and entered into China and later on in Japan.

Thus it will be seen that containing spread of sectarian Philosophy into the sub-continent itself and outside in Asia and European continent was contributed by the successful sea transport system known to the people since ancient times. Camels and elephants alongwith horses were described as forces of the king and his empire. During peace time these were partially utilised for carrying cartages. Other goods, eatables, male female and children and for festival processions. It was the legendary description about fourfold forces (Chaturang senas) in sanskrit epics and in Greek mythology also. All episodes converting conflicts into armed struggle were described by historians in India as well as from other parts of the world.

On this background, we need to explore the contribution of British politicians, directors of East India Company, the aristocracy in West and East, later on was induced by the Europeans towards industrilisation and westernisation of communities and societies existing, either flourishing or vanishing from the colonies was conquered

by Britishers.

The horizon of industrial management is sufficiently widened in India, precisely due to the organised growth and industrialisation in the pre and post Independence era. The pre-Independence industrial development occurred due to the British interest and it began with mining iron and steel, cotton and woollen textile mills jute mills etc., The search for water and sound base for erection of structure were the examples of an early industrial activity.

During the period between 1860 to 1875 mining, Plantations and early beginning of cotton and jute textile was occurred. In 1852, a private tea-garden for the first time was started in Assam. The Bombay spinning and weaving Company was formed in Bombay about the year 1951. The jute mill was started in 1954. A coal mine was started in Raniganj in 1820. The dawn of 20th century saw wider applications of mechanical power and small workshops, flour mills etc.

The following were the new avenues of enlarged industrial activity and include paper, cement leather, woollen and minerals, rubber vegetable oil textile and jute machinery, pulp and paper making, steel-plant equipment, railway-wagon,

machine tools, auto mobiles road, rollers, diesel engines, electricals, power plants and glass products. The engineering industry followed in the make of railways, a historical resume of railways is being discussed hereafter.

INDIAN RAILWAYS 1853 TO 1953 :

The Beginning :

In 1953 the Indian Railways completed 100 years and the Govt. of India through Ministry of Railways and the assistance of Railway Board reviewed its progress. We need to record some of the major events during the first centenary.

The first railway ran over a stretch of 21 miles from Bombay to Thana on 16th April 1853, however before that attempts were made in U.K. to establish independent. Public Limited Company. Due to the efforts of John Chapman & Messrs White and Barnett, solicitors. Cothelhall place, London a Fresh Company was formed in England called the Great Indian Peninsula Company and its first prospectus was issued on 15th July 1844. On the 18th Feb. 1852, the first locomotive was witnessed shunting near Byculla Flats in Bombay.

The formal inauguration ceremony was formed on 16th April 1853 when 14 Railway carriages carrying about 400 guests

left Bori Bunder and covered a distance of 21 miles in 45 minutes. His excellency the Governor then Lord Elphinstone was however present, a year later when the line was extended to Kalyan. He performed the opening ceremony on 1st May 1854. The railway line from Kalyan to Khopoli was opened to traffic on 14th June 1858.

FURTHER PROGRESS :

During next 40 years, railway network was built by over powering difficulties and obstacles forwarded by nature. In this the mountains, the rivers, the ghats were the physical obstacles, however the British engineers and technician were invited by the British Govt. In order to continue further progress. Bombay-Calcutta link and Delhi-Calcutta tracks were prepared. It was rapid growth indeed and we would like to cover some details.

By 1861, Bombay, Baroda and Central India Railway extended its lines from Madras to Kadulundi connecting it in 1871 with Raichur the junction on the Madras-Bombay Route. The Bengal Nagpur Railway started operating in 1863, and it was on 3rd March 1891 that is 600 miles of broad gauge line was thrown open to public.

There was further growth of Indian Railways due to

the organisation of independent companies. In all following regions were covered and links were established. We would like to record in brief these events hereafter.

THE SOUTH - EAST LINE :

In June 1858, 2 miles from Khandala to Lonavala was opened for traffic. (2) The line from Kalyan to Lonavala was completed and opened by May 1863. The stretch from Khandala to Poona and its further extension to Solapur had been completed by the middle of 1860.

BOMBAY-MADRAS CONNECTION :

The line from Solapur to Raichur a distance of 160 miles was opened on 1st May 1871. From the nearby station of Guntakal a 35 mile branch was laid to the important military station of Bellary. This was also built by the Madras Railway Company, whose North-West line from Madras to Raichur had been opened in March 1871.

BOMBAY BARODA AND CENTRAL INDIA RAILWAY :

The Bombay Baroda and Central India Railway Company was organised in 1852 and the East India Company authorised it in August 1853 to survey lines from Bombay to Agra. Bulsar was connected with Bombay in November 1864 and by

1870, Bombay Baroda and Central India Company's main line from Bombay to Sabarmati 325 miles had been completed. The Railway built its terminal in Bombay area at Grant Road and two years later shifted it to Churchgate.

THE MADRAS RAILWAY :

The railway on leaving Madras, advanced to Arkonam 42 miles from Madras. The line from Gudiyattam to Jalarpet was opened to traffic in 1860 and its further extensions to Bangalore cantonment four years in 1864. By 1862, the line had reached as far as Renigunta, but it took 9 years to meet the Great Indian Peninsula Railway at Raichur.

SOUTH INDIAN RAILWAY :

The length from Nagappatinam to Erodu, 167 miles was commenced in 1859 by the Great Southern of Indian Railway. Trichinopoly - Tuticorin length 195 miles was opened in 1875-76. The South India Railway was the cheapest railway built in India the cost per mile being Rs. 64,289.

SIND PUNJAB AND DELHI GUARANTEED RAILWAY COMPANY :

This railway company registered in 1855, emerged from four separate undertakings which, under one management in London, had attempted to provide a combined steamship and railway route up the valley of the Indus from

the port of Karachi. The section between Lahore and Amritsar was built in 1861 and was opened traffic on 10th April 1862. By 1868, the Sind Punjab and Delhi Railway Company had built 253 miles in the Punjab. The portion from Ghaziabad to Amritsar, 304 miles was commenced early in 1864. The first length to Meerut city, 27.1/2 miles was opened in April 1867, and in November of the same years 26 miles was opened from the beas river to Amritsar.

CALCUTTA AND SOUTH EASTERN RAILWAY :

After the initial success of the East Indian and the Great Indian Peninsula Railways which had expended fast and were earning enough to pay the 5% interest so great was the euphoria in the capital market of London for rail-building in India that invest or entertained large schemes. The first scheme was to build railway through the sunderbans from Calcutta to Chitgong. The South-Eastern Railway thus earned the distinction of being the first government owned and government managed railway in India.

EASTERN BENGAL RAILWAY :

The railway ran from its Sealdah terminus in Calcutta, northwards along the east bank of Hooghly, then to Kushtia on the Ganga and onwards to Goalandu. Sealdah to Kushtia

was completed in November 1862. And Kushtia to Goalandu was opened in January 1871. Both these stations are now in Bangladesh.

ODDH AND ROHILKHAND RAILWAY :

Construction commenced in January 1864 a length of 42 miles from Lucknow in the direction of Kanpur was opened in April 1867. The bridge at Kanpur and the Junction with the East Indian Railway at the station were completed in July 1875.

INDIAN MIDLAND RAILWAY :

The Indian midland was a guaranteed company, which connected the Great Indian Peninsula Railway with Jhansi, Agra and Delhi. The Indian midland Railway comprised 677 miles of standard guage line. The main trunk route 314 miles extending from Bhopal to Agra via Jhansi.

SOUTHERN MAHRATTA RAILWAY :

Southern Mahratta Railway Company was formed as a famine line. The Southern Mahratta railway developed into a meter-guage system of more than 1600 miles by the year 1900. Its north-south main line stretched between Pune and Bangalore and Mysore. The main line from the fronties with Goa territory to Vijayawada 513 miles was

built by stages from 1884 to 1890. The Bellary-Guntakal section, 30 miles had been opened in 1871 as a broad guage branch of the Madras Railway and was made over to the Southern Mahratta Railway on 1st February 1887 and converted to meter guage on 16th May 1887.

BENGAL NAGPUR RAILWAY :

The beginning of the Bengal Nagpur Railway was made with the construction of a meter guage line from Nagpur to Raj-Nandgaon a distance of 144 miles which was converted to broad guage and reopened on 27th November 1888. Lines were extended eastwards to Raigarh Jharsuguda, Chakradharpur, Purulia and Asansol, where it made a Junction with the East Indian Railway thus providing a shorter route between Bombay & Howrah as compared to the one via Allahabad.

MATHERAN LIGHT RAILWAY :

Matheran is situated at an average height of 2,500 ft. above sea-level and was discovered in May 1850 by Mr. Hugh Polyns Malet, The Collector of Thana. This narrow guage hill railway connecting Neral, a station on the south-east section of the Central Railway, mainline, to Matheran was opened to traffic in 1907.

It was built by Sir Adamjee Peertshoy, who formed

a Limited Company with an authorised capital of Rs. 10 lakhs, divided into 2,000 Shares. The maximum permissible speed was 12 miles per hour on straight track but on the sharpest curve a which has a radius of only 60 ft. the speed is restricted to only 5 miles per hour. The alignment closely follows the contours of the Matheran hill and the line itself, is a good example of a mountain railway constructed in an economical manner.

REARRANGEMENT OF RAILWAYS IN SOUTHERN INDIA :

The Southern Mahratta absorbed the whole of the Madras Railway with the exception of the Jalarpet-Mangalore section and branches thereof and took over the Katpadi-Dharmavaram and Pakala-Gudur sections from the south Indian Railway. The name of the enlarged Southern Mahratta Railway was changed to Madras and Southern Mahratta Railway.

GOVERNMENT TAKE-OVER MAJOR LINES :

The East Indian and the Great Indian Peninsula were taken over by Government in 1925, Bombay, Baroda and Central India and Assam Bengal in 1942, Tirhut and Lucknow-Bareilly in 1944. In 1925, the state managed Oudh and Rohilkhand Railway. Originally known as the Indian Branch Railway Company was amalgamated with the East India Railway, while

the Jabalpur Branch of the latter was transferred to the Great Indian Peninsula. Also the Ghaziabad Delhi-Kalka section was transferred from the East India Railway to the North-Western Railway. The state had by 1944 came to be the owner of all trunk lines and brought them under state management.

DEVELOPMENT OF THE RAILWAY ORGANISATION-RAILWAY BOARD :

Robertson in his report, which became available in 1903 recommended that the administration of the railways in India, should be entrusted to a small Board consisting of a President or Chief Commissioner who should have a thorough practical knowledge of railway working, and should be a member of the Viceroy's Council for railway matters and two other Commissioners who should be men of high railway standing and should have a similar training to that of the President.

He recommended that the Board in addition to the necessary office establishment be provided (a) A secretary who would have received a suitable training in the practical working of railway and who could be ex-officio a secretary to the Govt. of India.

(b) A Chief Inspector of Rlys to advise on all technical engineering and mechanical questions.

(c) A suitable number of Govt. Inspectors :

Early in 1905 it was decided that the Rly. Branch of the Public Works Department of the Govt. should be abolished and that the control of the railway system in India should be transferred to a Rly. Board consisting of 3 persons, a President and two members. The President of the Board was vested with the general control of all questions committed to Rly. Board with power to act on his own responsibility subject to confirmation by the Board. The Board was made subordinate and directly responsible to the Govt. of India in the Department of Commerce and Industry.

RAILWAY LEGISLATION :

The first legislation on railways in India was passed within a year of the opening of the first lines. The Act XVIII of 1854 was applicable to railways in British territory and to those under Govt. control only this practically did little more than give legal effect to regulations such as were taken then in force on English railways as for instance the repayment of fares, tickets, smoking, frauds, and the liability of companies as to luggage and valuable property belonging to passengers.

ACWORTH COMMITTEE :

The East India Railway Committee with Sir William

Acworth as Chairman was appointed in November 1920 to recommend suitable methods of management, to examine the functions, status and constitution of the Railway Board and the system of Govt. control over the administration. Two major changes followed the recommendations of the Acworth Committee. First Govt. gradually took over the management of the railways, and second railway finance was separated from the general finance of the Govt.

SEPERATION OF AUDIT & ACCOUNTS :

The Finances of Indian Railways were separated from the General Finances of Central Govt. commencing with the accounts of 1924-25. About the same time, an experiment was made with the separation of Rly. Accounts from Audit. Under the separation arrangements, a representative of the Finance Department was appointed as a member of the Rly. Board and designated as financial Commissioner. In this capacity he took over the responsibility for the completion of the Accounts of Indian Rlys. from the Auditor General, as from 1st April 1929. The separation of Accounts from Audit involved firstly, an internal check, the primary duty being to assist the Executive and secondly, an external test-check, called statutory Audit. The departmental head on each Railway in respect of the former function was designated Chief Auditor. The separation was designed to achieve

quicker preparation of accounts and returns, as required by the Executive and the Administration for the Control of expenditure against estimates and grants; prevention of irregular expenditure; technical considerations, introduction in the Administration, Executive and Accounts Officer of revised systems of accounting and detailed methods of procedure, more in accordance with commercial practice and directed to secure greater efficiency; greater attention, especially by the Accounts Department, to the internal economy of the Railways so as to cover all proposals for reducing working costs in wages and materials, for reduction of stores balances and for prevention of losses, and the creation of an Audit Organisation absolutely independent of the Administration.

PROFITS BY INDIAN RAILWAYS :

It was recorded in the Rly. Board's Report on Indian Rlys. for 1900 that for the first time since the commencement of railways in India over a half a century earlier, there was in that year a surplus to the state of revenue over expenditure, amounting to nearly Rs. 8.75 lakhs.

In the calendar year 1901, there was a similarly satisfactory record and the surplus to the state at the close of the year amounted to over Rs. 115 lakhs. The total expenditure borne against capital both on railways open and railways under construction, at the close of the calendar year 1900 was Rs. 343.33 crores.

1) The progress of Indian Railways : Extract Indian 1986

Page No. 494.

Year	Route Elec- Fied	Length (KM) Non-Electri Fied	Total	Running track KM	Passengers Originat- ing Lakh	Goods Origi- nating Lakh tonnes
1950-51	388	53208	53596	59315	12840	930
1960-61	748	55499	56347	63602	15940	1562
1970-71	3706	56084	56790	71669	24311	1965
1980-81	5345	55895	61240	75860	36125	2200
1981-82	5473	55757	61230	75964	37044	2458
1982-83	5815	55570	61385	76197	36554	2560
1983-84	5971	55489	61460	76407	33252	2580
1984-85	6321	55525	61850	76963	33332	2648

SUMMARISED :

2) The general results of working of Indian Railways during the 4 years 1897-1900 including Burma and the territories which now form part of Pakistan and Bangladesh, were as follows:

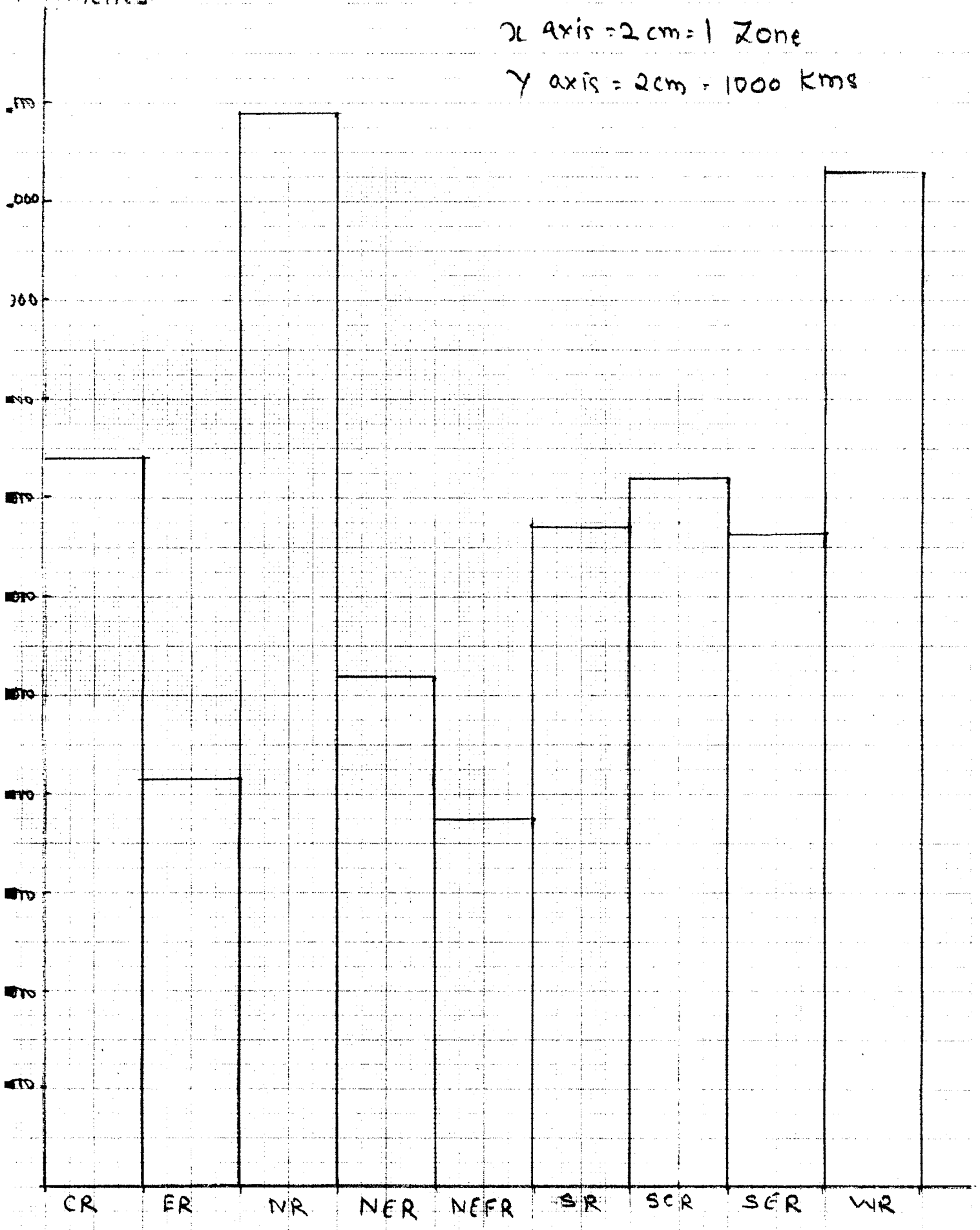
Year	Mileage open on 31 Dec.	Cross earnings in 1000 Rs.	Working expenses in 1000 Rs.	Net earnings in 1000 Rs.	Percent of Net earning on outlay.	Profit per- cent of New expenses to gross earn- ings.
1897	21123	256011	124773	131238	4.65	48.74
1898	22048	274559	130199	144360	4.93	47.42
1899	23528	294125	139622	154503	5.00	47.47
1900	24760	315965	151291	164674	4.99	47.88

Kilometres

Scale.

X Axis = 2 cm = 1 Zone

Y axis = 2 cm = 1000 Kms



Zones.

Z O N E S :

The nine Zones with their headquarters and route Kilometer are given as follows :

<u>Zones</u>		<u>Headquarter</u>	<u>Km.</u>
1. Central Railway	(C.R.)	Bombay V.T.	6,472
2. Eastern Railway	(E.R.)	Calcutta	4,270
3. Northern Railway	(N.R.)	New Delhi	10,977
4. North-Eastern Railway	(N.E.R.)	Gorakpur	5,163
5. North-Eastern Frontier Railway	(N.E.F.R.)	Maligaon-Guwahati	3,739
6. Southern Railway	(S.R.)	Madras	6,722
7. South Central Railway	(S.C.R.)	Secunderabad	7,137
8. South Eastern Railway	(S.E.R.)	Calcutta	7,095
9. Western Railway	(W.R.)	Bombay-Churchgate	10,295

Each Zonal railway is further sub-divided into a number of divisions each headed by Divisional Rly. manager.

The Indian Rlys. operate on 3 gauges. Broad Gauge (1,676) metres, metre Gauge (1 metre) and Narrow Gauge (0.762) and (0.610) metre. The track of permanent way is the basis infrastructure of the railway system & its maintenance & upkeep is most essential for smooth & efficient working of Rlys. The old system of steam locomotives is being slowly replaced by speedy railways electrification and dieselisation. However the strain on the track has increased with those powerful

locomotives which move superfast trains at high speed. This has resulted in increasing need for strengthening and modification of track. The wooden sleepers on track have been replaced by prestressed concrete sleepers with elastic fastenings are now being increasingly used for high speed track. There are about 1,13,00 bridges and 41,518 level crossing on the railway track.

3. The analysis of originating passengers earthings of important stations for the year 1986-87 & 1987-88 & 1988-89. (Figs. in Lakhs) (Upto Jan. 89).

Serial No.	Station		1986-87	1987-88	1988-89
1.	Solapur	..	375.33	393.60	366.80
2.	Gulbarga	..	239.58	243.76	242.10
3.	Ahmednagar	..	118.39	136.92	118.04
4.	Daund	..	72.59	82.10	76.78
5.	Pandharpur	..	33.95	46.93	37.86
6.	Kurduwadi	..	68.24	49.17	63.92
7.	Belapur	..	39.60	42.20	33.47
8.	Latur	..	31.96	43.47	27.59
9.	Barsi Town	..	18.19	20.76	15.92
10.	wadi	..	23.34	25.30	25.85
11.	Shahabad	..	29.67	29.71	27.60

4. OBJECTIVES OF THE RAILWAY'S EIGHTH PLAN - 90-91 TO 1974-95 :

THE OBJECTIVES OF THE RAILWAYS DURING THE 8th Plan are :

1. Generation of adequate line, terminal and locomotive capacities for dealing with the projected growth of traffic, both passenger and freight during the 8th Plan period.
2. Complete the process of rehabilitation, replacement and renewal of overaged assets rolling stock, track, electrical signalling and telecommunication equipments.
3. Modernise and technologically upgrade the system to achieve. :
 - (a) Reduction in maintenance costs.
 - (b) Improved efficiency and productivity.
 - (c) Improved reliability of services and assets.
 - (d) Improved quality of service and customer satisfaction.
 - (e) Improved safety including reducing the probability of human failures.
 - (f) Energy conservation and
 - (g) Raising technology and export capabilities.
4. Improved utilisation of motive power.
5. Development of integrated inter-modal operations wherever feasible including containerisation.
6. Progressive electrification of high density routes, of missing links and other priority areas.

7. Selective expansion of the railway system to increase the aggregate transport capacity through development of alternative routes, missing links in the network lines required for industrial and other developmental needs including defence.
8. A systems approach to reduce costs of operation and balance between capital and human endeavour inputs.
9. Improvement in quality of passenger and freight services.
10. Development of a perspective Research and Development Plan.
11. Improvement of environment.
12. Manpower planning, development and upgradation of training facilities with a view to improving skills absorbing inputs of new technologies, and increasing staff productivity.
13. Improvement of work culture and staff morale.

R E F E R E N C E S :

1. Ministry of Railways : One Hundred years - Indian Railways 1853-1953.
2. G.S. Khosla : A History of Indian Railways.
3. David G. Mandelbaum : Society in Indian.
4. M.N. Srinivas & M.N. Panini. : Sociology and Social Anthropology.