

CHAPTER II

ORIGIN AND DEVELOPMENT OF SOUTHERN RAILWAY

Southern Railway has been occupying a place of pride in the inland transport of South India. From a humble beginning, Southern Railway has now become the back bone of the economy of South India. Southern Railway has been opening new doors to the distant places of South India without fear.

Forty two different railways varying in mileage, finances, traffic, equipment and capacity were functioning in India at the time of Independence¹. State owned and state managed, state owned and company managed, company owned and company managed along with lines run by Indian states directly or through companies were prevailing in India². According to their gross earnings, these forty two railways in the Indian Union were divided into three classes, thirteen class first railways, ten class second railways and nineteen class third railways. The class first railways were those with gross earnings of not less than Rs 50 lakhs a year, class second were those with gross earnings of less than 50 lakhs but more than Rs 10 lakhs a year and class third were those which had a gross earning of less than Rs 10 lakhs a year.

THE NEED FOR REGROUPING

The need for regrouping of railways with wide diversities in control, ownership and management was felt from the beginning of the 19th century³. In Southern parts of India unification of railways was demanded as early as in 1904. Acworth committee stressed the importance of railway reorganization on a countrywide basis. The committee observed if there is one thing that railway's history teaches more than any other, it is that centripetal forces are stronger than centrifugal; that segregation into larger units promotes efficiency and economy⁴.

As mentioned in previous chapter, the Inchcape committee, the Pope and Wedgewood committees, which were appointed by the Government of India to suggest measures to minimize expenditure, also recommended the re grouping of railways. The government however felt confronted with some obvious difficulties, the most important being of multiple ownership and management. The demand was pressed repeatedly by the non-official members of the Central Legislature between 1924 and 1948. Reorganization of the internal set up of each unit with views to minimize expenditure and improve and standardize practices became very prominent. As a result the Government of India decided to reorganize the railways on a country wide basis⁵. The Government of India appointed a joint advisory committee headed by F. Jeejee Bhog and the committee submitted its recommendation in 1950⁶. Indian Railways were therefore re grouped into major Zonal railways under a plan announced by the Government of India in June 1950⁷. The general features of re grouping were.

1. Each of the Zonal railways will be having a route mileage of 5000 to 6000 and will traverse areas varying from 126000 square miles for the North Eastern Zone to 210000 square miles for the Central Zone.
2. Each Zonal railway will serve the requirements of population ranging from 33 million in the Western Zone to 84 million in the Southern Zone.
3. The passenger traffic varies in magnitude from 134 million on the Eastern Zone to 296 million on the Western Zone and tonnage of goods moved from 11 million on the North Eastern Zone to 39 million tons on the Eastern Zone⁸.
4. Strength of staff ranges from 1,10,000 on the Western to well over 2,00,000 on the Eastern Zone.
5. The gross revenues of new railways will vary from Rs. 35 crores on the North -Eastern to Rs. 57 crores on the Eastern Zone.

SOUTHERN RAILWAY

Southern Railway was the first Railway Zone to be created in independent India. The capital of Tamil Nadu, Chennai serves as the headquarters of Southern Railway. In 2001 the Zone had been segregated into five divisions namely Chennai, Madurai, Palghat, Thiruvananthapuram and Thiruchiraplli. The Southern Railway encompasses the states of Tamil Nadu, Pondicherry, Kerala as well as little segments of Andhra Pradesh and Karnataka. Over 500 million passengers commute on the Southern Railway network annually.

Chennai (Madras) The headquarters of Southern Railway

Before 1850's transport in Madras was not in an organized system⁹. The palanquin and horses were the standard means of transport. Around 1850, a carriage called 'nibs'¹⁰ came into use for long distance travel¹¹. Within the city there were horse drawn vehicles like Jutkas for the use of short distances. Gradually Madras emerged as an important trading centre of South India and this led to the formation of Madras Chamber of Commerce in 1836. The roads on the Western side of Madras were unsafe and on the Eastern side the transportation of cotton from Coimbatore to Proto Nova was very expensive. It was one eighth of the cost of the crop. The roads of Tirunelveli were also unfit for trade and commerce¹². Therefore the members of the Madras Chamber of Commerce frequently raised their voice against this pathetic condition of roads.

With the exception of the districts of Salem, Madurai and Tanjore, the roads in several districts of Tamil Nadu were practically unfit for traffic during rainy season. There were many days in a year in which people could not travel at all and all perishable goods like sugar and grains were exposed to damage. Canals and rivers were also inadequate for transport¹³. At that time Deccan cotton was in great demand for the textile industry in Madras. The Madras Chamber of Commerce emphasized the need for quick transport of mail and cargoes¹⁴.

The first proposal for railway lines in India emerged from the presidency of Madras in 1832, much before the similar proposals in Bombay and Bengal presidencies¹⁵. In 1836, an experimental line was laid near Chintatripet. This was followed by 3½ mile long rail line South West of Madras, connecting Red Hills and the stone quarries near the Little Mount in 1837¹⁶. This line was used for private purpose.

The Madras Railway Company was formed in 1845. But the apathy of the British Government forced the promoters of Madras Railway Company to dissolve it in 1847. But the efforts of promoters, shareholders and the people of Madras brought the approval of the Court of Directors of the East India Company on 25 May 1852. Therefore a new company with the same title Madras Railway Company was registered in London on 26 July 1852¹⁷. Even though it was in the name of Madras Railway Company no Indian was its member¹⁸.

Dalhousie played an important role in connecting the presidency cities of Calcutta, Bombay and Madras for military, commercial and political purpose. He wrote extensively on the subject of railways. He gave importance to suitable gauge, territories where the line should pass and the agency to be employed. The terms of contract and its termination, acquisition of land and acquirement of lines by the government after the expiry of 25 years or 99 years were also considered. As he was an arch imperialist he showed much favour to private enterprises¹⁹.

As per the views of Dalhousie the construction was made in the Madras presidency. When East India Company and Greater Indian Peninsula Railway Company prepared the plan and route, the Madras presidency did not lag behind. Dalhousie suggested two lines, one from Madras via Wallajah Road (Arcot), Vellore, Salem and onward to Western coast with a branch to Bangalore and to the foot of Nilgiris. Another one was from Madras through Cuddapah district to Bellary then to Bombay. His plan was implemented²⁰.

CHENNAI CENTRAL STATION

The complexity of the Indian Railway operations and the range of facilities required for the hierarchic and heterogeneous nature of the passenger traffic forced colonial railway authorities to build railway stations that reflect their imperial power²¹. They also conceived railway station buildings that matched their civic and administrative grandeur.

Madras Central was one such grand station built in the Romanesque revivalist style, with round arched arcading and windows capped by "vanegated coloured voussoirs". The four corner towers with an imposing central one and the roof ridges have a fine iron finish situated opposite to the main entrance to the General Hospital, it was originally built by the Old Madras Railway Company.

The Central Station was opened for traffic on 7 April 1873. Initially, passenger train services to the north and southwest lines were handled at the station. However, increase in traffic demands forced the transfer of train services from Royapuram to Central in 1907. Minor improvements were made to the station and yard since 1907²². Remodelling of Madras Central commenced in the year 1932 to cope with the increased number of passengers as well as trains. Increase in length of platforms, provision of cover to the platforms and increase in the circulating area for passengers, construction of adequate waiting rooms, luggage rooms and booking offices and construction of retiring rooms with modern sanitary equipment were the salient features of the remodelling work. As on April 1951, 20 express/passenger trains were handled at Madras Central.

The process of remodeling continued in order to meet the requirements of the day. The suburban terminal at the Moore Market Complex, adjacent to the Central station, was opened for traffic on 17 October 1981²³.

The Chennai Central, as it stands now, is a hub of hectic activity, where the passengers feel the modern ambience. It has acquired the unique distinction of being the first Railway junction in India to be placed on the cyber map. An Internet Browsing Centre with 27 computers with flat screen monitors besides scanner and printer facilities has been set up to link people with the outside world. Online display for announcing the arrival/departure of trains, modern digital display boards, spacious waiting halls, a modern concourse, AC dormitory, ATM centre and modern fast food joints are the highlights of the city's landmark which now receives and dispatches as many as 120 trains.

CHENNAIEGMORE

The Madras Egmore Station is one of the noteworthy additions the Railways had made to the building and structural features of the city²⁴. During the British period, the tradition of the 'Oriental's' style of architecture was still in vogue. The Mughal-style stations with minarets and domed open towers were a common feature in the North of India.

Distinct in style and structure, the Madras Egmore Station, completed in 1908, was also in Mughal style - a rare phenomenon in the South India. It was an ornate structure in brick, rimmed with granite and sandstone. Several towers were capped by domes in the shape the Mughals had brought with them from Persia and Central Asia. The walls have intricate stone-carving, particularly in the fantastic stone brackets, the drip stones and rich freezes. A great range of waiting rooms, offices, restaurants, baggage rooms and post office were constructed inside the station.

HEADQUARTERS BUILDING

The need for promotion of efficiency in day-to-day working, reduction in inter-departmental correspondence and fiscal concerns led to the idea of concentration of the various administrative offices in a single building. The groundwork for construction of a massive building commenced during 1913²⁵. The foundation for the palatial headquarters building was laid on 8 February 1915 by Lord Pentland, the then Governor of Madras. Based on the Dravidian style of architecture of South India with a dexterous blend of modern office requirements, the colossal structure was designed by N.Grayson, the architect of erstwhile Madras and Southern Mahratta Railway.

The foundation of the building consists of a reinforced concrete raft from 5 to 8 feet below the ground level set upon a stratum of pure sand, nearly 20 feet deep. It took nearly 7½ months to lay the foundation structure consisting of 500 tons of steel bars embedded on 10,000 tons of granite concrete. Built of stock brick with Porbundar stone, the central towers rise to a height of 125 feet 6 inches above the roadway. The corner towers house the water tanks with a total capacity of about 35,000 gallons.

The palatial building, situated to the east of the other stately structure, the Central station, occupies the whole frontage from the Wall Tax Road to Mint street and adds to the architectural beauty of the city of Madras. Nine long years of intensive labour and a massive investment of Rs.30,76,400 led to the shaping of the historic structure unique in style and construction. The building was opened on 11 December 1922 by Lady Willington, the wife of the Governor of Madras.

ROYAPURAM RAILWAY STATION

Royapuram Railway Station building is truly worthy of being called a heritage building, not merely because it is the second major railway station built in the country²⁶, but as it is the oldest railway station in the country that still survives, displaying the vestiges of its former splendour. Though India's first railway line opened from Bori Bunder, Bombay to Thane, neither Bori Bunder nor Thane stations survives today.

The Royapuram Station building, that resembled a regency mansion, was declared open by the then Governor Lord Harris on 28 June 1856. In his speech he congratulated the Madras Railway Company, its Manager Major Jenkins and all who had worked on the railway, Lord Harris said that the project was worth the investment and looked forward to equally expeditious completion of additional miles of track up to the west coast. Two trains, each with coaches made by Simpson & Co., the leading coach builders of the day, inaugurated the service. One carried the Governor and 300 Europeans and another train, with the Indian invitees followed. These were widely covered by the Press. "The Illustrated London News" gave a graphic description of the inaugural train passing across the arid plain of the Carnatic, frightening the herdsman and the cattle.

PREDECESSORS OF SOUTHERN RAILWAY

The Southern Railway, which was formed in April 1951, had the predecessors of Madras Railway Company, The South Indian Railway Company, Great Southern of India Railway Company, Southern Mahratta Railway Company, East Coast Railway Company and Nilgiri Railway Company.

The Madras Railway Company

The Madras Railway company was formed in London on 8 July 1845. The European residents at Madras were not slower than the residents of Calcutta and Bombay in getting railway lines to their city of Madras. Their main object was the construction of a railway line from Madras to the commercial town called Wallajah Nagar and to connect military station at Arcot²⁷. The town Wallajah Nagar was a centre of trade and it was very adjacent to the cavalry cantonment of Ranipettai. The Madras Railway Company held the first meeting of its share holders in February 1846. The company submitted an estimate for financial judgement to Simms C.E, the first Director of Indian Railway Department²⁸. Shortly afterwards the company was dissolved because it didn't get any monetary assistance from the Court of Directors, as it was granted to Bengal and Bombay. But after the establishment of the experimental lines in Bombay presidency, the Madras Railway Company was again revived. Simms proposed the construction of railway lines between Madras and Wallajah Nagar. Simms gave his report on 30 December 1845 to G.A Bushby, Secretary of the Government of India. He recommended that it could fetch more benefits to the Government because at that time trade in Madras had two directions, one from the Northern districts of Cuddapah and Bellary and other from Salem and Coimbatore. These lines intercepted at Wallajah Nagar. Therefore the project proposers fixed Wallajah Nagar as centre where future railway lines might start.

J.A. Arbuthnot²⁹ held two meetings in London in 1849 to discuss the subject of Railways in Madras presidency³⁰. Madras Railway Company succeeded in obtaining the confidence of the Court of Directors but the Board of Control still opposed the scheme. This uncertainty continued till the appointment of Major Pears as the Railway Construction Engineer to the Government of Madras. His appointment was a turning point in the history of Madras Railway Company. He proposed two

schemes. One from Madras to Malabar via Vaniyambadi, Salem and Palghat in the South West direction and the other from the West of Madras over the Eastern ghats to Poona and to Bombay in the Northwest direction. The Madras Government approved both the lines³¹. The project of Major Pears was submitted to the Court of Directors for approval³². Lord Dalhousie gave priority to the lines that would connect Madras to Bombay. After a lot of discussions Major Pears was urged by Dalhousie for rapid surveys of the line by Cuddapah through Bellary³³, a military base which also had cotton traffic and then a possible junction with a line from Bombay. Lord Dalhousie approved Major Pears' project for the main lines and the branch lines³⁴.

Finally the indent was made on 22 December 1852 between the East India Company and Madras Railway Company. It was said that Madras Railway Company was established by the deed of 26 July 1852. For construction purpose, the railway company had to pay to the treasury of East India Company a sum of £ 500000³⁵. The railway company could set up an office, keep at all time an authorized agent to whom the East India Company and the Government might communicate.

Meanwhile John Peter, the Home Secretary to the Government of India differed a little on the routes adopted for the lines. He pointed out that the railway from Madras to Bellary via Bangalore would be 100 miles longer than by a direct route and the trade from Cuddapah was 8 times greater than that of Bellary. This decision was conveyed by the Government of India in a letter dated 4 March 1853 and sanctioned the line from Madras to Meril, a distance of 50 miles to be commenced at once. Thus the history of railways in Southern India started with the commencement of work on the South West line on June 9, 1853. After four long years the work was finished between Madras and Arcot. An episode in the history of the railways in the Madras presidency began when Madras Government fixed 16 July 1856 as opening day of the Madras Railway. It was inaugurated by Lord Harris, the Governor of Madras presidency. On that day, the inauguration of

Madras Railway was celebrated with great honour. The Governor of Madras, the Commander in Chief, the officers of the Government, and the staff of the Garrison of Fort St. George with all the elite and beauty of the presidency honoured the Railway Company with their presence on this important occasion. The line from Madras to Arcot with 63 miles was opened to traffic on 16 July 1856³⁶.

The Terminus at Madras was on the sea beach of Royapuram. The Madras Railway lines ran from Royapuram Terminus in the Madras city towards West Coast and then to Calcutta. In the Royapuram station, iron pillared and looking for all the world like a Regency mansion was declared open by Governor Lord Harris on June 28, 1856³⁷. Major Jenkins was the manager of the Madras Railway Company at that time. The service was inaugurated with two trains, coaches made by Simpson & Co; the leading coach builders of the day³⁸. The inaugural function was colourful and thousands of people gathered along the way like they had never seen a train in their lives.

From Arcot, the Madras Railway Company extended its length towards Gudiyattam, 96 miles, in 11 May 1858. From Gudiyattam to Salem, 110 miles, was another extension³⁹. In this extension there were 95 bridges, numerous culverts, but the largest were those over the Palar and Ponni rivers. From Salem this railway line extended to Beypore (Calicut), 207 miles and it was opened for traffic on 1 January 1861⁴⁰.

Construction began from Beypore too⁴¹. Beypore - Tirur 19 miles was opened on 12 March 1861. Tirur-Kuttipuram, 9 miles on 1 January 1861, Kuttipuram - Pattambi 12 miles on 23 September 1861 and Pattambi - Podanur on 14 April 1862 was also opened and with this a direct railway connection was established between the East coast and West coast. On 9 February 1880 a public meeting was held at Calicut⁴² and resolutions were passed in favour of extending the railway

line from Beypore to Calicut only seven miles distant from the Terminus. Extension to Calicut was opened on 2 January 1888⁴³. In the beginning of the 19th century, Madras Railway Company decided to extend the railway lines from Calicut to Northwards to connect Mangalore, the major port of the West coast. Madras Railway Company completed this project on 3 July 1907. In 1852 itself the Madras Railway Company got the second contract from the Government of India to extend the route up to the West coast with the branches to Bangalore and Ootacamund⁴⁴.

After graduating from the Trinity College T.H.Going arrived at the coast of Madras on 18 May 1857. He was assigned the job of surveying the route for the proposed North West line. He was assisted by two natives namely David and Vedantacharry. He surveyed the routes up to Raichur for the proposed North West line and the Arconum to Puttur section of 26.86 miles was opened in 1861⁴⁵. The line was extended to Renigunta of 14.46 miles on 15 September 1862. Renigunta to Reddipalli was opened for traffic on 1 October 1864, and the extension of Cuddappah was sanctioned in 1858⁴⁶ and was opened for traffic on 1 September 1865. Cuddappah to Muddanaru on 1 August 1866, Muddanaru to Tadpatri on 1 September 1869 and Tadpatri to Gooty on 1 August 1869 were another extensions. In 1865 Mr.T.H. Going became the assistant chief of construction, covering the whole of Madras Railway Company. Gooty to Tungabhadra 75.33 miles was opened on 2 January 1870 and the extension to Raichur was opened for traffic on 15 March 1871.

Great Southern of India Railway Company

Besides Madras Railway Company another Railway Company in the Madras presidency known as the Great Southern of India Railway Company came forward to have contract with Government of India⁴⁷. The Great Southern of India Railway Company was formed in London in 1857. The Company signed contracts with the East India Company to construct Railway lines in the

Southern part of Madras Presidency. The Great Southern of India Railway Company's headquarters functioned at Nagapatnam. The company was started by many share holders of London and was financed by the Bank of London.

The Great Southern of India Railway Company was registered in 1859 to construct a broad gauge line from Nagapatnam to Thiruchirappalli. Nagapatnam was a port and Thiruchirappalli was a rich and populous district watered by river Cauvery. The line was later extended to Erode⁴⁸. The first contract was signed on 1 September 1858 with the Great Southern of India Railway Company for the construction of railways from Nagapatnam to Thiruchirappalli of 78½ miles. The second contract was on 21 April 1864 for the construction of a railway line from Thiruchirappalli to Erode of 88½ miles⁴⁹. It was a state owned metre gauge line⁵⁰.

The line laid from Thiruchirappalli to Nagapatnam ran through rice fields and for 38 miles over wasteland. The entire line had been constructed without much difficulty or delay because the work was easy⁵¹. There were 89 bridges of various sizes and the largest viaduct was over the river Moothalay. Most of the bridges were of brick work but in some, laterite work had been used.

The construction was done at rapid phase and the first section from Nagapatnam to Tiruvarur was opened for traffic on 15 July 1861⁵² and its extension to Tanjore was opened on 2 December 1861. The extension from Tanjore to Thiruchirappalli junction was completed on 11 March 1862.

The extension work of Great Southern of India Railway Company from Thiruchirappalli to Erode was of great importance⁵³. Thiruchirappalli was the only place on the Erode extension at which European troops were stationed⁵⁴. About four miles from Thiruchirappalli it crosses a stream called Codamooty, just at its confluence with Cauveri. Then without any bridges of consequence, it

is carried to the town of Karur, on the Ambamootay, which is thousand feet in breadth. Beyond this river the line skirts the Cauveri; but had rather severer gradients to encounter, as a ridge 181 feet higher than the level of the town of Karur runs down to the Cauveri, at right angles to the direct course which the railway must take. Surmounting the obstacle the railway fell with a gradual slope to the river Noyyel to Erode junction. This railway had been constructed and finished at a cost less than any other line in India not exceeding £7700 per mile⁵⁵.

Railway line from Thiruchirappalli fort to Karur was opened for traffic on 3 December 1866 and the line was extended to Kodumudi on 1 July 1867⁵⁶. Connection from Kodumudi to Erode was effected on 1 January 1868. At this point the lines of Great Southern of India Railway Company were connected with the Madras Railway Company's Jolarpettai - Beypore section.

Carnatic Railway Company

Carnatic Railway Company had its origin in the Indian Tramway Company established in 1864 for the construction of light railways⁵⁷. Under the leadership of Indian Tramway company, a narrow gauge line in Southern India between Arkkonam and Kanchipuram was opened for traffic on 8 May 1865. In 1865 this line was transferred to Carnatic Railway Company. It proposed a line from Kanchipuram to Chengalpattu, Chengalpattu to Villupuram, Villupuram to Cuddalore and also proposed a line to Pondicherry via Villupuram. But in 1874 the Carnatic Railway Company was taken over by the Great Southern of India Railway Company⁵⁸. Thus the Great Southern of India Railway Company and the Carnatic Railway Company were amalgamated on 1 July 1874 with the title of South Indian Railway Company.

Pondicherry Railway Company

Pondicherry Railway Company Limited was established in 1874⁵⁹. Pondicherry Railway Company built 12.63km long railway line from the East bank of Gingee River and opened it for traffic on 15 December 1879⁶⁰. But the management of this railway was given to South Indian Railway Company on 8 May 1878, by a contract between Pondicherry Railway Company and the French colonial government⁶¹.

South Indian Railway Company

On first July 1874 Great Southern of India Railway Company and Carnatic Railway Company were amalgamated under the title of South Indian Railway Company⁶². In 1880 Pondicherry Railway Company was also merged into it. One important peculiarity of South Indian Railway Company was that it appointed a large number of native drivers⁶³. In 1882 the traffic affected by Madras Railway Company and South Indian Railway Company was almost equal but South Indian Railway Company employed six times more native drivers than the Madras Railway Company. The most important construction of the South Indian Railway Company was the line from Madras to Tuticorin, a distance of 444 miles. On 1 January 1891, the Madras state purchased the assets of the South Indian Railway Company and handed over to a new company in the same title⁶⁴.

Karaikkal-Peralam Railway line of 14.65 mile long was constructed by the South Indian Railway Company and it was opened for traffic in 1898. Other important undertakings were Mayiladuturai to Arantangi of 99.46 miles and Tirunelveli to Quilon of 50.48 miles. Thirunelveli-Quilon line was opened for traffic on 1903. Extension from Rameswaram Road to Dhanushkodi

was opened for traffic on 10 December 1908⁶⁵. Vrindhachalam-Salem was opened for traffic in 1931. Madurai-Bodinayakkanur line was opened for public on 20 November 1928⁶⁶. Shornur to Ernakulam of 65.02 miles was opened for traffic on 16 July 1902. This line was the property of the Cochin Government. Till 31 December 1907 this line was worked by Madras Railway Company. But on 1 January 1908 this line was handed over to the South Indian Railway for working⁶⁷. South Indian Railway also managed Tirunelveli-Sengottai line on behalf of the Maharaja of Travancore⁶⁸. Extension from Sengottai to Quilon was opened for traffic in 1904. The line was extended to Thiruvananthapuram (36.51 miles) on 1 January 1918.

After 1925, the Government of India finally decided to stand by state management ownership and control, terminating the contract of old companies⁶⁹. It was also decided not to encourage further financing the branch lines by private companies. South India was covered by rails network by trunk lines, provincial lines, feeder lines, district board lines and chord lines and by 1930, the process of electrification had been commenced and it changed the whole facet of railway administration.

The South Indian Railway Company's principal contract was terminated on 31 March 1944, and South Indian Railway was taken over by the Government of India on 1 April 1944. But on the auspicious day of Tamil New year 14th April 1951, South Indian Railway was merged into Southern Railway.

Mysore State Railway

In 1879, the Madras Railway Company Constructed a railway line from Madras Royapuram to Bangalore city⁷⁰. At that time Maharaja of Mysore established a separate railway organisation to carryout extension from Bangalore to Mysore. This establishment came to be known as Mysore

State Railway. The management of Mysore State Railway was very expensive. Therefore in 1886 it was decided to transfer the rail lines built and owned by Mysore State Railway to the Southern Mahratta Railway Company for working. The major portion of the staff of the Mysore State railway was also transferred to the South Mahratta Railway Company. Mysore - Nanjangud of 25.51 km was opened for traffic in 1891. Birur - Shimoga section of 60.74 km was opened for traffic in 1899. Another important line was Yeshvantpur - Hindupur which was opened for traffic in 1892-93. But in 1911-12 the Mysore Government decided the formation of the State Railway Construction Department and it was put under the control of Mr. E.A.S. Bell, Engineer in chief. During 1919, the administration of Mysore State Railway was taken back from Southern Mahratta Railway. Mysore State Railway became a part of Southern Railway on 14th April 1951.

Southern Mahratta Railway Company

Captain C.C.Johnson, officiating as constructing engineer of railways in 1858 forwarded the proposal for a railway to be constructed and called it the Southern Mahratta Railway Company⁷¹. The Southern Mahratta Railway Company was formed on 1 June 1882. Southern Mahratta Railway Company was authorised to construct rail lines in the Southern part of the Mahratta land. Southern Mahratta Railway's first line was a Metre Gauge line of 40.5 mile long from Bellary to Hospet. This line was opened for traffic on 24 March 1884. In 1886 the Mysore State Railway's management was also taken by the Southern Mahratta Railway company. In 1886 the Southern Mahratta Railway Company had constructed the first coast to coast line from Marmgoa to Beswada (Vijayawada). Southern Mahratta Railways also built the railway line from Katpadi to Pakala of 39.48 miles and opened it for traffic on 20 March 1892. Pakala to Gudur section was another important work of this railway company⁷².

In 1907 Southern Mahratta Railway Company was a major railway company with over a thousand mile long sections in Bomby and Madras presidencies. The Government of India recognised the strength of the Southern Maharatta Railway Company and it handed over the Madras Railway Company to Southern Mahratta Railway Company for working⁷³.

Madras and Southern Maharatta Railway

This was a combination of two companies the Madras Railway Company and Southern Mahratta Railway Company. It served all important places in the North of Madras presidency and in the South of Bombay presidency and provided rail traffic towards upper India⁷⁴.

Earlier the Railway companies had entered into contract with English East India Company. After 1858 the Secretary of State was authorised to consult the Viceroy based on contract to lay the railway lines on the basis of priority. The main terms of contract were 99 years lease, free gift of land, 5% guaranteed interest per annum with the condition that after the expiry of the lease of 25 or 50 years the whole line should become the property of the Government. With the lapse of contract of the Southern Mahratta and Madras Railway companies the Government decided to take over and recognize the railway system in South India. The Madras Railway ceased to exist as a separate entity. A provision was also made for the purchase of lines. Hereafter it was named as "The Madras and Southern Mahratta Railway Company"⁷⁵.

East coast Railway

Both Southern Mahratta Railway and Hyderabad Nizam's Guaranteed State Railway had Vijayawada as the junction point. Government of Madras ordered the survey from Vijayawada to

Cuttack in September 1889. The construction of this line in the title of East Coast Railway was sanctioned in July 1890. The total length of the line was 516 miles⁷⁶.

Southern Mahratta Railway had built railway line from Cumbum to Bezwada (Vijayawada) in 1889 – 90, likewise Bengal - Nagpur Railway established their connection at Cuttack in 1899. The connection between Beswada and Cuttack was the main target of the East Coast Railway. Construction began from Waltair, an important port of the East Coast. Waltair - Vijayanagaram and Waltair - Rajamundri Sections were opened for traffic on 15 July 1893⁷⁷. The connection to Madras was established on 1 November 1899 with the opening of Gudur - Nellore section. The East Coast Railway was very important in the history of Indian Railways because it opened a direct connection between Madras and Calcutta. Madras Railway Company managed the Southern section of the East Coast Railway up to 31 December 1907 and later by the Madras and Southern Mahratta Railway Company managed it⁷⁸.

Nilgiri Railways

Udagamandalam, Ootacamund or Ooty is situated in Nilgiri mountains near the trijunction of the states of Tamilnadu, Kerala and Karnataka. The Nilgiri forms plateau rather than a range, rising abruptly from the plains on most sides with a general elevation of about 5400 ft above sea level⁷⁹. The word Nilgiri is derived from two Sanskrit words Nilam meaning blue and giri, a hill.

The first European to visit these hills was a priest named Reverend Jacob Ferreri, who came to investigate the story that there existed certain christian villages in a country called Tondamalai, a story which proved to be false. Dr. Buchanan was the next who was sent as an official to do economic survey in 1800. In 1819, Mr. Sullivan, the collector of Coimbatore visited the place. He

was followed by Sir. Thomas Munro in 1828. Nilgiris attracted these Europeans and they decided to stay in this place⁸⁰.

Schemes for a railway up to the steep slopes of Western Ghats from the foot hills to Coonoor date back to 1854. A proposal was mooted out to lay a series of double rail inclined planes up the slopes and pull loaded wagons over them. It was by a counter weight of tank wagons filled with water and connected to the locks by a rope running round a wheel at the top of the incline. In 1876, a Swiss Engineer named N. Riggensch, who was the inventor of the Rigi system⁸¹ of Mountain Railway, offered to construct the Nilgiri Railway. The condition was that the government should give free cost of land, guarantee of 4% return for ten years on the estimated cost of Rs. 4,00,000 and grant exemption from taxes for the same period. But this was not granted⁸².

The production of tea, coffee and cinchona was very high in this region⁸³. In 1832 N.Riggensch came to the Nilgiris and started preparing detailed estimates for a rack railway⁸⁴, which it was calculated would cost only £ 132,000. He was assisted by Major Morant, the District Engineer in the Nilgiri's who had an abiding interest in the scheme. Accordingly a local company under the name "The Nilgiri Rigi Railway Company Ltd" was formed to construct the line and the government gave it some concessions in the matter of the acquisition of land⁸⁵.

The Nilgiri Rigi Railway Company Ltd requested the government to promise guarantee of four percent on an outlay of £ 150,000 for 15 to 20 years. But the Government was not prepared to comply with this request and promised a limited guarantee. But the company requested the government to modify the terms and lend the services to scrutinize the estimates. As they could not afford to pay for the British engineer, Richard Wooly, an engineer in the district of Coonoor became the Chief Engineer⁸⁶. He agreed to advance some money on condition that he should be given

contract for the construction of the railway line. His offer was accepted and from that time onwards began his connection with the Railway administration of which he eventually became the first agent and manager. But this company could not raise the requisite capital and was liquidated.

In 1885 a new company was formed named as the Nilgiri Railway Company with a capital of 25 lakhs. In 1886 a contract was signed between the Secretary of State for India and the New Company. In 1889 the requisite capital was raised in London and in August 1891 Lord Wenlock, the Governor of the Madras Presidency inaugurated the construction⁸⁷.

In February 1896 another company was formed which purchased the interest of the liquidated firm and set about the task of completing the construction of the line⁸⁸. Another agreement was concluded between the Company and the Secretary of State for India where by all government land required for the line was granted free and a guarantee of three percent on the capital during the construction period was given by the government. The line was ultimately completed and was opened for traffic in June 1899⁸⁹. It was first operated by the Madras Railway Company in an agreement with the government. Subsequently, the management was entrusted with the South Indian Railway on 31 December 1907 at the time of the expiry of Madras Railway's Contract. The line was extended to Ootacamund from Coonoor in 1908 over a distance of 11¾ miles at a cost Rs 24,40,000 and opened for traffic in September 1908⁹⁰. The Railway line from Mettupalayam to Udagamandalam is 46.61 km long and it lies partly in Coimbatore District and partly in Nilgiri District of TamilNadu⁹¹. Construction expenses were heavy because in addition to 16 tunnels, a big bridge over the river Bhavani was necessary. Besides this large bridge, 26 other small bridges were also constructed and heavy expenditure incurred in rock cutting and blasting.

The principal contract of South Indian Railway was terminated on 31 March 1944⁹² and the working of Nilgiri Railways was taken over by the Government of India. With effect from 14 April 1951 the South Indian Railway and Nilgiri Railway formed a part of the newly constituted Southern Railway⁹³.

At present one pair of passenger train runs of Mettupalayam - Udagamandalam section and two pairs of passenger trains run between coonoor and Udagamandalam. During summer season, an additional pair of trains are run between Mettupalayam and Udagamandalam. There are no night train services now, since the section remains closed during night. Mettupalayam section remains permanently closed for goods traffic from 1 September 1981. The speed of the train is generally maintained between 10 and 12 km an hour on slop gradients of the track, and 32 kilometres an hour on comparatively easier sections.

The Nilgiri Mountain Railway is at present a part of Olavakot Division (Palghat Division) of the Southern Railway. Fern Hill station on this Railway was closed to all Railway traffic from 31 March 1962 and the existing station building was converted into an Officer's Rest House.

The journey from Mettupalayam to Udagamandalam by rail is pleasant and enjoyable and the time taken by the train to cover the distance of 46 km is about 4 hours and it is almost twice the time taken by the bus service. The total distance between Mettupalayam and Udagamandalam is 46 km⁹⁴. All traffic commences to and from Mettupalayam. Between Mettupalayam and Udagamandalam the following stations serve the people - Mettupalayam, Kallar, Hillgrove, Coonoor, Willington, Aravangadu, Ketti, Love Dale and Udthagamandalam. Out of 12 stations that existed earlier three stations viz Katheri Riad (17 October 1982) Runneymede (10 November 1983) and Adderley (8 June 1984) had been closed.

Thus Madras Railway Company, Great Southern of India Railway Company, South Indian Railway Company and Southern Mahratta Railway Company, East Coast Railway Company and Nilgiri Railway Company played their own role for the formation of Southern Railway. The Madras and Southern Mahratta railway covered both the states of Madras and Bombay and brought them together, serving the North and South of India. The Mysore Railway filled a gap left by the Madras and Southern Mahratta Railway. The South Indian Railway brought the states of Madras and Travancore - Cochin together. In 1947 after India became independent the railways were integrated into different zones.

INAUGURAL FUNCTION OF SOUTHERN RAILWAY

The Integrated Southern Railway system was inaugurated on the auspicious occasion of Tamil new year day 14 April 1951. The head quarters of Southern Railway was decorated very attractively. Coloured lights gave a magical glow to the function. The Governor of Madras presided over the function and N. Gopalaswami Ayyangar, then minister for Railways and transport inaugurated the system. Ministers, Judges of High Court, Railway officers and other prominent officials participated in this function. K.R. Ramanujam, the first General Manager of Southern Railway welcomed the distinguished guests⁹⁵. Sri. K. Santhanam, then Minister of State for Transport and Railways hailed the formation of Southern Railway as a proud record of achievement. Thus began the long and gloriously successful career of Southern Railway⁹⁶, a journey that took millions of passengers to their destination, a journey that served many industries and enterprises, a journey that helped the socio, economic, political and cultural development of the regions it touched.

The Southern Railway Zone consisting of 9654km was the first zone to be formed. From 1952 to 1965 we can find enormous development in Southern Railway. Opening of Ernakulam - Quilon Metre Gauge line on 24 December 1952, opening of Renigunda- Gudoor Broad Gauge section on 23 August 1957, establishment of Signal and Telecommunication (S & T) workshop at Podanoor on 1958 conversion of DC 1500V Electrified system to 25KV AC system from Madras beach to Tambaram in January 1965 were the major projects of Southern Railway between 1952 and 1965.

DIVISIONS OF SOUTHERN RAILWAY

Southern Railway Zone consisting of 9654Km was the first Zone to be formed. K.R. Ramanujam was the first General Manager of the newly formed Southern Railway. In 1956 Southern Railway was divided into eight divisions. These were Royapuram, Olavakkot (Palghat), Mysore, Thiruchirappalli, Madurai, Guntakal, Vijayawada and Hubli. But on 2 October 1966 South Central Railway was formed by carving out of Central Railway and Southern Railway⁹⁷. Accordingly Southern Railway lost three of its prominent divisions such as Vijayawada, Guntakal and Hubli and was left with five divisions viz Madurai, Thiruchirapalli, Mysore, Olavakkot(Palghat) and Madras, (Royapuram). The process of bifurcation got a boost in the new millennium with the formation of South Western Railway and Southern Railway lost the division of Mysore. But on second October 1979 Thiruvananthapuram division was formed by carving out certain portions from Olavakkot and Madhurai divisions. Thus in 2001 Southern Railway had five divisions.

1. Madurai Division

Madurai Division is the largest division of Southern Railway with 1448 route kilometers. Madurai division was formed on 16 May 1956⁹⁸. It extends over 11 districts of Tamil Nadu and 2 districts of Kerala covering 45% of the area of Tamil Nadu and 18% of Kerala. It serves 40% of the population of Tamil Nadu and 16% of Kerala. Madurai division represents the traditional centres of Tamil language, art and culture⁹⁹. It covers so many pilgrim centers and tourist places¹⁰⁰. Madurai is an industrial centre and a number of textile mills are situating there¹⁰¹. Madurai is credited with 200 year old tradition as the seat of Tamil learning and cradle of Tamil culture¹⁰².

The Madurai division witnessed so many important projects. In 1975 Ernakulam -Quilon Metre Gauge section was converted into Broad Gauge and the Thiruvananthapuram - Ernakulam Broad Gauge section was inaugurated in 1976. The Dindigul - Madurai Metre Gauge line was converted into Broad Gauge in 1992. Karur - Dindigul Madurai - Tuticorn Broad Gauge project was inaugurated in 1993 and the Madurai -Tuticorn Metre Gauge line was converted into Broad Gauge in 1993¹⁰³. Likewise in 1999, Thiruchirappalli - Dindigul metre gauge line was converted into broad gauge and the Virudunagar-Rajapalayam broad gauge conversion was going on in 2001.

2. Thiruchirappalli Division

Thiruchirappalli Division was formed in 1956.¹⁰⁴ This division is made up of Tanjavur, Nagapattinam, Vellore, Thiruvannamalai, Salem, South Arcot, Villupuram, Pudukottai and Ariyaloor Districts of Tamil Nadu and Union Territory of Pondichery. This area includes so many temples that were constructed during the period of Chola, Pallava and Vijayanagar dynasties and the Naik chieftains¹⁰⁵. This division also serves a number of christian churches including, Velankanni church and lot of mosques including, the Nagoor mosque. Thiruchirappalli,

Sreerangam, Thiruvannamalai, Tanjore, Myladuturai, Thiruvaroor, Chidambaram, Nagore and Nagapatnam are important tourist and pilgrim centres of this division. Southern Railway's commercial and mechanical staff training centre is also functioning here. This was started in 1962¹⁰⁶.

Thiruchirappalli division has 1176 route kms of which 969 km is on metre gauge and 237 km is on Broad gauge. Thiruchirappalli division has 159 stations, out of which 100 stations are block stations 22 are flag stations and the remaining 37 are train halts¹⁰⁷.

In Thiruchirappalli division the first solid state interlocking system in Indian railways at Srirangam station was started in the year 1987¹⁰⁸. Karur-Dindigul broad gauge line was inaugurated in 1988 and 10 years later Tambaram- Thiruchirappalli broad gauge line was also inaugurated. Thiruchirappalli-Dindigul broad gauge line was opened for traffic in 1999. Southern Railways 100th computerized passengers reservation centre was started at Kovilpatti in 2000¹⁰⁹. In the same year the optical fibre communication link between Villupuram and Thiruchirappalli was also commissioned.

3. Thiruvananthapuram division

Thiruvananthapuram division was formed on 2 October 1979 by carving out the Shoranur-Cochin Harbour terminous sections from the Olavakkot division and the Ernakulam-Thiruvananthapuram - Kanyakumari section from Madurai division. After the formation of this division the new lines in Nagercoil-Thirunelveli section, Ernakulam-Alleppey - Kayamkulam section and the Trichur-Guruvayur section were completed and opened to passenger traffic.

After the formation of Thiruvananthapuram division it witnessed a number of events. Thiruvananthapuram-Nagercoil-Kanyakumari new line was opened in 1979. Another important line from Nagercoil to Thirunelveli was also opened in 1981. In 1986 Shoranur-Ernakulam doubling of the line was completed. Ernakulam-Alleppey Broadgauge line was opened in the year 1989. At the same time Alleppey-Kayamkulam Broadgauge line was inaugurated in 1992¹¹⁰. A new line from Trichur to Guruvayoor was opened for traffic in 1994. Doubling of the line from Kayamkulam to Karunagappalli was completed in 1994 and Kayamkulam to Quilon Junction was completed in 1996. Doubling of the line from Karunagappalli to Quilon was completed in 1995 and the Quilon Junction to Thiruvananthapuram Central was completed in 2000. The year 2000 was very important in the history of Thiruvananthapuram division because the electrification works between Shoranur and Ernakulam Junction had been completed in this year. In 2001 the electrification of the line between Ernakulam Junction to Thiruvananthapuram had been going on.

4. Palghat division

Palghat the jungle of 'Pala Tree'¹¹¹ is situated in the state of Kerala. Palghat division was formed on 31 August 1956 with the title of Olavakkot. Palghat division is in the shape of U¹¹², it's one arm extending up to Mangalore and the another arm extending upto Jolarpettai. This division has the largest spread on Southern railway and is extended on the states of Kerala, Karnataka and Tamil Nadu. Palghat division's route kilometer is 11032 and it has 126 stations.

Even though Olavakkot division was formed in 1956 its control office shifted from Podanur to Olavakkot only in 1958. The divisional office in its present location was opened in August 1962. After the formation of Palghat division, a number of important activities had been conducted by Southern Railway in its division. Jolarpettai-Salem and Salem-Erode doubling work was completed in 1972. At the same time Podanur-Palghat doubling work was completed in 1975. One year later Tirupur-Irugar doubling was also finished. In 1979 Shornur-Cochin harbour terminus section was handed over to the newly formed Thiruvananthapuram division. In the year 1984 Palghat-Shornur doubling work was completed¹¹³.

Karur-Dindigal Broad Gauge line was opened for traffic in 1988. In 1991 Tirupur-Salem line was electrified and in 1992 Salem-Erode line was electrified. In 1994 twin single line between Podanur and Palghat opened. In 1995 Palghat-Shornur line, in 1996 Erode-Palghat line and in 1997 Palghat-Palghat Town line were electrified. In 1999 Ullal-Kasargode doubling was completed and opened for traffic. In 2000, 'X' class locos were rebuilt and successfully run on Nilgiri mountain railway. In the same year Calicut-Tikkotti and Cheruvattur-Pazhangadi double line was completed and opened for traffic. In 2001 Main line Electrical Multiple Unit service started in this division. In the same year oil fired locomotives were test fired and made operational in Nilgiri mountain railways.

5. Madras Division

Madras division was formed on 31 August 1956. This division has a route kilometre of 844 and track kilometre of 2133. It serves the Northern parts of Tamil Nadu and a small portion of

Southern Andhrapradesh¹¹⁴. Except a very small Broad Gauge line between Arakkonam and Kanchipuram all the sections are electrified with 25KV AC. The Metre Gauge Electrical Multiple Unit (EMU) services are now run between Madras beach-Tambaram-Chengalpet. This is the only Metre Gauge EMU service in operation in the country.

Chennai Metropolitan Transport Project was established in 1971¹¹⁵. It conducted a survey and recommended an elevated mass rapid transit system (MRTS) in the space available along the Buckingham canal. MRTS from Chennai beach to Tirumylai was completed in two parts. First part from Chennai beach and Chepauk was inaugurated on 16 November 1995 and from Chepauk to Thirumalai was completed on 19 October 1997. The Chennai beach-Thirumylai section covers a length of 8.97km of which 6.22km is on elevated structure and the balance is on the elevated stretch. The MRTS have 25KVAC traction second phase of MRTS is from Thirumylai to Velachery. It covers a length of 10.8km of which 7.5km is on elevated structure. The work of this project is going on.

Chennai division gives testimony to a number of important constructions. Electrification of Madras-Gummidipundi section was completed in the year 1979¹¹⁶. In the same year the electrification of Madras beach to Madras Central section was also completed. Electrification of Madras - Thiruvallur section was also completed in 1979¹¹⁷. At the same time the electrification from Thiruvallur to Arakonam section was completed in the year 1982. Electrified train services between Madras and Katpadi was started in 1984. The EMU services from Madras to Avadi was started in 1987. In 1994 the first Shatabdi Express between Madras and Mysore was also introduced. In 1979 MRTS project between Chennai Beach and Tirumylai was introduced.

ORGANISATIONAL STRUCTURE OF SOUTHERN RAILWAY

Organisational structure is one of the important factors which influence the effectiveness of an organisation. The transport industry owing to its very nature of wide geographical operation and labour intensiveness requires a district organisational pattern suited to its nature of activity. An effective organisational setup would be that which has a few grades of authority as possible to avoid bureaucratic delays. Moreover a highly decentralised set up is essential for the organisation to be effective.

As there are so many structural and operational problems associated with the transport sector especially passenger transport of train, it needs highly qualified, professional management techniques for its efficient organisation¹¹⁸. In the organisational set up of Southern Railway each level of management is very important.

The General Manager of a Zonal railway is assisted by one Senior Deputy General Manager, one Secretary to General Manager and one Additional General Manager in his administrative functions. In financial matters and for accounting he is assisted and guided by one Financial Adviser and Chief Accounts Officer having a separate office of his own. The work of each railway is divided functionally by subjects at head quarters and geographically by divisions or districts. Each functional unit is under the Head of Department who is directly responsible to the General Manager. The departmental duties are assigned to departmental heads and they are under the control of the General Manager. The railway has different departments and each department has a separate Deputy Manager. Under the Deputy Manager, there are Assistant Managers or Branch Managers. The Deputy Managers have the powers to control the Assistant Managers. In traffic

operations, all divisions have Division Managers directly controlled by the concerned Division Managers of traffic operations.

The Assistant Managers and Division Managers are in charge of technical administration and traffic sections. In technical sections, there are Assistant Engineers, Foremen, Junior Engineers, trade men, assistant trade men, junior trade men and helpers. Under administrative section, there are senior assistants, assistants, junior assistants, clerks and attenders. Traffic section is composed of traffic supervisors, traffic assistants, time keepers, ticket checking inspectors and locopilots.

The principal officers of each department are entirely in charge of their respective branches. Their responsibility is to ensure that the work in their branches is carried out efficiently¹¹⁹. All policy and important matters will be submitted by the principal officers to the General Manager through the Asdditional General Manager. However in all administrative matters and details of day to day working, the divisional officers of the various branches are answerable to the Divisional Railway Manager.

TABLE – III
Different Railway Departments

Sl. No	Department	Designation of the head of the department
1	Civil engineering	Chief Engineer (Constructions)
2	Operating	Chief Operations Manager
3	Commercial	Chief Commercial Manager
4	Finance and Account	Financial Advisor and Chief Accounts Officer
5	Electrical Engineering	Chief Electrical Engineer
7	Signal and Telecommunication	Chief Signal and Telecommunication Engineer
8	Stores	Controller of Stores
9	Personnel	Chief Personnel Officer

Table reveals that in the organisational structure of Southern Railway each Zonal railway is controlled by a General Manager. The General Manager is assisted by principal head of the department namely, Additional General Manager, Senior Deputy General Manager, Financial Advisor and Chief Accounts Officer, Chief Engineer, Chief Mechanical Engineer, Chief Operating Manager, Chief Commercial Manager, Chief Electrical Engineer, Chief Signal and Telecommunication Engineer, Controller of Stores, Chief Personal Officer, Chief Mechanical Officer and Chief Security Commissioner.

DEPARTMENTS OF SOUTHERN RAILWAY

To carry out the day to day functions effectively the Southern Railway has various departments. Each one of the following departments of Southern Railway renders valuable services.

I. Mechanical department

Locomotive department was renamed as Mechanical department in 1923¹²⁰. There are Chief Engineers and a Chief Mechanical Superintendent to this department. The Southern Railway operates diesel and electric locos, coaches and wagons for the Broad Gauge lines. These assets are maintained in good condition by the Mechanical department. Thus Mechanical department provides safe and reliable transportation of passengers and goods.

In order to maintain these locomotives, coaches and wagons Southern Railway has major workshops at different parts of South India. There are eight major workshops functioning at different parts of South India. The important eight workshops of Southern Railway are

1) Central workshop, Golden Rock

Central workshop, Golden Rock was constructed in 1926¹²¹. This workshop is spread in an area of 200 acres. This workshop has a unique place among the repair workshops of Indian Railways¹²². It has a work force of 6800. This workshop helps for overhauling and repairing broadgauge and metregauge coaches, wagons, diesel locos, steam locos, steam cranes and construction of wagons. Golden Rock workshop is the only workshop in Indian railways which manufactures new steam locomotives¹²³.

In 2002 Golden Rock workshop gained the order of 320 container flat wagons manufacture, worth Rs.43 crore from M/s. Container Corporation of India. Manufacturing of three heritage steam locos for Darjeeling Himalayan Railway for Rs.5.7 crores was also in its credit.

2) Engineering Workshop, Arakonam

Madras Railway Company established points and crossings repair shop at Royapuram in 1885. In 1919 these workshop was shifted to Arakonam. The office building of the Deputy Chief Engineer of the workshop was built in 1959. This workshop builds points and crossings, steel bridge girders, foot over bridges, passenger platform shelters, lifting barriers, motor trolleys, push trolleys, glued insulated rail joints, flash butt welded rail panels and other track components. The area of this workshop is 20.43 hectors¹²⁴.

3) Loco works, Perambur

Increase in the fleet strength of locomotives, coaches and wagons, a separate loco works was started in the year 1932¹²⁵. Till 1932 the loco works Perambur was a part of Central workshop, Perambur. This workshop was the most modern workshop among the Indian Railway workshops¹²⁶. This workshop was chosen for undertaking Periodic Over Houlung (POH) of electric locomotives of

various classes, Diesel hydraulic locomotives (Shunders) any heavy corrosion repair cum POH coaches. The workshop also caters to the need of EMU car shed Avadi. The fairy queen, the oldest working locomotive anywhere in the world was overhauled by this workshop in 1998. Total area of this workshop is 22 acres.

4) Carriage works, Perambur

Madras Railway Company constructed carriage works in 1856 simultaneously with the opening of their first line from Royapuram to Walajah Road. Till 1932 this workshop was the central workshop of Madras and Southern Mahratta Railway Company. In 1932 loco maintenance work was transferred to loco works Perambur and this workshop remained dealing with carriage and wagon POH only¹²⁷. After the formation of Southern Railway, carriage works, Perambur became the only Broad Gauge wagon POH shop in the Southern Railway. Total area of this workshop is 129 acres.

5) Signal and Telecommunication Workshop, Podanur

In the beginning of the 20th century South Indian Railway set up a small workshop at Podanur. In 1958 the Signal and Telecommunication workshop activities were taken out from Golden rock workshop and established at Podanur¹²⁸. Equipment Manufacture is the primary function of this workshop. The total area of this workshop is 12 acres.

6) Electrical Multiple Unit (EMU) Workshop, Avadi

In 1979 Electrical Multiple Unit services were introduced in the Southern Railway. These EMU coaches are being maintained at EMU workshop, Avadi¹²⁹. In 2001 its holding is 122 motor coaches and 295 trailer coaches. EMU workshop maintained POH of EMU coaches with the help of the loco workshop at Perambur.

7) Mysore Workshop

The Mysore State Railway was managed by the Southern Mahratta Railway and later by the Madras and Southern Mahratta Railway¹³⁰. These two railways were maintaining the rolling stock of Mysore State Railways. But in 1920 Mysore State Railway slowly withdrew from the Madras and Southern Mahratta Railway and started the maintenance of its on rolling stock¹³¹. Accordingly in 1924 the Mysore Durbar established a Central Workshop at Mysore. The workshop was expanded to the present form in 1938 with the task of maintaining the Meter Gauge and Narrow Gauge rolling stock. After the formation of Southern Railway in 1951 it became an integral part of Southern Railway. This workshop is now entrusted with the task of Metre Gauge coaches and railcars.

8) Loco and EMU workshop Tambaram

In 1930 a workshop was established at Tambaram to undertake the maintenance of Meter Gauge EMU stock. When Meter Gauge electric traction was extended to Villupuram a couple of MG locos were homed at Tambaram. Presently this workshop undertakes maintenance of 18 MG electric locos, 67 Metre Gauge EMU Motor coaches and 157 Metre Gauge EMU trailer coaches. One of the earlier Metre Gauge DC electric loco No. YCG-21903 has been preserved at Tambaram.

II. Commercial Department

Southern Railway's Commercial department is located at Tiruchirappalli. The chief commercial superintendent is the head of this department¹³². The Commercial department is responsible for fixing, adjusting and quoting rate and fare within statutory limits. Further the commercial department is also responsible for the safe custody of goods, parcels and luggage from

the consignor, till the time of delivery to the consignee. Commercial department is responsible for the loss or damage of goods. It also deals with some ancillary services like conducting fairs and festivals and traffic surveys. The catering section is also attached to the commercial department¹³³.

III. Store Department

The Store department is responsible for the procurement, stocking and issue of materials including books and forms, stationery and uniforms to staffs. The Store department also deals with the disposal of surplus and unserviceable store items. Southern railway's Store department supplies raw materials, spare parts and consumables required for the maintenance of railway assets¹³⁴.

IV. Electrical Department

Electrical department is another department of Southern Railway. This department is responsible for the operation and maintenance of electrical assets¹³⁵. It also deals with the construction activities involving electrical installation, electrical rolling stock and track lighting and AC equipment in coaches.

ssV. Engineering Department

The head office of the Engineering department is located at Tiruchirappalli¹³⁶. Chief Engineer is the head of this department. Surveying and constructing the railway lines are the primary function of this department. Further this department is responsible for the construction of

various buildings, stations and bridges. The safety of track is the primary concern of the Engineering department.

VI. Signal and Telecommunication Department

The Signal and Telecommunication Department is responsible for the installation and maintenance of signalling system¹³⁷. Telecommunication systems are very essential for the effective utilization of the large fleet of locomotives, rolling stock and track. For the effective administration of the vast railway network, telecommunication system is very essential. In providing signalling and telecommunication, the Southern Railway achieves an important place among Indian Railways¹³⁸.

VII. Medical Department

Southern Railway gives much care for the physical health of its personnel¹³⁹. Southern Railway headquarters hospital is at Perambur. There are five divisional hospitals. They are at Arakonam, Golden Rock, Madurai, Palghat and Thiruvananthapuram. In addition to this, there are four sub divisional hospitals at Villupuram, Erode, Podanur and Shornur. The Perambur hospital is a referral hospital not only to Southern Railway but also to the whole Indian Railway for cardiology and nephrology.

8. Railway Protection Force

The Railway Protection force of the Southern Railway has been performing very well in the field of crime control. The head of this department is the Chief Security Commissioner. At present 22 Gazetted officers are working under the Chief Security Commissioner. The responsibility of providing security to the railway has been assigned to the agencies namely Government Railway

Police of the states and Railway Protection Force. Railway Protection Force was specially created to provide protection and security to Railway property. The security of property includes Railway's own assets and the properties entrusted to it for the transportation.

In short, Southern Railway provides greater advantages for the people of South India. Different Railway Companies like Madras Railway Company, Great Southern of India Railway Company, Carnatic Railway Company, South Indian Railway Company and Southern Mahratta Railway Company played important role for the formation of Southern Railway. After the formation of Southern Railway, railway lines encompassed every nook and corner of South India. For the smooth administration of Southern Railway it was divided into divisions and departments. In 2001 Southern Railway had five divisions. The divisions of Madurai, Thiruchirappalli, Thiruvananthapuram, Palghat and Madras have been playing significant role for the smooth functioning of Southern Railway. Southern Railway criss-crosses South India and makes it one by ferrying freight and passengers across the length and breadth of South India.

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