

Southern Mahratta Railway : A brief historical sketch

-P.K.Mishra
AGM, South Western Railway

Not in vain the distance beacons. Forward, forward, let us range-Tennyson

Synopsis:

Genesis of southern Mahratta Railway, classified as the imperial state railway, lies in frequent famines, which would wreak utter devastation in the region with unerring regularity: large scale deaths due to starvation, mass migration in search of food, begging on the streets and food riots at various places. Construction of Railways was undertaken for famine protective purposes, these were envisaged as large scale relief measures, "food for work", for starving masses; which would not only provide immediate relief to affected people ,but would also render transportation of food grains in the affected region possible from other parts of the country.

Embankments & earthworks, at various sections as part of relief works, were constructed before Southern Railway Mahratta Railway Company could be formed. Some of these earthworks were not made exactly as per requirements of laying rail tracks resulting in sharp curves and steep gradients; which would afflict the Railways for ever as formation remained virtually unchanged even after future gauge conversion and doubling.

Pursuant to recommendation of famine commission for speedy construction of Rail lines, Southern Mahratta Railway Company was formed on June 1, 1882 as a famine feeder line with four per cent guarantee on the capital for the first seven years and 3- 1/2 per cent for the subsequent period. Prospectus for sale of shares of SMR was underwritten by the Rothschild, internationally acclaimed banker.

Modified guarantee model of SMR was widely hailed as an innovative financial strategy to curb the propensity of Rail companies for extravagant construction and a bulwark against reckless expenditure as observed in construction cost of earlier guaranteed companies. It was expected that with modified guarantee, rail company would have a strong interest in the early completion and in the economical construction & working of the lines from the outset, at the same time the capital outlay will be entirely under the contract of the Government,

The origin of SMR is also a tale of intense lobbying by self interest group-Stafford house committee and protracted back room negotiations by promoters; a story of Aristocratic British capitalists, who were successful in obtaining permission from GOI to float two rail companies WIPGR & SMR .

Construction was done at a brisk pace against all odds: challenging & difficult terrain, country side ravaged by famines & plagues, lackadaisical approach of contractors which led to termination of contract and lack of sufficient local labour. Contractors engaged for constructing various sections of SMR, Messers Redmond & Stephens and Messrs. Thompson, Bayley, Bulkley & Co, could not cope with the challenges of rail road construction and made overtures for rescinding the contract forcing Southern Mahratta Railway to undertake the construction work departmentally by an engineering team led by chief engineer Colonel Lindsay, an energetic man and a master of the situation who was able to push the works through with greater celerity than if they had been left in the hands of the contractors.

First section to be commissioned was 40-1/4 mile long Hosepet –Bellary section on 24th March 1884. Around 671 miles of Railways were constructed by the end of year 1887, which increased to 854 miles at the end of 1888. Total mileage worked by Southern Mahratta Railways inclusive of Mysore section, increased to 1309 miles, in just five years, at the end of 1889, a truly enviable record of rail road construction.

SMR was on a frenzied expansion spree led by its dynamic chairman Mr. Douglas Forsyth, building rail network furiously, redeeming the pledge that it could not only work without contractors but could build it faster & better, feverishly acquiring other state railways, operating and bringing them under SMR control; so that line does not remain simply a work of shreds and patches without an access to the sea, without an access to the towns or large cultivated districts, which would be its future termini. SMR, in early years, was a case study of organic and inorganic growth in company railways before these became the management buzzwords.

The Southern Mahratta system would develop a very well connected net work with adjoining Railways and was in connection with the West of India Portuguese Railway at Castle Rock, with the Great Indian Peninsula Railway at Poona and Hotgi, with the Madras Railway at Guntakul and Bangalore, with the East Coast Railway at Bezwada, and with the South Indian Railway at Dharmavaram.

The cotton fields of Southern India, a few years ago, had given Manchester a fibre which stood far above any other Indian description of cotton. It was expected that the line, which connected great cotton field and the sea of crops in fertile area was certain to have a remunerative traffic, and if economically constructed, learning from the lessons learnt in construction & operation of lines earlier by other company railways, could not fail to yield decent return as there had not been a single instance in India of a line not paying its working expenses. Expectations on financial viability of SMR were not misplaced as its expenses which were 108.5 % of earnings in 1884, came down to 83% in 1885 , further came down to 69% in 1886 and subsequently remained within a band of 56 % to 75% reflecting improved financial performance & operating ratio.

The contracts of the Southern Mahratta and Madras Railway having approached their first period of termination, 25 years from signing of the contract, Government decided to take advantage of the opportunity and to re-arrange the railway system in Southern India. On 1 January 1908, the Madras Railway Company was amalgamated with the Southern Mahratta Railway Company and renamed the Madras and Southern Mahratta Railway. With a nominal capital outlay and guaranteed interest thereon, it was only managing agency working the lines for the Government of India. The government took full control of the railway in April 1944.

The Madras and Southern Mahratta Railway Company went into voluntary liquidation in February 1950. A notice was published in the London Gazette, bringing the curtains down to one of the glorious chapter of company Railways in India.

History

On 1st June 1882, a contract was signed between the Secretary of State and the Southern Mahratta Railway Company, as to the construction and working of a system of railways in the South Mahratta country to be called the Southern Mahratta railway. Original plan envisaged construction of MG (Metre Gauge) network of about 450 miles of Railway: extension of WIPGR lines in the direction of Bellary and Sholapore on the Madras and GIPR with branches north and south to Belgaum and Bankapur. Construction of Western Deccan line between Pune and Miraj could not be undertaken in first phase as survey works could not be completed during negotiation.

Construction of line between Hotgi and Gadag (opened to traffic on 1st August 1884), was one of the "famine lines" set up with a guarantee. Earthworks in the section had started as famine relief work in April 1879 and the section was handed over to SMR on 1st Oct 1882. In the same year (1882), it was contracted by the Indian State of Mysore to work the several metre gauge lines that the Mysore State had constructed

Mysore state railway was first to lay rail lines in the region in year 1881. Construction of Chanpatna to Banglore, 34-3/4 mile long section was completed on 01-2-1881 and construction of Chanpatna to Mandaya, 23-1/4 miles long section, was completed on 20-3-1881.

The need of carrying out further extensions of the railway to safeguard from the evils of famine, at a rate beyond the means of the Mysore state, led in 1st July 1886, to an arrangement with the Southern Mahratta Railway Company for handing over the existing Mysore Railways to the company, on condition that the requisite extensions were undertaken by it. The Mysore State received from the company the amount it had already spent on the Railway and was thus able to repay the famine loan due to the imperial government.—**Statement exhibiting the Moral and Material progress and condition of India during the year 1886-87**

First section to be opened in SMR network was Bellary- Hospett, a 40-1/4 miles long section, on 24th March 1888.

In 1888, a line was extended from Londa towards the Portuguese colony of Goa where it connected with the Marmagao line at Castle Rock. By 1890, this line extended from Londa eastwards via Guntakal to Bezwada, and northwards to Poona, turning the SMR from an assortment of branches to a real railway network.

In 1881 the Bombay Eastern Deccan Railway was under construction with William Michell the Engineer-in-Charge. This line immediately upon opening became the Bijapur Branch of the Southern Mahratta Railway. The Southern Mahratta Railway became well known for possessing the coolest and most convenient route between Bombay and Bangalore, the Mysore State, and South Western India.

In 1908, the SMR merged with the Madras Railway (MR) to form the Madras and Southern Mahratta Railway (M&SMR)

After the issue of prospectus of the West of India Portuguese Guaranteed Railway Company, formed for the construction of about fifty miles of railway completing the outlet to the seaboard of the projected Government metre gauge system of the Southern Mahratta Company, Government of India contacted Messrs. Rothschild, in a despatch dated June 3, 1881, for successful placing of the shares of SMR to facilitate the completion of their projected system.

There was a natural synergy between West of India Portuguese Guaranteed Railway and Southern Mahratta Railway; both needed each other for seamlessly linking hinterland with port. It was expected that WIPGR & SMR will connect a large tract of fertile areas to Indian railway network and will provide port connectivity at Morumgao.

On 18th April, 1881, Sir T. Douglas Forsyth, Duke of Sutherland, William Mackinnon, Sir Henry Green and Frederick Youle, all of "Stafford House Committee", the group of aristocratic capitalists, signed the contract with the Portuguese Government to construct the Marmagao port and the railway.

The agreement in turn opened the way or floatation of two rail companies in London with identical board of directors: "The West of India Portuguese Guaranteed Railway Company Private Limited" (W.I.P.G.R.) for construction of harbour at Morumgao and fifty miles of railways to the frontier with British India registered in April 1881 and southern Mahratta company, registered in May 1882, to construct the balance line to Hubli. The Duke of Sutherland and William Mackinnon were the largest shareholders of the company. The Southern Mahratta was the largest of the company with authorised capital of 3 million pounds and WIPGR had nominal capital of 80000 pounds.

One of the earlier suggestions for construction of Railways in Southern Mahratta was given by Honourable H.W.Reeves, revenue commissioner, in 1858. It was proposed that Railway, while being beneficial to the interests of the people and to government, would boost the trade immensely and promote the general improvement in the country.

Copy of a Minute by the Honourable H. W. Reeves, dated 27th April 1858:(**accounts and papers 1863, house of commons UK**)

"I have long had my eye on this project, and regard it as one of the very highest importance to the prosperity of the Southern Mahratta country, the growing commerce and intelligence of which province appears to me intimately connected with it. There can be no doubt whatever that the trade of the Southern Mahratta country, and the territories eastward, is at present in a most unsatisfactory condition, owing to the want of a good and convenient port for shipment and discharge of goods. Everything has to go to or come from Bombay and the expense and damage sustained in the trade by this needless extension of the carriage is inconceivable. I need not point out how fully the work proposed by his Lordship the President would answer the requirements of the trade ; and it is scarcely necessary for me to add that the impulse which this work would give to the trade would be immediate and immense, as well as most beneficial to the interests of the people and to Government, inasmuch as it could not fail to greatly promote the general improvement of the country.

I fully concur in all that his Lordship the President has written ; and I cannot but think that an immediate commencement should be made on whatever works may hereafter be determined on in consultation with Mr. Parkes, or other gentlemen deputed from home to perfect the surveys and draw up the estimates. His Lordship has taken a very moderate view of the political effect which the early commencement of this undertaking would have on the country. Those effects can hardly be over-estimated.

It is my expectation that the commencement of the works proposed by Mr. Parkes, by Government, will be accompanied by that of a railway by some private company between the river at Malleepoor and New Hooblee, in the Dharwar collectorate, or some other favourable point.

(signed) // W. Reeves.

One of the earlier account, in 1856, of building railway in the region was mentioned in Bombay Gazetteer:

*"Some English merchants had formed a project of making a railway from the port of Kanara or Sadashivgad, which, passing by the town of Hubli, was intended to join the Madras and Bombay railway at Belari."—**Bombay Gazetteer volume 22L Dharwar District***

*After much deliberation, and the exchange of despatches and minutes of Council and otherwise, a plan was ultimately agreed upon by which a company called the Southern Mahratta Railway Company, with Sir Douglas Forsyth as chairman was formed, with a capital of £3,000,000 sterling in shares of £20 each. —**Railway News 1882***

The proposed line had to cross the western Ghat, range of mountains and dense forests before descending to plains.

Sir Richard Temple, former Governor of Bombay presidency, in address to share holders of SMR in first statutory meeting after formation of company, explained the ground condition and his personal observations about the territory: *"It was quite true that not only he, but his colleagues and advisers in Western India, strongly advocated those lines. He presumed that the lines of which they primarily desired information, was from Goa, or the western side, to Bellary, in the Madras Presidency. That line started in Portuguese territory, and, generally speaking, that territory was naturally very fertile, but not very strongly governed. He had heard Portuguese on the spot say that there was a certain amount of backwardness in cultivation. Passing through the Portuguese territory, they came to the Western Ghat, a range of mountains, and the railway had to ascend those mountains.*

When that line was first projected, it was thought that the Ghat range of mountains would present an insuperable object. In order to test the validity of this objection he examined the spot, and found the incline to

be much more favourable than he anticipated, and more favourable than any of the inclines which the Great Indian peninsula had safely surmounted, and the fact that those particular inclines were practicable, was further tested by the good engineering roads found in that locality, When they got through the Ghats they passed through a belt of forests." --July 8, 1882. THE RAILWAY NEWS.

It was hoped at first that railways which appeared likely to be remunerative would be taken up by companies either without a guarantee, or at most a guarantee for a limited number of years. Two small schemes were started in 1881, on a limited guarantee, and early in 1882 a larger scheme, that of the Southern Mahratta Railway Company, was started on the basis of the railway belonging to the State, but being worked and the funds being supplied by the company.

It was considered that each concession should be dealt with on its own merits, so that there should be the least possible burden on the finances, and at the same time to give companies the greatest possible interest in the working of their lines; while a preference was indicated in favour of a low rate of interest for a longer time than for a high rate for a shorter term. The first important result of this change of policy was the creation in 1882 —the contract being dated the 1st of June of that year—of the Southern Mahratta Railway Company, which was to take over works already commenced in the Deccan for famine protection, and to carry out a large system of metre gauge lines designed for this object as these were not in trunk lines having large traffic.

Parliament Committee in 1882 was constituted to examine working of Railways and question of gauges. The committee advised for broad gauge in all leading trunk lines and metre gauge in local lines and in areas having scanty traffic:

"Your committee have given the most careful consideration to the arguments thus summarised, and they consider the evidence in favour of a more rapid extension of railway communication to be conclusive.

" With regard to the question of gauge, your committee are of opinion that all the leading trunk lines, with their principal feeders, should be on the broad gauge, the metre gauge being as a rule confined to tracts of country where that system is already in successful operation, and to local lines where the traffic is likely to be so light that cheapness of construction more than counterbalances the undoubted disadvantage of break of gauge.

The Southern Mahratta terms offers permanent security to investors, which is equal to the security of the Government of India, with the addition of a quarter of the net receipts of the line"---The Report of the Select Committee of the House of Commons on East India Railway Communication, a summary of which has already appeared in The Railway Times, was presented to Parliament on Tuesday.

The issue of adopting meter gauge line for southern Mahratta railway would be repeatedly raised as this would necessitate breaks of gauge at interchange points with other railways, three different points with GIPR alone. But, finally it was availability of funds and future traffic projections that settled the gauge issue; as sir James Fergusson had eloquently said in the inaugural speech on 13th February 1884 at Poona, "a second class railway is better than none and we must be thankful for what we have got."

The contract of this Company with the Secretary of State was on an essentially new basis, which became prototype of subsequent agreements of the same nature. It embodied, in fact, two distinct functions for the Company. On the one hand, the Company was an agency for raising a certain sum of money, viz, three million Sterlings, for the Secretary of State, on which he guaranteed interest, during a fixed period for construction of 4 per cent, and thereafter of 3.5%, per cent.

"The Southern Mahratta Railway, the construction of which is now in active progress, will connect the lines of this company with the Indian railway system, and will open out a large tract of fertile and well populated country, for the produce of which the Port of Morumgao is the natural outlet."

---Investors Chronicle and Money Market Review, Volume 46

Southern Mahratta model of Railway construction became a unique construction model necessitating a separate financial classification of Indian railways. After the extravagant cost of construction, learning from the financial profligacy of Railways constructed earlier and inability of Government to arrange capital to construct railways itself, southern Mahratta model became a favourite model for future rail road construction.

“ In 1868, the Government resolved that in future it would construct railways itself; and still more recently it has introduced the practice of granting subsidies to private railway companies, or, as in the case of the Southern Mahratta undertaking, of employing a Company as its agent to raise the requisite money and construct and work the railway, the company receiving a fixed rate of interest, and a share in the net earnings of the line. At the present time, therefore, the financial classification of Indian Railways is divided into five heads:-State, East Indian, Guaranteed, Subsidised, and Southern Mahratta. The Southern Mahratta Railway Company became a direct agent of the Government rather than an assisted company” .--- **East India (progress and condition- statement exhibiting the Moral and material, progress and condition of India during the year 1882-83**

Famine relief line

“We say that human life shall be saved at any cost and at any effort; no man, woman, or child shall die of starvation. Distress they must often suffer; we cannot save them from that. We wish we could do more, but we must be content with saving life and preventing extreme suffering.”

-Government of India, Jan. 1877.

Genesis of southern Mahratta Railways lies in frequent famines which wreaked utter devastation in the region. Construction of Railways was undertaken for famine protective purposes, these were envisaged as large scale relief measures, “food for work”, for starving masses; which would not only provide immediate relief to affected people but would render transportation of food grains possible in the affected region from other parts of the country.

By a " Protective" work is to be understood an undertaking not “necessarily” directly remunerative, but obviously protective in the sense of guarding against a probable future outlay in the “relief of the population.” Such a work may not be made out of borrowed money. The capital required for its construction must come out of the revenues of the country. -- **Administration Report on Indian Railways 1880-81.**

Madras and Bombay presidencies had witnessed severe droughts in 1876-78 owing to failure of both south west and north east monsoons affecting millions of people. There were large scale deaths due to starvation, mass migration in search of food, begging on the streets and food riots at various places.

One of the Collectors of affected area wrote to Revenue commissioner southern region, on 10th October 1876, describing the tragedy and impending grain riots. Confronted with inevitability of looting by hungry masses, he commandeered all private grain shops & stores for distribution to the poor :

“We have, it appears to me, the choice of two evils-either to stand idly by and, to see the houses and property of the merchants robbed and destroyed, or to put the law on one side, and take possession of their grain at a fair valuation, and to distribute it to the poor. In the former case the greatest mischief and trouble to all concerned will result, and in the latter the owners of grain will receive a fair profit for their goods, and their houses and other property will be safe, while the wants of the poor will be supplied until we can import grain. Taking this view of the case (the only view in which I can possibly regard it), I trust that I may be held justified in adopting the measures which I have taken”. ..

On the 24th October 1876, the Government of Madras informed the Government of India of the distressed state of the country. The region affected embraced an area of 84,3157 square miles, with a population of

19,377,132. On the 2nd August 1877, a telegram was sent from Madras to the Lord Mayor of London through the Times newspaper, stating :—

“Population affected, 20,000,000 ; numbers on charity, 1,075,000 ; distress reaching better classes ; the price of grain double that prevailing during the Bengal famine (1874). Necessity of assistance most urgent.”

Sir R. Temple, Lieutenant-Governor of Bengal, was deputed by Government of India to inspect the distressed districts and to communicate with the Local Government as to the measures of relief. He reported that at places there were grain riots, troops had to be called in and in several districts there were frequent grain robberies. Famishing people were thronging to towns and cities to beg for food. Famine in neighbouring area made the movement of food grains from adjoining area extremely difficult.

Abstract of a Report, dated 14th April 1877, by Sir Richard Temple, on the Madras Presidency.:

“The consequences of such a failure were affected by the results of previous years. The year 1874 was good, and left a reserve of surplus grain; but 1875 was in many places unpropitious; and failure of crops in Maisur drained off supplies. In Bellary and in some parts of Kurnul, 1875 had been unfortunate in its seasons; and in Bellary 1874 had also been unfavourable. These circumstances caused the drought of 1876 to be felt with more intensity in Bellary than anywhere.” ----**“Report on the railway famine-traffic in the presidencies of Madras and Bombay and the province of Maisur, of Her imperial majesty's Indian empire, in 1876-78.”**

There was widespread suffering in Mysore region and Bombay presidency; in the Mysore territories, out of a population of 5,000,000, nearly 4,000,000 were distressed and in the Bombay Presidency, 5,000,000 of people were afflicted. From no part of the Madras Presidency could any surplus produce be drawn in aid of the distressed districts likewise, no movement of food grains was possible from Nizam dominions as there also distress existed.

In 1876, Mr. E. P. Robertson, Collector of Dharwar sent a report to revenue commissioner about the distress prevailing in the district and suggested famine relief measures including construction of earth-works of the Railway between Bellary and Kanara frontier. The report of Collector of Dharwar and memorandum of revenue commissioner was accepted by Government of Bombay paving way for construction of ground works for Railways in the region literally.

“Memorandum from the Revenue Commissioner, Southern Division, No. 8,224, dated 25th September 1876.-

Submit a letter, with accompaniments, from the Collector of Dharwar, reporting on the distress prevailing in this district, and expresses his entire concurrence in that officer's view of the necessity to employ the people on useful works of inter communication as early as possible and states that It will be seen that the Local Funds Committee will devote all available local funds for expenditure of the kind "in accordance with the budget rules ;"

but the Collector requests that immediate orders may be given to the Executive Engineer to prepare plans for lining out the provincial road from Hubli, to Kaldgi, between Hubli and Kunnur, as the line passes so directly through the length of the very distressed districts of Navalgund and Nargund, as to afford the best relief to the people and also suggests, in the event of the distress increasing, that the question of the immediate construction of the earth-works of the railway between Bellary and the Kanara frontier be taken into consideration.”--

Government of Bombay approved the above memorandum and passed a resolution to line the Road & construct railway embankments as famine relief measures.

As regard the particular case of the Dharwar District, orders should at once be sent to the Executive Engineer to line out and be prepared to commence that portion of the Hubli and ,Kaladgi Road which lies in the Dharwar District, and the Government of India should be addressed by telegram as regards the commencement or the earth-works of the Bellary and Karwar Railway, should that measure, a last resource, be forced on this Government by the necessity for relieving distress. -
Resolution by the, Government of Bombay in the Public Works Department, dated Bombay Castle, the 3rd October, 1876.

Government of Bombay sent the SOS to government of India on 9th October 1876 about serious famine engulfing eastern Deccan and southern Mahratta country:

“I am directed to forward, for the information and consideration of the Government of India, a copy of a letter received from the Collector of Sholapur, which describes the very serious state of matters with which government now has to deal in Sholapur District.

Returns similar in tenor have been and are being received from the districts of Nasik, Khandesh, Ahmednagar, Poona, Kaladgi, and Dharwar, and it may be said that whole of the eastern part of Deccan and southern Mahratta country are threatened with serious famine.

.....but it is apparent that efforts, on a larger and more extended scale must very shortly be made if extreme distress and even disaster is to be averted. "

There were series of discussions, lengthy exchange of telegrams between affected presidencies, President in Council and Secretary of State before construction of earthworks for Railways would be sanctioned by Government of India. Finally it was report of Sir Richard Temple, Lieutenant Governor Bengal and designate Governor Bombay presidency, after his inspection of affected area that would decide the issue.

A very interesting exchange of telegrams between Madras presidency and President in council, Simla took place on commencement of embankment work of Bellary Railway. President in council, Simla wanted Railway project to be decided on merit and was extremely reluctant to sanction large and expensive works. Government of India in a telegram to secretary of state dated 19th October 1876 sent their view on the subject, "*It is advisable that the Government should hastily commit itself to large schemes of expenditure, under the pressure of an apprehended scarcity, which schemes may involve an outlay far in excess of the requirements of the scarcity, and for an object which in a financial point of view, may not be the most useful object to which State funds might be applied.*"

Telegram, 27th October 1876.

From PRESIDENT IN COUNCIL, Madras, to PRESIDENT IN COUNCIL, Simla.

A fortnight's time must determine whether famine is inevitable, In that case concentration of labour is most necessary; already upwards fifty thousand employed on scattered relief works in one out of three. If famine contingency arises, we propose commencement of embankment work of Bellary-Guddak Railway which traverses worse part of suffering district as state work, pl telegraph reply.

Telegram, No, 387, 27th October 1876.

From COMMERCE, Simla, to PRESIDENT IN COUNCIL Madras.

Your telegram to President in Council of this date. The government of India do not think advisable in present emergency to sanction large and expensive works, the ultimate cost of which will greatly exceed the expenses involved in providing labour for the distressed poor.

Local works should be organised. Bombay government have been similarly instructed. The railway project must be decided on its merits.

XXXVI.-MINUTE by SIR RICHARD TEMPLE, recommending commencement of earthwork of line from Bellary to Hooblee, Bellary, 16th February 1877.

The Government was pleased to direct me to report, after communication with the Madras Government, upon the proposal to commence the earth-work of the Karwar and Bellary Railway as a relief work.

Pursuant to recommendation of Sir Richard Temple, earthwork of railway between Hubli and Bellary was sanctioned by Government of India on 20th February 1877.

No. 104. Telegram, dated 20th February 1877.

From Revenue Additional Secretary, Calcutta, To Revenue Secretary, Madras.

Government of India sanction immediate commencement of earthwork of railway between Hubli and Bellary by relief labourers. The land to be taken up and charged to the local governments. This in no way pledges imperial government to ultimate construction of the railway. Further instructions will issue from the Public Works Department. —copy of correspondence between secretary of state for India and government of India on the subject of threatened famine in western and southern India, 1877

It was up to that time the belief of the authorities that the Government should charge itself with the duty of preventing mortality from starvation, and of alleviating distress. Consideration was given to the commencement of large public works on which relief labour might be concentrated under professional

supervision. Madras government proposed a railway line from Bellary towards South Mahratta Country and excavation of the canal along the east coast from the Pulicat Lake to the River Kistna. Efforts were made to obtain relief labourers from a distance for this work. The junction of this canal with the South Coast Canal below Madras was undertaken.

Construction of formation & embankment of southern Mahratta Railways as famine relief work by starving, emaciated, shrunken workmen ravaged by famine was a heart-wrenching tragedy. The scene was described by Mr. Oldham, one of the most effective officers of Government, as, '*The road (upon which the people were labouring) bore almost the appearance of a battle-field, its sides being strewn with the dead, the dying, and those recently attacked.*'—**The famine campaign in southern India, page 26, William Digby 1878**

Lieutenant Anderson, who was relief officer in the Pettah till April 1878 reported the misfortune befalling the region in his despatch :—

"I wish to state the condition of the town in August and September 1877. The grain streets were crowded with stragglers, emaciated and enfeebled by famine, who endeavoured to watch a mouthful of food from the shops. The market-places, the chuttruras, sheds, and verandahs of the houses were crowded with hundreds who lay down to sleep or to die. A person in the streets was importuned for alms by loathsome spectacles; while if he looked, he would find the nooks and corners occupied by the dead and the dying."

Sir R. Temple recommended that the earth work on the projected railway from Bellary towards Dharwar, and on the branch connecting Chingleput near Madras with Conjeveram, should be taken in hand for employing relief-labourers, on the understanding that the Government should not be pledged as to the time and manner of completing the lines. To this recommendation the Government of India acceded, and the earthworks were constructed before Southern Railway Mahratta Railway Company could be formed.

"The Viceroy determined, after consulting Mr. Guilford Molesworth, director-general of the State Railways in India, as well as the most experienced local officers, to sanction the commencement of the earthwork of the Bangalore and Mysore Railway, as a famine work. It was specially suitable for this purpose from its situation, the line of country which it passed through, and the facilities it afforded for supervision."-- **The famine campaign in southern India, page 475, William Digby 1878**

Some of these earthworks were not made exactly as per requirements of laying rail tracks resulting in sharp curves and steep gradients, despite not so hostile territory, which would plague the Railways for ever as formation remained virtually unchanged even after future gauge conversion and doubling.

The justification for the concession made to the Southern Mahratta is to be found in the fact that the lines to be made by it were essentially for famine protection, that they could not be expected to be remunerative for many years, and that the money loss to the State was to be accepted as the necessary price for securing the protection of certain large districts from famine. This system of railways was in fact State property, the Company being merely an agency for working it under stringent conditions as to maintenance, supervision, and power over rates and fares.

Though these lines were primarily famine protective works necessitated by repeated onslaughts of famine, financial viability of the each line was not lost sight of.

Series of surveys and consultations with industry, trading house and leading businessmen were carried out by the government to explore economic potential of these rail lines. Some of these communications are given below:

Memorandum By Messrs. Harvey and Sabapijthy on The Subject of The Extension of Railway Communication from Bellary, Dated Bellary, 12th February 1877.

"They consider that a railway from Bellary to some central point in the Dharwar best agricultural district would prove remunerative to Government and a benefit to the country."

After the famine of 1877-78, and, following on it the cry of constructing feeder lines (protective lines as they were called), to be carried into the hearts of the countries likely to become future scene of such catastrophes, became very intense. The idea then was that these lines should be mere steam

tramways, and considerable discussion took at that time on the advisability of making them at smaller gauge than three feet to be laid at the existing road.

“The first line to be constructed was one in Mysore state between city of Mysore and city of Banglore. The earthwork has been constructed as a famine relief work, and when starving men were waiting to be fed, there was not much time to discuss alignments. Consequently when gauge of the line had to be decided it was found full of sharp curves and steep gradients, which without expensive reconstruction was suitable for narrow gauge only, and as that time line was only a feeder line to madras line so expense of reconstruction was not justified.” - **THE RAILWAY ENGINEER**. February, 1889.

Construction of famine line continued unabated and Government of India in 1902 sanctioned construction of four feeder lines as famine lines for improving food supply in Madras presidency during scarcity, two out of four feeder lines were to be constructed by SMR.

“Madras famine lines.-With the object of increasing the facilities for distributing food to the population in the Madras Presidency and of lessening the difficulties and troubles incidental to periods of scarcity, sanction was accorded in year 1902 to the construction of feeder lines from Bellary and Hospet on the Southern Mahratta railway to Rayadrug and Kottur, respectively, and from Morrapur and Tirupattor, on the Madras railway to Dharmapuri and Krishnagiri, respectively. The agency of the Southern Mahratta Railway Company is to be employed for the construction and working of the two former lines and that of the Madras Railway Company for the two latter lines.”—**Administration report 1902**

Following the famines of 1877, the GOI advocated an agenda of protective works following the recommendations of the Famine Commission. The Southern Mahratta system in South India and Bengal Nagpur in central India are two examples of railways designed to alleviate famines.- **Railways in Colonial India: An Economic Achievement? Dan Bogart**

Policy-makers interpreted famines in nineteenth century British India as problems of distribution, rather than food production. Railways provided speedier and cheaper transport than road methods employed during that time. They were more reliable than canals, which needed rainfall to facilitate transport. However, they were expensive to construct and maintain, and the British offered various levels of state support to encourage private investors under the façade of laissez faire capitalism. -- **Indian railways and famine 1875-1914: Magic Wheels and empty stomachs by Stuart Sweeney & Lady Margaret Hall Oxford University**

Contract and guarantee

Southern Mahratta Railway Company was formed as a famine feeder line with four per cent guarantee on the capital for the first seven years and 3 1/2 per cent for the subsequent period. After the famine of 1876-78, the Famine Commission emphasised the need for speedy construction of the lines planned. The contract was made on June 1, 1882 with the Southern Mahratta Railway Company.,---**Railway policy in India by Horace**

At the end of financial year 1887-88, Share Capital of Southern Mahratta Railway was 2,882,100 / raised at 4 per cent up to 31st December 1890 and, thereafter at 3-1/2% and debentures worth 2,800,000 / were raised at 3-1/2%, against the authorised share capital of three million pounds and authorised debenture of two million pounds. Initial share capital, authorised by contract with Secretary of State for India, dated June 1st, 1882, was for 3,000,000/.

During the deposition before parliamentary committee, Southern Mahratta Railway model of government backed guarantee came into praise as it did not encourage extravagant and reckless expenditure:

“Under the old system of guarantee, there was an absolute advantage to a company in spending more money than they needed to spend, but if the line was constructed on a principle which did not make it profitable to spend more money than was necessary—as, for example, on the Southern Mahratta Railway principle—there was no inducement to incur lavish expenditure.”-- **The Railway Times**. March 22, 1884.

Financial model of funding SMR was widely welcomed and secretary Lieut. Colonel E. Z. Thornton in the second annual general meeting of the shareholders of this company mentioned as best system to check the extravagance of companies, " Now if any gentleman takes the trouble to read the evidence which has been taken before the committee of the House of Commons on Indian railways, he will find that a very important witness there has stated that he considers that a railway constructed as the Southern Mahratta being constructed is the best system to adopt to check the extravagance of companies; because it is said that the money having been once subscribed by the shareholders they had no further concern in the expenditure, which is then controlled by Government; and, as he says, that is a good way of checking extravagance"-- .-"**Railway times** VOL. XLVII. JULY TO DECEMBER-1884

Shares of SOUTHERN MAHRATTA RAILWAY were quite well received in market and treated as an investment opportunity. A letter appearing in Railway times, May 17, 1884 is given below:

To the Editor of The Railway Times.

Sir—May I call the attention of your readers to the desirable investment afforded by the shares of the Southern Mahratta Railway Company, Limited? The 20l shares fully paid are now quoted at the low price of 20 1/2l. They are guaranteed by the Indian Government 4 per cent, for seven years, and afterwards a minimum of 3 1/2 per cent, payable in London in sterling.

Besides this, the one-fourth of net profits to be added to the guaranteed interest is to be now augmented by a fourth of the net profits of the West Deccan line now to be built by Government on 3 ½ per cent, debentures, instead of shares; and, further, this West Deccan is to connect the Mahratta with the Great Indian Peninsula, the value of which connection may be inferred, perhaps, by the fact that Great Indian Peninsula stock stands now at 150.

At their present price, equivalent to 102 1/2 per cent., Southern Mahratta shares are manifestly absurdly low. — I am, &c, N. E. L.

May 15, 1884.

Dates of Contracts. -

Following contracts were signed by Southern Mahratta Railway for construction and expansion of its network:

1. Dated the 1st June 1882 (called the original contract), between the Secretary of State and the Southern Mahratta Railway Company, as to the construction and working of a system of railways in the South Mahratta country to be called the Southern Mahratta railway.
2. Dated the 28th October 1885 (supplemental to that of 1882), between the Secretary of State and the Southern Mahratta Railway Company, as to the construction and working of the West Deccan railway.

Extracts of the contract :

"This indenture made the Twenty-eighth day of October, 1885, between THE SECRETARY OF STATE IN COUNCIL OF INDIA of the one part and THE SOUTHERN MAHRATTA RAILWAY COMPANY LIMITED of the other part upon the occasion of the Secretary of State in Council of India having under section 48 of an Indenture dated the 1st day of June 1882 made between the Secretary of State in Council of India of the one part and the said Company of the other part and hereinafter referred to as the original Contract required the Company at once to construct the line of railway following that is to say an extension from Belgaum to join the Great Indian Peninsula Railway at or east of Poonah hereinafter called the West Deccan Line .

WITNESSETH and it is hereby agreed and declared as follows :

1. These presents are supplementary to the original Contract and shall be called The West Deccan Contract and the terms " The Secretary of State " and " The Company " shall respectively mean the same herein as in the original Contract in that behalf specified.

2. The original Contract shall be read and acted on :—

As if instead of the sum of £3,000,000 therein mentioned the sum of £5,000,000 had been therein mentioned ; As if instead of Bankapur in the third section thereof mentioned Rani-Benar had been therein mentioned ; As if instead of the rate of 4E per cent, in section 80 thereof mentioned the rate of 4 per cent, had been therein mentioned and as if at the end of that section there were added the words following " hut so that such interest shall be payable only as in section 42 provided ;

As if instead of the sum of Rs15,000 in section 39 thereof mentioned the sum of Rs23,000 had been therein mentioned ; As if instead of the 30th day of June 1857 in section 42 thereof mentioned the 30th day of June 1889 had been therein mentioned ;.....

3. The Company having recently with the sanction of the Secretary of State and by the issue at par of 3£ per cent, debentures raised the sum of £1,700,000 and paid the same into the Bank of England to the credit of the Secretary of State may by the issue of such debentures as the Secretary of State shall sanction raise further sums not exceeding in the aggregate inclusive of premiums (if any) received by the Company £300,000 and shall pay the sums so raised inclusive of such premiums (if any) as aforesaid to the same credit. The said sum of £1,700,000 and such further sums (if any) as shall be so raised and paid to the said credit as aforesaid shall be taken in part payment of the said sum of £5,000,000."

" The Secretary of State will out of the revenues of India pay to the Company during the " continuance of this Contract the equivalent of interest at the rate of 3£ per cent, per annum " on the Prescribed Capital and of interest at the rate of 8 per cent, per annum on the Excess " Capital. And up to and inclusive of the first day of June 1889 (if this Contract shall so " long continue) the equivalent of further interest at the rate of £ per cent, per annum on " parts A and B of the Prescribed Capital.

" The abovementioned equivalents shall be calculated and paid as follows :—

" As to part A of the Prescribed Capital and as to so much of the Excess Capital if " any as may be paid to the credit of the Secretary of State in England calculated to the 30th day of June and the 31st day of December and paid on the" 1st day of July and the 1st day of January in London in sterling.

" As to part B of the Prescribed Capital and as to so much of the Excess Capital if any reckoned in rupees as may be paid to the credit of the Secretary of State in India calculated to the 30th day of June and the 31st day of December and paid on the 1st day of July and the 1st day of January in India in rupees "and

" As to part C of the Prescribed Capital calculated to and paid on the 1st day of

" April and the 1st day of October in London in sterling."

IN "WITNESS whereof Lieutenant-General Richard Strachey C.S.I, and Sir Frederick James Halliday K.C.B. being two Members of the Council of India have hereunto set their hands and seals and the Southern Mahratta Railway Company Limited have hereunto caused their common seal to be affixed the day and year first above written"

3. Dated the 31st August 1887 (supplemental to those of 1882 and 1886), between the Secretary of State and former Southern Mahratta Railway Company, as to the construction and working of a line from Ranibennur to Harihar and a line from Bellary to Guntakal.
4. Dated the 31st August 1887 (supplemental to those of 1882, 1885 and 1887), between the Secretary of State and the Southern Mahratta Railway Company, as to the construction, maintenance and working of the Mysore State railway.
5. Dated the 27th February 1889 (supplemental to those of 1882, 1885 and 1887), between the Secretary of State and the Southern Mahratta Railway Company, as to the completion and working of the Bellary-Kistna railway.
6. Dated the 21st August 1898 (supplemental to those of 1882, 1885, 1887 and 18891, between the Secretary of State and the former Southern Mahratta Railway Company, as to the working of the British section of the Guntakal-Yesvantpur railway.

Main features of contract:

Land to be provided by the Government

Government aid -Interest in sterling on share capital at 3-1/2 percent was guaranteed and an additional 1/2 percent until 31st December 1890.

Terms of Contract.-The contract provides that the Company raise £5, 000, 000, and that any further moneys required shall be supplied by the Secretary of State.

Currency of contracts: The contract is current for a period of 50 years. Government may however determine the contract after 25,35 or 45 years (i, e., on 30th June 1907, 30th June 1911, or 30th June 1927), on one year's previous notice; or on six months' notice given at any time if the company fail to observe their obligations, or the line is worked at a loss. Upon determination of the contract by efflux of time or by notice Government is to repay to the Company the amount of the par value of the share capital paid to Government.

Power of company to terminate the contract.-The Company may determine the contracts on the 30th June in any year, by giving one year' s previous notice.

Terms Of working -Up to the 31st December 1890 after deducting working expenses (which may include any single item of capital expenditure, not exceeding Rs. 1,000, or if exceeding Rs. 1,000 but not exceeding Rs. 2,000, classed as a 'Minor work' subject to a maximum charge on such account of Rs. 23,000 in each half year and a payment of Rs. 40 for every mile of line open to traffic to be made half-yearly to Government for supervision) the net receipt belonged to government unless one-fourth part of the same exceeded the extra guarantee of 1/2 per cent., in which case the amount of the excess was payable to the Company. After 31st December 1890, three-fourths of the net receipts go to Government and one-fourth to the Company.

Rates and fares.-To be fixed from time to time by the Company with the approval of Government, which may require the charge for salt, coal, and food grains to be reduced to any rate not below ½ pies per maund per mile, Minimum for passengers 2 pies per mile.

Special obligation as to the conveyance of a) Mails; (b) Troops, police, high government officials and government stores, to be conveyed on the same general conditions as those in force on State railways of the metre gauge, and at rates to be approved by the Government Bullion and coin at special rates.

--Administration Report on the Railways in India for the Calendar Year 1903

Shareholders' meeting was called in 1884 to approve issue of debentures and to approve the proposal for construction of railway from Poona to Belgaum, the West Deccan section by SWR. :—

"Resolved—That the board be and is hereby authorised to borrow the sum of 1,700,000 l. by the issue of 3 1/2 per cent, debenture bonds, guaranteed as to principal and interest by the Secretary of State in Council for India, on such terms and in such manner as the Secretary of State and the board shall agree."

The guarantee was to be given entirely by the Secretary of State, without affecting the revenues of the Southern Mahratta Company in any way.

Chairman, Sir Thomas D. Forsyth, K.C.S.I., C.B, explained that he had recently been over the entire country of the Southern Mahratta through which the line was going to pass, and he had come back with a much more favourable impression of the nature of the country than he had before;

"I think there is not the slightest fear but that we shall develop a very rich country and have a very good traffic."

Should the West Deccan section for any one year not earn anything beyond the working expenses, the shareholders will be in no worse condition than they were before they consented to its becoming a part of the system, as the 3 1/2 per cent, to be paid for the debentures does not form a charge on their revenue, the Secretary of State being satisfied to give the guarantee in consideration of the three-quarters of the net profits which he will become entitled to under the contract."

He further stated that there has not been a single instance in India of a line not paying its working expenses; in fact, all the lines had paid more than that. In view of secretary of state being willing to give guarantee, all the fears were totally unfounded. Whole system is expected to become complete by 1887 and share holders will have one full year to judge financial performance of the Railway. Those seeking return more than 3-1/2 %, the guaranteed interest , can claim their capital intact after giving one year's notice.:

"So that the shareholders will be in an absolutely safe position, for they will have a year to consider, after the line is open, whether it is likely to pay or not. If they think it is not likely to pay, which is a most improbable contingency, they can agree to demand their capital back, and they will get their 4 per cent, interest up to the very date of their money being returned."

The proposal was well received in market, financial analysts termed it excellent investment opportunity in view of distressed state of money market glutted with unemployed capital and imported gold. For Mahratta Shareholders it was even a better stroke of business. Chance alone, put it within their reach, but it required a certain astuteness and business aptitude to make the most of the paralysed state of the money market. Shareholders had the use of nearly two millions of money without any risk whatever.

“Very wisely we think it has now been decided to raise it, or rather part of it, £1,700,000, by the issue of 3-1/2% per cent bonds, guaranteed both principal and interest by the Secretary of State for India on the revenues of the country. In the present state of the money market, glutted as it is with unemployed capital and imported gold, not to mention the proposed reduction of the interest on consols to 2-3/4% per cent, this investment is certain to be seized on with avidity, more especially by executors and those who are likely to sell out in 3 per cents. “

The subscribers of the £1,700,000 would receive 3-1/2 per cent interest on unimpeachable guarantee, but without giving any equivalent, whatever in return, Mahratta Shareholders would be entitled to the contingent profits of the investment.

“Supposing in 1889, after a year’s trial, the line is likely to pay but 2-1/2 per cent. Well and good. Mahratta Shareholders need not touch it. They can palm off this branch line as well as the original undertaking on the Government of India, and get their capital back intact with interest at the rate of 4 per cent. Per annum up to date. But supposing it pays more than 3-1/2 per cent guarantee, as expected, then they are entitled to the additional ¼ per cent of the net earnings, although they have not subscribed a shilling to the construction of it. Of course the same to some extent applies to debenture capital raised on all lines, but there is this difference, that in this case it is applied to “original construction,” and not as an adjunct to ordinary capital.

Besides, where is the new undertaking that can raise money at 3-1/2 per cent. The Mahratta Company could not do it without the help of the Secretary of State for India, and for this fact alone they ought to be, and no doubt are, grateful. Of course, it does not much matter to him whether he gives the 3-1/2% per cent guarantee on debenture or on share Capital” -- HERAPATH'S RAILWAY (AND COMMERCIAL) JOURNAL. 1\MAY 17, 1884

In order to aid the construction of the work, and in providing the necessary capital, the Government of India adopted a plan resembling very closely the arrangements made with respect to the East India Railway. The main feature was 3% guarantee by the Government on the capital raised, the company to construct on land, provided free of cost, and work the railway as the agents of the Government, receiving therefore a quarter of the net receipts of the railway, the Government taking the remaining three-fourths. Over and above this, however, the company was to receive in addition to the 3-1/2 per cent, such an amount along with the share of the profits, would make a further 1/2% per cent, for a period of five years.

The contract was for fifty years, with the option of the Government to terminate at the end of the twenty-fifth year, when the amount of the capital was to be returned to the company. In other words, as stated in the despatch of Lord Hartington, Secretary of State for India, “the railways will be the exclusive property of the State, the company receiving a certain share, of the net profits and holding besides a State security; the company will also carry on its business under the control of the Government.”

A minute of Sir James Ferguson, Governor of Bombay, who had travelled over the proposed line, fully confirmed the views expressed by the other Government officials as to the valuable nature of the traffic which may be expected upon the line. Speaking of the Valley of the Krishna, he said :—“ *The frequent villages and the sea of crops which extend far and wide at this season show that this is a district which cannot fail to yield a return on a line economically constructed.*” “ *The line passing through the great cotton field,*” he added, “ *is certain to have a remunerative traffic*”.

Similar views were expressed by Sir Richard Temple who had served as Governor of Bombay, he anticipated substantial traffic in timber & forest produce:” *Most of the forests in India had been a good deal neglected, but for several years past they have been properly preserved, and would no doubt be preserved hereafter. He mentioned that because if they flourished in the future there would be a great traffic in timber, in wood for fuel, and in what the foresters call the minor products of the forest”--The Railway News 1882*

Southern Deccan, though not densely populated, was well populated, teeming with finest villages to be seen in British India. Cultivation though not widely extended was important and Hubli was one of the most rising commercial places in Western India. Bellary was another fairly well populated centre in southern Mahratta Railway.

The policy which has been adopted by the Government of India in respect to this guarantee was explained in the following extract from the despatch of the Marquis of Hartington, dated June 22 inst.

" After careful consideration of how best to protect the financial interests of the State in connection with this contract, I came to the conclusion that it would be preferable to allow the company a small share of all net receipts rather than to give them a larger share of a surplus in excess of some minimum up to which the Government would take the whole as under the old system of guarantee. As at present arrangement the company will have a strong interest in the early completion and in the economical construction and working of the lines from the outset, at the same time the capital outlay will be entirely under the contract of the Government."—**The Railway News 1882**

The Times of India, June 8, referring SMR as latest and most promising of Indian railways, had reported that SMR Company could profit by the experience of the older lines, and construct its lines for a small portion of the cost of the older ones. The cost of the East India line was £21,256 per mile; the Bombay, Baroda, and Central India, £18,817; that of the Great Indian peninsula, £17,684.

The average cost of the guaranteed railways of India was £15,672, even including the South India, which cost only £6,482 per mile. The cost of the Rajputana line was less than £7,000 per mile, and there was no reason why this line of the Southern Mahratta Railway could not be built as cheaply.

Chairman, Sir Thomas D. Forsyth stated the salient points of terms on which the money capital had been invited from the public. Shareholders subscription will be paid back to them after termination of the contract. Those who had paid in Gold would get Gold in return and rest would get sterling.

Interest at the rate of 3-1/2 per cent, would be paid by the Government during the period of the contract, and an extra 1/2 per cent, during the first five years. That was in addition to this interest of 3-1/2 per cent, the company was to take one fourth share of the net earnings of the railway, a unique feature, quite distinct from the other guaranteed railways.

Unlike the other guaranteed Companies, except the Bengal Central, this Company in each half-year takes one-quarter of the net earnings of the line, in addition to the guaranteed interest. The Government Director attends the Board.

Normally from "guarantee of interest" it was understood that out of the profits of the line the Government would guarantee a certain interest, but if the profits of the line could afford it there was to be no interest given at all. But in case of SMR, the Government agreed to give 3-1/2 per cent, irrespective of the profit, and for the first five years guarantee of 4 per cent was given. Government will make up the shortfall if the profits of the undertaking do not turn to be 4 per cent.

"That at any time after the first five years the company can, by merely giving one year's notice, terminate the contract and receive back its capital in sterling." The Government can do so at the end of twenty-five years, and only in one case can they do it sooner, and that is if there should be a continued loss going on for three half years, or in the case of gross mismanagement on the part of the company."—**The Railway News 1882**

In his last report on Indian Railways, Mr. Juland Danvers alluded to the small amount of railway capital held by Native investors, and he noticed, as an instance of the indifference of the Indian community in regard to railway investments, that, although 500,000l., out of the Southern Mahratta Railway capital of 3,000,000l., were reserved for distribution in India, only 395 shares, representing 7,900l., were applied for.

It is to be regretted that so little Indian capital is invested in railways, but it should be mentioned that, in this particular instance complaints have been made that reasonable opportunity was not given to the public in India to subscribe, inasmuch as the time allowed was too short, and the prospectus was not made sufficiently public, by advertisement or otherwise. Several short branch lines have been promoted and put in hand by purely local enterprise during the past year, and it is hoped that the remunerative nature of railway enterprise in this country is now becoming more generally known, and that the amount of Indian capital invested in such undertakings will soon show a marked increase.—**Report to the secretary of state for India in council on railways in India, for the year 1882-83.**

Railways absorbed into/worked by SMR

SMR was on frantic acquisition spree to ensure that it does not remain a patch of few rail lines but complete network with access to major towns and other developed areas. With its efficient working and low operating cost, SMR went on to acquire and operate various adjoining railways significantly increasing its total mileage.

In addition to its own line the Company worked the Mysore (Native) State Railways, the Birur-Shimoga (Native) State Railway (in Mysore), the Kolhapur (Native) State Railway, Bellary –Kistina State railway, the Guntakul-Yesvantpur (Bangalore) State Railway, which was partly in British territory and partly in Mysore, and the West of India Portuguese Railway. The Company had also constructed, and was operating, State line from Bellary to Rayadrug, and from Hospet to Kottur, which had been undertaken for famine protective purposes.

- Birur-Shimoga Railway a MG branch line in the Indian State of Mysore, opened in 1899, 38 miles(61km). Worked by SMR and from 1908 by M&SMR until 1919.

The Hindupur and Birur-Shimoga railways are worked under the following contract :-

Contract of 2nd December 1899 (between His Highness the Maharaja of Mysore and the Southern Mahratta Railway Company) for maintenance and working. The general conditions of the contract are as follows:

Government aid.-The lines are the property of the Mysore State.

Currency of contract.-Either party may determine the contract, on giving twelve months' notice, on the 31st December 1904 or on the 1st January or 1st July in any year thereafter. If not determined sooner, the agreement terminates, On the determination of the contract the Mysore Government resume possession of the railway and take over the liabilities incurred by the Company on behalf of the railway, and the working stores belonging to the railway, at a valuation.

- Bellary-Kistna State Railway constructed before 1890; surveyed for Hindpur extension 1892-94; worked by SMR and from 1908 by M&SMR; became M&SMR, 1908
- Guntakal-Mysore Frontier Railway opened c.1893. Worked by SMR, 1893 and from 1908 by M&SMR

The Guntakal-Mysore Frontier railway is worked under the following contract

Contract of 21 August 1889 between the Secretary of State and the Southern Mahratta Railway company for construction and working of Railway Company. The general conditions of the contract are as follows:-

Government aid.-The line is the property of Government

Terms of the working:-The working expenses of the entire system of railways worked by the Company including this railway exclusive of Government Supervision charges of the Southern Mahratta Railway and the Mysore section are divided between this railway and the other railways worked, in proportion to their gross receipts. , This railway's share of the working expenses is retained from its gross receipts. The residue is paid to Government.

- Hindupur-Yesvantpur Railway opened 1893. Also known as Hindupur (Yesvantpur)-Mysore Frontier Railway, worked by SMR became M&SMR, 1908
- Mysore- Nanjangud Railway, opened on 1-12 1891.

The Mysore-Nanjangud railway-is worked, under the following contract:-

14th December 1899 between His Highness the Maharaja of Mysore and the Southern Mahratta Railway company for working. The general conditions off the contract are as follows- .

The line is the property of the Mysore State.

Currency of contract-the contract is terminable on the 1st January or 1st July in any year, on six months' notice by either party. If not terminated sooner, this agreement terminates on the date on which the Mysore contract of the 31st Augaat 1887 terminates. On determination, the Company make over to the Mysore Government the railway and works and pay to that Government all moneys on account of the railway the Government indemnifying the Company against all debts and liabilities incurred on account of ,the Railway then subsisting. The working stores, if mutually agreed, to be taken over by the Mysore Government at a valuation. "

- Hospet-Kottur Railway opened c.1905. Originally worked by SMR and from 1908 by M&SMR. The construction of the Bellary Rayadrug and Hospet-Kottur railways has been sanctioned with the object of facilities for distributing food to the population in the Madras Presidency and of lessening the difficulties and troubles incidental to the period of scarcity.
- Kolhapur State Railway opened after 1888. Worked by SMR, 1891; and from 1908 by M&SMR

MOU between the Government of His Highness, The Maharajah of Kolhapur and The Southern Mahratta Railway Company for working the 'Kolhapur State Railway, was concluded under the sanction conveyed in Resolution No. 1577 of the Government of Bombay dated the 17th day of July 1891: "Clause 1.--Under the conditions hereinafter recited the Southern Mahratta Railway Company,(here after called the Company) agree to work on behalf of His Highness the Maharajah of Kolhapur, the Kolhapur State Railway (hereinafter called the State Railway) and such extensions thereof as the Government of His Highness the Maharajah (hereinafter called the Durbar) and the Company may agree to include in these arrangements, with effect as from the twenty first day of April, One thousand eight hundred and ninety-one."

- West of India Portuguese Railway opened 1886-87. Worked by SMR, 1902 and from 1908 by M&SMR

Contract of 18th April 1881, modified by the contract of 19th December 1892 between the Portuguese and the West of India Portuguese Railway Company for the construction of a harbour at the Port of Mormugao and a Railway from Mormugao to the Portuguese frontier.

21st August 1902 between the Southern Mahratta Railway Company and the West of India Portuguese Railway Company for the maintenance and working of the railway from Mormugao to the Portuguese Frontier, and the harbour at the Port of Mormugao.

Government (Portuguese) aid-5 per cent per annum is guaranteed to the West of India Portuguese Railway Company on £ 800,000 and 6 per cent on £, 550,000.

Currency of contracts-The contract of 1881 is current for the period of 99 years from date of opening of the line and all its appurtenances become the property of the Portuguese Government by payment to the Company' of the value of rolling-stock, moveable machinery, stores, etc. The Portuguese Government may, however, determine the contract at any time on six months' previous notice, by payment in sterling-of the actual outlay of the Company on the railway, telegraph and other works, with 10 per cent added thereto, together with the then value of rolling stock machinery, station appliances and stores. 'the contract of 1902, between the Southern Mahratta and West of India Portuguese Railway Companies which took effect from the 1st July 1902 is to continue in force, for five years subject to amendment or determination after two years on six months' notice by either party.

- Sangli State Railway opened in 1907 as a short 5 mile(8km) link from SMR Miraj Junction to Sangli, Worked by SMR, 1907 and from 1908 by M&SMR

The above contracts and rapid construction spree enabled the Southern Mahratta system to develop a well connected net work with adjoining Railways which was in connection with the West of India Portuguese Railway at Castle Rock, with the Great Indian Peninsula Railway at Poona and Hotgi, with the Madras Railway at Guntakul and Bangalore, with the East Coast Railway at Bezwada, and with the South Indian Railway at Dharmavaram.

Surveys and initial construction

Colonel Lindsay, the chief engineer who had carried out survey and other works before these were handed over to the company, was hired by MSR as their chief engineer for the future work.

Survey reports of various branches of SMR were reported in "Administration Report on the Railways in India for 1883-84:

Hubli to Hurrayhur.-The survey of this branch, which is included in the Company's undertaking, and will eventually connect the Southern Mahratta with the Mysore system is in place. Favourable reports had been received from the country traversed. The area was found richly cultivated and easy from engineering point of view.

Londa to Belgaum--The survey of this branch, which will eventually form part of the West Deccan Railway, was carried out by Government at the expense of the company in the year 1883. The project has been made over the company for the completion and work will be started in 1884-85.

The line from Hotgi via Bijapur and Bagalkot to Gadag was commenced as a famine relief work in April 1879-Work on this section and the Bellary-Hubli one was again started by Government in November 1881, but from the 1st October 1882 the system was made over to the Southern Mahratta Railway Company.

The Bellary branch of the Madras railway from Bellary to Guntakal was made over to the Southern Mahratta Railway Company on the 1st February 1887 and was converted from broad to metre gauge on the 16th May 1887. This was one of the rare case where both meter and broad gauge tracks were kept in the interim period and subsequently broad gauge track was replaced with MG as SMR was fully meter gauge railway.

Speech of Mr. G. Noble Taylor Chairman Madras Railway, highlighting their concern, in 32 half yearly general meeting Wednesday December 17, 1884 is reproduced below:

"This Bellary branch, as you will see by the map, leads nowhere, so far as we are concerned; but it is a connecting link between the Southern Mahratta Railway and the State Railway from Guntakal to Bezwada, which are both on the metre gauge.

I hope that the Government will arrange with the Southern Mahratta Company, to whom they will make over the line as an integral part of their system, to allow our broad gauge rails to remain untouched, so that in case of emergency we may carry food grains and other products on one unbroken gauge from the seaboard to Bellary, which, as you know, is a central point in the ordinary famine region". -Herapath's journal 1884

One of the earliest survey of Bellary Karwar railway scheme was carried in 1876 by Mr. Bernard and Capt. W. S. S. Bisset, R.E. Bellary:

1. The line is 236 miles long and is in the following main sections :-

Madras, Bellary district {Bellary to Tungabhadra} 42 miles +27 miles in Nizam district Not yet actually located (could be done in a month)

Bombay-From border to Gudduk -22 miles Located.

Dharwar - Gudduk to Hubli - 35 miles Located.'

Hubli to Kinvatee - 29 miles Located.

Karwar - - Kinvatee - 81 miles, Located; ghat section requires some preparatory work in jungle

Total .. 236 miles

2. The line will pass through the cotton-growing tracts of the following districts : Bellary, with a population of 151 to a square mile, Dharwar and North Canara with population of 216 to a square mile .

It will also serve a great part of the Belgaum district and some of the southern ta looks of Kaladgi. Its cost will vary on the different sections, the ghat section being more expensive. The average cost will be about 7,000 l. a - mile, or Rs 16,10,000 for the whole line.

3. The portion of the total cost which could be spent on relief labour will depend upon whether it is found possible to move large gangs from the famine districts of Dharwar and Bellary to the heavy works on the ghats and in other parts of the Canara district. - page no, 86, **copy of correspondence between secretary of state for India and government of India on the subject of threatened famine in western and southern India, 1877**

The Bellary-Kistna railway was sanctioned for construction on the 26th September 1883. It was made over to the Southern Mahratta Railway Company on 1st January 1888.

Consulting engineer Bombay, inspected Bellary-Hospet section of the South Deccan Line, Southern Mahratta Railway, about 40- 1/2 miles in length in year 1883-84 before opening the section for public traffic.

The inauguration ceremony in connection with the commencement of work on the West Deccan Line of Southern Mahratta Railway, from Poona to Belgaum about 250 miles long section, was held at Poona on the 13th February 1884. His Excellency the Governor of Bombay, Sir James Fergusson graced the occasion as chief guest and turned the first soil by silver hoe with gold plated handle in a glittering work commencing ceremony. It was to connect with South Deccan section at Londa. - **A Guide to Bombay Historical ,Statistical And Descriptive by James Mackenzie Maclean 1889**

Progress of construction of various branches of SMR was reported in “**Administration Report on the Railways in India for 1883-84**”:

Work between Hotgi to Gadag, a section of 173-1/2 miles length, was being done departmentally and the progress was quite satisfactory. At the close of the official year the rail head had reached the 156th mile from Hotgi. The masonry of the large bridge over the Bhima, Don, Krishna, and Malprabha, was finished, and the creation of the girders well advanced. This section was opened for goods traffic in August 1884. The joint station and trans-shipment yard at Hotgi was being carried out by the G. I. P. Railway Company.

However progress of work between Hosepet to Portuguese frontier, a 163-1/2 miles long section, was not satisfactory. The construction of the Tungbhadra bridge was by mutual agreement taken out of the hands of the contractors Messers Redmond and Stephens, in November 1883. Work could progress at fair pace once the work was carried out departmentally.

The Company's Agent, on the recommendation of the Chief Engineer and with the sanction of the Home Board, terminated, during the month of 11March 1883, the contract with Messrs. Redmond and Stephens for the sections between the west bank of the Tungbhadra and Gadag and between Gadag and Hubli, in consequence of the contractors having failed to give satisfaction in the execution of the work. The whole of the work included in the contract was subsequently done departmentally. Progress of the earthwork was well advanced but the masonry was lagging behind.

“The contractors for the Toongabudra Bridge, and for that part of the railway between Gadak and Hospett did not work very satisfactorily, and at the time I was in India arrangements were made for taking the contract over from them. We have done so without suffering in the very least degree any delay; in fact the taking it over has been rather n convenient circumstance because

Col. Lindsay, who is so very energetic, and quite a master in all administration, has managed to push the works through with much greater celerity than they would have been done by the contractors. It is likely to be the same in regard to the construction of that port of the line between Hubli and the Portuguese frontier. The contractors there, who were appointed by Government previous to the railway being taken over by the Company, have not been working as satisfactorily has perhaps they ought to have been, and they have made overtures with the view of giving up their contract. We shall be only too delighted to take it out of their hands, because we can do the work better and cheaper than they can. —Herapath's journal 1884

The section from Hubli to the Portuguese frontier was being carried out by contract by Messrs. Thompson, Bayley, Bulkley & Co, but progress was extremely slow, more especially in the Ghat section at the western end. Progress of the earthwork was satisfactory , but masonry in bridges and retaining walls and also the tunnelling on the Ghat was badly lagging behind. The contractors had handed over the work at two stations, Hubli and Dharwar, for completion by the Company.

The line between Bellary and Hospet, 40 -1/4 miles in -length, was opened for traffic on the 24th March 1884.

Work was started at the Poona end in January 1884 in Poona to Belgaum, a 242-1/2 miles long section and was proceeding satisfactorily. A good start had been made with the earthwork on the challenging Little Bhor Ghat. Magazines had been built for powder and dynamite, and the Assistant Engineer's bungalow at Waghapur was in advanced stage of completion. Service roads were complete and jungle cleared for 40 miles. It was planned to start work shortly at the Salpi Ghat.—**Administration report 83-84, page 61**

Progress of construction as on 31st December 1883 was also reported in "The Railway Times" of July 1884 edition:

"The company's system of railways now completed or under construction, or to be shortly undertaken, measures 731 miles in length,"

- 1. East Deccan section, from Hotgi on the Great Indian Peninsula Railway, to Gadak on the South Deccan section, length 173 miles.*
- 2. South Deccan section, from Bellary, on the Madras Railway, to the West of India Portuguese Railway, on the Portuguese frontier Length 204 miles.*
- 3. Southern Extension, from Habit, on the South Deccan section, to Rani Benur, a distance of 60 miles. This extension is to be prolonged for a further length of 14 miles, to form a junction with the Mysore Railway system, about 330 miles in length, now under construction by the Mysore Government, on the same gauge as the Hues of this company.*
- 4. Belgaum Branch and West Deccan section from a point on the South Deccan section, through the large military station of Belgaum to Poona, a total distance of 274 miles*

The East Deccan section, planned to be opened to public traffic on the 1st July 1884, was rapidly built at comparative less cost with excellent build quality and its construction reflected the greatest credit on the engineering staff of company, through whose direct agency, without the intervention of large contractors, the works were carried out.

The section had four large bridges on it; the Bhima, Don, Krishna, and Malpurba, 2,100ft(14 spans of 150 ft each), 800ft.(8 spans of 100 ft each), 3,150ft(21 spans of 150 ft each) and 1,200ft(12 spans of 100 ft each) in length respectively. All four bridges were built on rock foundations, with masonry piers and iron girders, the two largest having spans of 150ft each, and the two smaller ones spans of 100ft.

The South Deccan section comprised of three divisions: —the first, from Bellary to the east bank of the Toongabudra River, 40 1/2 miles, was opened to public traffic on 24th March, 1884. Early earnings had averaged 5 / 10s per mile per week, which were sufficient to clear working charges. These earnings were expected to go up after joining of first division with the second division, as the line currently ended on the banks of an unbridged river and not at a town or centre of traffic.

The second division, from the Toongabudra River (including the bridge) to Hubli, 89 miles, was let to contractors for completion by the 1st April, 1883. The contract had to be terminated under the existing provisions of contract and it was decided to proceed with the works under the direct supervision of the company's engineering staff as satisfactory progress was not being made with the works by contractor.

After that the works progressed rapidly, and it was expected that by the end of 1884 the division would be complete, together with the Toongabudra-bridge, which is 2,160ft. in length (38 spans of 60 ft each), on granite piers, with 60 ft. iron girder openings.

The third division from Hubli to the junction of the West of India Portuguese Railway, 741 miles, was handed over by the Government of Bombay to contractors for construction before the formation of the company. The progress made by the contractors in carrying out this work was not regarded by the company's engineers as sufficient, and overtures were made by the contractors with a view to obviate difficulties, to surrender the contract. MSR had to making alternate plan to take over the construction under their chief engineer. With the exception of the Ghat section, about 6 miles, work was expected to be finished by the end of 1885. The Ghat section, with its four tunnels and difficult terrain was a work of considerable difficulty challenging technical ingenuity of Railway engineers.

The Southern Extension from Hubli to Rani Benur, 60 miles was planned to be opened by the end of 1885. Survey and marking works were complete and required construction of only one bridge.

The prolongation from Rani Benur to Hurryhur, on the frontier, 14 miles in length, was also surveyed.

Work was also in progress in the Belgaum Branch and West Deccan Section, 274 miles in length. Engineering challenges included construction of three bridges, three tunnels, several heavy banks and cuttings on the section.

Construction was done at a rapid pace against all odds and despite failure of outsourced agencies; first section to be commissioned was 40-1/4 mile long Hosepet –Bellary section on 24th March 1884.

Technical details of bridges of SMR as per Administration report, page 162:

Bhima bridge was ready on 1st August 1884. It had 14 spans, each span 150' long and total length was 2,342'. Depth of foundation below low water level was 18'50 and height from low water level to underside of girder was 58'77. Total weight of girders was 1,680 Tonnes. Cost of construction of bridge up to girder level was Rs 3,33,256 and total cost of bridge including protective works was Rs 8,30,772.

Kisina bridge, Bijapur branch was also ready on 1st August 1884. It had 21 spans, each span 160' long and total length was 3,392'. Depth of foundation below low water level was 18' and height from low water level to underside of girder was 43'17. Total weight of girders was 2498 Tonnes. Cost of construction of bridge up to girder level was Rs 3,43,345 and total cost of bridge including protective works was Rs11,39,641.

Kisina bridge, Poona branch was ready on 2nd Feb 1888. It had 14 spans, each span 150' long and total length was 2,389'50 ". Depth of foundation below low water level was 4'17" and height from low water level to underside of girder was 75'79". Total weight of girders was 1,897 Tonnes. Cost of construction of bridge up to girder level was Rs 2,65,228 and total cost of bridge including protective works was Rs7,50,104

Hagari bridge was ready on 4th October 1877. It had 34 spans, each span 64' long and total length was 2,396'. Depth of foundation below low water level was 68'25" and height from low water level to underside of girder was 16'50". Total weight of girders was 660.9 Tonnes. Cost of construction of bridge up to girder level was Rs 6,42,732 and total cost of bridge including protective works was Rs7,63,905

Details of lines to be constructed in various sections/branches of SMR were furnished by Chairman Mr. Forsyth in shareholder's meeting:

"The whole Southern Mahratta Railway system consists of the following sections: —From the Portuguese frontier to Mormugoa, which is a district of 266 miles. It is a line which the Government of India bound themselves by treaty with the Portuguese Government to undertake to be made if a company was formed to make a line through the Portuguese territory from the port of Mormugoa to the frontier.

The next portion was the Eastern Deccan line from Sholapore to Gadak, so that there would be a complete section of railway joining the Great Indian Peninsula at Sholapore and the Madras Railway at Bellary and it would join another line at Gadag. It was also planned to construct branch lines for connecting Bagalkot and northwards to Belgaum, a distance of thirty-two miles.

Next section planned was the Western Deccan Railway connecting Pune to Meeruj. The section was not featuring in original plan of constructing 460 miles as during the negotiation stage, thorough survey of the section was not complete. But, company subsequently intended to construct the line on mutually agreed terms with Government.

Chairman gave details of work already completed and probable date of completion for works in progress: *"As to the work actually done, I am glad to tell you that out of the 450 miles which we have undertaken to construct the first ninety-eight miles have been actually made, and a further distance of 151 miles, completing the sections between Sholapore and Gadak, and between Hubli and Bellary, will be finished and open for traffic within two years and a-half from the present time. We know that ninety-eight miles have been actually made—the rails laid— and the line, so far, is completed."* ---**"The Railway Times" of July 1884 edition:**

SMR did not propose to open any portion of the line until the bridges were made, unless famine were to come, or any particular urgent cause, which in the opinion of the Government required SMR to temporarily make use

of the line. It was expected that within two and-a-half years the line from Sholapore to Gadak, and from Bellary to Hubli, would be sufficiently ready, so that if the Government desired, the ready portion of the line could be opened for traffic. Railway construction over hilly ground would take another four years to complete.

The Portuguese Government had agreed to, with the Indian Government, for keeping their lines open for traffic from Mormugoa to the frontier within five years from the commencement and Government of India agreed to open their portion to New Hubli within the same time.

Chairman Mr. Forsyth further stated that the Government had spent nearly £400,000 in SMR. Average cost of construction was expected to not exceed Rs 65000 a mile or £5,500 per mile, so that the £3,000,000 now subscribed would be amply sufficient for whole distance of 450 miles planned.

Col. Lindsay reported that the earth works upon the Eastern Deccan, or upper portion of the line, had been very economically carried out, but he could not say the same about the Bellary to Hospett, or lower portion of the line. As per the terms of contract, SMR had to pay fair valuation of whatever it took over.

Secretary of State, Lord Hartington, had said, "*Due consideration being given in determining the value of work handed over to any deterioration that may have arisen, and proper allowance being made for excessive outlay due to the circumstances of providing famine relief, or otherwise,*" so we shall not pay any excessive valuation.-

The Railway News 1882

Sir Richard Temple, former Governor Bombay shared his views about the proposed line and engineering challenges. He did not anticipate any serious engineering difficulties between Sholapore to Gadak as the section did not have any ranges of hills to get over, no difficult bridges to span. However Poona to Belgaum line via Dharwah would pose some engineering difficulties and the success of line would primarily depend upon the skills in selecting the route which were comparatively free from such difficulties and ingenuity of engineers.

Sir Richard Temple stated that there were two low ranges to surmount and several rivers to cross, but the rivers were not at all serious, if good foundations for the bridges are constructed. In Indian rivers, it was the foundations which gave trouble with the bridges, but in these rivers he was sanguine that their engineer would get to either clay, gravel, or rock, so that the expense would greatly depend upon the skill with which the line was made. It was a splendid country through which the line passed, and enjoyed great natural advantages.

Sir Temple also pointed towards additional traffic during famines:

"The fact of liability to famine might be serious for the Government and bad for the people, but, on the whole, it was beneficial to the railway company, because there was no event which brought so much traffic to the line as a casual recurrence of famine. There were meteorologists, who would tell them there were physical causes at work in the atmosphere which rendered periodical recurrences of famine almost certain, but we hope they will every time be at longer intervals. At the best there was no real hope that they would be altogether avoided."

Construction of SMR was planned as low cost rail line shunning extravagant construction and reckless expenditure as done in past by other company railways. Chairman underlined that construction cost in southern Mahratta would be nothing like the sum which the East Indian or the Great Indian Peninsular lines cost, learning from their experiences and keeping in the mind expected traffic required to pay interest on such an outlay.

Sir Temple congratulated the company on having secured the services of Colonel Lindsay as chief engineer, who had served with him twice in past:

"This company had the benefit of the experience of those railways, and they now had men who knew about the country, and they ought to be able to command the services of men who, from practical experience and from personal knowledge, knew thoroughly what they were about, and much also would depend upon the care with which their chief engineer selected the line."

He congratulated the company upon having secured the services of Col. Lindsay, who had twice served under him (Sir Richard) in Upper Bengal and on the frontier of Afghanistan, the two places being diametrically opposite to each other. He, therefore, understood how to carry a railway through swampy ground at the least possible cost, and he had never met an officer who more readily apprehended the importance of selecting a route that offered natural facilities to the engineer. Therefore he was sanguine that the line from Puna to Meeruj would be made economically. What he had stated was derived from his own personal observation, and it could be fully

tested by the facts and figures in connection with the various departments of the country”-- —**Railway news 1882**

Colonel Lindsay, chief engineer, fully justified the encomiums heaped upon him and by careful selection of routes and avoiding excessive tunnelling and rock work, he was able to reduce average cost of construction of Western Deccan line from original roughly estimated cost £9,000 per mile, to about £6,000 per mile. —**Railway News 1882**

Colonel Lindsay would subsequently be made chairman of Southern Mahratta Railway; he died on board the Caledonia en route to India in 1904.

SMR was primarily a famine line to provide relief, to act as safety net, when the area suffered deaths due to starvation: *“He also saw an opportunity of the next line was from Sholapore to Gadak. That line no doubt was first thought of as what was called a famine line. He had heard that it was supposed the term "famine line " meant that it would run through a desert. But it implies opposite of that. If it was a desert there would be no famine, but the term famine implied that there was a large population which might suffer from famine. For several years consecutively they would have good seasons, and the people would nourish as at the present moment, and then came a bad season and death, starvation, and every sort of evil would be there. Then came the value of the railway, and if it existed, the people were safe. In the country through which the line from Sholapore to Gadak passed there were from 150 to 200 people to the square mile. The country was in good seasons fairly watered, and, on the whole, likely to flourish.”--***The Railway News 1882**

Southern Mahratta Railway was pioneer in introducing heaviest plate girder Railway Bridge in the country. First time 60 feet long girder was manufactured by Ms Donald and Co. In Bombay.-**A guide to Bombay, historical, statistical and descriptive by James Maclean, page159**

212 miles were constructed at the end of 1884 and 101 & 162 miles were commissioned in 1885 & 1886 respectively by Southern Mahratta Railways. 671 miles were constructed at the end of year 1887, which increased to 854 miles at the end of 1888. Total mileage worked by Southern Mahratta Railways inclusive of Mysore section, increased to 1309 miles, in just five years, at the end of 1889, a truly enviable record of rail road construction.

Indents for rolling stock and permanent way items were placed in time and material supply had already started.
:

*“All the engines, carriages, and wagons, as well as the permanent way for the original undertaking of the company, except the 6 miles needed for laying on the Ghats, have been either shipped to India or are in course of manufacture in England. Indents for the permanent way and rolling stock wanted for the West Deccan Railway are shortly expected from India and will be complied with in due time.”--***Railway times** VOL. XLVII. JULY TO DECEMBER-1884.

The length of line open to public traffic on June 30th, 1887, was 674 1/2 miles on the Southern Mahratta Railway and 139 3/4 on the Mysore State Railway. Since then the following additions had been made to open line in 1887 :—Section of the Bellary-Kistna State Railway between Guntakal and Nandyal, July 11th, 1887, 90miles ; section between Belgaum and Miraj in December, 1887, 85 miles ; total new line added during current half-year, 175 miles, making in all 989 miles, inclusive of the Mysore and State railways worked by the company at this date.

The portions of the railway still under construction in 1887 were : —1st, from Castle Rock to the Portuguese frontier, 3 miles ; and 2nd, from Hariha to Gubbion the Mysore Railway, 157 miles ; total, 160 miles. The first of these sections was completed ; it was the connecting link with the West of India Portuguese Railway. It was intended to open that railway, as well as the connecting section of this company's line, next month.

The construction of the second portion above referred to, from Harihar to Gubbi, was commenced last May, and will probably be completed by this time next year. The company took over in July last, under a short working agreement, the portion of the Bellary-Kistna State Railway completed between Guntakul and Nandyal, 90 miles. This railway is in course of extension to Bezwada on the Kishna river, a further distance of about 188 miles. The Secretary of State had proposed to this company to

incorporate the State railway with this undertaking, and a resolution to this effect, with power to increase the share capital by 500,000/., was tabled.

The Bellary-Guntakal Section of 30 1/2 miles was taken over by the Southern Mahratta Railway Company as a broad-gauge line from the Madras Railway on the 1st February 1887 for Rs. 30,00,000, and was converted to metre gauge on the 17th May 1887, a rare case of converting BG into MG, though, for a few months both the gauges were in use for emergency purposes.

During the year the working of the first section of the Bellary-Kistna State Railway was made over to the Southern Mahratta Railway Company, and the length from Guntakal to Nandyal, 90 miles was opened for traffic on the 11th July 1887. On the 1st January 1888 the entire line from Guntakal to Bezvada, 278 3/4 miles, was taken over by the Company, and now forms part of the Southern Mahratta Railway system. - **Administration Report on the Railways in India for 1887-88.**

At the end of 31st December 1885, total 316 miles of Rail lines were laid at total capital outlay of Rs 1,82,96,284 with average cost of construction a mile at Rs 57,899 by SMR, which jumped to 759.75 miles of lines opened at the capital outlay of Rs 6,08,74,953 with average cost of construction a mile at Rs 80,125 by at the end of 31st December 1887.

Administrative report 1891-92 gives update and details of constructions for Southern Mahratta and Mysore Railways:

First survey was done in 1st April 1870 for construction of Mysore Railways and construction of Mysore line, commenced on 20th September 1877; Earthwork between Bangalore and Channapatna was commenced for relief purposes during the famine of 1877-78.

The transfer of the Mysore railway to the Southern Mahratta Railway Company was effected on the 1st July 1886. The terms of working were published in appendix L, Part II of the Railway Administration Report for 1887-88.

The construction of the Mysore-Nanjangud extension was commenced in September 1890 and completed in November 1891. The first 20 miles of the Bangalore-Hindupur line were expected to be opened in November 1892 and the remainder were expected in April 1893.

The Ghat incline for 36 miles from the Portuguese frontier was constructed for a double line up to formation level, The maximum gradient on the Ghat incline is 1 in 40, and on the rest of the line 1 in 100.

On the Bellary-Kistna section, which was transferred to the Southern Mahratta railway main line, the ruling gradient is 1 in 100. A tunnel, 523 yards in length, occurs at the Nulla-Mulla hills, the pass through which is 20 miles long, and comprises several heavy works. The rest of the line presents no difficulty. ."— **administrative report 1891-92**

The line was laid for a single track with rails, 41-1/4 lbs. to the yard, spiked to wooden sleepers partly of creosoted pine and partly of teak, the width of formation being 14 feet.

The sleepers on the Bangalore- Tumkur section are of creosoted pine, which were gradually replaced by Mysore teak. The road on the Tumkur to Gubbi length was fairly ballasted, and the permanent-way well laid : it has no steeper gradients than 1 in 100, nor curves sharper than 3,000 feet radius."— **administrative report 1891-92**

Construction details of various sections of SMR (up to December 1891)

A. Main Line (Portuguese frontier -near Dharwar via Guntakal and Nandyal to the Kistna river opposite Bezvada)

Section	Date of opening	Miles
Hosepet to Bellary	24.03.1884	40 -1/4
Dharwar to Hosepet	01.07.1885	101- 1/2

Castle Rock to Deuli	15.06.1887	2 3/4
Deuli to Dharwar	24.01.1887	56
Bellarv to Guntakal	17.05.1887	30- 1/4
Guntakal to Nandyal	11.07.1887	90- 1/4
Frontier to Castle Rock	03.02.1888	3 - 1/2
Cumbum to Tadepalli	03.10.1889	121 -3/4
Nandyal to Cumbum	15 .06.1890	63- 1/2
Tadepalli to Kistna canal	27.10.1890	1-3/4
	Main line total	511-1/2

B. Branches(Hubli- Harihar branch

Section	Date of opening	Miles
Hubli to Harihar (temporary station)	18.10.1886	81 -1/2
Hubli to Harihar (permanent station)	21.02.1889	-
Gadag to Hotgi, Bijapur branch (for goods traffic)	01.08.1884	172-3/4
Gadag to Hotgi, Bijapur branch (for passenger traffic)	15.09.1884	--
Londa to Belgaum ,Poona branch	21.03.1887	33
Belgaum to Miraj, Poona branch	22.12.1887	85-1/4
Miraj to Koregaon, Poona branch	02.05.1887	76
Koregaon to Ghorpuri,Poona branch	18.11.1886	82-3/4
Ghorpuri to Poona,Poona branch	04.10.1890	1
	Total Branch lines	532-1/4

C. Mysore Section

Section	Date of opening	Miles
Nanjangud to Mysore	01.12.1891	15
Mysore to Mandya	25.02.1882	27-3/4
Mandya to Channapatna	20.03.1881	23-1/4
Channapatna to Bangalore	01.02.1881	34-3/4
Ban galore to Tumkur	11.08.1884	43
Tumkur to Gubbi	22.12.1887	11-1/4
Gubbi to Birur	12.08.1889	76-3/4
Birur to Harihar	21.02.1889	79-1/2
	Total Mysore section	311-1/4

Total opened mileage 1355 miles (up to December 1891)

Total opened mileage of tracks increased to 1643 miles and 77 miles of tracks were under construction at the end of 1903, which would increase to 1730.35 miles of tracks open line and 81.47 miles under construction by the end of 1907 before merger into MSMR .The permanent way consisted of 41-1/4 lbs flat footed steel rails on wooden and steel sleepers, except for the portion from the Portuguese Frontier to castle Rock, which is laid with 62 lb. double headed rails. Between Gadag and Hotgi, the rails are 40-1/4lb. steel and iron mixed. 50 lb. flat-footed steel rails were being used for renewals.—**history of Railway constructed and progress 1903 &1907**

167 ½ miles of new sections were opened in year 1886-87 taking the total length of miles opened to 763 ¼ miles at the end of year 1886-87. Sections opened in year 1886-87:

Deuli to Castle Rock (South Deccan section) , 3 miles long section was constructed on 15th June 1887.

Castle Rock to Portuguese Frontier (South Deccan section), 4 miles section was constructed on 3rd February 1888.

Koregaon to Miraj (west of Deccan section) 76 1/4 miles section was constructed on 2nd May 1887.

Miraj to Belgaum (west of Deccan section) 84 3/4 miles section was constructed on 22 nd December 1887.-- .-

Administration Report on the Railways in India for 1887-88. Part. I

The second annual general meeting of Southern Mahratta Railway was held at the City Terminus Hotel, Cannon street; where audited accounts of the company year ending 31 st December 1883 and director's reports were presented by the Secretary (Lt. Colonel E. Z. Thornton).

Chairman of SMR, Sir T. Douglas Forsyth, K.C.S.I., C. B had visited India and inspected the sites; he shared his impressions in second AGM of the company held at London, city terminus Hotel, Canon street. After examining the whole line, he was convinced that SMR would have a much more fertile country to open out than he had previously imagined before going to India.

"It is now quite clear, from what Sir Douglas Forsyth stated at the meeting held on Wednesday, that the Southern Mahratta will have a far finer property than is generally supposed when the whole system is completed. For a long time rumours were afloat insinuating that the West Deccan section would swamp the undertaking, but instead of that it, now appears that it promises to be a valuable feeder. Sir Douglas Forsyth has recently been over the whole ground, has seen everything for himself, and he assures the Proprietors that the Company will have a more fertile country to cater for than he had any idea of before he went to India. This more especially applies to the Deccan section.

As regards the Southern extension from Hubli to Rani Benur, sanctioned at the previous meeting, reports are even more flattering"- Herapath Journal 1884

He stated that the works were progressing in a manner which reflected the highest credit on the engineers and all the officers concerned, and showed that SMR would be able to open out the whole line quite as soon as was expected at the outset ; in fact, in some parts work was being done more quickly than anticipated. Chief heavy works were on the Ghats, between Dharwar and the Portuguese territory.

"That is a heavy country to work through, and the greatest delay must necessarily take place there in consequence of the tunnels which have to be pierced and the heavy cuttings which have to be made. On the other portions the line is progressing as fast as it possibly can be made. The line from Hotgi down to Gadak, which is a distance of 164 miles, is now ready for opening." --Railway times VOL. XLVII. JULY TO DECEMBER-1884

Surveyor of MSR had reported that entire area was richly covered with vegetation and line would have excellent prospects once connected with Mysore line.

"I met the surveyor at Hubli, and he reported to me that it was the richest part of the country he had ever seen. The ground was so richly covered with vegetation that he had scarcely room to pitch his tents, and a similar report has been made to me by others ; therefore we have an exceedingly good prospect, especially when we join on with the Mysore line, which runs from Bangalore up to Hurrihur."

Chairman of the company, further shared his impressions of West Deccan, where work was done departmentally by company engineers in a few sections after rescinding outsourcing contract and much to their surprise, company engineers were able to push the work at faster pace than being done by contractors:

"That was commenced about February of this year, and is being pushed forward most energetically by Colonel Lindsay and his assistants, and we hope it will be ready when the rest of the line is open for traffic. The contractors for the work on the Toongabudra-bridge and that portion between Bellary and Hospett did not get on very satisfactorily, and when I was there arrangements were being made for taking the contract from them ; and we have since done so without suffering delay—in fact, it has been a fortunate circumstance, because the engineer is so energetic and is such a master of the situation that he has been able to push the works through with greater celerity than if they had been left in the hands of the contractors."

Contractors who were working on line connecting Portuguese frontier had made overtures to give up the contract as they were unable to proceed. Company was proceeding to rescind the contract and plan to complete the balance works departmentally.

Chairman was all praise for the local team:

"I think, therefore, these are points upon which we may be congratulated. I cannot speak in terms of too great praise of the manner in which our staff over there are exerting themselves. They have a splendid head in Colonel Lindsay; they are working with a good heart, and are doing exceedingly well. Our agent, too, Mr. Stewart ; the

traffic manager, Mr. Craik ; and the locomotive superintendent, Mr. Whitcombe, are most, efficient, and I am sure they will do their best in the interests of the Company”.

Progress of work, as appearing in Railway times, May 23, 1885:

“ In a resume of work done on the Southern Mahratta Railway it is stated that the second division, from the Toongabudra River to Hubli (89 miles), is nearly finished, and is expected will be ready to open for traffic by April, 1885. The undertaking, about 713 miles in length, was commenced in October, 1882, and will probably be opened throughout for traffic in the early part of 1887, or in rather less than five years from the date of the formation of the company.”-- Railway times, May 23, 1885

SMR had taken over working of Mysore Railway in 1886 from Mysore Government. Secretary of SMR outlined the progress of works and finances in Annual General meeting in 1887. Mysore railway was taken over by SMR from Mysore government and efforts were on full swing in the intervening distance of 155 miles to connect Mysore Railways with SMR lines:

“However, this is not the only gap on our system, for the West of India Portuguese Railway have opened their line from the east coast up to the foot of a barrier of mountains rising not fewer than 2,000 feet above the sea level, which forms the watershed between the Arabian Gulf and the Bay of Bengal. Our railway is brought from the far interior on to the summit of this barrier, which is called the Braganza Ghat, after the Royal Family of Portugal. The Ghat is nearly completed, but engines cannot yet pass over it.

Poonah to Miraj, a section of 160 miles, was partially complete, except a gap of about 85 miles between Belgaum and Miraj. The work on this section was going on, but unfortunately it had been rather retarded by an accident, at the Khrishna-bridge. On the east the Government was extending railway system of SMR, on the metre gauge, by a State Railway to the Godavary and Khrishna Delta, in the Bay of Bengal. Government had opened 90 miles of Railways in prolongation of SMR lines to Gantakul ; but beyond that the railway passed through a very hilly country and a very malarious jungle. It would be some time before the line could be completed.

“when it is we expect to get a large trade in sugar and rice from the Krishna Delta, and we also expect to get from the dominions of his Highness the Nizam considerable quantities of coal for use on our railway. Even now as I speak our line is simply a work of shreds and patches : we have no access to the sea, and we have no access to the towns or large cultivated districts which are hereafter to be our termini.”-- Railway times, May 23, 1885

Line to Poona was expected to be open at the end of monsoon. Braganza Ghat would establish connection of SMR with sea. Works on Mysore connection was progressing satisfactorily.

“We have ample funds, and under the vigorous management of my friend Colonel Lindsay, our chief engineer, I have very little doubt that our works will be finished by the beginning of 1889. When they are finished we shall have a continuous line from Poonah on the north through Miraj, Belgaum, Hubli, to Bangalore, Seringapatam, and Mysore, a distance of 700 miles. On the east a railway which the Government are constructing towards Guntar in the Godavary Delta is being carried out under considerable difficulties. “

It was a work which would cost a large sum of money, and the supply of money to it was regulated by budget allotments, which again were dependent on the political and military exigencies of India.

“If the Government would but hand over to us that line on much the same terms as they have handed us the Mysore Railway, I have little doubt we could get the railway finished by the end of 1889.”-- THE RAILWAY TIMES. July 2, 1887.

Poor progress of construction in Mysore extension of SMR, due to lack of sufficient local labour, was reported. Entire country side was badly ravaged by famines and plague. The devastation of thriving villages and large tracts of splendid arable land lying uncultivated was graphically reported in the journals of the era :

“Indian, Engineering says the Mysore extension of the Southern Mahratta Railway is progressing slowly to a miserable degree. Local labour in sufficient quantity is exceedingly difficult to be had ; in fact cannot be had in

many places, and the Mysorians who do turn out on the works are mostly a lot of miserable specimens of humanity."

Three-fourths of the Mysore State through which the railway was being constructed is almost depopulated owing to the fearful scourge the famine of ten years ago made throughout the country, and the unfortunate out-of-the-way cultivators who received little or no help from the famine relief committees had not yet recovered physically from the effects of the dreadful privations and devastation of that terrible period.

Hundreds of villages in the taluqs of Arsikero, Kadur, Tiptur, and Terikere, which were ten years ago largely populated, were now nothing but hamlets in comparison. Numerous unoccupied and dilapidated buildings and grim bare walls in every one of these villages showed signs that peace, happiness, and plenty reigned supreme but a short while ago, but the unfortunate owners of which succumbed to the plague.

"Large tracts of splendid arable land are lying waste for want of somebody to cultivate them, and it is hoped that the completion of the railway will bring new settlers and thus revive that which was once a flourishing country. To complete the railway, however, labour, both skilled and unskilled, will have to be imported in large quantities, and although the engineers and contractors are doing all they can possibly do to push the work, yet it is quite certain that a fair start will not be made till the rains are quite over in September." -- **Sept. 24, 1887, THE RAILWAY TIMES**

A report on labour rate on Railway construction is mentioned in Bombay Gazetteer :

"There is a considerable demand for labour in the Southern Maratha Spinning and Weaving mill on the earth-work of the Goa railway, and on the public roads. The labourers are chiefly Holarus, Bedars, Musalmans, Marathas, and Lingayats. Men earn 6d. (4 as.) a day, women 3d. (2 as.), and children 2-1/4d. (11 as.)"—**Bombay Gazetteer-Dharwad**

Progress of work up to the end of December 1891, was reported in administration report 1891-92 :

The central workshops at Hubli were practically complete, the expenditure recorded consisting mainly of final payments to contractors and interdepartmental adjustments. The outlay for the year for construction of workshop was Rs1,28,920 The Poona junction works under construction by the Southern Mahratta Railway Company had also approached completion with the exception of the staff quarters.

The water-supply project for Hubli which is in the hands of the Irrigation branch of the Bombay Public Works Department was in progress, and a sum of R 67,500 was paid up to December 1891 as part share of the company's contribution. The work of raising the line and providing additional waterways between miles 45 and 47 of the main line was necessitated by washaways, and an estimate amounting to Rs 25,980 was sanctioned by Government for the work which is in progress. The Ghat engines taken over from the West of India Portuguese guarantee railway have been erected, but have not yet been brought into use pending completion of the working agreement with that line."

The main item of expenditure on the Mysore section was the completion of the extension from Mysore to Nanjangud, a distance of 15 miles, which was opened for traffic on the 1st December 1891. This extension cost at the close of the year Rs 5,24,249, exclusive of rolling-stock and suspense, the amount sanctioned being Rs 7,03,273, and the expenditure during the year Rs 3,34,1224.

The extension was constructed from the Debenture loan of £1,200,000 raised in 1886 for the purchase of the Bangalore- Mysore line and the completion of the extensions thereof, but the Government of India and the Board of Directors of this railway have recently acquiesced in a proposal made by the Mysore Government to pay the cost of constructing this extension from the revenues of the Mysore state, the object being to set free the company's capital expended thereon for the execution of certain urgent and extensive works required on the old-line; the working of the section will, however, remain in the hands of the Southern Mahratta Railway Company. - **Administration report part ii, 1891-92, page 34.**

Cost of construction of 1043 miles line of SMR as per Administration report , part ii, 1891-92 is given below:

1. preliminary expenses including survey, establishment and plant -- Rs 10,90,911
2. Land – Rs 10,25,442

3. Formation-	Rs 1,88,17,573
4. Bridge	Rs 1,83,66,507
5. Fencing	Rs 1,34,710
6. Ballast & P.Way	Rs 2,15,49,213
7. Stations & Buildings	Rs 94,23,387
8. Plant	Rs 25,76,012
9. Rolling stock	Rs 99,03,576
10. General charges	Rs 63,63,170
11. Loss by exchange	Rs 4,91,090
TOTAL	Rs 9,09,53,991

Cost per open mile at the end of year 1891 was Rs 88065, while for Mysore section (Southern Mahratta), cost per mile opened was 47007 Rs.

Progress of work as reported in annual report 1895-96 is given below. Important highlights were changing the aspect of distant signals to red and green instead of red and white, large scale replacement of unserviceable wooden sleepers, additional waiting accommodation for first and second class passengers etc:

“Arrangements have been made for altering the spectacles of all distant signals, so as to show red and green alternately, instead of red and white as at present, and work will be started on receipt of the modified description of spectacles, for which an indent has been sent home.

The following additional works were also completed : Provision of stand-cocks on platforms at all watering stations, to supply drinking water to passengers; goods shed and siding accommodation on the main line at Alnavar, and reconstruction of the bridges at miles 292.5 and 293.1 with additional water-way; replacement on the Poona branch of all the "Karri " wood sleepers on the Alandi and Salpa Ghats; renewals of a number of teak half-round and square sleepers on the section north of Belgaum; additional water-ways and protective works near Jejuri (miles 243 to 264), and. additional waiting accommodation for 1st and 2nd class passengers at Wathar to cope with the Mahableshwar season traffic; renewal on the Harihar-Nanjangud section of about 20,000 unserviceable teak and creosoted pine sleepers in the joint station building at Bangalore city by the Madras railway; the building of a number of additional quarters for the staff at Bangalore and Harihar stations. .

The following additional works were in. progress: Abnormal renewals of sleepers on the main line, notably on the section, west of Dharwar, the doubling of the engine shed at Donakonda, as well as the erection of a number of additional staff quarters at Donakonun and Guntakal junction; extension and remodelling the Southern Mahratta railway portion of the yard at Bangalore. Assistant station master's quarters at each station, as well as other station quarters, are now being built on the Guntakal-Hindupur section. The permanent buildings and junction arrangements at Yesvantpur are nearly completed. “

Impact of heavy rains in 1895-96: severe rains in 1895-96 had led to breaching of banks, bad slips and stranded trains for days.

On the 12th June, the rain water ponded up on one side of the bank at mile 163, Bijapur, branch, and not being able to draw off fast enough through the channel provided, percolated through and breached the bank, which is at this point 8 feet high.

On the 6th September, consequent on an unprecedented fall of rain on the Bijapur branch, the line was breached at miles 142, 143, 154 and 158 and seriously so at mile 141 . The breaches at miles 142, 143, 154 and 158 were restored in the course of a few hours, but at mile 141 passengers had to be transhipped for four days.

On the 8th September, in consequence of heavy rain, a bad slip occurred at mile 137-4-7 on the Guntakal-Bangalore section. A bank 20 feet high slipped for a distance of fifty five feet and rendered the line impassable for trains.

Prompt measures were taken to repair the breach, and through communication was restored on the 12th September. .On the 20th September, there was an abnormal fall of rain at Giddnlur (main line) and the two-foot flat top culvert at mile- 367/10 not proving sufficient to carry off the flood water, the water ponded back and rose up to formation level, breaching the line at mile 367-7-8 for a hundred feet in length. On the 29th Septemb'l'r1 at mile 58.8, Poona branch, a bank about 3 feet

high and about 20 feet in length was washed away on both sides of a one-foot drain, and the water forced its passage through the cutting side-drain and scoured the ballast away to a length of four telegraph posts.

Advertisements: Advertisements for supply of items required for construction and operation of Railways were issued in leading papers during 1884-87-8. A few of these are given below.

Advertisement of SWR for supply of iron girder bridges appearing in British press:

THE SOUTHERN MAHRATTA
RAILWAY COMPANY, Limited.

The Board of Directors of the Southern Mahratta Railway Company, Limited, is prepared to receive TENDERS for the supply of WROUGHT IRON GIRDBR BRIDGES, as per Specification and Drawings to be seen at the office. Tenders to be delivered in sealed envelopes, addressed to the Secretary, marked "Tender for Girder Bridges," or as the case may be, not later than Twelve o'clock at Noon on Wednesday, the 21st day of January, 1883. The Company is not bound to accept the lowest or any Tender.

By order of the Board,
Sgd. E. Z. THORNTON. Secretary.
Secretary's Office, 31, Lombard-street, K.C.,
7th January, 1885.

Southern Mahratta Railway.—Tenders for the supply of Bessemer steel rails, steel fish plates, fish bolts and nuts, spikes, reversible steel crossings, switches, laminated and volute springs, wheels and axles, and miscellaneous tools, will be received up to Noon February 18th. E. Z.

Thornton, secretary, 31, Lombard-street, E.C., appearing in British press:

THE SOUTHERN MAHRATTA
RAILWAY COMPANY, Limited.

The Board of Directors of the Southern Mahratta Railway Company, Limited, is prepared to receive TENDERS for the supply of the following STORES :—
Iron Underframes and Ironwork for Underframes,
and Bodies for Goods Wagons, Timber Trucks, etc
Wheels and Axles;
Cast Steel Wheels, with Steel Axles, and Ironwork for
Trolleys ;
Axle Boxes ;
Laminated and Volute Springs;
Paints and Varnishes; .
India rubber Attooks, Blocks, etc. ;
As per Specifications and Drawings to be seen at this
Office.

Tenders to be delivered in sealed envelopes, addressed

to the Secretary, marked " Tender for Iron Underframes,
&c. ," or as the case may be, not later than Twelve o'clock
at Noon, on Tuesday, the Uth April, 1885.

The Directors do not bind themselves to accept the lowest or any Tender.

By order of the Board,

(Signed) EDW. Z. THORNTON. Secretary.

11th March, 1885, Secretary's Office, 31, Lombardstreet, E.C.

Advertisements for purchase of locomotives in 1887:

THE SOUTHERN MAHRATTA RAILWAY COMPANY, Limited.

The Board of Directors of the Southern Mahratta Railway Company, Limited, is prepared to receive

TENDERS for LOCOMOTIVE ENGINE and TENDERS.

UNDERFRAMES, &c, and

IRON WORK for Iron -covered Goods Wagons ,

Brake Vans, Carriage Trucks, &c.,

as per Specification and Drawings to be seen at this Office.

The charge for the above Specifications is one guinea each.

Tenders are to be delivered in sealed envelopes,
addressed to the Secretary, marked " Tender for Loco
motives," or as the case may be, not later than Twelve
o'clock Noon, on Wednesday, the 20th day of July, 1887.

The Directors do not bind themselves to accept the
lowest or any Tender.

By order of the Board,

EDW. Z. THORNTON, Secretary.

2nd July, 1887, Secretary's Office, 31, Lombard-street,
London, E.C.

Advertisements for purchase of underframes, wheels & axles, springs,sleepers and other items for SMR
appearing in Railway times in 1887:

THE SOUTHERN MAHRATTA RAILWAY COMPANY, Limited.

The Board of Directors of the Southern Mahratta Railway Company, Limited, is prepared to receive Tenders for the under mentioned RAILWAY
STORES, PLANT, and MATERIALS, and the charge for the Specifications is— Class A, £1 1s. ; Class B, 10s. 6d. ; Class C, 5s. They
may be obtained at this Office, where the Drawings may be seen and traced.

SOUTHERN MAHRATTA RAILWAY.

Class A.

Underframes, Underframe Ironwork, Roofing Fitting,

&c, for 1st and 2nd Class Carriages and Brake Vans.

Transverse Steel Sleepers.

Wheels and Axles.

Laminated Springs for Carriages and Wagons.

Axle Boxes for do. do.

Built-up Crossings. Switches.

Flexible Buffers and Screw Couplings.

Class B.

Shovel?, &c Bolts, Nuts, Rivets, etc.

Wrought-iron Bars, Sheets, Ac.

Class C.

India-Rubber Attacks Blocks.
Picks and Crowbars.
Lamps, &c.
Metals. Wood Screws, Nails, &c.

MYSORE BRANCH.

Class A.

Underframes, Underframe Ironwork, Roofing Fittings,
&c. for 1st, 2nd, and Composite Carriages, Horse Boxes, and Brake Vans.

Wheels and Axles for Carriages and Wagons.

Axle Boxes for do. do.

Laminated Springs for do. do.

Class C.

India-Rubber Attacks Blocks.

Tenders for the above are to be delivered in sealed envelopes addressed to the Secretary, marked "Tender for Underframes," or, as the case may be, not later than Twelve o'clock Noon, on Thursday, the 15th day of September, 1887.

The Board of Directors do not bind themselves to accept the lowest or any Tender.

By Order of the Board,

EDW. Z. THORNTON, Secretary.

Secretary's Office, 31, Lombard -street, London, B.C.,

Tariff, traffic and financial performance

Freight and coaching rates were issued in form of rate table by Southern Mahratta Railways , which came into effect from 24th March 1884, the first ever rate chart of the Railways, the day the first section, Bellary to Hosepet 40-1/4 miles long section was commissioned.

There were only two stations, Kudatani & Gadignur, between Bellary to Hosepet. Coaches of first, second and third class, catering to different passenger segments, were attached in the train.

First class fare between Bellary to Hosepet was 3 rupees and 14 annas , a princely sum in those days; Second class fare was one rupee and 15 annas ,while third class fare was 8 annas and 6 paise.

Luggage charges per maund were six annas and ten paise between Bellary to Hosepet. Charge for booking one horse between Bellary and Hosepet was 5 rupees and 2 annas, if two horses are booked together by same sender, charge would be only 7 Rupees 11 annas for both horses ,and for four wheeled carriage or Palaquin, rate would be 7 Rs and 11 annas.

A perfect example, of incentives and telescopic rates in practice. Dogs would be carried at the rate of 4 anna per dog between Bellary and Hosepet.

Seven classes of tariff were in vogue for Goods with different rates for small and bulk goods consignment.

The third-class passenger fare was reduced from 3 to 2-1/2 pies per mile from Mysore,1st September 1887.

Passenger fares per mile in 1887-88 for first class passengers were 18 pies, 9 pies for second class passengers and 2.5 pies for fourth (lowest class). These rates were at almost par with rates of other state imperial and state provincial railways.

Special class rates for coal were 4.08 pies per tonne per mile and for food grains 6.81 pies per tonne per mile.-
Administration Reports on the Railways in India for 1887-88 page 82

Coaching receipts for the year 1885-86 were Rs 3,38,666 and goods receipts were Rs 5,12,786 second lowest amongst State Imperial Railways in country ,still gross receipts were higher than working expenses. Total earnings in first half of 1885 were 3,02,882, which jumped to 563404 in second half of 1885, while corresponding expenses were 2,61,784 and 4,64,105 respectively.

Gross receipts were Rs 8,66,236, while working expenses were Rs 7,25,855 with net receipts of 1,40,387 Rs. Gross receipts jumped to Rs 30,39,417 while working expenses were Rs 20,01,591 with net receipts of 10,30,826 Rs in the year ending 31 st December 1887.

Goods Traffic carried improved from 48574 Tonnes in 1884 to 1,74,943 Tonnes in 1885, mostly due to movement of Railway materials required for construction. Important items of general merchandise were food grains & pulses, cotton raw& manufactured, hides & skins, metals, oils, salt, seeds, bark for tanning etc. Local heavy rains in October and November 1885 has resulted into severe damages in newly opened sections of the south Deccan line. Maintenance expenses increased abnormally to 37000 in second half year, primarily in repairing the damages.- **Administration Reports on the Railways in India for 1885-86 page 80**

Share capital and details of earnings and expenditure as on 1987-88 are given below:

Capital:

June 30th, 1887—Share capital authorised by contract with Secretary of State for India, dated June 1st, 1882, 3,000,000 l; debenture bonds,2,300,000 l. ; total, 5,300,000 l. Received— Shares, 3,000,000 l. ; debentures,3 1/2 per cent., 2,300,000 l.; sundries, 207l.; total, 5,300,207l.; expended (including 118,566l. for stores), 4,955,9772. Credit balance, 344,230 l.

The expenditure, during the half-year amounted to 818,706 l., of which 629,027l was on line opened for traffic, 108,573l. on lines in course of construction, and 21,106 l. on rolling stock.

Revenue: The receipts for the half-year ending June 30th, 1887, amounted to 103,667l. (against 57,233l.), the expenses to 6,245l. (against 37,224l.),and the profit to 41,214l. (against 20,009l.)

Traffic, fyc.

June Half-year.	1886.	1887.
Number of passengers carried	407,076	860,942
Tons of freight carried	144,404	231,978
Average mileage open	315	577

Mysore State Railway.

Capital authorised* (to be raised on loan), 1,200,000l. Capital received (4 1/2 per cent, debenture bonds), 1,200,000l. Expended (including 101,307l. for stores), 591,029l. Credit balance, 632,971l. The expenditure during the half-year amounted to 9,1562. The gross receipts for the half-year amounted to 18,471l. (against 16,096l.), the expenses to 11,670i. (against 9,6882.), and the profit to 6,8012. (against 6,408!.)

The number of passengers carried was 247,618 (against 231,602), and the tons of freight carried 42,055 (against 28,288).

" The Southern Mahratta Railway has been worked at 60 per cent, of the gross earnings, and the Mysore Railway at 63 per cent., but in the present incomplete condition of the railway no safe conclusion can be drawn from these figures ; every effort is, however, being made to keep down outlay. The net receipts of the two railways in rupees, as per Indian accounts, less credit for fund and items uncollected, are as follows for the half-year ending 30th June, 1887 : —Southern Mahratta Railway, 5,57,041 rupees; Mysore State Railway, 92,912 rupees.

" The shareholders are entitled to one-fourth of these net receipts. In the case of the Southern Mahratta Railway, the Secretary of State guarantees, till the 30th June, 1889, that the company's quarter-share shall not be less than 5s. per cent, per half-year on their share capital, that is, 7,5002. per half-year. This, at the rate of exchange settled by the Secretary of State's drawings on India, amounts to 1,04,318 rupees ; there is, therefore, a surplus duo to the company of 30,948 rupees. In the case of the Mysore Railway, the company's quarter share is 23,235 rupees. Both sums with the previous balance will, when received, be carried forward for future disposal."-- THE RAILWAY TIMES. Dec. 10, 1887.

Gross receipts were Rs 25,76,775, in first half of the year, 30th June 1891; coaching receipts were 10,81,205 Rs and Goods receipts were 14,41,589. SMR was having 185 stations in 1371 miles of MG network at the end of year 1891.

Chairman of SMR had expressed optimism about traffic forecast and returns in a speech to shareholders in 1882:

"We come to the question of the prospect of a fair return of profit to the shareholders. That is a point on which I feel very reluctant to say anything at all, because it is prophesying as regards the future, and I am not a prophet ; but the experience in railway working shows that cultivation does spring up, and trade does advance, and that railways do pay in India, and we hope this may pay too ; but I have given in my statement extracts from the most reliable sources, which will be taken by the share holders for what they are worth, but which, I think, to a certain extent will be consolatory."

According to calculations made by the Viceroy in Council, the return to the shareholders, including guaranteed interest, ought to equal £4 7s. 6d per cent within six years from the opening of the line, and after that ought to increase steadily. Other calculations produce equally favourable results.

One great feature towards our profit is the very cheap construction of these lines compared with others. In the East Indian Railway the cost of construction was something like £21,000 a mile. The Great Indian Peninsula cost £17,000 a mile. They had great difficulties to contend with. I do not say their money was not properly laid out; but they had greater difficulties than we have, and we therefore hope, when you consider the capital of mileage, we shall get a fair return.-**The Railway News 1882**

His optimism would be later justified by results of early traffic of SMR in 1884:

Initial returns after opening of Bellary-Hosepet section were 6 l 4s per mil per week slightly higher than estimated. Produce of the region mostly grains and seeds were carried through different passes through the mountain road to Ratnagiri and then to Belgaum from where they were sent to Bombay by boats.

"I have ascertained that the cost of carriage by boats to Bombay by these routes is from 2 rupees to 12 rupees a ton greater than if the traffic were put on the railway and brought the whole way down by the line. That is supposing we never make an advance on the present system of freightage; and that nothing is due to the harbour of Marmugao."- **THE RAILWAY TIMES. May 17,1884**

Shareholders' meeting was called in 1884 to approve the proposal for construction of railway from Poona to Belgaum, the West Deccan section by SWR. :—

Chairman, Sir Thomas D. Forsyth, K.C.S.I., C.B, explained that *I have been over the entire country of the Southern Mahratta through which the line is going to pass, and I have come back with a much more favourable impression of the nature of the country than I had before; and I think there is not the slightest fear but that we shall develop a very rich country and have a very good traffic.*

The length of this West Deccan line proposed to be constructed was 230 miles passing through fertile and populous country.

"The Chairman—The country is very populous. The line passes through first of all, from Poona to Suttara, which is the well-known principality and a very populous place. It then passes through Miraj and near Kolapur, which is a native and a very flourishing state; after which it comes down to Belgaum. They are all large places, and the whole country about there is well populated for that part of the country."

In order to avoid difficult hilly terrain between Poona to Belgaum, it was decided to take it more round the spurs rather than through them, which would require construction of one or two tunnels. Line would encounter three large rivers; the Nera, the Krishna, the Chathurha to be bridged by girders on very good foundations.

Chairman mentioned that 40 miles of the railway were already open, from Bellary to Hospett, which was opened on the 24th of March, and the traffic returns received were better than estimated. It was expected that 173 miles from Hutgi to Gadak would be opened on the 1st July of 1884, and 30 miles from Gadak to Hubli would be opened on the 1st November of 1884.-- **THE RAILWAY TIMES. May 17,1884**

It was expected that operating expenses of SMR would reduce further once supply from nearby Singareni coal fields would start and hinterland traffic is taken directly to Morumgao port. Increase in expenses of Mysore

Railway was due to payment of past accumulated dues and maintenance charges of lines which were left neglected. --- THE RAILWAY TIMES. July 2, 1887.

Earnings per mile per week improved from 50 Rs in 1884 to 63 Rs in 1885 and it jumped to 92 Rs in 1886. Expenses which were 108.5 % of earnings in 1884, came down to 83% in 1885 and further came down to 69% in 1886 reflecting improved financial performance & operating ratio.

Gross earnings percentage of total capital deployed was 5.18 %, while total working expenses were 3.41% and net earnings percentage were 1.77 on capital deployed at the end of 1891.

SMR had planned to connect existing large towns to capture passengers & merchandise traffic, unlike other older railways which would force a change of location on a town to avoid a slight detour.

The cotton fields of Southern India, a few years ago, had given Manchester a fibre which stood far above any other Indian description of cotton. The soil was also well suited to the production of wheat— an article hitherto neglected from the want of means of getting it to a market; indeed there was no more fertile tract in India than the Bellary district and portions of the Nizam's dominions, which would gain an outlet by this railway. The consumption of salt had been hitherto contracted from the difficulty and expense of carriage into the interior ; thus the railway would now assist Indeed in all the principal articles of Indian traffic— cotton, grain, seeds, salt, sugar, and timber.

The Southern Mahratta Railway could safely count on traffic equal to any except the one or two most favoured lines of India. While, most of the railways of India have started as single trunk lines with no feeders in the shape of connecting railways or branch lines ; the Southern Mahratta Railway, on the other hand, began with a connection with the Great Indian Peninsula Railway at or within a few miles of Sholapore, with the Madras line at Bellary, and it had at the first beginning two branches of its own to Belgaum and together with a probable second connection with the Great Indian Peninsula at Poona.

It was expected that Southern Mahratta Railway would soon become one of the most popular and best paying lines in India as it had not only learnt from the experience of construction and operation of older Railways but it had more diversified traffic which the connection with other trunk railways and its branches gave it. A suitable arrangement with a line of effective steamers to run between Goa and Bombay would make its terminus practically, so far as goods are concerned, at its port.

Through booking of passengers between Bangalore City and United Kingdom by the Messageries Maritimes Company, the legendary shipping line, was introduced from the 1st November 1895 by Southern Mahratta Railway as part of its innovative intermodal marketing strategy.- chapter X administration report 1895-96 ,part 1.

Messageries Maritimes was a French merchant shipping company. It was originally created in 1851 as Messageries Nationales, later called Messageries Impériales, and from 1871, Compagnie des Messageries Maritimes, casually known as "MesMar" or by its initials "MM". Its rectangular house flag, with the letters MM on a white background and red corners, was famous in shipping circles, especially on the Europe-Asia trade lanes. MesMar had a regular service from Pondicherry , inadequate harbour at Pondicherry needed use of loading boats.

As per administration report 1895-96, the gross earnings increased from Rs. 79,87,447 to Rs. 88,38,028, or by Rs 8,50,581, and as the working expenses were more by Rs. 47,274, the net earnings showed an improvement of Rs. 8,03,307, having risen from Rs. 27,37,595 to Rs. 35,40,902 , The increase in the number of passengers carried and in the earnings there from amounted to 679,217 and Rs. 2, 75,438, respectively. This improvement was ascribed to the diversion of traffic caused by the breaches on the south-east section of the Great Indian Peninsula railway, and to the running of extra troop specials and a general development of passenger traffic.

The tonnage of goods carried rose from 925,831 tons to 933,685 tons, and the earnings from Rs. 45,50, 018 to Rs. 49,99,717. The noticeable increases under " General merchandise" occurred in the traffic in " Grain and pulse," " Metals," " Provisions " and " Salt," the increases in the quantity carried and in the earnings being 28,297 tons and Rs. 3,14,693, 2,915 tons and Rs. 54,415, 8,556 tons and Rs. 68,615, and 5,021 tons and Rs. 51,055,

respectively. The increase in "Grain and pulse" was due to heavy bookings, chiefly in rice from Bezwada to the Mysore frontier, and of wheat to Bombay *via* Hotgi and the Portuguese frontier. The increase in "Metals" was due to consignments of pipes from Bombay to Bangalore for the water works under construction. The increase in "Provisions" was due to heavy bookings from Bellary, Bangalore City, Hubli, Poona and *via* the Portuguese frontier.

The increase in 'Salt' was due to heavy bookings from the Portuguese frontier and *via* Poona to the Mysore line, and to Hubli, Bellary and other stations.

There was an increase under 'Coal' for the public and foreign railways of 18,411 tons and Rs. 87,993, due to heavy consignments booked from Bezwada to Dharmavaram and Goribidnur for the South Indian railway and Messrs. Arbuthnot and Company.

The decrease of 8,330 tons and Rs. 43,432 under Wood and patent fuel was due to the more extensive use of Singareni coal over the whole line in place of wood fuel. This explains the increase of Rs. 48,827 noticeable under "Coal for locomotive department."

The fluctuations in the working expenses were a decrease of Rs. 74,647 under "Maintenance of way, works and stations" and increases of Rs. 24,404, Rs. 43,922, Rs. 29,240 and Rs. 23,458, under "Locomotive expenses," "Carriage and wagon expenses," "Traffic expenses," and "Special and miscellaneous expenditure," respectively. The decrease under "Maintenance of way, works

and stations" was principally due to the special renewals of sleepers having been less extensive in 1895 than those in 1894. The increase under "Locomotive expenses" was mainly due to increase in the train-mileage run, and to heavy repairs executed to locomotive engines. The increase under "Carriage and wagon expenses" was due to a larger number of carriages and wagons having undergone heavy repairs, and to a greater number of goods vehicles having been fitted with 'Jones' patent buffers. The increase under "Traffic expenses" was due to extra establishment employed on account of extra night trains and increased traffic, to the introduction of mileage allowance to guards

and brakemen, in lieu of bhatta and overtime, to increase in the issue rate of cocoanut and kerosene oils and to heavy repairs executed to lamps. The increase under "Special and miscellaneous expenditure" was due to the adjustment with the East Coast railway, for the first time, of charges for toll on the Kistna bridge traffic,'-

Administration report 1895-96

Southern Mahratta Railway rationalised its rates in 1895-96 with respect to adjoining standard gauge railway and sea routes to remain competitive. Rates were reduced or equalised, rebates were given and minimum bulk quantity to be booked was reduced.

First class fare per mile was brought to 12 pies, second class fare per mile was fixed as 6 pies and fourth class fare per mile was kept as 2 pies in 1895-96.

Rates for cotton loose, oil cakes and grain from Bijapur to Poona were adjusted with those charged by the standard gauge route. A rebate on coal booked from and *via* Bezwada was arranged from the 1st January 1895. From the 1st March 1895, through rates for gunnies and turmeric from Vizagapatam to Madras were quoted to compete with the sea route, *via* Cocanada, from the 16th March and 1st June 1895, respectively, special through rates of 10 annas and 15 annas 6 pies per maund (£1 2s. 8'200d. and £115s.1'910d. per ton) for flour and vacuum oil from :Bombay to Bangalore City were quoted, to draw traffic from the sea route *via* Madras.

The rate for grain and seeds between Bezwada and Bombay *via* Portuguese Frontier was equalized with the Wadi route from the 1st April. From the 1st June 1895, salt rates from Bombay to certain stations *via* Portuguese Frontier were slightly reduced to place salt in those markets instead of the Madras salt.

From the 1st June 1895, a special rate of 1/6 pie per maund (0.378d. Per ton) per mile, with terminals, was quoted for rice booked from and *via* Bezwada to Southern Mahratta railway stations for distances of 275 miles and over, in order to attract the traffic.

The minimum for bulky articles was reduced from the 1st September to 54 maunds (1.984 tons) for an ordinary 4-wheeled truck, as the minimum of 81 maunds (2.976 tons) was considered too high.

From the 1st June 1895, by an arrangement with the Madras, Great Indian Peninsula and South Indian railways, it was agreed that the rate on goods booked between these railways by any route should be that in force by the shortest route. – **Administration report 1895-96 part 1,page 165**

The rationalisation of rates and aggressive marketing was aggressively pursued by Southern Mahratta Railways. In 1899-1900, it further reduced its rates for bulk traffic to compete with sea routes. From the 17th April 1899, specially reduced rates were quoted for myrabollams (forest produce) in full wagon loads from Belgaum, Khanpur, Gunji, Londa and Castle Rook to Bombay via Portuguese frontier on condition that not less than 50,000 maunds (1,836.88 tons) were booked from all stations named collectively by or before the end of May 1899. This reduction was made to compete with the sea route via Chiplun.

In connection with the running by Messrs. Frank C. Strick & Co. of London, of a new line of steamers to the Port of Mormugao, an agreement was executed between that Company and the Southern Mahratta Railway Company for the through booking of the traffic between the British and Continental ports and stations on the Southern Mahratta railway.—**administration report 1905**

*"An undertaking, such as the above, having an absolute guarantee of 4 per cent, by the Indian Government for five years, and afterwards a minimum of 3-1/2 with one-fourth of all net earnings over and above this sum, offers an investment the value of which is not to be by no means accurately measured by the current market value of the shares. Judged by the quotations for other Indian railway securities, the shares should command a substantial premium, and would, no doubt, do so if the political cloud which at present darkens the horizon were removed"--- THE SOUTHERN MAHRATTA—**railway news 1882***

The issue of running night trains S. M. R. was covered in press despatch of Indian engineering 1900.—*"One of the standing complaints against the authorities of the Southern Mahratta Railway is that they do not run night trains on the Mysore section. In justice to the Company it must be stated that there are two reasons why this complaint must be irremediable, at least for some time to come. The so-called bridges in those parts, except on the Birur Shimoga section, are nearly all shaky, and the Company cannot well be expected to take the responsibility of running night trains over them, especially after the experience of the Mallur bridge accident. It must also be considered if it would pay the Company to run two trains a day when the traffic even for the day train is not encouraging enough. We may, however, suggest to the Company the desirability of accelerating the speed on Mysore lines where at present it is vexatiously slow."*

SOUTHERN MAHRATTA RAILWAY.

"Sir, —

Among recent improvements on the Southern Mahratta Railway is the intended purchase of twenty engines of greater power than those now in use. Another departure is the construction at Hubli workshops of six first and second class bogie carriages. These are to be composites, one half of each carriage will be first and second class compartments, and the other half will be a dining compartment fitted up as a travelling refreshment room car.

This will obviate long stoppages for dining purposes, and will be a great comfort to mail passengers, to which trains these dining cars are to be attached. It is positively a shame when one calculates up the immense and unnecessary waste of time on Indian railways for eating purposes. Of course other things are done at these large stations, but really one-half, if not two-thirds, the time now occupied might easily be saved to the expediting of the train and traffic. If watering the engines could be done at small stations by means of channels between the rails and suction pipes as at home, mail trains need not stop longer at large stations than at small ones. Most of our arrangements on Indian railways are behind time, and want to be corrected."

SMR had three A class engines purchased for Rs 41413, and further indent for 6 N class engines would be shortly sent to England. The under-frames and fittings for the carriage and wagon stocks were received from England and the erection was carried out in the railway workshop and partly by contractors.—**Administration report for 1883-84.**

These N class engines were subsequently transferred to Mysore Railway (administration report 1885-86, page 60)

SMR had 69 steam engines (4 class A, 20 class O, 44 class F, 1 F class south Indian type), 8 first class coaches, two second class coaches, 88 fourth class coaches, 7 composite coaches and 757 goods vehicles (350 covered goods

wagons, 367 low sided iron wagons, 2 powder vans, 2 cranes of 10 T capacity, 24 platform wagons & 12 iron under frames) & 27 brake vans in its fleet at the end of year 1885.

..-- Administration Reports on the Railways in India for 1885-86. & 1887-88

Three third class coaches were fitted for ambulance purposes in SMR and 226 coaching vehicles were equipped with hooks or racks for suspending rifles. 100 covered goods wagons were adapted for carrying horses, six country horses or ten ponies in each wagon. 952 open goods wagons were suitable for carrying field artillery guns.—Administration report 1891-92 part ii.

The rolling stock fleet would increase to 244 engines (38 passenger and 206 Goods & mixed engines), 1011 coaching vehicles and 5412 wagons at the end of 1907. SMR had 6 saloons, 12 reserved carriages, 44 first class four wheeler carriages, 54 composite first and second class four wheeled carriages, 264 third class carriages without brakes and 258 third class carriages with brakes, 180 brake vans etc.

SMR had only one station where points and signals were interlocked experimentally and 106 stations out of 245 stations had block instruments facilities for train signalling (93 winter's model which does not give token or tablet, 10 Robert's key staff, 3 Theobald's train key) at the end of 1907.

973 vehicles had gas lighting and 2 vehicles had electrical lighting covering 94.75% stock of SMR at the end of 1907 which had lighting provision.

Southern Mahratta Railway was using both coal and wood for its steam locomotives. The use of Singareni unscreened coal was extended to the Poona-Miraj section in the early part of the year, 1895 owing to firewood supplied from the Kanara forest having proved expensive. In 1895, it had used 37,111 Tonnes Singareni Coal, 11 Tonnes of Giridih coal and fire wood 19696 Tonne equivalent of Kurhurbaree coal.

In 1907, around 4112 Ton coal was imported from England at cost of 20.72 Rs per Ton, 61234 Tonne Indian coal was procured from Singareni and Bengal coal fields at average cost of 13.91 Rs per Ton. 69699 Ton of wood at the rate of 4.99 Rs per Ton was also used during the period.

Earlier only British coal, Bengal coal and wood was used in SMR but after discovery of Singareni coal fields, local coal was utilized in a big way to reduce cost of operation. Speech of chairman Hyderabad (Decan) company Railway and article appearing in Bombay Gazette is given below:

"Southern Mahratta Railway will be glad to get supplies of Singareni coal so soon as they can be delivered to them. I may here read to you a paragraph from the last Bombay Gazette, which is very satisfactory :—" An experiment was lately made in using the coal from the Singareni fields, in an engine to a train running from Secunderabad to Hyderabad and back. The engine-driver reported that he could obtain speed equal to that when English coal was used, and faster than with the use of Raniganj or Chota Nagpore coal. After burning, the coal gave only a small per-centage of ashes, and it emitted a very small volume of smoke. —Railway times 1887, page 133

Fitment of vacuum brake in rolling stock in addition to hand brake started in 1895. Annual report mentions the status of brake fitment:

"None of the Southern Mahratta railway stock has yet been fitted with the automatic vacuum brake, but the Westinghouse brake has been fitted to 3 locomotives and 19 coaching vehicles."

Manpower: total staff strength of SMR was 12959 in 1895-96, manpower details of various departments are given below:

Total strength of staff engaged in General administration including audit and account, medical and police was 1,139 (20 Europeans, 57 east Indians, 1,062 natives) in SMR in 1895-96.

3373 (34 Europeans, 172 east Indians and 3167 natives) staff were deployed in Traffic & telegraph branch.

Engineer's department strength was 5054 (20 Europeans, 30 East Indians and 5004 natives).

Locomotive, carriage and wagon department had 3393 staff (86 Europeans, 318 East Indians and 2989 natives)

Drivers: An advertisement for hiring locomotive drivers for Southern Mahratta Railway had appeared in Herapath's Railway and commercial journal 1884. Earlier only Europeans were deployed as loco driver, subsequently Indians started working as Shunters and Goods train drivers. SMR had paid Rs 2,65,476 on fuel and Rs 1,14,038 on salary of driver, fireman and cleaning staff in first half of year 1891.

Advertisement of Southern Mahratta Railway Company, Limited.

"WANTED, for the service of the Southern Mahratta Railway Company, in Western India, a few LOCOMOTIVE DRIVERS, age under thirty. Applicants must have good characters, not less than one year's experience as Drivers. Wages Rs. 110 a month, rising by increments of Rs. 10 to Rs. 140. Engagement for four years, passage out, and home paid. Applications marked "Drivers" must be made, by letter only, addressed to the undersigned not later than 18th January, 1884.

By order of the Board,
E. Z. THORNTON, Secretary.
7th January, 1884, 31, Lombard Street,
London, E.C"

Provident fund: Public Notice for creation of provident fund for employees of SMR appearing in British press in 1884(The Railway Times, June 14,1884)

THE SOUTHERN MAHRATTA RAILWAY COMPANY, Limited.

Notice is hereby given, that the SECOND ORDINARY GENERAL MEETING of Shareholders of the Southern Mahratta Railway Company, Limited, will be held at the Terminus Hotel, Cannon-street, on WEDNESDAY, the 25th June, 1881, at 2 p.m., when a Report of the Directors and Statement of Accounts to 31st December, 1883, will be submitted, and a Resolution will be proposed empowering the Board, subject to the concurrence of the Secretary of State, to create a Provident Fund for the benefit of the employees of the Company, and to subscribe to it out of the net revenues of the Company a sum not exceeding 1 per cent, on the amount of such net revenues.

The Directors retiring from office at this Meeting are Sir Douglas Forsyth and Mr. F. Francis, who, being eligible, offer themselves for re-election.

Mr. R. L. Crawford and Mr. H. Wright also retire, and are eligible for re-election as Auditors of the Company,

By order of the Board,
EDW. L. THORNTON, Secretary.

Offices of the Southern Mahratta Railway Company, Limited, 31, Lombard -street, E.C., 14 th June, 1884.

The Interest Warrants will be posted on June 30th, payable July 1st.

Security in early days:

A contract was entered by Southern Mahratta Rail Company and of Bombay presidency administration to provide police force for preservation of law and order in Railways on cost sharing basis (30% by GOI and 70% by SMR). The agreement as appearing in Administration Report on the Railways in India for 1883-84 :

The following clause relating to police is entered in the contract with the Southern Mahratta Railway Company:-

" The Secretary of State shall provide and maintain, for the purposes of so much of the projected railway as shall for the time being have been opened for public traffic, such a force of police as the Company with the approval of the Secretary of State shall from time to time require, with the qualification that, in case of difference between the Secretary of State and the Company as to the force of police required for the preservation of law and order, the determination of the question shall rest with the Secretary of State.

The cost of providing and maintaining the force of police provided and maintained under this section shall as to three-tenths be borne by the Secretary of State as part of the general expenditure of the Government of India, and as to the remaining seven-tenths be treated as part of the working expenses of the projected rail way, or of the part or parts thereof for the time being opened for public traffic." - **Administration Report on the Railways in India for 1883-84**

Welfare:

SMR was operating 9 schools for children of European staff and 6 schools for native staff in year 1907 where 238 and 193 students would study respectively. In addition to Railway owned schools there were 9 railway aided schools for European staff and one railway aided school for native staff where 394 and 121 students were studying in year 1907.

The rise in the cost of living in India both for Europeans as well as for Indians has necessitated a considerable rise in salaries of the working staff. The high price of food grain too has rendered it necessary to grant grain-allowances on a large scale.

The enormous rise in the price of coal is a most serious item in increased working expenses and is, moreover, one that seems at the present time to be likely to increase rather than diminish in the future.

The steady cause of increased working expenses is the pressing demand for more rapid transport facilities, and more conveniences to the travelling public. These improvements which take time to mature are being steadily carried out, as far as financial considerations permit of their being done.

They throw a greater burden on: revenue than was the case a few years ago.—Administration report Indian railways 1907

Amalgamation and epilogue

On 1 January 1908, the Madras Railway Company was amalgamated with the Southern Mahratta Railway Company and renamed the Madras and Southern Mahratta Railway. The contracts of the Southern Mahratta and Madras Railway having approached their period of termination, Government decided to take advantage of the opportunity and to re-arrange the railway system 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.

"As an outcome of the negotiations the following arrangement was finally decided on and accepted by the Southern Mahratta and South Indian railways. The former railway-

{1} absorbed the whole of the Madras railway system with the exception of the Jalarpet-Mangalore section, and branches thereof;

(2) took over from the South Indian railway

(a) the Katpadi-Dharmavaram section, .

(b) Pakala-Gudur section.

The South Indian railway acquired the Jalarpet-Mangalore section of the Madras railway and branches thereof with running powers from Jalarpet to Madras and Bangalore and certain rights regarding quotation of rates."--

Administration Report on the Railways in India for 1907

These arrangements were carried out on 1 January 1908 and the name of the enlarged Southern Mahratta Railway was changed to Madras and Southern Mahratta Railway.

The government took full control of the railway in April 1944. All the contracts determined and the company became an entirely state-owned enterprise.

All the major lines had been purchased by Government by 1910 and leased for purposes of management to private companies; the companies operating railways in India could therefore no longer be characterised as

private enterprises in the true sense of the term. With a nominal capital outlay and guaranteed interest thereon, they were only managing agencies working the lines for the Government of India.

The Madras and Southern Mahratta Railway Company went into voluntary liquidation in February 1950. A notice was published in the London Gazette, bringing the curtains down to one of the glorious chapter of company Railway in India. -**The London Gazette, Issue 38837, 10 February 1950, page 737**

On 14 April 1951, the Madras and Southern Mahratta Railway, the South Indian Railway and the Mysore State Railway were merged to form the Southern Railway, one of the zones of the Indian Railways. On 2.10.1966, a new zone, SCR, would be formed from some areas carved out from southern railway(Hubli & Vijaywada divisions) and central railway(Sholapur & Secunderabad divisions).

Again on 1st April 2003, a new zone, South Central Railway would be formed by taking Mysore & Bangalore divisions from SR and Hubli division from SCR, the old geographical boundary of Southern Mahratta Railway, retracing the railway journey started in the region in 1882 by Southern Mahratta Railway.

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