

Public Works (1897) Department.

G.O., No. 536 R

DATED 7 August 1897

[Despatch Abstract.]

Capital and Revenue Accounts of the S.E. Railway: Govt of India letter forwarding copies of a review on the — including the Maravarian sub-fact and the Pondicherry Railways for the half year ending with the 31st December 1896, Comtd to the Agent S.E.R.

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BACK PAPERS.

FURTHER PAPERS.

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No. 331 R. Stat
GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY STATISTICS.

All communications
should be addressed
to the Secretary.

To

The Joint Secretary to the Government of Madras,
Public Works Department, Railway Branch.

Simla, the 24th July 1897.

Sir,

In acknowledging the receipt of the Capital and Revenue Accounts of the South Indian and the Mayavaram-Mutupet railways for the half-year ending with the 31st December 1896, and the notes thereon by the Chief Auditor, forwarded with your Nos. 156 R., 164 R., 226 R., and 239 R., dated the 12th and 15th March and the 2nd and 7th April 1897, respectively, I am directed to forward herewith twelve copies of a review on the accounts.

I have the honour to be,

Sir,

Your most obedient servant,

G. A. Maum

Under Secretary

Documents accompanying :-

Twelve copies of review referred to.

and

A.R.K.

REVIEW ON THE CAPITAL AND REVENUE ACCOUNTS

OF THE

SOUTH INDIAN RAILWAY, INCLUDING THE MAYAVARAM-MUTUPET AND THE PONDICHERRY RAILWAYS

for the half-year ending with the 31st December 1896.

The mean length of railway worked was 1,103·38 miles, the same as in the previous corresponding half-year. The total capital outlay, including suspense, on the mileage open to the 31st December 1896, was Rs. 7,97,81,548* against Rs. 7,98,54,585 to the 31st December 1895.

2. The gross earnings from all sources showed a decrease of 2·90 per cent. The earnings under coaching fell from Rs. 24,18,166 to Rs. 23,93,358 and under goods from Rs. 21,51,674 to Rs. 20,35,823, while under miscellaneous they rose from Rs. 56,624 to Rs. 62,955.

The gross earnings per mean mile worked per week were Rs. 157 against Rs. 161 in the second-half of 1895.

3. The total number of passengers booked rose from 6,583,338† to 6,711,032†, or by 1·94 per cent., but owing to a decrease in the average lead of passengers from 32·50 miles to 31·70 miles, the passenger unit-mileage fell off by 1·05 per cent. and the earnings from passenger traffic by 0·87† per cent. The number of passengers carried one mile per mean mile worked was 191,881 as compared with 193,929 in the previous corresponding period.

The decrease in the earnings, with an increase in the number of passengers carried, is explained to have been due to the shorter distance travelled by passengers, on account of cessation of through booking for three weeks caused by breaches between Coleroon and Vaithesvarankoil stations. The decrease is also attributed to a falling off in the attendance at the festivals at Srirangam and Chidambaram owing to the prevalence of cholera.

The decrease in the earnings under this head was chiefly under "Special trains."

4. The total tonnage of goods lifted was 770,099† tons against 780,793† tons in the second-half of 1895, a decrease of 1·37 per cent., and as the average lead also decreased from 68·23 miles to 62·87 miles, the total ton-mileage fell off by 9·11 per cent. Owing, however, to an increase in the average rate per ton-mile from pies 7·76 to pies 8·07, the total earnings were only 5·38 per cent. less. The number of tons of goods carried one mile per mean mile worked was 43,882 as compared with 48,280 in the previous corresponding half-year.

The principal fluctuations were an increase of 17,264 tons and a decrease of Rs. 78,105 under "Merchandise, general"; and a decrease of 59,986 tons and Rs. 8,673 under "Railway materials for construction"; a decrease of 10,765 tons and Rs. 41,213 under "Coal carried for the locomotive department"; and an increase of 39,371 tons and Rs. 10,124 under "Revenue stores."

The increase in the tonnage with a decrease in the earnings under "Merchandise, general," was the result of a large number of fluctuations, of which the noticeable items were as follows: Decreases of 2,935 tons and Rs. 21,445 under "Cotton, raw," chiefly in loose cotton from the Madura district to Tuticorin and Tinnevely, from Trichinopoly and Erode to Virudupati and from Panruti to Madras owing to unfavourable crops; and 2,089 tons and

* The decrease, as compared with the previous corresponding half-year, is due to certain credits.

† Excluding the Pondicherry railway, for which information is not available.

Rs. 30,141 under "Tilseeds," caused by the failure of the crops in the Cuddapah and Mysore districts; increase of 18,403 tons and decrease of Rs. 30,209 in the earnings from "Grain and pulse," due principally to a falling off in the traffic in "Rice in the husk," which was carried in large quantities during the second-half of 1895 from Vayalpad, Chidambaram and the Tanjore district to Madura and Tinnevely; the traffic in "Rice not in the husk," however, showed an increase, due to larger despatches from the Tanjore district to Tuticorin and Negapatam, which resulted in an increase in the weight lifted under "Grain and pulse," and increase of 3,127 tons and Rs. 14,837 under "Sugar, unrefined," due to the increased traffic from Madras to Nellore for Messrs. Parry and Company.

The decrease under "Railway materials for construction" was due to the carriage of a smaller quantity of materials for construction purposes; and that under "Coal carried for the locomotive department," to the delivery of coal supplies at the various locomotive centres instead of only at Dharmavaram and Madras as in the previous corresponding half-year; while the increase under "Revenue stores" was attributable to the carriage of wood and patent fuel for the locomotive department.

5. The principal variations in the earnings under this head were increases of Rs. 2,082 under "Profits of workshops for work done for State railways" and of Rs. 2,599 under "Unpaid or unclaimed salaries," and a decrease of Rs. 1,967 under "Hire of vehicles."

6. The total working expenses amounted to Rs. 23,97,581 against Rs. 27,11,206 in the previous corresponding period.

The principal fluctuations were decreases of Rs. 1,69,223 under "Maintenance of way, works and stations," Rs. 1,26,934 under "Locomotive expenses" and Rs. 57,785 under "Carriage and wagon expenses," an increase of Rs. 43,684 under "Traffic expenses," and a decrease of Rs. 21,125 under "General charges." The decrease under "Maintenance of way, works and stations" is explained to have been chiefly due to the renewal of 10.83 miles of line with 50-lb. rails during the previous corresponding half-year while in the half-year under review no such renewals were made. The decrease under "Locomotive expenses," is chiefly accounted for by a reduction in the issue rate of coal per ton, to the light repairs to locomotives and to the delivery of the supplies of coal at the various locomotive depôts instead of only at Dharmavaram and Madras; and that under "Carriage and wagon expenses," to the repairs of a smaller number of vehicles, consequent upon the temporary closing of the Negapatam workshops on account of the recent riots at that place. The increase under "Traffic expenses" was due to the opening of two trial stations, to the employment of additional ticket examiners and European guards and to the purchase of two ticket-printing machines; while the decrease under "General charges" was due to the payment during the previous corresponding period of furlough allowance and bonus to the late Agent of the line.

7. The net earnings amounted to Rs. 20,94,555 against Rs. 19,15,258, giving a percentage for the half-year on the total capital outlay on open line of 2.63 as compared with 2.40 in the previous corresponding period.

Results of working and comparative cost of the several departments.

8. The statements appended to this review show:

- (i) the results of working the South Indian railway, including the Májavaram-Mutupet and the Pondicherry railways, during the second-half of each of the years 1891 to 1896, as compared with the results of working the Bengal and North-Western railway, including the Tirhoot section, during the second-half of 1896, and the Eastern Bengal State railway (metre gauge section) during the first-half* of 1896;

* The first-half of the year has been taken for comparison as that is the slack season on this line as is the second-half of a year on other lines.

- (ii) the cost of the several departments on the South Indian railway, including the Májavaram-Mutupet and the Pondicherry railways, during the second-half of each of the years 1891 to 1896, as compared with the Bengal and North-Western railway, including the Tirhoot section, during the second-half of 1896, and the Eastern Bengal State railway (metre gauge section) during the first-half* of 1896.

9. From the first statement it will be observed that the percentage of working expenses on gross earnings, 53.37, and the percentage of net earnings on capital outlay, 2.63, were better than in any of the five previous corresponding half-years.

The average sum received for carrying a unit one mile, lowest class, pices 2.00, was practically the same as in the five previous corresponding half-years; while the average cost of hauling a coaching unit one mile, per passenger unit, pices 0.93, was lower than in any other previous corresponding period shown in the statement, except the second-half of 1894, when it was the same.

The percentage of freight upon capacity hauled, lowest class, 49.58, was lower than in any of the five previous corresponding half-years, except the second-half of 1891, due chiefly, it is understood, to the falling off in the third class passenger traffic on account of the cessation of through booking caused by breaches on the line referred to in paragraph 3 ante.

The average sum received for carrying a ton of general merchandise one mile, pices 8.92, was higher than in any of the five previous corresponding half-years.

The average sum received for carrying a ton of coal (public) one mile, pices 11.75, was higher than in any other corresponding periods shown in the statement, and was higher also than on the two railways with which comparison has been made, where the figures were pices 3.93 and pices 4.50 respectively.

The average sum received for carrying a ton of goods (including stores and coal) one mile, pices 8.07, was higher; while the average cost of hauling a ton of goods one mile, pices 4.69, was lower than in any of the five previous corresponding half-years.

The percentage of freight upon capacity hauled for goods traffic, 50.39, was, with the exception of the second-halves of 1894 and 1895, the highest recorded in the statement.

10. From the second statement it is observed that the carriage and wagon expenses were higher than on the two railways with which comparison has been made.

* The first-half of the year has been taken for comparison as that is the slack season on this line, as is the second-half of a year on other lines.

Statement No. I.

Statement comparing the results of working the South Indian railway, including the Mayavaram-Mutpet and the Pondicherry railways, during the second-half of each of the years 1891 to 1896, also comparing the results with the Bengal and North-Western railway, including the Tirhoot section, during the second-half of 1896, and the Eastern Bengal State railway (metre gauge section) during the first-half (a) of 1896.

Item numbers of analysis.	Particulars.	SOUTH INDIAN RAILWAY, INCLUDING THE MAYAVARAM-MUTPET AND THE PONDICHERY RAILWAYS. (b)						BENGAL AND NORTH-WESTERN RAILWAY, INCLUDING THE TIRHOOT SECTION.	EASTERN BENGAL STATE RAILWAY, (METRE GAUGE SECTION), INCLUDING THE KAUNIA-DHARILLA (2' 6" GAUGE) BRANCH.
		2nd-half, 1891.	2nd-half, 1892.	2nd-half, 1893.	2nd-half, 1894.	2nd-half, 1895.	2nd-half, 1896.		
2	Mean mileage worked ... Miles.	908.61	1,113.04	1,049.31	1,103.30	1,103.38	1,103.38	763.52	564.39
...	Capital outlay ... Rs.	7,72,11,806	7,82,83,761	7,63,31,043	7,93,61,027	7,98,54,585	7,97,91,548	5,49,31,577	4,67,97,097
<i>Results.</i>									
...	Gross earnings (including steam-boat) ... Rs.	34,77,116	39,03,783	38,44,531	43,05,403	46,26,464	44,92,136	25,42,237	27,93,118
...	Gross earnings (excluding steam-boat) ... Rs.	34,77,116	39,03,783	38,44,531	43,05,403	46,26,464	44,92,136	23,30,396	25,90,526
...	Working expenses ... Rs.	23,53,239	24,44,105	24,41,161	24,53,501	27,11,206	23,97,581	12,34,285	13,25,186
...	Net earnings ... Rs.	(c) 11,23,877	(c) 14,59,678	(c) 14,03,370	18,51,902	19,15,258	20,94,555	13,07,952	14,67,932
...	Train-mileage ... Train-miles.	1,515,499	1,696,217	1,562,305	1,691,066	1,775,293	1,761,474	897,565	812,533
...	Train-mileage per mean mile worked { Coaching ...	779	669	678	726	740	796	495	648
...	... { Goods ...	889	855	811	806	869	800	602	792
...	TOTAL ...	1,668	1,524	1,489	1,532	1,609	1,598	1,097	1,440
6	Percentage of net earnings (including steam-boat) on capital outlay ... Per cent.	(c) 1.69	(c) 1.86	(c) 1.84	2.34	2.40	2.63	2.33	3.14
17	Percentage of working expenses on gross earnings (including steam-boat) ... Per cent.	67.56	62.51	63.39	56.99	58.60	53.37	48.55	47.44
<i>General.</i>									
9	Gross earnings (excluding steam-boat) per mean mile worked per week ... Rs.	147	135	141	150	161	157	117	177
<i>Coaching.</i>									
33	Average sum received for carrying a unit one mile—lowest class ... Pies.	2.00	2.00	2.00	2.00	1.99	2.00	2.00	2.50
79	Average cost of hauling a coaching unit one mile, per passenger unit ... Pies.	1.13	0.96	1.03	0.93	0.97	0.93	0.87	0.96
23	Coaching earnings per train-mile ... Rs.	2.58	2.80	2.78	2.90	2.96	2.72	2.71	3.16
77	Average cost of hauling a coaching train one mile ... Rs.	1.49	1.40	1.49	1.40	1.49	1.31	1.09	1.12
69	Percentage of freight upon capacity hauled—lowest class ... Per cent.	48.93	54.47	51.63	54.50	53.12	49.58	38.35	49.80
<i>Goods.</i>									
...	Average sum received for carrying a ton of general merchandise one mile ... Pies.	8.12	8.23	8.46	8.31	8.87	(g) 8.92	6.00	(h) 8.82
...	Average sum received for carrying a ton of coal (public) one mile ... Pies.	6.12	4.62	4.73	(f) 5.64	(f) 10.06	(f) 11.75	3.93	(h) 4.50
93	Average sum received for carrying a ton of goods (including stores and coal carried both for capital works and revenue) one mile ... Pies.	7.57	7.41	7.73	7.63	7.76	8.07	5.57	8.56
115	Average cost of hauling a ton of goods (including stores and coal) one mile ... Pies.	5.91	5.70	5.67	5.09	5.19	4.69	2.87	4.37
91	Goods earnings per train-mile ... Rs.	2.01	1.63	2.09	2.18	2.24	2.31	2.64	3.15
113	Average cost of hauling a goods train one mile ... Rs.	1.57	1.40	1.53	1.45	1.50	1.34	1.36	1.61
104	Percentage of freight upon capacity hauled ... Per cent.	46.00	44.89	49.39	51.81	51.03	50.39	40.42	47.46
<i>Miscellaneous.</i>									
119	Percentage of coaching traffic on gross earnings ... Per cent.	52.41	53.29	51.30	53.93	52.27	53.28	40.31	41.39

- (a) The first-half of the year has been taken for comparison as that is the slack season on this line, as is the second-half of a year on other lines.
 (b) Including the Mayavaram-Mutpet railway since the second-half of 1891.
 (c) South Indian railway only.
 (d) The decrease as compared with the previous corresponding half-year is due to certain credits.
 (e) Including the amount received for working the Pondicherry railway.
 (f) No coal for the public was carried on the Mayavaram-Mutpet railway.
 (g) Excluding the Pondicherry railway.
 (h) Entire system.

Statement No. II.

Statement showing the cost of the several departments on the South Indian railway, including the Mayavaram-Mutpet and the Pondicherry railways, during the second-half of each of the years 1891 to 1896, in comparison with the cost on the Bengal and North-Western railway, including the Tirhoot section, for the second-half of 1896, and the Eastern Bengal State railway (metre gauge section) for the first-half* of 1896.

Item numbers of analysis.	Principal headings.	SOUTH INDIAN RAILWAY, INCLUDING THE MAYAVARAM-MUTPET AND THE PONDICHERY RAILWAYS. †						BENGAL AND NORTH-WESTERN RAILWAY, INCLUDING THE TIRHOOT SECTION.	EASTERN BENGAL STATE RAILWAY, (METRE GAUGE SECTION), INCLUDING THE KAUNIA-DHARILLA (2' 6" GAUGE) BRANCH.
		2nd-half, 1891.	2nd-half, 1892.	2nd-half, 1893.	2nd-half, 1894.	2nd-half, 1895.	2nd-half, 1896.		
...	Total gross ton-mileage ... Ton-miles	235,627,366	258,197,823	241,656,468	267,106,622	288,997,408	284,685,206	174,060,669	138,466,507
<i>MAINTENANCE OF WAY, WORKS AND STATIONS.</i>									
...	Mean mileage maintained ... Miles	908.61	1,113.04	1,049.31	1,103.30	1,103.38	1,103.38	763.52	564.39
...	Total miles of track, including sidings ... Miles	1,012.74	1,234.15	1,169.27	1,240.31	1,242.23	1,243.93	873.19	653.02
<i>Maintenance and renewal of permanent way.</i>									
132-b	Per mile of track, including sidings ... Rs.	537.97	299.71	354.35	238.83	321.71	163.46	185.73	288.00
<i>Total maintenance expenses.</i>									
137-a	Per mean mile of line maintained ... Rs.	663.08	501.50	598.99	455.06	567.99	414.62	427.26	535.11
137-b	Per mile of track, including sidings ... Rs.	774.33	452.29	537.54	404.79	504.50	367.77	373.60	462.48
137-c	Per 1,000 gross ton-miles ... Rs.	3.32	2.16	2.60	1.88	2.17	1.60	1.88	2.18
123	Per cent. on gross earnings ... Per cent.	22.51	14.28	16.32	11.61	13.54	10.18	12.84	10.81
<i>LOCOMOTIVE EXPENSES.</i>									
<i>Fuel, average price.</i>									
...	Per ton ... Rs.	17.52	15.03	14.33	14.31	19.13	16.71	7.72	8.31
<i>Fuel, average quantity consumed (in terms of coal).</i>									
...	Per train-mile ... lbs.	34.42	32.71	36.39	37.25	29.12	29.96	25.71	33.21
...	Per 1,000 gross ton-miles ... lbs.	221.40	214.87	234.69	235.82	178.85	185.39	123.69	194.88
<i>Total locomotive expenses.</i>									
145-a	Per train-mile ... Annas	9.04	8.94	8.70	8.85	9.08	8.00	4.71	6.30
145-b	Per 1,000 gross ton-miles ... Rs.	3.63	3.67	3.51	3.50	3.49	3.10	1.42	2.31
124	Per cent. on gross earnings ... Per cent.	24.58	24.25	22.05	21.62	21.79	19.62	9.69	11.45
<i>Total locomotive expenses, excluding cost of fuel.</i>									
...	Per 1,000 gross ton-miles ... Rs.	1.90	2.23	2.01	1.99	1.96	1.72	0.90	1.59
...	Average miles run per locomotive per diem ... Miles	52.08	58.80	49.44	53.39	56.00	55.70	51.22	71.63
...	Percentage of locomotives constantly under repairs on the total stock on the list ... Per cent.	19.76	24.18	15.30	18.03	17.32	17.42	21.67	15.05
<i>CARRIAGE AND WAGON EXPENSES.</i>									
...	Total vehicle-miles run by home vehicles ... Vehicle-miles	28,645,054	31,102,565	29,081,621	30,369,444	31,728,269	31,413,012	22,395,089	19,614,572
<i>Total carriage and wagon expenses.</i>									
151-b	Per 1,000 vehicle-miles run by home vehicles ... Rs.	5.19	8.26	10.26	10.34	9.67	7.92	3.65	5.44
125	Per cent. on gross earnings ... Per cent.	4.27	6.57	7.75	7.26	6.63	5.54	3.21	3.32
...	Percentage of 3rd or lowest class coaching vehicles constantly under repairs on the total stock on the list ... Per cent.	3.28	6.73	12.13	12.65	12.92	11.90	14.58	19.67
...	Percentage of goods stock constantly under repairs on the total stock on the list ... Per cent.	2.05	6.97	11.28	9.34	9.98	6.01	2.48	8.16
<i>TRAFFIC EXPENSES.</i>									
<i>Station and train staff.</i>									
153-a	Cost of station staff per total train-mile ... Annas	1.44	1.44	1.59	1.54	1.49	1.59	1.62	2.62
154-a	Cost of train staff per total train-mile ... Annas	0.31	0.29	0.32	0.33	0.32	0.39	0.54	0.46
<i>Total traffic expenses.</i>									
162-a	Per total train-mile ... Annas	2.89	3.15	3.43	3.40	3.43	3.85	4.31	4.82
...	Per 1,000 gross ton-miles ... Rs.	1.16	1.29	1.39	1.35	1.32	1.49	1.30	1.77
126	Percentage of traffic expenses on gross earnings (excluding steam-boat) ... Per cent.	7.88	8.53	8.71	8.30	8.23	9.45	9.69	9.45
<i>GENERAL CHARGES.</i>									
173-a	Per total train-mile ... Annas	2.72	2.98	3.02	2.91	3.13	2.96	3.73	2.88
127	Percentage of general charges on gross earnings (excluding steam-boat) ... Per cent.	7.40	8.07	7.65	7.10	7.52	7.27	8.38	5.28
<i>APPENDIX II OF ANALYSIS.</i>									
...	Percentage of empty home vehicle-mileage on total home vehicle-mileage on home line ... Per cent.	14.64	16.05	14.52	13.96	15.67	14.36	21.30	17.33

- * The first-half of the year has been taken for comparison as that is the slack season on this line, as is the second-half of a year on other lines.
 † Including the Mayavaram-Mutpet railway since the second-half of 1894.
 ‡ Excluding composites.