No. 10713

Govt. of 1890 Madras.

PUBLIC WORKS.

Dated 13 11 90

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G.O., 18th Nov 1890, No. 1825-6

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18457

Vellupuram Gudalur
State Ry. Nellore Branch

=

The analysis of working of the — for the first half of 1890, ordered to be forwarded to the Director Genl of Railways and to the R to the Govt. of India

L 29/11

Forwarding the analysis of working of the V. G. S. Ry, Nellore Br for the 1st half of 90

—

Supdy copy of Pro. enclosing the analysis of working of the V. G. S. Ry, Nellore Br for the 1st half of 90

L 2.12.90

No 1825-26 R 90

18TH NOVEMBER 1890, No. 1823 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

From the Consulting Engineer for Railways, dated Madras, 6th November 1890, No. 769.

Ten copies of the analysis of working, South Indian Railway, for the half-year ended the 30th June 1890.

Submitted to Government for transmission to the Director-General of Railways with reference to letter from the Government of India, No. 204 R.E., dated 23rd March 1888, embodied in the Proceedings of Government No. 274 R., dated 6th April 1888.

ORDER—dated 18th November 1890, No. 1823 R., Public Works.

Ordered to be forwarded to the Director-General of Railways and to the Secretary of State.

(Here enter No. 1824 R., dated 18th November 1890.)

(True Extract.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Examiner, Guaranteed Railway Accounts.

ENDORSEMENT—dated 18th November 1890, No. 1824 R., Public Works.

Forwarded.

(By Order.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. S. Pereira.
Spare Copies

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated November, 18th.

Read. *Encl.*

G.O., 18th Nov. 1890, Nos. 1823, 1824 R.

NOVEMBER.

South Indian Railway

Forwarding the analysis of working of the South Indian Railway for the first-half of 1890.

SOUTH INDIAN RAILWAY.

VILLUPURAM—GUNTAKAL STATE RAILWAY,

NELLORE BRANCH.

ANALYSIS OF WORKING

FOR THE

Half-Year ended 30th June, 1890.

PRINTED AT THE BRANCH "ECLIPSE" PRESS, TRICHINOPOLY.

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SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—For the Half-Year ended 30*th June*, 1890.

Progressive Number.	Headings.			Ft.	In.	Remarks.
	No. I.					
	DESCRIPTION OF RAILWAY WORKED.					
1	Gauge of Railway	...	*Miles.*	3	3⅜	
2	Mean mileage worked	...	*No.*		82·92	
3	Number of stations				11	
4	Total length of the following gradients :	...	*Miles.*			
	(*a*) $\frac{1}{50}$ and less	...	,,		3·228	
	(*b*) $\frac{1}{51}$ to $\frac{1}{80}$	...	,,		31·421	
	(*c*) $\frac{1}{81}$ to $\frac{1}{100}$	...	,,		6·439	
	(*d*) $\frac{1}{101}$ to $\frac{1}{200}$	...	,,		·587	
	(*e*) $\frac{1}{201}$ to $\frac{1}{300}$					
5	Steepest gradient worked—	...	*Miles.*		1 in 100	
	(*a*) Length	...	,,			
	(*b*) Inclination					
	No. II.					
	FINANCIAL RESULTS.					
6	Percentage of net earnings (including steam boat traffic) on Capital outlay	...	*Per cent.*		·27	
7	Percentage of net earnings on paid up capital	...	,,			
	No. III.					
	OUTLAY, EARNINGS AND EXPENSES.					
	(*Exclusive of Steam Boat Service.*)					
8	Capital outlay per mile open	...	*Rs.*		75,022	
9	Total earnings per mile open per week	...	,,		56·33	
10	Total working expenses per mile per week	...	,,		48·36	
11	Total earnings per train-mile	...	,,		1·77	
12	Total working expenses per train-mile	...	,,		1·52	
13	Net earnings per train-mile	...	,,		·25	
14	Cost per 1,000 gross ton-miles moved (freight and dead weight)	...	,,		12·38	
15	Percentage of total working expenses upon total earnings	...	*Per cent.*		85·86	
16	Percentage of total working expenses upon total earnings, excluding from both sides of the account the charges for carriage of Revenue Stores	...	,,		85·58	
	(*Inclusive of Steam Boat service.*)					
17	Percentage of total working expenses on total earnings (for details see table No. VII.)	...	,,		85·86	
	No. IV.					
	DIVISION OF EXPENDITURE BETWEEN COACHING AND GOODS TRAFFIC.					
18	Total working expenses for both coaching and goods traffic, excluding steam boat expenses, and after deducting telegraph and Sundry receipts and leaving only the balance of payments to other lines for mileage, &c.	...	*Rs.*		1,03,126	
	Proportions, *dividing expenditure in ratio of gross ton-mileage (freight and dead load)*	...	,,			
19	Coaching	...	,,		73,766	
20	Goods				29,360	

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

Progressive Number.	Headings.			Remarks.
	No. V.			
	COACHING TRAFFIC.			
	GROSS RECEIPTS AND TRAIN-MILEAGE—			
21	Receipts from coaching Traffic ...	*Rs.*	92,673	
22	Coaching Train miles run ...	*No.*	47,542	
23	Average coaching receipts per train-mile ...	*Rs.*	1·95	
	UNITS AND UNIT MILEAGE—			
	Number of Units carried one mile.			
24	1st class ...	*Unit Miles.*	14,173	
25	2nd ,, ...	,,	55,999	
26	3rd or Intermediate class ...	,,	8,442,208	
27	4th or Lowest class ...	,,	8,512,380	
28	Total Passenger unit mileage ...	,,	7,959	
29	Other coaching traffic ...	*Ton Miles.*	12·00	
	Average sum received for carrying a unit one mile.			
30	1st class ...	*Pies.*	4·00	
31	2nd ,, ...	,,	2·00	
32	3rd or Intermediate class ...	,,	2·03	
33	4th or Lowest class ...	,,	65·50	
34	Average for all classes ...	,,	·30	
35	Other coaching traffic per ton mile ...	,,	1·18	
	Average number of units in a train.			
36	1st class ...	*No.*	177·57	
37	2nd ,, ...	,,	179·05	
38	3rd or Intermediate class ...	,,	·17	
39	4th or Lowest class ...	,,		
40	Total passenger units ...	,,		
41	Other coaching traffic ...	*Tons.*		
	VEHICLES AND VEHICLE MILEAGE—			
	Number of Coaching Vehicles hauled one mile.			
42	1st class ...	*Vehicle Miles.*	23,899	
43	2nd ,, ...	,,	47,800	
44	3rd or Intermediate class ...	,,	599,306	
45	4th or Lowest class ...	,,	70,820	
46	Other Vehicles ...	,,	741,825	
47	Brake-vans ...	,,		
48	Total ...	,,		
	Average number of Vehicles in a Coaching train.			
49	1st class ...	*No.*	·50	
50	2nd ,, ...	,,	1·00	
51	3rd or Intermediate class ...	,,		
52	4th or Lowest class ...	,,	12·61	
53	Other Vehicles ...	,,	1·49	
54	Brake-vans ...	,,		
55	Total ...	,,		
	Average earnings per coaching vehicle per mile.			
56	1st class ...	*Pies.*	15·60	
57	2nd ,, ...	,,	7·12	
58	3rd or Intermediate class ...	,,	4·69	
59	4th or Lowest class ...	,,		
60	Other vehicles ...	,,		
	Carrying capacity hauled one mile (excluding brakes.)			
61	1st class ...	*Seats.*	28·16	
62	2nd ,, ...	,,	7·36	
63	3rd or Intermediate class ...	,,	286,796	
64	4th or Lowest class ...	,,	573,592	
65	Other vehicles ...	,,		
	Percentage of freight upon capacity hauled.			
66	1st class ...	*Tons.*	17,979,180	
67	2nd ,, ...	,,	73,570	
68	3rd or Intermediate class ...	*Per cent.*		
69	4th or Lowest class ...	,,	4·94	
70	Other vehicles ...	,,	9·76	
		,,		
		,,	46·96	
		,,	10·82	

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

Progressive Number.	Headings.			Remarks.
	No. V.			
	COACHING TRAFFIC.—(*Continued.*)			
	WEIGHT OF TRAIN AND TON-MILEAGE—			
	Gross ton-mileage of all coaching trains.			
71	Freight ...	*Ton Miles.*	520,389	
72	Dead-weight ...	,,	5,436,669	
73	Total ...	,,	5,957,058	
	Average weight of a coaching train.			
74	Freight ...	*Tons.*	10·95	
75	Dead-weight ...	,,	114·35	
76	Total ...	,,	125·30	
	COST OF WORKING AND PROFITS—			
77	Average cost of hauling a coaching train one mile ...	*Rs.*	1·55	
78	Average cost of hauling a coaching vehicle with its load one mile ...	*Pies.*	19·09	
	Average cost of hauling a coaching unit one mile.			
79	Per passenger unit ...	,,	1·46	
80	Other traffic per ton ...	,,	219·94	
81	Average profit on working a coaching train one mile ...	*Rs.*	·40	
	Average profit on working a coaching vehicle one mile.			
82	1st class ...	*Pies.*	*11·97*	*Loss.*
83	2nd ,, ...	,,	*14·40*	*do.*
84	3rd or Intermediate class ...	,,		
85	4th or Lowest class ...	,,	9·07	
86	Other vehicles ...	,,	*11·73*	*Loss.*
	Average profit on working a coaching unit one mile.			
87	Per passenger unit ...	*Pies.*	·57	
88	Other traffic per ton ...	,,	*154·44*	*Loss.*

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

Progressive Number.	Headings.			Remarks.
	No. VI.			
	GOODS TRAFFIC.			
	GROSS RECEIPTS AND TRAIN-MILEAGE—			
89	Receipts from Goods Traffic ...	*Rs.*	27,622	
90	Goods Train-miles run ...	*No.*	21,079	
91	Average goods receipts per train-mile ...	*Rs.*	1·31	
	UNITS AND UNIT MILEAGE—			
92	Tons of Goods carried one mile ...	*Ton Miles.*	693,421	
93	Average sum received for carrying a ton one mile ...	*Pies.*	7·65	
94	Average number of tons in a train ...	*Tons.*	32·90	
	VEHICLES AND VEHICLE MILEAGE—			
95	Number of goods vehicles hauled one mile.			
96	Loaded ...	*Vehicle Miles.*	238,468	
97	Empty ...	,,	74,123	
98	Brake-vans ...	,,	1,472	
99	Total ...	,,	314,063	
100	Average number of vehicles in a goods train.			
101	Freight vehicles ...	*No.*	14·83	
102	Brake-vans ...	,,	·07	
103	Total ...	,,	15·90	
104	Average earnings per goods vehicle per mile (excluding brakes) ...	*Pies.*	16·97	
105	Carrying capacity hauled one mile (excluding brakes) ...	*Tons.*	1,809,884	
106	Percentage of freight upon capacity hauled ...	*Per cent.*	38·31	
	Average load of a goods vehicle (including both loaded and empty) ...	*Tons.*	2·22	
	Average load of a loaded goods vehicle ...	,,	2·91	
	WEIGHT OF TRAIN AND TON MILEAGE—			
107	Gross ton mileage of all goods trains.			
108	Freight ...	*Ton Miles.*	693,421	
109	Dead-weight ...	,,	1,677,539	
110	Total ...	,,	2,370,960	
111	Average weight of a goods train.			
112	Freight ...	*Tons.*	32·90	
	Dead-weight ...	,,	79·58	
	Total ...	,,	112·48	
	COST OF WORKING AND PROFITS—			
113	Average cost of hauling a goods train one mile ...	*Rs.*	1·39	
114	Average cost of hauling a goods vehicle with its load one mile ...	*Pies.*	18·03	
115	Average cost of hauling a goods unit (viz., one ton) one mile ...	,,	8·13	
115A	Average cost of hauling a goods unit (viz., one ton) one mile including interest on Capital expended at the rate of 5 per cent per annum ...	*Rs.*	·08	*Loss.*
116	Average profit on working a goods train one mile ...	*Pies.*	1·06	*do.*
117	Average profit on working a goods vehicle with its load one mile ...	,,	·48	*do.*
118	Average profit on working a goods unit (viz., one ton) one mile ...	,,		

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

Progressive Number.	Headings.		Remarks.
	No. VII.		
	DETAILED PERCENTAGES OF EARNINGS AND EXPENDITURE.		
	Percentage to Total Earnings—		
119	Coaching Traffic ...	*Per cent.* 76·31	
120	Goods Traffic ...	,, 22·75	
121	Sundries, including Telegraph ...	,, ·94	
122	Steam-boat Earnings ...	,,	
	Total Earnings ...	,, 100·00	
	Percentage of Working Expenses upon Total Earnings—		
123	Maintenance ...	*Per cent.* 20·80	
124	Locomotive Expenses ...	,, 20·75	
125	Carriage and Wagon Expenses ...	,, 4·80	
126	Traffic Expenses ...	,, 7·82	
127	General Charges ...	,, 6·11	
128	Miscellaneous Charges ...	,, 25·58	
129	Steam-boat Expenses ...	,,	
130	Total Working Expenses ...	,, 85·86	

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.

TABLE A.

Maintenance of Way, Works and Stations.

Reference to Revenue Account. Table and main-head	Sub-head.	Progressive number in Analysis.	DETAILS.	*a.* Per mile of line maintained. 82·92	*b.* Per mile of track including Sidings. 91·42	*c.* Per total Train-mile. 68,621	*d.* Per 1,000 gross ton miles. 8,328,018
				Rs.	Rs.	As.	Rs.
IX(A)	...		*General Superintendence*—				
1	1 & 2		Engineers' Salaries and allowances ...	79·47	72·08	1·54	·79
	3to5		Subordinate Superintendents' salaries and allowances, including overtime	28·11	25·50	·54	·28
	6	131	Office expenses ...	29·73	26·97	·58	·30
			Total...	137·31	124·55	2·66	1·37
2	1		*Maintenance and Renewal of Permanent Way*— Wages ...	111·13	100·80	2·15	1·11
	2	132	Materials ...	34·59	31·37	·67	·34
			Total...	145·72	132·17	2·82	1·45
3	1		*Repairs of Bridges, &c.*— *Wages and Materials*— Bridges and tunnels ...	2·99	2·71	·06	·03
	2	133	Miscellaneous ...	1·18	1·07	·02	·01
3(A)		134	Total...	4·17	3·78	·08	·04
4	1		*Repairs of Stations and Buildings*— *Wages and Materials*— Repairs of all, except staff quarters ...	3·66	3·32	·07	·04
	2	135	Repairs of staff quarters ...	2·75	2·49	·05	·02
			Total...	6·41	5·81	·12	·06
5	1		*Maintenance by Contract*— Amount paid to Contractors...				
	2		Materials supplied by the Railway ...				
6			Total...	·46	·42	·01	·005
			New Minor Works—				
7	1		*Unclassified Expenditure*— Plantations ...	1·33	1·20	·03	·02
	2		Tools and Plant ...	2·23	2·02	·04	·02
	3		Loss by exchange ...				
	4		Loss on stores, &c. ...	7·00	6·36	·13	·07
	5		Freight on Stores ...				
			Total...	10·56	9·58	·20	·11
			Total Heads, 5, 6 and 7	11·02	10·00	·21	·115
			Less Credits ...				
		136	*Net Total, Other Charges* ...	11·02	10·00	·21	·115
		137	*Total Maintenance* ...	304·63	276·31	5·89	3·03

If done Departmentally.

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE B.

Locomotive Expenses.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive number in Analysis.	DETAILS.	*a.* Per total Train-mile. 68,621	*b.* Per Engine mile. 75,837	*c.* Per 1,000 gross ton-miles. 8,328,018
				As.	As.	Rs.
			General Superintendence—			
IX (B) 1	1 & 2		Salaries of Superintendents and Assistants, including allowances ...	·10	·09	·05
	3 to 5		Ditto of Subordinate ditto, including ditto ...	·20	·18	·11
	6		Office expenses ...	·16	·14	·08
		138	Total...	·46	·41	·24
			Running Expenses—			
2	1 & 2		Wages of Drivers and Firemen, including overtime ...	·84	·75	·43
	3		Fuelling, cleaning and looking after engines ...	·11	·10	·06
	4		Contingent expenses	·01	·01	·004
		139	Total...	·96	·86	·494
				lbs.	lbs.	lbs.
3	1 to 4		*Fuel.*—(In terms of coal) Average quantity consumed	18·71	16·93	154·15
				As.	As.	Rs.
			Average price per ton Rs. 16·19			
		140	Do. cost	2·16	1·96	1·11
4		141	*Water.*—(Including wages and Stores)	·10	·09	·05
5		142	*Oil, Tallow and other Stores*	·18	·16	·09
			Maintenance and Renewals—			
6	1 & 2		Wages including overtime	·72	·66	·38
	3		Materials	·49	·44	·25
		143	Total...	1·21	1·10	·63
7			*New Minor works*			
8			*Payments to other lines*			
			Unclassified Expenditure—			
9	1		Loss by exchange	·53	·48	·27
	2		Loss on Stores, &c.	·13	·12	·07
	3		Freight on Stores	·20	·18	·10
			Total...	·86	·78	·44
			Total heads, 7, 8 and 9	·86	·78	·44
			Less Credits	·05	·04	·02
		144	*Net Total, Other Charges*	·81	·74	·42
		145	*Total Locomotive Expenses*	5·88	5·32	3·03

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE C.

Carriage and Wagon Expenses.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive number in Analysis.	DETAILS.		*a.* Per total Train-mile. 68,621	*b.* Per 1,000 Vehicle, miles run by home Vehicles. 1,056,556
					As.	Rs.
			General Superintendence—			
IX (C) 1	1 & 2		Salaries of Superintendents, including allowances		·02	·10
	3 to 5		Ditto of Subordinate ditto, including ditto		·05	·19
	6		Office expenses		·04	·15
		146		Total...	·11	·44
			Repairs and Renewals of Vehicles and Machinery—			
2	1 to 3		Coaching Vehicles ...	Wages including overtime ...	·19	1·14
				Materials	·26	1·56
		147		Total...	·45	2·70
	1 to 3		Goods Vehicles ...	Wages including overtime ...	·28	3·59
				Materials	·31	3·90
		148		Total ..	·59	7·49
			Cleaning and Oiling—			
3	1		Labour, including wages of Oilers, &c.		·08	·33
	2		Stores		·03	·13
		149		Total...	·11	·46
4			*New Minor Works—*			
			Unclassified Expenditure—			
5	1		Loss by exchange		·09	·38
	2		Loss on Stores, &c.		·01	·04
	3		Freight on Stores		·01	·02
				Total...	·11	·44
			Total Heads, 4 and 5		·11	·44
			Less Credits		*·01*	*·05*
		150	*Net Total, Other Charges*		·10	·39
		151	*Total, Carriage and Wagon Expenses*		1·36	5·52

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE D.

Traffic Expenses.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive number in Analysis.	DETAILS.		*a.* Per total Train-Mile. 68,621	*b.* Per cent of Traffic earnings Abstracts H. and I. 1,20,295
					As.	Per cent.
			General Superintendence—			
IX (D) 1	(*a*) 1 & 3		Traffic Manager, Assistants, &c., including travelling allowances		·17	·62
	(*a*) 2 & 4		Office establishment and contingencies		·11	·37
		152		Total...	·28	·99
	(*b*)	153	*Station Staff*		1·14	4·05
	(*c*)	154	*Train Staff*		·23	·82
2	1 to 3	155	*Fuel, Lighting, Water and General Stores*		·24	·87
3		156	*Clothing*		·0003	·0008
4		157	*Printing, Stationery and Tickets*		·15	·53
5		158	*Charges for delivery and collection of goods, &c.*		·0002	·0008
6		159	*Miscellaneous Expenses*		·01	·04
			Payments to other Lines—			
7	1	160	Expenses at joint Stations		·01	·06
			Unclassified Expenditure—			
8	1		Loss by exchange		·07	·27
	2		Loss on Stores, &c.		·05	·17
	3		Freight on Stores		·03	·09
				Total Head, 8	·15	·53
			Less Credits		*·0004*	*·002*
		161	*Net Total, Other Charges*		·15	·53
		162	*Total Traffic Expenses*		2·21	7·89

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE E.

General Charges.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive number in Analysis.	DETAILS.	*a.* Per total Train Mile. 68,621	*b.* Per cent on total earnings. 1,21,439
IX (E) 1	1 to 4	163	*Home Expenditure*	As. ·27	Per cent. ·97
			Indian Management—		
2	1	164	Agent's Office, including travelling allowances and contingencies.	·18	·66
	2		Auditor's office, ditto ditto		
	3		Accounts office, ditto ditto		
	4		Paymaster's office, ditto ditto ...	·45	1·58
		165	Total 2 to 4...	·45	1·58
	5	166	Store Department, ditto ditto ...	·12	·42
	6	167	Medical Department, ditto ditto ...	·07	·24
	7		Rents	·003	·01
	8 to 10		Miscellaneous expenses, including, printing, stationery and medicine	·098	·35
		168	Total 7 to 10 ...	·101	·36
3	1 to 3	169	*Police*		
4		170	*Advertising*	·01	·02
			Electric Telegraph—		
5	1 to 4		Salaries, &c.		
	5		Maintenance (Wages and Stores)	·23	·82
	6		Government Telegraph Department, for rent, maintenance and inspection	·01	·05
		171	... ...	·18	·61
			Total....	·42	1·48
6			*Clearing Accounts, with other lines—*		
			Unclassified Expenditure—		
7	1		Loss by exchange	·10	·35
	2		Loss on Stores, &c.	·01	·03
	3		Freight on Stores	·0003	·001
			Total...	·1103	·381
			Total Heads, 6 and 7	·1103	·381
			Less Credits	·0001	·0003
		172	*Net Total, Other Charges*	·1102	·38
		173	*Total General Charges*	1·73	6·11

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE F.

Steam Boat Service.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive Number in Analysis.	DETAILS.	Per cent on Steam boat earnings.
IX (F)	...		*Working Expenses—*	Per cent.
1	1		Salaries and allowances of Officers and crews...	
	2		Loading and unloading vessels	
	3		Pilotage fees	
	4		Contingencies	
			Repairs—	
2	1		Wages	
	2		Materials	
3	1 to 5	173*a*	*Fuel*	
4	...		*Miscellaneous Stores*	
5	1 & 2		*Steam Traffic Agencies*	
6	...		*New Minor Works*	
7	1 to 6		*Miscellaneous Expenditure*	
			Total	
			Less Credits...	
			Total Steam Boat Expenses	

TABLE G.

Special and Miscellaneous Expenditure.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive Number in Analysis.	DETAILS.	Per cent on Total earnings. 1,21,439
IX (G) 1	...	174	*Law Charges—*	Per cent. ·005
			Compensation—	
2	1		For goods lost or damaged	·068
	2		„ Personal injury	
	3		„ Other claims	·002
		175	Total...	·070
3	...	176	*Rates and Taxes*	·124
			Payments to other Lines—	
4	1	...	Hire of Locomotives	
	2	...	„ of Vehicles	
	3	...	Mileage of foreign stock	
	4	...	Rent of stations, &c., jointly occupied	·044
		177	Total...	·044
5	...	...	*Contributions to Special Funds (in detail)*	
6 to 8	...	...	*Miscellaneous*	25·34
			Total Heads, 5 to 8	25·34
			Less Credits	
		178	*Net Total, Other Charges*	25·34
		179	*Total Special and Miscellaneous Expenses*	25·58

WILLIAM S. BETTS,
Agent.

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

APPENDICES TO ANALYSIS OF WORKING.

HALF-YEAR ENDED 30*th June*, 1890.

APPENDIX I.

Working of Locomotives.

Reference to Revenue Account.			F. CLASS STATE RAILWAY TYPE.
Table & main head.	Sub-head.		
XII	5	1—Number of Locomotives erected and made over to Locomotive Department ...	10
	11	2—Average number of Locomotives constantly under repairs and renewals ...	1·154
		3—Number of Locomotives laid by as spare ..	
		4—Ditto lent or hired out to other lines ...	1
		5—Average number of Locomotives 1—(3+4) ...	9
		6—Total Mileage of Locomotives (5) ...	75,837
		7—Average miles run by a Locomotive of each class 6÷5 ...	8,426
		Per diem.	46·55
		8—Weight of coal, &c., used per Engine mile ... *To be separated if possible among the classes of Locomotives*	lbs.
		9—Weight of wood used per Engine mile	24·20

	Passenger Trains.	Goods Trains.	Mixed Trains.	Total.
10—Average gross weight of trains hauled *Tons*...	92·07	51·72	92·89	88·94
11—Average speed between stations *Miles per hour*...			16	
12—Average through speed *Miles per hour*...			13	
13—Average Consumption of coal per Engine mile lbs...	27·78	26·22	26·62	

APPENDIX II.

SOUTH INDIAN

NELLORE—TIRUPATI

APPENDICES TO ANALYSIS

APPEN

Working of

DESCRIPTION OF VEHICLES.	Total number on the list at end of the half-year.	Average Weight in Tons.		Average Carrying Capacity.		Average number laid by as spare.	Average number lent or hired out.	Average number working a—(f + g)
		Of each description of Vehicle.	Of each group.	Of each description of Vehicle.	Of each group.			
COACHING STOCK—	*a.*	*b.*	*c.*	*d.*	*e.*	*f.*	*g.*	*h.*
First Class Carriage	...	...	...	...	...	...	...	...
Composite do.	5	5·25	...	12	...	...	...	5
Third Class do.	30	5·03	...	30	...	...	...	30
Horse Box	5	6·09	...	1·76	...	...	...	5
Luggage Brake Vans	8	7·65	...	1·00	...	...	...	8
Total... ...	48	5·60	5·60	...	...	...	...	48
GOODS STOCK—								
Covered Goods Wagons Iron Body	100	3·20		5·75				100
Low sided Wagons	98	2·81		6·00				98
Powder Vans	2	4·15	3·02	5·00	5·86	...	...	2
Timber Trucks	4	3·19		5·75				4
Platform Trucks	4	2·76		6·00				4
Ten Tons Travelling Crane	2	22·50	22·50		...	...	...	2
Brake Vans	2	2·81	2·81		...	...	...	2
Total... ...	212	3·20	3·20	5·86	5·86	...	...	212
GRAND TOTAL... ...	260	...	...	...	...	...	...	260

RAILWAY.

SECTION.

OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

DIX II.

Vehicles.

MILEAGE OF							Ton-mileage of Vehicle dead weight hauled on Home Line.
FOREIGN VEHICLES ON HOME LINE.		HOME VEHICLES ON HOME LINE.		Home Vehicles on Foreign Lines.	Carrying Capacity hauled on Home Line.		
Loaded.	Empty.	Loaded.	Empty.				
i.	*k.*	*l.*	*m.*	*n.*	*o.*	*p.*	
		71,866			862,392		377,296
		574,847			17,245,410		2,891,480
		70,133	1,522		74,405		542,517
		716,846	1,522				3,811,293
		263,261	74,123		1,952,444		1,059,593
			804				2,259
		263,261	74,927				1,061,852
		980,107	76,449				4,873,145

The average mileage per diem run by { Coaching Vehicles 3,969 / Goods do. 1,868

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

APPENDICES TO ANALYSIS OF WORKING.—(*contd.*)

HALF-YEAR ENDED 30*th June*, 1890.

APPENDIX III.

Distribution of Mileage according to the traffic carried, giving total mileage of Home and Foreign Stock on Home line.

DESCRIPTION OF VEHICLES.	MILEAGE OF			REMARKS.
	Vehicles.	Carrying Capacity.	Dead weight.	
Coaching—				
First class	23,899	286,796	125,473	
Second class	47,800	573,592	250,946	
Third or Intermediate class				
Fourth or Lowest class	599,306	17,979,180	2,969,138	
Total Passenger vehicles	671,005	18,839,568	3,345,557	
Other coaching vehicles	70,820	73,570	536,130	
Total paying coaching mileage	741,825		3,881,687	
Passenger brake-vans				
Total coaching mileage, including brakes ...	741,825		3,881,687	
Goods—				
Loaded vehicles	238,468	1,377,472	752,982	
Empty do.	74,123	432,412	227,273	
Total paying goods mileage	312,591	1,809,884	980,255	
Goods brake-vans	1,472		7,369	
Total goods mileage, including brakes	314,063	1,809,884	987,624	
Miscellaneous—				
Free Mileage for inspection, &c.	668		3,834	
GRAND TOTAL ...	1,056,556		4,873,145	

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

APPENDICES TO ANALYSIS OF WORKING.—(*continued.*)

HALF-YEAR ENDED 30*th June*, 1890.

APPENDIX IV.

Maintenance of Way.

RAILS.

DETAILS.	IRON.			STEEL.					Total Iron and Steel.
			Total.			Steel, weighing 41½ lbs. per yard.		Total.	
1 Miles of rail in way, including sidings						182·84		182·84	182·84
2 Average age of rails in way at the middle of the half-year years...						2·5		2·5	2·5
3 Rails renewed ... ... Miles...									
4 Proportion renewed per mile of rail (1)									
5 Average number of tons hauled over each kind of rail in the half-year.									
6 Thousands of tons hauled on an average over each kind of rail during the average age of rail in way (2)									

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

APPENDICES TO ANALYSIS OF WORKING.—*(concld.)*

HALF-YEAR ENDED *30th June*, 1890.

APPENDIX V.

Maintenance of Way.

SLEEPERS.

	DETAILS.	WOOD.					IRON.				Steel transverse sleepers.
		TRANSVERSE.									
					Pingadoo.	Total.			D. O. M. cast iron Sleepers.	Total.	
					No.	No.			Pairs.	Pairs.	No.
1	Number of Sleepers in way, including sidings at the commencement of the half-year ...				13,719	13,719			92,135	92,135	69,983
2	Average age of Sleepers in way at the middle of the half-year ... ... years.				2·5	2·5			2·5	2·5	2·5
3	Number removed				3	3			282	282	3
4	Number laid				5	5			282	282	5
5	Percentage of removals on total of each class (1) ...				·0218	·0218			·3060	·3060	·0042
6	Number of Sleepers in way, including sidings at the end of the half-year*				13,721	13,721			92,135	92,135	69,985

* Exclusive of teak wood sleepers on bridges and at points and crossings.

PUBLIC WORKS DEPARTMENT.

Letter—to

The Right Honorable the SECRETARY of STATE for INDIA.

My Lord,

We have the honor to forward a copy of our Proceedings, No. 1825 R., dated 18th November 1890, embodying the analysis of working of the Nellore Branch of the Villupuram-Guntakal State Railway for the first-half of 1890.

We have the honor to be,

My Lord,

Your Lordship's most obedient, humble servants,

(Signed) CONNEMARA.
(„) J. H. GARSTIN.
(„) J. GROSE.

Fort St. George,
18th November 1890.

Exd. S. Pereira.

GOVT. OF MADRAS.

PUBLIC WORKS DEPARTMENT.

(Copy.)

LETTER to the Right Honorable the Secretary of State for India.

No $\frac{19}{1825\ R.}$, dated 18th Nov. 1890.

Forwarding copy of Proceedings embodying the analysis of working of the Villupuram-Guntakal State Railway, Nellore Branch, for the first half of 1890.

SOUTH INDIAN RAILWAY.

VILLUPURAM—GUNTAKAL STATE RAILWAY,

NELLORE BRANCH.

ANALYSIS OF WORKING

FOR THE

Half-Year ended 30th June, 1890.

PRINTED AT THE BRANCH "ECLIPSE" PRESS, TRICHINOPOLY.

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SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—For the Half-Year ended 30*th June*, 1890.

Progressive Number.	Headings.			Ft.	In.	Remarks.
	No. I.					
	DESCRIPTION OF RAILWAY WORKED.					
1	Gauge of Railway	...		3	3 3/32	
2	Mean mileage worked	...	*Miles.*		82·92	
3	Number of stations	...	*No.*		11	
4	Total length of the following gradients :					
	(*a*) 1/50 and less	...	*Miles.*			
	(*b*) 1/51 to 1/80	...	,,			
	(*c*) 1/81 to 1/100	...	,,		3·228	
	(*d*) 1/101 to 1/200	...	,,		31·421	
	(*e*) 1/201 to 1/300	...	,,		6·439	
5	Steepest gradient worked—					
	(*a*) Length	...	*Miles.*		·587	
	(*b*) Inclination	...	,,		1 in 100	
	No. II.					
	FINANCIAL RESULTS.					
6	Percentage of net earnings (including steam boat traffic) on Capital outlay	...	*Per cent.*		·27	
7	Percentage of net earnings on paid up capital	...	,,			
	No. III.					
	OUTLAY, EARNINGS AND EXPENSES.					
	(*Exclusive of Steam Boat Service.*)					
8	Capital outlay per mile open	...	*Rs.*		75,022	
9	Total earnings per mile open per week	...	,,		56·33	
10	Total working expenses per mile per week	...	,,		48·36	
11	Total earnings per train-mile	...	,,		1·77	
12	Total working expenses per train-mile	...	,,		1·52	
13	Net earnings per train-mile	...	,,		·25	
14	Cost per 1,000 gross ton-miles moved (freight and dead weight)	...	,,		12·38	
15	Percentage of total working expenses upon total earnings	...	*Per cent.*		85·86	
16	Percentage of total working expenses upon total earnings, excluding from both sides of the account the charges for carriage of Revenue Stores	...	,,		85·58	
	(*Inclusive of Steam Boat service.*)					
17	Percentage of total working expenses on total earnings (for details see table No. VII.)	...	,,		85·86	
	No. IV.					
	DIVISION OF EXPENDITURE BETWEEN COACHING AND GOODS TRAFFIC.					
18	Total working expenses for both coaching and goods traffic, excluding steam boat expenses, and after deducting telegraph and Sundry receipts and leaving only the balance of payments to other lines for mileage, &c.	...	*Rs.*		1,03,126	
	Proportions, *dividing expenditure in ratio of gross ton-mileage (freight and dead load)*	...	,,			
19	Coaching	...	,,		73,766	
20	Goods	...	,,		29,360	

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

Progressive Number.	Headings.				Remarks.
	No. V. COACHING TRAFFIC.				
	GROSS RECEIPTS AND TRAIN-MILEAGE—				
21	Receipts from coaching Traffic	...	*Rs.*	92,673	
22	Coaching Train miles run	...	*No.*	47,542	
23	Average coaching receipts per train-mile	...	*Rs.*	1·95	
	UNITS AND UNIT MILEAGE—				
	Number of Units carried one mile.				
24	1st class	...	*Unit Miles.*	14,173	
25	2nd „	...	„	55,999	
26	3rd or Intermediate class	...	„		
27	4th or Lowest class	...	„	8,442,208	
28	Total Passenger unit mileage	...	„	8,512,380	
29	Other coaching traffic	...	*Ton Miles.*	7,959	
	Average sum received for carrying a unit one mile.				
30	1st class	...	*Pies.*	12·00	
31	2nd „	...	„	4·00	
32	3rd or Intermediate class	...	„		
33	4th or Lowest class	...	„	2·00	
34	Average for all classes	...	„	2·03	
35	Other coaching traffic per ton mile	...	„	65·50	
	Average number of units in a train.				
36	1st class	...	*No.*	·30	
37	2nd „	...	„	1·18	
38	3rd or Intermediate class	...	„		
39	4th or Lowest class	...	„	177·57	
40	Total passenger units	...	„	179·05	
41	Other coaching traffic	...	*Tons.*	·17	
	VEHICLES AND VEHICLE MILEAGE—				
	Number of Coaching Vehicles hauled one mile.				
42	1st class	...	*Vehicle Miles.*	23,899	
43	2nd „	...	„	47,800	
44	3rd or Intermediate class	...	„		
45	4th or Lowest class	...	„	599,306	
46	Other Vehicles	...	„	70,820	
47	Brake-vans	...	„		
48	Total	...	„	741,825	
	Average number of Vehicles in a Coaching train.				
49	1st class	...	*No.*	·50	
50	2nd „	...	„	1·00	
51	3rd or Intermediate class	...	„		
52	4th or Lowest class	...	„	12·61	
53	Other Vehicles	...	„	1·49	
54	Brake-vans	...	„		
55	Total	...	„	15·60	
	Average earnings per coaching vehicle per mile.				
56	1st class	...	*Pies.*	7·12	
57	2nd „	...	„	4·69	
58	3rd or Intermediate class	...	„		
59	4th or Lowest class	...	„	28·16	
60	Other vehicles	...	„	7·36	
	Carrying capacity hauled one mile (excluding brakes.)				
61	1st class	...	*Seats.*	286,796	
62	2nd „	...	„	573,592	
63	3rd or Intermediate class	...	„		
64	4th or Lowest class	...	„	17,979,180	
65	Other vehicles	...	*Tons.*	73,570	
	Percentage of freight upon capacity hauled.				
66	1st class	...	*Per cent.*	4·94	
67	2nd „	...	„	9·76	
68	3rd or Intermediate class	...	„		
69	4th or Lowest class	...	„	46·96	
70	Other vehicles	...	„	10·82	

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

Progressive Number.	Headings.				Remarks.
	No. V. COACHING TRAFFIC.—(*Continued.*)				
	WEIGHT OF TRAIN AND TON-MILEAGE—				
	Gross ton-mileage of all coaching trains.				
71	Freight	...	*Ton Miles.*	520,389	
72	Dead-weight	...	„	5,436,669	
73	Total	...	„	5,957,058	
	Average weight of a coaching train.				
74	Freight	...	*Tons.*	10·95	
75	Dead-weight	...	„	114·35	
76	Total	...	„	125·30	
	COST OF WORKING AND PROFITS—.				
77	Average cost of hauling a coaching train one mile	...	*Rs.*	1·55	
78	Average cost of hauling a coaching vehicle with its load one mile	...	*Pies.*	19·09	
	Average cost of hauling a coaching unit one mile.				
79	Per passenger unit	...	„	1·46	
80	Other traffic per ton	...	„	219·94	
81	Average profit on working a coaching train one mile	...	*Rs.*	·40	
	Average profit on working a coaching vehicle one mile.				
82	1st class	...	*Pies.*	*11·97*	*Loss.*
83	2nd „	...	„	*14·40*	*do.*
84	3rd or Intermediate class	...	„		
85	4th or Lowest class	...	„	9·07	
86	Other vehicles	...	„	*11·73*	*Loss.*
	Average profit on working a coaching unit one mile.				
87	Per passenger unit	...	*Pies.*	·57	
88	Other traffic per ton	...	„	*154·44*	*Loss.*

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

Progressive Number.	Headings.			Remarks.
	No. VI.			
	GOODS TRAFFIC.			
	GROSS RECEIPTS AND TRAIN-MILEAGE—			
89	Receipts from Goods Traffic	*Rs.*	27,622	
90	Goods Train-miles run	*No.*	21,079	
91	Average goods receipts per train-mile	*Rs.*	1·31	
	UNITS AND UNIT MILEAGE—			
92	Tons of Goods carried one mile	*Ton Miles.*	693,421	
93	Average sum received for carrying a ton one mile	*Pies.*	7·65	
94	Average number of tons in a train	*Tons.*	32·90	
	VEHICLES AND VEHICLE MILEAGE—			
	Number of goods vehicles hauled one mile.			
95	Loaded	*Vehicle Miles.*	238,468	
96	Empty	,,	74,123	
97	Brake-vans	,,	1,472	
98	Total	,,	314,063	
	Average number of vehicles in a goods train.			
99	Freight vehicles	*No.*	14·83	
100	Brake-vans		·07	
101	Total	,,	15·90	
102	Average earnings per goods vehicle per mile (excluding brakes)	*Pies.*	16·97	
103	Carrying capacity hauled one mile (excluding brakes)	*Tons.*	1,809,884	
104	Percentage of freight upon capacity hauled	*Per cent.*	38·31	
105	Average load of a goods vehicle (including both loaded and empty)	*Tons.*	2·22	
106	Average load of a loaded goods vehicle	,,	2·91	
	WEIGHT OF TRAIN AND TON MILEAGE—			
	Gross ton mileage of all goods trains.			
107	Freight	*Ton Miles.*	693,421	
108	Dead-weight	,,	1,677,539	
109	Total	,,	2,370,960	
	Average weight of a goods train.			
110	Freight	*Tons.*	32·90	
111	Dead-weight	,,	79·58	
112	Total	,,	112·48	
	COST OF WORKING AND PROFITS—			
113	Average cost of hauling a goods train one mile	*Rs.*	1·39	
114	Average cost of hauling a goods vehicle with its load one mile	*Pies.*	18·03	
115	Average cost of hauling a goods unit (viz., one ton) one mile	,,	8·13	
115A	Average cost of hauling a goods unit (viz., one ton) one mile including interest on Capital expended at the rate of 5 per cent per annum	,,	20·59	
116	Average profit on working a goods train one mile	*Rs.*	*·08*	*Loss.*
117	Average profit on working a goods vehicle with its load one mile	*Pies.*	*1·06*	*do.*
118	Average profit on working a goods unit (viz., one ton) one mile	,,	*·48*	*do.*

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

Progressive Number.	Headings.			Remarks.
	No. VII.			
	DETAILED PERCENTAGES OF EARNINGS AND EXPENDITURE.			
	Percentage to Total Earnings—			
119	Coaching Traffic	*Per cent.*	76·31	
120	Goods Traffic	,,	22·75	
121	Sundries, including Telegraph	,,	·94	
122	Steam-boat Earnings	,,		
	Total Earnings	,,	100·00	
	Percentage of Working Expenses upon Total Earnings—			
123	Maintenance	*Per cent.*	20·80	
124	Locomotive Expenses	,,	20·75	
125	Carriage and Wagon Expenses	,,	4·80	
126	Traffic Expenses	,,	7·82	
127	General Charges	,,	6·11	
128	Miscellaneous Charges	,,	25·58	
129	Steam-boat Expenses	,,		
130	Total Working Expenses	,,	85·86	

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.

TABLE A.

Maintenance of Way, Works and Stations.

Reference to Revenue Account. Table and main-head	Sub-head.	Progressive number in Analysis.	DETAILS.	*a.* Per mile of line maintained. 82·92	*b.* Per mile of track including Sidings. 91·42	*c.* Per total Train-mile. 68,621	*d.* Per 1,000 gross ton miles. 8,328,018
				Rs.	Rs.	As.	Rs.
IX(A)	...		*General Superintendence—*				
1	1 & 2		Engineers' Salaries and allowances ...	79·47	72·08	1·54	·79
	3to5		Subordinate Superintendents' salaries and allowances, including overtime ...	28·11	25·50	·54	·28
	6		Office expenses ...	29·73	26·97	·58	·30
		131	Total...	137·31	124·55	2·66	1·37
2	1		*Maintenance and Renewal of Permanent Way—* Wages ...	111·13	100·80	2·15	1·11
	2		Materials ...	34·59	31·37	·67	·34
		132	Total...	145·72	132·17	2·82	1·45
3	1		*Repairs of Bridges, &c.— Wages and Materials—* Bridges and tunnels ...	2·99	2·71	·06	·03
	2		Miscellaneous ...	1·18	1·07	·02	·01
		133	Total...	4·17	3·78	·08	·04
3(A)		134	*Conservancy of Rivers—*				
4	1		*Repairs of Stations and Buildings— Wages and Materials—* Repairs of all, except staff quarters ...	3·66	3·32	·07	·04
	2		Repairs of staff quarters ...	2·75	2·49	·05	·02
		135	Total...	6·41	5·81	·12	·06
5	1		*Maintenance by Contract—* Amount paid to Contractors...				
	2		Materials supplied by the Railway ...				
			Total...				·005
6			*New Minor Works—*	·46	·42	·01	·02
						·03	·02
7	1		*Unclassified Expenditure—* Plantations ...	1·33	1·20	·04	
	2		Tools and Plant ...	2·23	2·02		·07
	3		Loss by exchange ...			·13	
	4		Loss on stores, &c. ...				·11
	5		Freight on Stores ...	7·00	6·36	·20	
			Total...	10·56	9·58	·21	·113
			Total Heads, 5, 6 and 7 ...	11·02	10·00		·113
			Less Credits ...			·21	
		136	*Net Total, Other Charges* ...	11·02	10·00		3·08
		137	*Total Maintenance* ...	304·63	276·31	5·89	

If done Departmentally.

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE B.

Locomotive Expenses.

Reference to Revenue Account. Table and main-head	Sub-head.	Progressive number in Analysis.	DETAILS.	*a.* Per total Train-mile. 68,621	*b.* Per Engine mile. 75,837	*c.* Per 1,000 gross ton-miles. 8,328,018
				As.	As.	Rs.
			General Superintendence—			
IX (B) 1	1 & 2		Salaries of Superintendents and Assistants, including allowances ...	·10	·09	·05
	3 to 5		Ditto of Subordinate ditto, including ditto ...	·20	·18	·11
	6		Office expenses ...	·16	·14	·08
		138	Total...	·46	·41	·24
			Running Expenses—			
2	1 & 2		Wages of Drivers and Firemen, including overtime ...	·84	·75	·43
	3		Fuelling, cleaning and looking after engines ...	·11	·10	·06
	4		Contingent expenses	·01	·01	·004
		139	Total...	·96	·86	·494
				lbs.	lbs.	lbs.
3	1 to 4		*Fuel.*—(In terms of coal) Average quantity consumed	18·71	16·93	154·15
				As.	As.	Rs.
			Average price per ton Rs. 16·19			
		140	Do. cost	2·16	1·96	1·11
4		141	*Water.*—(Including wages and Stores)	·10	·09	·05
5		142	*Oil, Tallow and other Stores*	·18	·16	·09
			Maintenance and Renewals—			
6	1 & 2		Wages including overtime	·72	·66	·38
	3		Materials	·49	·44	·25
		143	Total...	1·21	1·10	·63
7			*New Minor works*			
8			*Payments to other lines*			
			Unclassified Expenditure—			
9	1		Loss by exchange	·53	·48	·27
	2		Loss on Stores, &c.	·13	·12	·07
	3		Freight on Stores	·20	·18	·10
			Total...	·86	·78	·44
			Total heads, 7, 8 and 9	·86	·78	·44
			Less Credits	·05	·04	·02
		144	*Net Total, Other Charges*	·81	·74	·42
		145	*Total Locomotive Expenses*	5·88	5·32	3·03

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE C.

Carriage and Wagon Expenses.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive number in Analysis.	DETAILS.		*a.* Per total Train-mile. 68,621	*b.* Per 1,000 Vehicle, miles run by home Vehicles. 1,056,556
					As.	Rs.
			General Superintendence—			
IX (C) 1	1 & 2		Salaries of Superintendents, including allowances		·02	·10
	3 to 5		Ditto of Subordinate ditto, including ditto		·05	·19
	6		Office expenses		·04	·15
				Total...	·11	·44
		146	*Repairs and Renewals of Vehicles and Machinery—*			
2	1 to 3		Coaching Vehicles ... Wages including overtime ...		·19	1·14
			Coaching Vehicles ... Materials		·26	1·56
				Total...	·45	2·70
		147		...	·28	3·59
	1 to 3		Goods Vehicles ... Wages including overtime		·31	3·90
			Goods Vehicles ... Materials		·28	3·59
				Total ..	·59	7·49
		148	*Cleaning and Oiling—*			
3	1		Labour, including wages of Oilers, &c.		·08	·33
	2		Stores		·03	·13
				Total...	·11	·46
		149				
4			*New Minor Works—*			
			Unclassified Expenditure—			
5	1		Loss by exchange		·09	·38
	2		Loss on Stores, &c.		·01	·04
	3		Freight on Stores		·01	·02
				Total...	·11	·44
			Total Heads, 4 and 5		·11	·44
			Less Credits		·01	·05
		150	*Net Total, Other Charges*		·10	·39
		151	*Total, Carriage and Wagon Expenses*		1·36	5·52

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE D.

Traffic Expenses.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive number in Analysis.	DETAILS.		*a.* Per total Train-Mile. 68,621	*b.* Per cent of Traffic earnings Abstracts H. and I. 1,20,295
					As.	Per cent.
			General Superintendence—			
IX (D) 1	(*a*) 1 & 3		Traffic Manager, Assistants, &c., including travelling allowances		·17	·62
	(*a*) 2 & 4		Office establishment and contingencies		·11	·37
		152		Total...	·28	·99
	(*b*)	153	*Station Staff*		1·14	4·05
	(*c*)	154	*Train Staff*		·23	·82
2	1 to 3	155	*Fuel, Lighting, Water and General Stores*		·24	·87
3		156	*Clothing*		·0003	·0008
4		157	*Printing, Stationery and Tickets*		·15	·53
5		158	*Charges for delivery and collection of goods, &c.*		·0002	·0008
6		159	*Miscellaneous Expenses*		·01	·04
			Payments to other Lines—			
7	1	160	Expenses at joint Stations		·01	·06
			Unclassified Expenditure—			
8	1		Loss by exchange		·07	·27
	2		Loss on Stores, &c.		·05	·17
	3		Freight on Stores		·03	·09
				Total Head, 8	·15	·53
			Less Credits		·0004	·002
		161	*Net Total, Other Charges*		·15	·53
		162	*Total Traffic Expenses*		2·21	7·89

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE E.

General Charges.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive number in Analysis.	DETAILS.	*a.* Per total Train Mile. 68,621	*b.* Per cent on total earnings. 1,21,439
				As.	Per cent.
IX (E) 1	1 to 4	163	*Home Expenditure*	·27	·97
			Indian Management—		
	1	164	Agent's Office, including travelling allowances and contingencies.	·18	·66
	2		Auditor's office, ditto ditto	·45	1·58
	3		Accounts office, ditto ditto		
	4		Paymaster's office, ditto ditto		
		165	Total 2 to 4...	·45	1·58
2				·12	·42
	5	166	Store Department, ditto ditto	·07	·24
	6	167	Medical Department, ditto ditto	·003	·01
	7		Rents	·098	·35
	8 to 10		Miscellaneous expenses, including, printing, stationery and medicine	·101	·36
		168	Total 7 to 10 ...		
3	1 to 3	169	*Police*	·01	·02
4		170	*Advertising*	·23	·82
			Electric Telegraph—	·01	·05
5	1 to 4		Salaries, &c.	·18	·61
	5		Maintenance (Wages and Stores)		
	6		Government Telegraph Department, for rent, maintenance and inspection	·42	1·48
		171	Total...		
6			*Clearing Accounts, with other lines—*		·35
			Unclassified Expenditure—	·10	·03
7	1		Loss by exchange	·01	·001
	2		Loss on Stores, &c.	·0003	
	3		Freight on Stores		
			Total...	·1103	·381
			Total Heads, 6 and 7	·1103	·381
			Less Credits	·0001	·0003
		172	*Net Total, Other Charges*	·1102	·38
		173	*Total General Charges*	1·73	6·11

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

ANALYSIS OF WORKING.—(*contd.*)—HALF YEAR ENDED 30*th June*, 1890.

No. VIII.—Working Expenses.—(*contd.*)

TABLE F.

Steam Boat Service.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive Number in Analysis.	DETAILS.	Per cent on Steam boat earnings.
IX (F)	...		*Working Expenses—*	Per cent.
1	1		Salaries and allowances of Officers and crews...	
	2		Loading and unloading vessels	
	3		Pilotage fees	
	4		Contingencies	
			Repairs—	
2	1		Wages	
	2		Materials	
3	1 to 5	173*a*	*Fuel*	
4	...		*Miscellaneous Stores*	
5	1 & 2		*Steam Traffic Agencies*	
6	...		*New Minor Works*	
7	1 to 6		*Miscellaneous Expenditure*	
			Total	
			Less Credits...	
			Total Steam Boat Expenses	

TABLE G.

Special and Miscellaneous Expenditure.

Reference to Revenue Account. Table and main-head.	Sub-head.	Progressive Number in Analysis.	DETAILS.	Per cent on Total earnings. 1,21,439
				Per cent.
IX (G) 1	...	174	*Law Charges—*	·005
			Compensation—	
2	1		For goods lost or damaged	·068
	2		„ Personal injury	
	3		„ Other claims	·002
		175	Total...	·070
3	...	176	*Rates and Taxes*	·124
			Payments to other Lines—	
4	1	...	Hire of Locomotives	
	2	...	„ of Vehicles	
	3	...	Mileage of foreign stock	
	4	...	Rent of stations, &c., jointly occupied	·044
		177	Total...	·044
5	...	...	*Contributions to Special Funds (in detail)*	
6 to 8	...	...	*Miscellaneous*	25·34
			Total Heads, 5 to 8	25·34
			Less Credits	
		178	*Net Total, Other Charges*	25·34
		179	*Total Special and Miscellaneous Expenses*	25·58

WILLIAM S. BETTS,
Agent.

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPÁTI SECTION.

APPENDICES TO ANALYSIS OF WORKING.

HALF-YEAR ENDED 30*th June*, 1890.

APPENDIX I.

Working of Locomotives.

Reference to Revenue Account. Table & main head.	Sub-head.		F. CLASS STATE RAILWAY TYPE.
XII	5	1—Number of Locomotives erected and made over to Locomotive Department ...	10
	11	2—Average number of Locomotives constantly under repairs and renewals ...	1·154
		3—Number of Locomotives laid by as spare ..	1
		4—Ditto lent or hired out to other lines ...	
		5—Average number of Locomotives 1—(3+4) ...	9
		6—Total Mileage of Locomotives (5) ...	75,837
		7—Average miles run by a Locomotive of each class 6÷5 ...	8,426
		Per diem.	46·55
		8—Weight of coal, &c., used per Engine mile ... (*To be separated if possible among the classes of Locomotives*)	lbs.
		9—Weight of wood used per Engine mile ... (*To be separated if possible among the classes of Locomotives*)	24·20

	Passenger Trains.	Goods Trains.	Mixed Trains.	Total.
10—Average gross weight of trains hauled *Tons*...	92·07	51·72	92·89	88·94
11—Average speed between stations *Miles per hour*...			16	
12—Average through speed *Miles per hour*...			13	
13—Average Consumption of coal per Engine mile lbs...	27·78	26·22	26·62	

APPENDIX II.

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

APPENDICES TO ANALYSIS OF WORKING.—(*contd.*)—HALF-YEAR ENDED 30*th June*, 1890.

APPENDIX II.

Working of Vehicles.

DESCRIPTION OF VEHICLES.	Total number on the list at end of the half-year.	AVERAGE WEIGHT IN TONS.		AVERAGE CARRYING CAPACITY.		Average number laid by as spare.	Average number lent or hired out.	Average number working a—(d + g)
		Of each description of Vehicle.	Of each group.	Of each description of Vehicle.	Of each group.			
COACHING STOCK—	*a.*	*b.*	*c.*	*d.*	*e.*	*f.*	*g.*	*h.*
First Class Carriage	...	...	...	...	...	...	...	...
Composite do.	5	5·25	...	12	...	...	...	5
Third Class do.	30	5·03	...	30	...	...	...	30
Horse Box	5	6·09	...	1·76	...	...	...	5
Luggage Brake Vans	8	7·65	...	1·00	...	...	...	8
Total... ...	48	5·60	5·60	...	...	...	...	48
GOODS STOCK—								
Covered Goods Wagons Iron Body	100	3·20	3·02	5·75	5·86	...	...	100
Low sided Wagons	98	2·81		6·00				98
Powder Vans	2	4·15		5·00				2
Timber Trucks	4	3·19		5·75				4
Platform Trucks	4	2·76		6·00				4
Ten Tons Travelling Crane	2	22·50	22·50		...	...	...	2
Brake Vans	2	2·81	2·81		...	...	...	2
Total... ...	212	3·20	3·20	5·86	5·86	...	...	212
GRAND TOTAL... ...	260	...	...	...	...	...	...	260

MILEAGE OF						Ton-mileage of Vehicle dead weight hauled on Home Line.
FOREIGN VEHICLES ON HOME LINE.		HOME VEHICLES ON HOME LINE.		Home Vehicles on Foreign Lines.	Carrying Capacity hauled on Home Line.	
Loaded.	Empty.	Loaded.	Empty.			
i.	*k.*	*l.*	*m.*	*n.*	*o.*	*p.*
		71,866			862,392	377,296
		574,847			17,245,410	2,891,480
		70,133	1,522		74,405	542,517
		716,846	1,522			3,811,293
		263,261	74,123		1,952,444	1,059,593
			804			2,259
		263,261	74,927			1,061,852
		980,107	76,449			4,873,145

The average mileage per diem run by { Coaching Vehicles 3,969 / Goods do. 1,868

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

APPENDICES TO ANALYSIS OF WORKING.—(*contd.*)

HALF-YEAR ENDED 30*th June*, 1890.

APPENDIX III.

Distribution of Mileage according to the traffic carried, giving total mileage of Home and Foreign Stock on Home line.

DESCRIPTION OF VEHICLES.	MILEAGE OF			REMARKS.
	Vehicles.	Carrying Capacity.	Dead weight.	
Coaching—				
First class	23,899	286,796	125,473	
Second class	47,800	573,592	250,946	
Third or Intermediate class				
Fourth or Lowest class	599,306	17,979,180	2,969,138	
Total Passenger vehicles	671,005	18,839,568	3,345,557	
Other coaching vehicles	70,820	73,570	536,130	
Total paying coaching mileage	741,825		3,881,687	
Passenger brake-vans				
Total coaching mileage, including brakes ...	741,825		3,881,687	
Goods—				
Loaded vehicles	238,468	1,377,472	752,982	
Empty do.	74,123	432,412	227,273	
Total paying goods mileage	312,591	1,809,884	980,255	
Goods brake-vans	1,472		7,369	
Total goods mileage, including brakes	314,063	1,809,884	987,624	
Miscellaneous—				
Free Mileage for inspection, &c.	668		3,834	
GRAND TOTAL ...	1,056,556		4,873,145	

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

APPENDICES TO ANALYSIS OF WORKING.—(*continued.*)

HALF-YEAR ENDED 30*th June*, 1890.

APPENDIX IV.

Maintenance of Permanent Way.

RAILS.

DETAILS.	IRON.			STEEL.					Total Iron and Steel.
			Total.				Steel, weighing 41½ lbs. per yard.	Total.	
1 Miles of rail in way, including sidings							182·84	182·84	182·84
2 Average age of rails in way at the middle of the half-year years...							2·5	2·5	2·5
3 Rails renewed ... ... Miles...									
4 Proportion renewed per mile of rail (1)									
5 Average number of tons hauled over each kind of rail in the half-year.									
6 Thousands of tons hauled on an average over each kind of rail during the average age of rail in way (2)									

SOUTH INDIAN RAILWAY.

NELLORE—TIRUPATI SECTION.

APPENDICES TO ANALYSIS OF WORKING.—(*concld.*)

HALF-YEAR ENDED 30*th June*, 1890.

APPENDIX V.

Maintenance of Way.

SLEEPERS.

	DETAILS.	WOOD. TRANSVERSE.					IRON.				Steel transverse sleepers.
					Pingadoo.	Total.			D. O. M. cast iron Sleepers.	Total.	
					No.	No.			Pairs.	Pairs.	No.
1	Number of Sleepers in way, including sidings at the commencement of the half-year ...				13,719	13,719			92,135	92,135	69,983
2	Average age of Sleepers in way at the middle of the half-year ... ... years...				2·5	2·5			2·5	2·5	2·5
3	Number removed				3	3			282	282	3
4	Number laid				5	5			282	282	5
5	Percentage of removals on total of each class (1) ...				·0218	·0218			·3060	·3060	·0042
6	Number of Sleepers in way, including sidings at the end of the half-year*				13,721	13,721			92,135	92,135	69,985

* Exclusive of teak wood sleepers on bridges and at points and crossings.

Form No. 2.

PUBLIC WORKS DEPARTMENT.

OFFICE OF CONSULTING ENGINEER FOR RAILWAYS,

Madras, 8th November 1890.

Ten copies of the Analyses of
wor King Nellore Branch of the
Villupuram Gudalkal State Railway
for the half year ended the 30th June 1890
No. 781

SUBMITTED _____ to _____ Government, for
transmission to the Director
General of Railways with
reference to letter from the
Government of India No. 204
R.R. dated 23rd March 1888,
embodied in the Proceedings
of Government No. 274R dated
6th April 1890.

Sidney Smith
Major R.E.

For Offg: Cnl: Engr: for Rly

No 1825 R dt 18th Novr 1890.

A

Form No. 3.

From

THE CONSULTING ENGINEER
FOR RAILWAYS,
MADRAS.

No. 481

Dated 8 } November 1890.
Received 8 }

No. of Enclosures.

Subject.

Submitting for transmission to the Director General of Rys ten copies of the Analysis of working Nellore Branch V. Rly for the half year ended 30th June 1890.

H.S. 12/11/90
Ordered to be forwarded to the Director General of Railways and to the Secretary of State.

H.E. No 1826 R dt 18th Novr. 1890
Forwarded.

To The Comptroller for Rys & Exhibn Rly Accts.

H.E. No. 19/1825 R dt 18th Novr 1890

To The Rt Hon: the Secy: of State for India

My Lord,

H.S. 12.11.90

We have the honour to forward a copy of our Proc. No 1825 R dated 18th Novr. 1890, embodying the Analysis of working of the Nellore Branch of the Villupuram Gunta Kal State Railway for the first half of 1890.

I have &c
W.S.R

H.S. 11.12.90.