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DEVELOPMENT OF INDIAN RAILWAYS

**DEVELOPMENT OF
INDIAN RAILWAYS**

BY

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Dedicated
To
The Memory of
The Late Maharaja
SIR MANINDRACHANDRA NUNDY, K.C.I.E.
of Kasimbazar, Bengal
of unbounded charities
for the advancement of education in India

PREFACE

Indian railway development is a most interesting and fascinating study, connected as it is with the history and the prospects of agricultural and industrial life in the country. Unfortunately the problems of railway transport have been altogether disregarded by economists in India.

An attempt has been made in the following pages to give a connected account of the rise and development of railways in India, the various needs the railways had to satisfy in the pre-industrial era, as well as the types of ownership and management which facilitated a rapid construction. Emphasis has been laid throughout to present in sequence the various problems which Indian railway development had to face and the study has been conducted by periods and not by subjects. The division of the periods of study has been determined chiefly by consideration of changes in railway policy and financial administration, and this has sometimes necessitated a departure from a rigid survey by periods of certain problems.

One can hardly say that such problems like those of policy and management, rates and fares, financial administration and results have been solved finally. These have had a history in the past and are still awaiting solution.

I have discussed these and other kindred problems like railway law, gauge and alignments, and working and traffic results in the light of the larger economic interests of the country.

Some problems, again, are quasi-political. It will be realised that the question of state *vs.* company management in India involves issues which are not as simple as these are in the West. Companies here have been far

different from what they have been in European countries, while the state has not been completely the servant of public opinion. Thus with increased democratisation of the machinery of government the question of company and state management of our railways will have to be re-discussed. Probably the example of Germany, which best combines the features of both company and state managements may offer the ideal solution for India.

Similarly, the question of the separation of railway finance, which was first raised as early as the eighties of the last century, must not be considered as having reached the final solution. Such separation is highly desirable to check many of the evils of state-management, but the convention reached in India in effecting the separation has proved unsatisfactory. Half-way measures in this respect cannot succeed, and there must be a complete and effective separation or no separation at all. In any future scheme there should be no room left for the jealousy either of the Finance Department of the Government of India or of the Indian Legislature.

The net-work of early Indian railways bore the impress of India's backward industrial development and the importance of her agricultural exports. With rapid industrialisation greater attention will be directed towards the exploitation of her internal markets and the movement of inland trade.

The time has arrived for taking a comprehensive view of India's demand for transportation as a whole, and our future railway policy and development should be judiciously co-ordinated with the possibilities of road motor, inland and coastal water vessels, and commercial air transport. The machinery for securing such co-ordination should be set up without delay.

The railway law also requires a thorough revision, and now that the jurisdiction of state-management is

extending, the users of the rail should be afforded better statutory protection, particularly with respect to the carrier's responsibilities in transportation services, rates, fares, and claims, and safety arrangements.

The history of rates and fares in India is a chequered story of confusions of principle and anomalies of practice, and the country needs to-day a scientific system fashioned in the best interests of traffic, industry and commerce. I have pleaded for a regular Rates Tribunal instead of a mere Advisory Committee, which should be instituted with full authority to carry out revision of rates and fares after due examination. I have also considered the subject of reduction in rates and fares and shown how this is intimately linked with the question of improving the standard of efficiency in our transport services.

In considering the subject of line gauges I have indicated the dangers of the policy of drift as is evident in recent railway development. Uniformity of gauge on the broad standard should be our objective, and this must be secured within a reasonable period through the conversion of more congested narrow gauges into the broad standard, and by the encouragement of road motor services as substitutes for the lines with light traffic. In fact, the metre and narrow gauges need critical examination, particularly in view of the prospects of motor traffic.

Finally, I have considered the various reforms carried out in railway working during recent years. These have greatly increased efficiency, but we still need a careful scrutiny of the comparative costs and economy effected by these operating improvements.

This work is based entirely on investigations carried on, during 1927 to 1929, at the London School of Economics, in the preparation of a thesis on which the degree of Ph.D. (Economics) of the University of London was awarded.

The materials for this volume have been obtained almost

entirely from official publications, reports, and records in the India Office, the British Museum Library, and from other works in the Transport Library of the London School of Economics. A bibliography is appended indicating the sources of information, and the author gratefully acknowledges his indebtedness to some of the previous workers in the field.

A large portion of the book was gone through and critically examined by Mr. W. T. Stephenson, M.A., Cassel Reader in Transport in the University of London, and Sir Ernest Bell, Kt., C.I.E., a former Member of the Railway Board. The author records his deep sense of gratitude to these gentlemen for their critical guidance. Neither of them is, however, responsible for the opinions expressed in the following pages.

Grateful thanks are also due to the management of some of the chief railways in Great Britain, Germany, France, and other European countries for enabling the author to obtain practical training in railway operation and commercial work, and a view of comparative railway management. Such acquaintance has proved valuable in critically examining some of India's crying problems of transportation and in envisaging its future.

Acknowledgments are lastly to be made for the timely help extended by the University of Calcutta in the publication of the book.

DEPARTMENT OF COMMERCE, }
 CALCUTTA UNIVERSITY. }
 30th July 1930.

NALINAKSHA SANYAL

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APPENDIX I

Resolution on Separation of Railway Finance, 20th September, 1924

This Assembly recommends to the Governor-General in Council that in order to relieve the General Budget from the violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry out a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the railways :

1. The Railway Finances shall be separated from the General Finances of the country and the general revenues shall receive a direct annual contribution from railways which shall be the first charge on the net receipts of railways.

2. The contribution shall be based on the capital at charge and working results of commercial lines, and shall be a sum equal to one per cent on the capital at charge of commercial lines (excluding capital contributed by companies and Indian States) at the end of the penultimate financial year, *plus* one-fifth of any surplus profits remaining after payment of this fixed return, subject to the condition that, if in any year railway revenues are insufficient to provide the percentage of one per cent on the capital at charge, surplus profits in the next or subsequent years will not be deemed to have accrued for purposes of division until such deficiency has been made good.

The interest on the capital at charge of, and the loss in working strategic lines shall be borne by general revenues and shall consequently be deducted from the contribution

so calculated in order to arrive at the net amount payable from railway to general revenues each year.

3. Any surplus remaining after this payment to general revenues shall be transferred to a Railway Reserve; provided that if the amount available for transfer to the railway reserve exceeds in any year three crores of rupees, only two-thirds of the excess over three crores shall be transferred to the railway reserve and the remaining one-third shall accrue to general revenues.

4. The Railway Reserve shall be used :—to secure the payment of the annual contribution to general revenues; to provide, if necessary, for arrears of depreciation, and for writing down and writing off capital; and to strengthen the financial position of railways in order that the services rendered to the public may be improved and the rates may be reduced.

5. The railway administration shall be entitled, subject to such conditions as may be prescribed by the Government of India, to borrow temporarily from capital or from the reserves, for the purpose of meeting expenditure for which there is no provision or insufficient provision in the revenue budget, subject to the obligation to make repayment of such borrowing out of the revenue budgets of subsequent years.

6. A Standing Finance Committee for Railways shall be constituted consisting of one nominated official Member of the Legislative Assembly and eleven Members elected by the Legislative Assembly from that body. The Members of the Standing Finance Committee for Railways shall be *ex-officio* Members of the Central Advisory Council, which shall consist, in addition, of not more than one further nominated official Member, six nominated Members selected from a panel of eight elected by the Council of State from that body, and six non-official Members selected from a panel of eight selected by the Legislative Assembly.

The Railway Department shall place the estimates of railway expenditure before the Standing Finance Committee for Railways on some date prior to the date for the discussion of the Demand for Grants for railways, and shall, as far as possible, instead of the expenditure programme revenue, show the expenditure under a depreciation fund created as per new rules for charge to capital and revenue.

7. The Railway budget shall be presented to the Legislative Assembly, if possible, in advance of the General budget, and separate days shall be allotted for its discussion, and the Member in charge of Railways shall then make a general statement on railway accounts and working.

The expenditure proposed in the railway budget, including expenditure from the Depreciation Fund and the Railway Reserve, shall be placed before the Legislative Assembly in the form of Demand for Grants. The form the budget shall take after Separation, the details it shall give, and the number of Demands for Grants into which the total vote shall be divided, shall be considered by the Railway Board, in consultation with the proposed Standing Finance Committee for Railways, with a view to the introduction of improvement in time for the next budget, if possible.

8. These arrangements shall be subject to periodic revision, but shall be provisionally tried for three years.

In view of the fact that the Assembly adheres to the Resolution passed in February 1923, in favour of state management of Indian railways, these arrangements shall hold good only so long as the East Indian Railway and the Great Indian Peninsula Railway and existing state-managed railways remain under state management. But if in spite of the Assembly's resolution above referred to Government should enter on any negotiations for the transfer of any of the above railways to company-management, such negotiations shall not be concluded until facilities have been given for a discussion of the whole matter

in the Assembly. If any contract for the transfer of any of the above railways to company-management is concluded against the advice of the Assembly, the Assembly will be at liberty to terminate the arrangements in this resolution.

Apart from the above convention this Assembly further recommends :

(i) That the railway services should be rapidly Indianised, and further that Indians should be appointed as Members of the Railway Board as early as possible; and

(ii) That the purchase of stores for the state railways should be undertaken through the organization of the Stores Purchase Department of India.

APPENDIX II

*Capital Outlay and Earnings of all Indian Railways
(1900 to 1928-29)*

Year.	Mileage open in Thousands.	In Lakhs of Rupees.				Operating Ratio.	Percentage of Net Earnings to Capital Out- lay.	
		Total Capital outlay.	Gross Earnings.	Working Expenses.	Net Earn- ings.			
1900	24.7	329.61	31.54	15.09	16.45	47.8	4.99	
1901	25.3	339.17	33.60	15.72	17.88	46.8	5.27	
1902	25.9	349.77	33.93	16.70	17.22	49.2	4.92	
1903	26.8	341.11(a)	36.01	17.11	18.90	47.5	5.54	
1904	27.5	347.91	39.67	18.79	20.88	47.4	6.00	
1905	28.3	358.26	41.70	19.95	21.75	47.8	6.07	
1906	29.1	371.01	44.14	22.02	22.11	49.9	5.96	
1907	29.9	391.87	47.30	24.32	22.98	51.4	5.86	
1908	30.6	411.92	44.83	27.00	17.82	60.2	4.33	
1909	31.5	429.83	47.06	26.38	20.68	56.1	4.81	
1910	32.1	439.45	51.14	27.16	23.98	53.1	5.46	
1911	32.8	450.07	55.28	28.84	26.44	52.2	5.87	
1912	33.5	465.15	61.65	30.16	31.49	48.9	6.77	
1913-14(b)	34.6	495.09	63.58	32.93	30.65	51.8	6.19	
War Years.	1914-15	35.3	519.22	60.43	32.75	26.68	54.2	5.33
	1915-16	35.8	529.98	64.66	32.92	31.74	50.9	5.99
	1916-17	36.3	535.28	70.68	33.40	37.28	47.2	6.96
	1917-18	36.3	541.80	77.35	35.39	41.99	45.7	7.75
	1918-19	36.6	549.74	86.29	41.80	44.48	48.4	8.09
1919-20	36.7	566.38	89.15	50.66	38.50	56.8	6.80	
1920-21	37.0	626.81	91.99	60.29	31.70	65.5	5.06	
1921-22	37.3	647.97	92.89	70.80	22.09	76.2	3.41	
1922-23	37.6	697.46	105.65	72.99	32.66	69.1	4.68	
1923-24	38.0	717.93(c)	107.80	68.45	39.35	63.5	5.48	
1924-25	38.3	733.37	114.75	69.37	45.39	60.4	6.19	
1925-26	38.6	754.31	113.39	71.09	42.30	62.7	5.61	
1926-27	39.0	788.67	112.36	69.70	42.66	62.0	5.41	
1927-28	39.7	822.86	118.26	72.60	45.66	61.4	5.55	
1928-29	40.95	831.39	118.87	74.62	44.25	62.8	5.32	

(a) On open lines only from this date.

(b) 1st quarter of 1913 ignored for statistical purposes.

(c) Total Capital at Charge and not Total Capital Outlay given from 1923-24.

APPENDIX III

Charges Borne by or Contributions made to General Revenues on account of Indian Railways¹

IN LAKHS OF RUPEES.

Year	Gain + or Loss -	Year	Gain + or Loss -
1848-49 to } 1860-61 }	- 6.42	1907-08	+ 2.35
1861-62 to } 1870-71 }	- 16.74	1908-09	- 1.86
1871-72 to } 1880-81 }	- 19.77	1909-10	+ 1.22
1881-82 to } 1890-91 }	- 15.57	1910-11	+ 2.97
1891-92 to } 1900-01 }	- 17.45	1911-12	+ 5.61
		1912-13	+ 7.13
		1913-14	+ 7.18
		1914-15	+ 3.24
		1915-16	+ 6.11
		1916-17	+ 11.37
		1917-18	+ 14.87
		1918-19	+ 15.84
		1919-20	+ 9.34
		1920-21	+ 5.65
		1921-22	- 9.27
		1922-23	+ 1.22
		1923-24	+ 6.47
1901-02	+ 1.41	1924-25 ²	+ 6.77
1902-03	+ 24	1925-26	+ 5.48
1903-04	+ 1.04	1926-27	+ 6.01
1904-05	+ 2.96	1927-28	+ 6.28
1905-06	+ 2.83	1928-29	+ 5.23
1906-07	+ 3.40		

Total losses to 1901: Rs. 75.95 Lakhs.

Balance of Gains and Losses, 1901 to 1928-1929 : Rs. 131.09 Lakhs,

¹ Figures before 1913-14 are obtained from Annual Financial Statements, the railway year up to 1912 having been calendar years only. The other figures are from Annual Administration Reports for Railways.

² From 1924-25, when the Railway Reserve Fund was created, the contributions to general revenues do not indicate the net surplus. These were as follows:—

1924-25 Rs. 13.16 Lakhs.

1926-27 Rs. 7.50 Lakhs.

1925-26 Rs. 9.28 ..

1927-28 Rs. 10.15

1928-29 Rs. 7.81 Lakhs.

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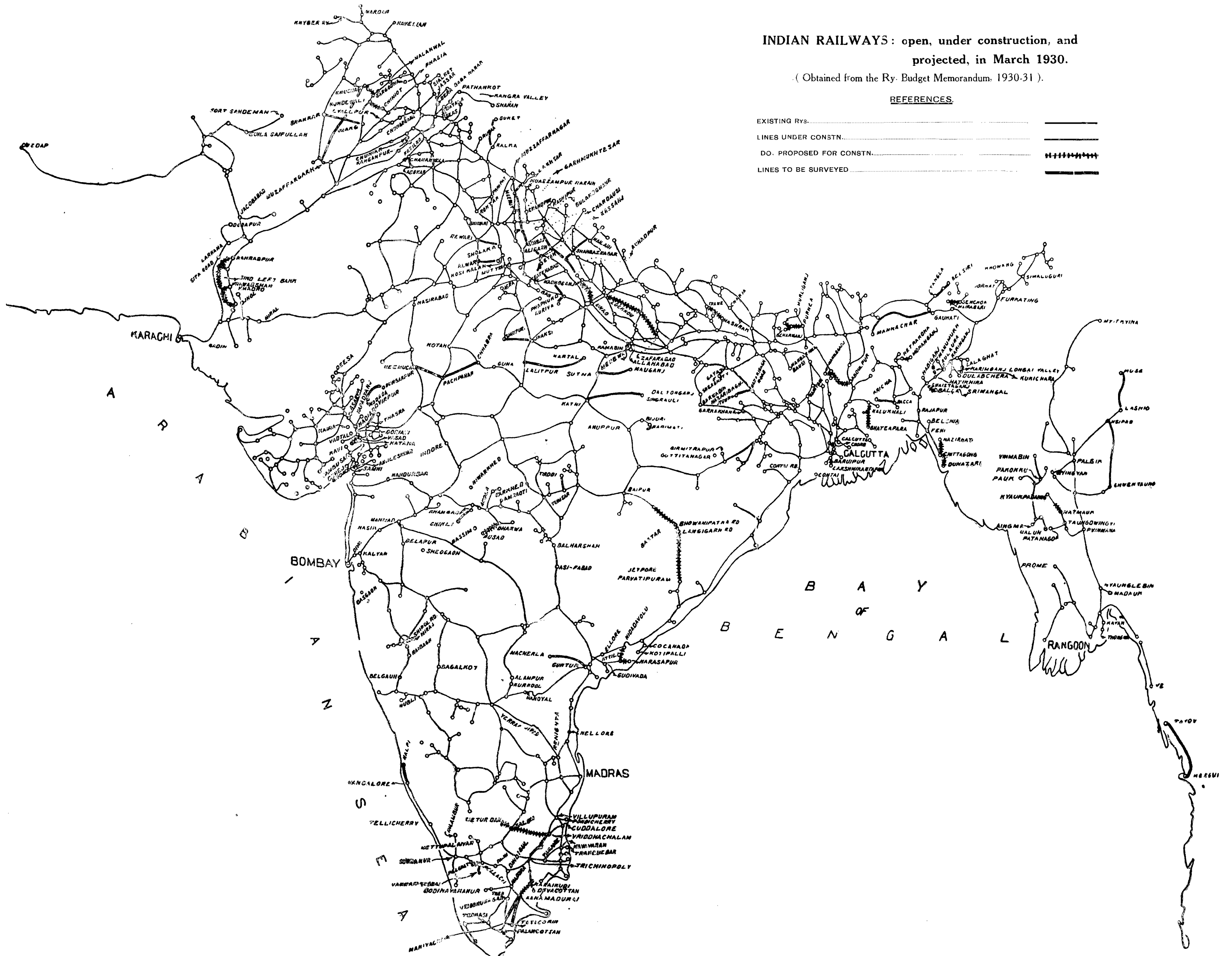
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