



# Understanding the history of the Development of Railways in Colonial India

Jyotasana  
Assistant Professor  
Department of History  
Sabarmati University, Ahmedabad

## Abstract

The infrastructural development of railways in the colonial period was concerned with commercialisation and industrialisation. The development of railways in India was not a sudden expansion; it had systematic and planned growth of railways by the British government. This paper seeks to describe historically and thematically the phases of railway development in colonial India, major regions of initial railway construction and focuses on those cities which were connected via railway lines in India. It will also focus on the British arguments in different perspectives for railways development in colonial India.

**Keywords:** *Commercialisation, Colonial Period, Infrastructural development, Industrialisation, railways.*

## 1. Introduction

Transport is the mode of conveyance for persons, goods and ideas. Transport services facilitate the service of satisfaction of human needs. It supports production, consumption, exchange and distribution of wealth. A comprehensive and efficient system of public transport is a great asset to the nation. Before the introduction of railways, the chief means of transport in India were mules, bullocks, bullock-carts, camels, horses and elephants, and the rivers were the main medium of transport and the main route of commerce (Huddleston, 1906:50). Road-building was not unknown to the Indians and Indian kings built roads, which involved much engineering skill. Some kings built roads mainly for military purposes. Kautilya in his book *Arthashastra* mentions the rules and regulations for constructing roads. Asoka in the third century B.C built a road with trees on either side of the road to provide shade (Thaper, 1961:74). During the medieval period, Mohammed bin Tughluq built a road connecting Delhi and Daultabad. Shersha started building the Grand Trunk Road but he was not able to complete it (Sarkar, 1925).

After the Battle of Plassey in 1757, the English East India Company had succeeded in establishing its authority over the major part of India (Sharma, 2007:9). After the growth of political power, the British administrators in India realised the need for improved means of communication. Warren Hastings was the first Governor of the Presidency of Bengal, undertook as early as 1785, proper construction and repairs of the Grand Trunk Road from Calcutta to the North-West Frontiers (Sanyal, 1930:3).

The locomotive engine was perfected in England by George Stephenson in the year 1814. Up to 1825, England had a total length of only about 400 miles of railway owned by 29 Companies. The story of the invention of the iron road and the locomotive steam engine and the consequent development of the railway's system, with the wonderful changes, it had produced in the life of the people and conditions of the world, is of deep interest to mankind. Its introduction had wonderfully transformed the whole of the moral, material, economic, industrial and general conditions of that country, and the railway mania was at its height when the, earliest proposals for, the construction of a railway in India were put forward in 1843- 44 (Tiwari, 1921:1).

Therefore, railways were the most important infrastructural development in India from 1850 to 1947. Railways were interconnected with all aspects of Indian society, especially in terms of economy. Railways had played a crucial role in domestic and international trade and economic activities (Bogart and Chaudhary, 2011:1). By the end of the nineteenth century, total investments were 150 million pounds-sterling (Satya, 2008:70). The study of Indian railway development is indeed very interesting because it is concerned with the history of India, which affected the agriculture and industrial life of the country.

## **2. Introduction of Railways in India**

The idea of road construction came first in colonial India, followed by railway development. During the British government, Lord William Bentinck launched the construction of public roads, which lasted from 1828 until 1835. The overall length of the road between 1839 and 1849 was 30000 miles (Sanyal, 1930:3).

The first railroad idea in India was conceived in the Madras Presidency in 1831-32. The promoters of a corporation led by Sir Macdonald Stephenson made the first plans for building railways in India in 1843- 44 (Bell, 1894:1). The East India Railways Company was established in 1845 by a deed of settlement under its direction, but the idea was thwarted by the mercantile crisis in England. During the same period, the court also gave its sanction to the first line at Bombay and three years after to Madras and Calcutta. But these lines were merely experimental. Whereas the Calcutta line was 120 miles from Raneeunge, the Bombay line was 34 miles to Callion and Madras line was 50 miles to the western coast, but among these only the Calcutta line was extended for commercial purposes and the other two were only for experimental railways (Marshman, 1863:397).

Early in 1845, a formally drawn-up prospectus for a company was put before the court of directors of the East India Company. It proposed to raise a capital of one million sterling for the construction of an experimental railway, starting from Calcutta, and extending for 140 miles towards Allahabad the court of directors decided to send out to Indian railways engineer of experience who, after due enquiry, would suggest some scheme of moderate length as a first experiment. Simms arrived from England to India in September 1845. He drew up a memorandum, dated February 6, 1846, in which he made the following suggestions to the term which should be offered to English capitalists. He proposed that rent should be given by the government free of cost for permanent works; and that a company should have completed control over its servants (Tiwari, 1921:205).

The government of India in July 1846 recommended a grant of one million sterling or an annual contribution of 5 lacks of rupees to a railway completed between Calcutta and Delhi. The Court of directors dissented from the government of India on the subject of guarantee, which they held to be essential for the formation of the company, and recommended 4 per cent, on all sums paid into the treasury, on the condition that all profits should be divided between the government and the railway company (ibid).

In December 1846, the board of control communicated its view to the court of directors. They accepted the proposal for constructing railways using companies, modified the terms for ultimate purchase, and objected strongly and entirely to the idea of a guarantee or at least until the directors of the East India company fully satisfied that the money could not be raised without it, and later, only for 15 years. These terms were not acceptable to the promoters, but the board of control would not yield and a long period of delay intervened, during which the chambers of commerce of Manchester represented the need for encouraging the carrying out of railways in India. After further discussions and a further representation in June 1847 from the court of directors, the board of control reluctantly consented given the then condition of the money market, to raise the rate of guaranteed interest from 4 to 5 per cent, and for 25 years. These terms were accepted by directors of the Indian railways with a grateful sense of the liberal manner in which they had been treated by the East India Company (ibid: 207).

The first railway opened in India was the G.I.P. Railways; its first section of 20½ miles from Bombay to Thana was opened to traffic on April 18, 1853, followed by its second section of 12.42 miles from Thana to Kalyan, which opened on May 1, 1854. Then the first section on the E. I. Railways, Howrah to Hoogly, 23.28 miles long, was opened on August 15 1854, followed by its second section of the 14.31 miles from Hoogly to Pundooah, which opened on the September 1 of the same year (Tiwari, 1921:1).

The development of Railways in India dates back to the second decade of the nineteenth century. Consequently, opened in 1853 and by 1900 India, with nearly 24,000 route miles, had Asia's longest and the world's fourth longest railways system (Kerr, 2003:289). Indian railway development is especially interesting because India experienced a similar shift from private to state ownership. Beginning in 1853,

the first railway lines were constructed in India by private British companies relying on capital raised in Britain with a 5 per cent guarantee backed by the Government of India (Bogart and Chaudhary, 2009).

Indian railways expanded gradually under the influence of Lord Dalhousie's Minute. Promoters like R.M. Stephenson, J. Chapman and W.P. Andrews were the railway enthusiasts who were keen on seeing the spread of railways (Marshman, 1863). The construction and management of the Indian rail network involved private British companies, private Indian companies, and the GOI and Indian native states. Ten private companies incorporated in Britain, constructed and managed the early trunk lines. After that eight major railway companies were formed, these are (1) East India Railway, (2) Great Indian Peninsula, (3) Eastern Bengal, (4) Bombay, Baroda and Central India, (5) Sind, Punjab and Delhi, (6) Madras, (7) South Indian, and (8) Oudh and Rohilkhand (Bogart and Chaudhary, 2011:4). These companies constructed the major trunk routes connecting the ports and to the interior on the broad gauge. These were the following major railway's company.

The East Indian Railway Company was the first railway company in the history of railway construction in India. This line was completed from Calcutta to Delhi, with a branch to the collieries at Raneegunge, and another to meet the Bombay line Jabalpur. The whole length was 1,369 miles (Marshman, 1863:399). The introduction of the Great Indian Peninsula Railway Company in India on November 8, 1844. The objective of this line was to connect the western capital and emporium, in one direction with Madras, and the other with Delhi and Calcutta, by a junction with the East India railways to Jabalpur. The total length of this railway line was 1,266 miles (Marshman, 1863:399).

In 1836, A. P. Cotton, a civil engineer of Madras presented a more serious report on a railway line from Madras to Bombay via Bangalore and Poona. After this, the Madras Railway Company was formed in London on July 8, 1845, with the general objective of constructing rail roads in the Madras Presidency. One line taking a south-western direction to Beypore, on the Malabar Coast, and the other a north-west direction to Bellary, to join the Bombay line and thus complete the triangulation of India. Two branches strike off from the south-western line, one to the Nilgherres, 30 miles; the other to Bangalore, 80 miles. The entire length of the line under the management of this company was 850 miles (ibid).

Bombay, Baroda and Central India Railway Company were formed in Britain in 1852. J.P. Kennedy, the ex-consulting Engineer to the government of India had become its consulting Engineer. It adopted the route from Bombay along the sea coast to Surat, Broach, Baroda, Neemuch and then to Agra. The objective is to connect the extensive cotton district of Surat in direct communication with the port of Bombay (Marshman, 1863:400).

The Sindh railway was to connect the port of Karachi with Kotree, near Hyderabad, on the Indus. The total distance of this line was 114 miles. Then there was a construction of the railway from Multan to Lahore and Amritsar, a distance of 252 miles, and from thence down to Delhi, 300 miles. The entire length of the lines under the management of this company was 666 miles (ibid). The Eastern Bengal

Railway was also an important route. This line was intended to rapidly and to afford regular communication between Calcutta and the districts lying to north and east it so that communication between these cities can be easy and quick.

The great southern India rail was constructed in the Madras region. This railway was constructed to give the provinces of the south of Madras, the benefits of railway communication. The first portion of the line, which had been completed, runs from Negapatam, on the Coromandal coast, to Trichinopoly (ibid).

### 3. Phases of Railways Developments in Colonial India

In history, the Indian railways were characterised by four distinct phases of ownership and operation. The phases of railway construction in India also can be divided based on construction, ownership, and control by private companies, government, and investors, whereas the rise of state ownership, was the key factor to reducing operating costs (Bogart and Chaudhary, 2009:3).

The first phase was covered from 1853 to 1868, under the supervisory ownership of the government of India. In this phase, railway constructions were being constructed and managed by private guaranteed companies. The second phase accounted for from 1869 to 1882; construction was carried out by the private guaranteed companies. The third phase of the Indian railway from 1882 under the ownership of the complex public-private partnership. And the fourth phase began in 1924, this phase involved gradual nationalisation (Chaudhary and Bogat, 2009:7). Thus, the total investment from 1845 to 1875, by the British government, in railway through the guaranteed companies was 95£ million (Macpherson, 1955: 177).

#### 3.1 First Phase of Railway Construction

The first phase of railway development in India is called “Old Guaranteed Railways”, which began in the year 1845. At that time, eleven companies were incorporated in England to construct and manage railways in different parts of India. The companies, being in charge of the government were guaranteed at an annual rate of 5% on all capital raised by them and free land for 99 years by the government (Tiwari, 1921:205).

At that time, railway lines had been constructed on large scale in many regions by the different constructors; but in case of cost old guaranteed railway was expensive than the state railways. During this construction period, the East India Company was fully satisfied that money could not be raised without it, and then only 15 years (Tiwari, 1921:207). Railway construction was controversial in respect to the contract of construction; either it should be under the control of governments or private companies. Meanwhile, railway engineer Simms was sent to India in 1845, to give important advice on railway construction in India. Simms suggested that a construction lease should be given to the company, with full control on the servants who were engaged in the railway.



Under the guarantee system, all contracts were given only to British companies (Satya, 2008:70). It was unfortunate for India; a selection of railway lines and directions was under the control of British investors. In August 1850, the Government of India finally communicated to the Government of Bombay; the sanction for the construction of the first section of railway work in that presidency, and for the time being the policy of short experimental lines was accepted (Sanayal, 1930:19-20).

Among the administrative authorities who had played important role in the construction of Indian Railways, Lord Dalhousie was important. In respect of railway development, the first experimental railway was constructed in Bengal by Lord Dalhousie in 1850; it was the beginning of railway construction in India. Further, by Dalhousie, the trunk line for Calcutta to Lahore was constructed in 1853. Dalhousie in his effort for the railway line (The Trunk Line) constructed from Bombay to Madras, later on, this line was extended from Calcutta to Lahore, Madras and Malabar Coast (Tiwari, 1921:209). The objective to construct the railways in India, according to Dalhousie was to increase the striking power of his military, second, to bring British capital and enterprise to India, and lastly commercial and social advantage to India and maintain them to increase the production of cotton which loud in England mills (ibid:209). In 1858, Lord Canning opposed the guarantee system and suggested strict control over the finance of the country.

Under the first phase of railway construction in India, some private companies had constructed railway lines in India from 1849 to 1870. These were the East Indian Railway Company 1849, the Great Indian Peninsula Railway Company 1849, the Madras Railway Company 1852, the B. B. & C. L Railway Company 1855, the Sind, Punjab & Delhi Railway Company in 1858, the Eastern Bengal Railway Company in 1858, the Great Southern of India Railway Company in 1858, the Calcutta & South Eastern Railway Company in 1859, (Subsequently Oudh and Rohilkhand) Railway Company 1867, and the Carnatic Railway Company (amalgamated in 1870). These were some famous companies which formed to construct and work on the railway in the various parts of India.

**Table: 1 Railways Construction under the First Phase (Old Guaranteed Railways)**

Name of Companies	Miles Open on 31-12-1880	Gauge	Capital Cost Per Mile up to 1880
East Indian	1504.25	5'-6"	2,19,643
G. I. P.	1275.75	5'-6"	1,95,945
C. & S. E.	23.00	5'-6"	2,37,173
Madras	858.00	5'-6"	1,29,572
B. B. & C. I.	444.00	5'-6"	1,86,582
S. P. & D.	663.50	5'-6"	1,66,470
Eastern Bengal	158.00	5'-6"	2,08,035
Oudh and Rohilkhand	546.75	5'-6"	1,05,709
South Indian	645.25	3'3"	64,584

Source: Tiwari, 1921:217.

**Table:2 State railways under the old guaranteed system, which were constructed as follows:**

Route Between	Miles	Gauge	Capital Cast per Miles
Indus Valley	653.00	5' -6"	1,06,099
Punjab Northern	224.75	5'-6"	1,78,138
Sind	66.50	5'-6"	1,22,58
Nagpur- Chhattisgarh	53.00	5'-6"	57,315
Wardha Coal	46.50	5'-6"	1,11,156

Source: Tiwari, 1921: 217

Finally, the government accepted the moderate attitude and guaranteed 5% on capital invested. The major features of the first contract of railway development were that the contract was for 99 years. Another feature was to provide free of cost land by the state government (Sanayal, 1930:17). These long duration of the contract and free land provisions had an impact on agriculture.

### 3.2 The Second Phase of Railway Construction

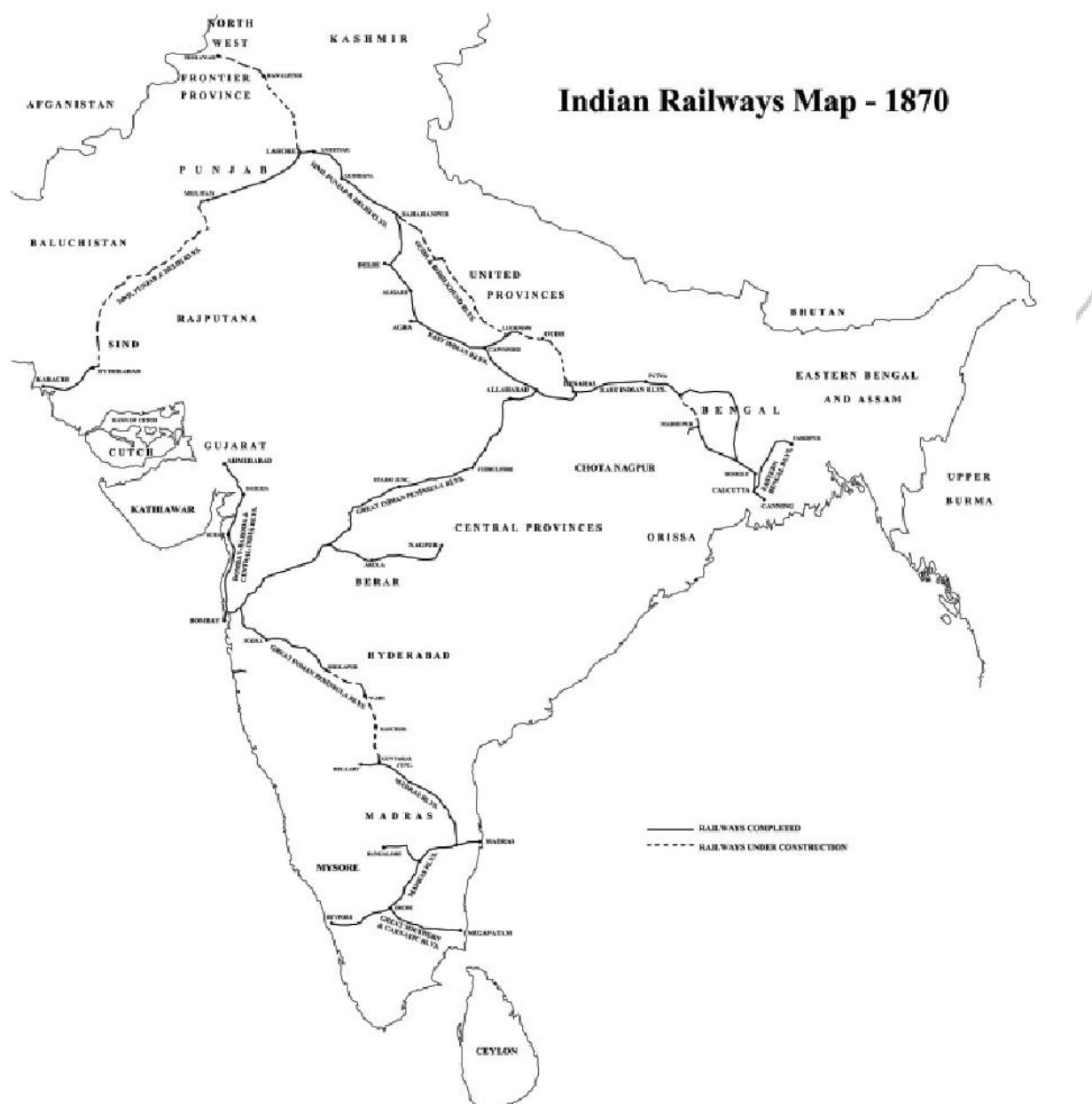
The second phase of railway construction was State Construction and the New Guarantee System (1869). The period of this phase was from 1869 to 1882; most of the railroads had been constructed by private guaranteed companies. Under the system of guarantee, "the whole profits went to the companies and whole loss to the government" (Srinivasan, 1928:2). Although railways were controlled under the government, nevertheless railways were constructed by the guaranteed companies. Later on, the government also had started to develop the railways. The second phase of railway construction was advanced in terms of technologies, consultation, investments, ownership, control and cost, because most of the rail lines which had been constructed in this phase had specific objects. During this period, the government of India had started an initiative role in the construction of railways under its control. While the ownership of railways was under the government but the capital which was invested in the railways was of private investors of England.

For the construction of railways under the second phase; firstly, contracts between the state and guaranteed companies were renegotiated in 1869. As a feature of this phase, we can see that the government had the right to purchase private railways, the government was moving in the direction of state ownership. Another feature of this phase was that the Government of India opposed the renegotiation because it forgave interest debts just as private companies were beginning to earn profits above 5 per cent and the direction of railway construction changed because of the continued unprofitability of the guaranteed lines. Therefore, by 1910 India had over 30,000 miles of rail track

(Andrabi, 2006:2). By 1860 there were 838 miles of track and it grew rapidly after that 4,771 miles by 1870, 9,162 miles by 1880, 16,401 miles by 1890, 24, 751 miles by 1900, and 32,099 miles by 1910 (Andrabi,2006:6). During this time, the Government had the right to purchase private railways; the Government indicated that they were moving in the direction of state ownership (Bell, 1894:75-76).

Thus in 1869, the guarantee system was abandoned and the government took up the construction and ownership of the Railways. The first old guaranteed railway to be purchased was the East Indian Railway in 1869.

**Map:1 Railway Map of India 1870.**



Source: Bogart & Chaudhary, 2009:34



### 3. 3 Third Phase of Railway Construction

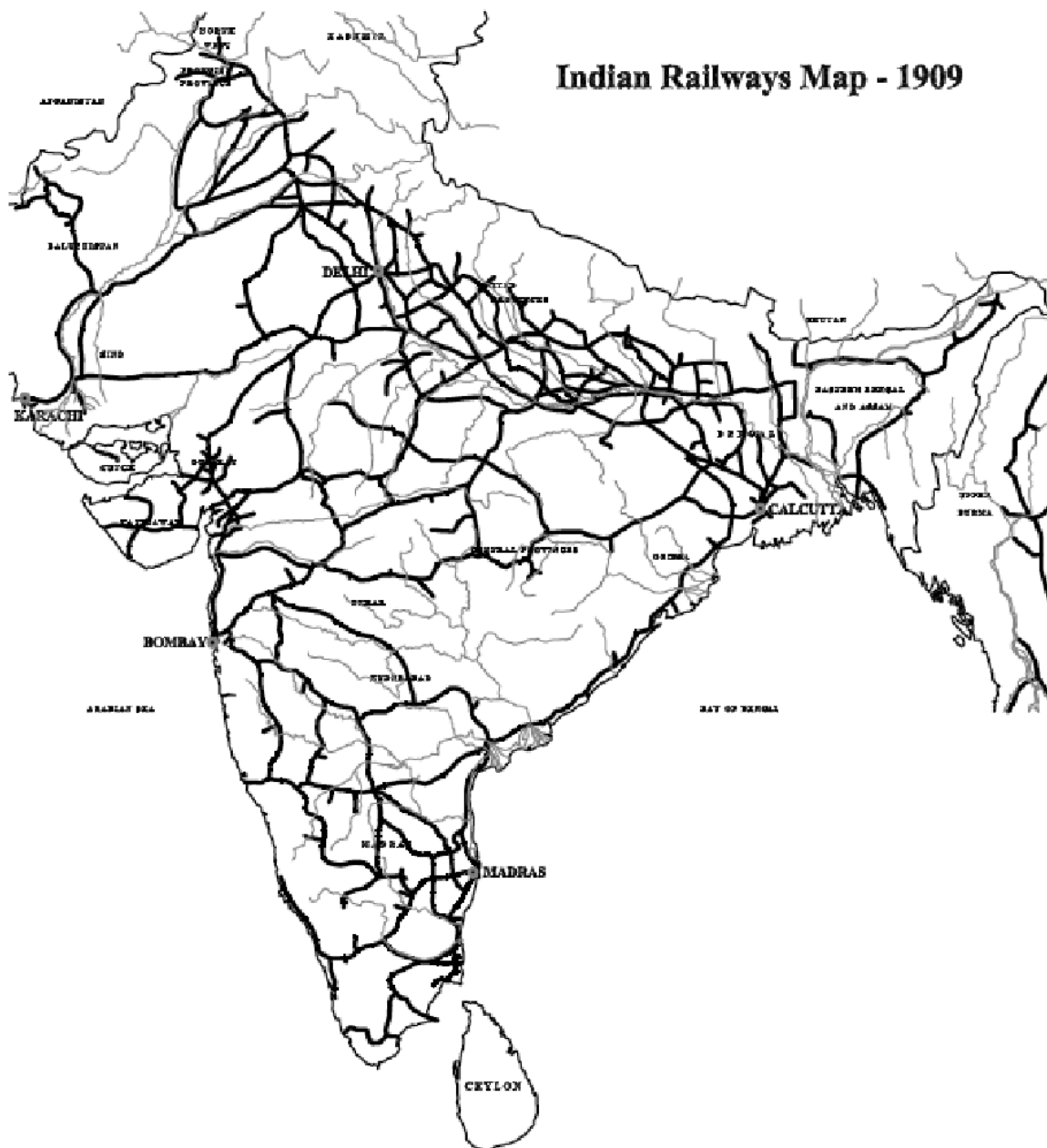
The third phase of railway construction was a New Guarantee System (1882-1925). It was called the Modified guarantee system. The earlier rate of return of 5% was reduced to 3%. And the government acquired the right to take over the railways after 25 years instead of 50 years. In this period railway development was seen in its rapid forms. Many new cities were connected to the railway lines for purposes of both transportation and passengers. The subsequent construction of railways was very rapid especially between 1890 and 1910. Open mileage grew to 838 miles in 1860, 9,162 miles in 1880, 24,752 miles in 1900, and 34,656 miles in 1913 (Bogart and Chuadhary, 2009:5).

In 1878, India witnessed the outbreak of dreadful famines. The necessity of large and rapid extension of the Railways system was felt by the Famine Commission, which estimated that mileage of at least 5000 was still needed for the protection of the country from famine (Famine commission report, 1880). During the construction of the third phase of the railway line, there were serious defects in the administrative machinery of the State Railways, resulting in losses both in costs and affected oil, general industries, trade and commerce of the country. Suggestions were therefore put forward for a reorganisation of the whole system of administration and working, with special provision for systematic training of railway officials and Subordinates (Tiwari, 1921: v).

The third phase of railway construction in India was important because it was directly related to the "Colonial Economy". The railway construction in the second half of the 19th century completed the colonisation of the Indian economy (Satya, 2008: 72). The earlier two phases of railway developments had not much affected India in terms of economy, construction, the exportation of goods and food grains, passenger transportation, and cost and fair.

Therefore, this phase was directly related to the colonial economy. Because of the transportation of raw-material and international trade relations of England, the British paid more attention to the railway construction than it did in the earlier two phases.

**Map: 2 Indian Railway Map of 1909, showing railway lines.**



Source: Bogart& Chaudhary, 2012:32

#### **4. The Major Regions of Railways Construction**

During the colonial period, railways had connected many regions in India. There were several connections between the port cities like Bombay, Calcutta and Madras and also the most populous region, such as the Ganga river valley, had a relatively dense network of railways (Bogart and Chaudhary, 2009:6).

Before the construction of the railways in India, there had been some surveys in some resource important regions such as Bengal, Calcutta, Madras and Bombay. In this respect, the first survey for a rail line from Calcutta to Delhi through Mirzapore was done in July 1845 by Mr Macdonald Stephenson (Huddleston,

1906:3). And lastly, a survey of all major lines had been completed by 1846. Lord Dalhousie envisioned the initial route as trunk lines connecting the ports of Bombay, Calcutta and Madras to Delhi. The line to Raneegunge was opened up early in 1855, and this was held to be the termination of the first or experimental line (Huddleston, 1906:15).

In the history of railway development in India, the entire regions of India had constructed railway lines. From 1845 to 1947, railways had been constructed in various parts of India such as the experimental line of the East Railway, mainline, East India Railway, Bengal section, Main Line, East Indian Railway, North-western Provinces, Chord Line— East Indian Railway, the Eastern Bengal Railway, Calcutta and Multan, or South-eastern Railway, the Great Indian Peninsula Railway—Bombay and Madras, the Bombay, Baroda and Central India Railway, the Sind and Punjab Railways, Madras to Beypore and Great Southern Railway of India. These were the major railway lines in India. These regions were affected by railway activities.

The construction of the Indian railways system began at major ports and worked inland to large cities and major agricultural regions (Andrabi, 2006:6). In the year 1853, the first commercial passenger train was introduced in Bombay (ibid). After this initiative, construction in other parts of India was also started to construct rail lines such as Calcutta, Madras. In this, Calcutta was a commercial service area and Madras was opened in 1856 for commercial purposes.

Concerning railway construction, the East India Railway was a major railways line. Several constructions of railways were done by two major companies, i.e., the East Indian Company and Bengal Railway Company. By 1867 all of the 10 largest cities in India had railways (including Delhi) (Andrabi, 2006:6). By 1878 Lahore and Karachi had become part of the network. By 1871 all the major trunk lines were connected, and within two more years, all the large 20 cities had rail service (ibid).

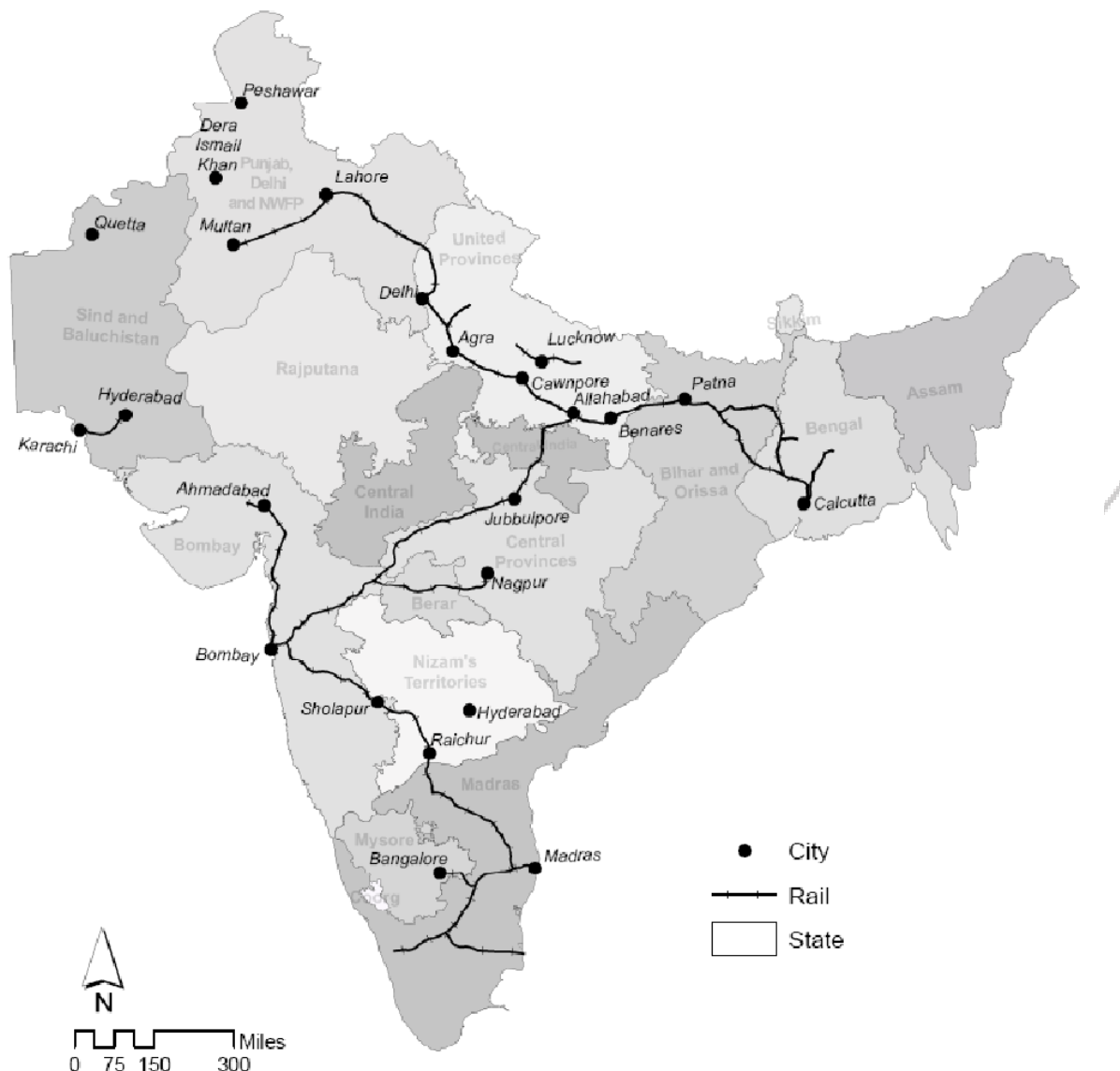
## **5. Major Towns Connected with Railways lines**

It could have not been possible to connect every town and city to the railway lines, as we can see in the contemporary time. In the present time, there are many reasons behind the railway construction, such as transportation, trade, passenger of peoples etc. but in the colonial period, there were very few and selected reasons for the construction of the railways, for instance, trade and exportation of goods. The most populous region, such as the Ganga river valley, had a relatively dense network of railways. Moreover, there were several connections between the port cities (Bombay, Calcutta and Madras) and the interior as compared to interior-to-interior lines (Bogart and Chaudhary, 2009:6).

The first division of the experimental line from Howrah to Hooghly was opened for passenger traffic on August 15, 1854; later on, it was further extended from Pundoosh, (Huddleston, 1906:14). Early in 1854, the first section of the line to Raneegunge was completed, and Mr Aglionby, addressing the shareholders, advised them that a new contract had been entered into with the East Indian Company to extend the

railway to Delhi (Huddleston, 1906: 12). The distance between Calcutta to Raneegunge was 121 miles. This line further extended from Rajmahal 120 miles. The main economic utilisation of this route was the extraction of coalfield from Raneegunge coals mine and earn more profits. For the construction of the Eastern railway, Rajghat was connected to the railway line in 1857, at banks of the river Ganges opposite Benares (Huddleston, 1906:49). But there was a strategy during the construction of the railway in India because the East India Company had the power to select the route and direction of the railway line, for instance; Calcutta 10 miles, Mirzapore, Rajmahal both for passengers and goods (Huddleston, 1906:7).

**Map: 3. Major cities connected with railway lines in colonial India**



Source: Andrabi and Kuehlwein, 2009:355

It can truly be said that the mainline of rail had followed the direct route; a branch line might have been constructed from Gaya to Patna. The government also sanctioned a meter gauge railway between Mathura and Hathras. All the major towns which were connected to the rivers (Ganga and Yamuna) such as Bhagalpur, Monghyr and Patna were primary interest towns for the construction of railway lines. All these towns were important as trading centres. Thus, these regions were seen as the first objectives of the

railway, from a commercial point of view (Huddleston, 1906:50). The availability of coal on large scale was the major source of income in these regions.

Thus, during the colonial period, all major cities and towns were connected to the railway lines. The reason behind this was that it was easy to trade and transport goods from India to England or vice versa.

## **7. The British Arguments for Railways**

The development of railways was a major issue in both periods, i.e. during and after the construction of the railways, because it was related to the colonies lifestyle and their various kinds of resources. At that time entire lifestyle of the colonies had been affected by the railway construction as well as its services, in terms of economy, political, transportation of goods and peoples, culture, knowledge and technologies. Many scholars and elites of both time and honourable past had put forward their ideas on railway construction in India. Some consulting officers and engineers had also given their views concerning railway construction in India. The question is that whether it was in favour of railway construction or against it. Despite being aware of the harmful impacts of railway development on colonies, it did enhance the construction of the railway. In this regard, we have taken some areas for highlight such as “Welfare, Investment, Polity, and Export” perspectives.

### **7.1 Social and Welfare Perspective**

The first reason for the state's interest in railways in India was social welfare. Railways were regarded as a valuable instrument in improving Indian social conditions and the spread of western civilisation. Many British politicians and administrators echoed their opinion that India's progress seemed assured if it adopted British methods and ways of life, English arts, English men and English opinions, Education, the caste system would collapse in the intimacy of third-class carriages and, most important, railways would achieve the prevention of local famine and the even distribution of food. Famine Commission's report in 1880 played a considerable part in the Government's early encouragement of railways. During the scarcity of the 1870s, a special famine line was built from Patna to Darbhanga, and others were subsidized to carry grains (Macpherson, 1955:177).

During the colonial time, there was a spread and exchange of cultural elements such as languages, knowledge, technologies, education etc among the colonisers and colonies. Thus railways were important in terms of culture. The early promoters stressed the civilizing and welfare aspects of railways. The Madras Company directors urged the State, if it was unwilling to guarantee a private company, then it had to build lines for their social benefits.

### **7.2 Investment Perspective**

The second perspective behind railway development in India was a capital investment. The motives of the British investors can be explained almost entirely in terms of the 5 per cent guarantee of interest



offered by the Indian Government. It was hoped at first that free land and profits would be enough to attract capitalists to Indian railways, but from the beginning, the companies demanded more security (Macpherson, 1955:180).

Indian railway buildings became attractive to the great British engineers and builders, such as the famous house of Brassey. The 1860s became boom years for British contractors, builders, engineers, and suppliers of materials to India. Leland Jenks estimates that between 1857 and 1869 about 150 million of British capital was invested in India, principally in railways (Thorner, 1955:205).

In consultation for the railway construction in India, in September 1845, the court of directors had selected engineer Simms, as an engineer, C. E. for construction and consultation of the railway in India. He had mainly suggested that the railroads in India should be constructed and managed using private enterprise and capital (Davidson, 1868:42). He did point out some further suggestions such as that government should grant a lease to a joint-stock company, empowering them to construct, maintain, and hold certain railways in India. Another was that the Government shall find and deliver, free of cost, all land required for the railway, and stations for permanent occupation, the government shall impose no tax or duties upon the railway or proceeds therefore, railway companies ought to have the most perfect control over their servants. These were the major suggestions of the Simms which indicated less control of the Government of India in terms of capital investments and construction of railways (Davidson, 1868:43).

The British built India's railways to intermesh the economies of the two countries. Simultaneously, they aimed to guarantee British political and military control of the huge dependency (Thorner, 1955: 201). According to the law and parliamentary expenses, the eight chief English railways had amounted to £:7000, 000, in which the total expenditure in eight Indian railways was £:21,700 (Marshman, 1863:404). This investment in Indian railways showed that England was more interested to construct railways in India for their interest. Further, According to Stephenson as managing director of the East India Railway Company, he said through his letter dated December 2, 1844, that court should guarantee 4 per cent as a minimum dividend to railway shareholders. He further said in his letter of December 13, 1844, that the plan of a guarantee of a minimum dividend was approved by the mercantile houses (Davidson, 1868: 39). So that companies could be earning more profit and further invest.

Apart from English investors in the railways, some Indian businessmen played an important role in the railway construction in the early years at both places, Calcutta and Bombay. Some Indian merchants took a keen interest in the funding of railways. The most prominent of these was a remarkable Bengali merchant, Dwarkanath Tagore, grandfather of the poet, Rabindranath Tagore. Dwarkanath's firm, Carr, Tagore & Co., was reported to have offered in 1844 to raise one-third of the capital required for a railway from Calcutta northwest to the coalfields above Burdwan (Thorner, 1955:202). But after the death of the Dwarkanath; investment in the railway became a monopoly in hands of the British.

In favour of the construction of the railway in India, Mr Rendell said that the shareholders would be glad to learn that already forty-five miles of their line had been completed from Calcutta. But there were engineering difficulties to contend with in India, which people at home could not possibly conceive (Huddleston, 1906: 13). In one of the arguments, he said that there are many other direct and indirect benefits, political, social, and commercial, which would be so great as to render the payment of guaranteed interest a burden which the Hon'ble Company may cheerfully and contentedly bear (Sanayal, 1930: 21). A. M. Rendell, consulting Engineer to Indian railway companies and the government of England said that current expenditure on the railway became higher than its history due to the experience of constructing (Tiwari, 1930: 218).

### **7. 3 Political and Military Perspective**

The political objective of railway construction was also one of the major objectives behind the construction of the railway. The economic objective of the railway through its transporting service was not possible before the political control over the colonies. Therefore, the British also had a political reason for railway construction. The railway pioneers hoped not only to transform India's economic life but also the very character of its traditional civilisation (Thorner, 1955: 202).

The political and military aspects of the Indian railway's investments were very important, the value of trunk lines for administrative purposes and in improving internal security was often stressed by Government spokesmen. Dalhousie's policy of expansion and annexation was closely connected with his encouragement of railways. However, the advantage of trunk lines was in defence of external aggression. Fear from Russia existed to a greater or less extent throughout the period 1845-75 and influenced railway policy. In his 1853 Minute, Dalhousie believed that an attack on India might be launched from Afghanistan 'under European establishment although a direct Russian invasion was unlikely. Strategic requirements, therefore, played an important part in his formulation of routes (Macpherson, 1955).

According to R. W. Crawford, one of the Directors, who had been appointed as Chairman of the Board of Director; while addressing to shareholders in August 1855, said that he has looked at the traffic report and that they had carried out most satisfactorily, he not only regarded its amount, but also the prospect of its increase in particular. Crawford further said that he had been to India and knew that the natives were fully alive to everything that could improve their position (Huddleston, 1906:16).

### **7. 4 Export Perspective**

Among all the objectives and reasons behind the railway construction in the various parts of India, the export purpose was the most important one than other objectives because of the British government's policy of free trade. This free trade policy led to ample exports and imports of goods, raw materials and other kinds of commodities. Within India monopoly on the trade by the British also was going on, so they wanted to build the transportations as well as communications. Railway construction in India was the

consequence of the problem of export during the trade. Views on the exportation cause of railway construction were put forward by some authorities.

In colonial times, railways played a significant role in the export and import of goods rather than the transportation of passengers. At that time, the construction and operation of railways were under the control of the British government. Britain enjoyed a trade surplus with India. The exports primarily constituted agricultural raw materials such as cotton, jute, tea, coffee, wheat, oilseeds, opium, sugarcane, tobacco, etc. Thus Indian economy exclusively served the British economic interest (Satya, 2008:70).

Concerning to export of raw-material Karl Marx in 1853 prophesied, the English millocracy intend to endow India with railways with the exclusive view of extracting at diminished expenses of cotton and other raw materials for their manufacturer (Satya, 2008: 70).

### 7.5 Commercial Perspective

The Government was concerned to support railways for commercial reasons. Apart from a general increase of trade with its expected connected financial and welfare gains, the Government expressed two particular economic motives for railways. First, Dalhousie and others believed that by aiding British investment in railways they would encourage more extensive employment of similar capital and similar efforts hereafter in connection with the products and trade of India. Second, the Indian Government frequently showed concern about the need to facilitate the transport of primary commodities for both the internal and export market (Macpherson, 19550).

Internally, salt and coal were the main products that influenced railway construction. Special branch lines to the salt districts were sanctioned by the State. In 1872, it built a railway from Lahore to the salt-pans at Sāmbhar Lake. Coal transport interested the Government, both as a mine-owner and as a guarantor of railway interest because fuel figured prominently in working costs. The first section of the E.I.R. was to Raneegunge in the Bengal coalfield, and thereafter the opening-up of mineral deposits was the reason behind several branch lines. Improving the transport of commodities for export, especially raw cotton, was also the explicit business of the Government (ibid).

Thus, the railway development was mainly a political consolidation and economic exploitation in India. It had also interlinks between the social, political, commercial and financial life of colonial people.

### 8. Conclusion

It's a fact that railways were constructed, by and large, year by year in the colonial period in India. The paper highlighted the history of railway construction in colonial India, whereas initially railway had been constructed at commercial places such as Madras, Calcutta and Bombay. Further, it described phases of railways construction, in which the first phase evolved 1845, second in 1869 and third phase evolved 1882-1925. Railways were constructed with the most priority for Coastal and resource-rich regions and

towns. But British authority gave their arguments in favour of positive ways that railway is good for colonial people.

Railway development was a colonial need. Colonisers had invested capital and constructed a railway for their benefit. Most of the British policies were formed for economic interest, and trade was the medium to achieve this interest. So the British laid down railways for the most important purpose of commercial and trade so that they could export goods, important commodities and other important things from India to England. Agriculture was commercialised because of railways. In the process of railway construction during the colonial period, India had lost its large wealth, through tasks such as parching equipment's for railway construction, the drain of wealth to private railway constructing companies under the guarantee system, in which 5 per cent interest had given to the private company, and function of the railway as export of agricultural commodities. By the end of the nineteenth century, total investments were 150 million pounds-sterling. Thus, the overall result of railways in India was the cause of transportation of goods as well as people.

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