CHAPTER I

COLONIAL POWER AND THE INTRODUCTION OF RAILWAYS IN INDIA

Transport is an important infrastructure inevitable for the developmental process of a country. The progress of a country depends upon the availability of a viable system of transport facilities. Without proper means of transport and communications it may not be possible for any government to administer a vast country like India. Indian Railways played a vital role in the economic development and national integration of our country. It has brought about remarkable changes in the economic, political, social and cultural life of the country. The Indian Railway system today is the largest state owned enterprise in Asia and the second largest state owned Railway system in the world. The introduction of Railways, which is one of the legacies of the British rule in India, has not only caused remarkable increase in the quick communication between different parts of India but also brought about profound changes in the habits and outlook of the people.

From 1757 AD onwards the English East India Company consolidated its possessions in India and our country experienced the bitterness of Colonialism. Colonialism is understood as a social formation, which contained control over a number of modes of production and forms of exploitation. Britain acquired colonies in the non-European world first for trade in exotic luxury
goods, missionary activities, for the glory of their country and to satisfy their adventure, later on with the rise of capitalism, greed for profit making characterized these outward expansions.  

Colonialism refers to a system of political and social relations between two countries, of which one is the ruler and the other is the colony. The ruling country not only had political control over the colony, but it also determined the economic policies of the subjugated country. Broadly colonialism relates to foreign domination which implies the economy of the country is regulated in such a manner that it serves the interests of the Colonial Power. The unequal relationship between the colony and the Colonial Power obviously resulted in the underdevelopment of the colony.

Bipan Chandra highlights three features of colonialism. They are, first, the complete but complex integration of the colony with the world capitalist system in a subordinate or subservient position. Second, unequal exchange between a colony and the metropolis, the metropolitan countries produce high technology, high productivity, high wage and capital intensive goods, while the colony produces low technology, low productivity, low wage and labour intensive goods. The third feature is the appropriation of the colony’s economic surplus, reflected in the drain of wealth or the unilateral transfer of surplus to the metropolis through unrequired or uncompensated exports.

**COLONIAL POWER AND THE EXPLOITATION OF INDIA**

The British came to India as traders. But historical circumstances made them its ruler. After the battle of Plassey in 1757, the English East India Company had succeeded in establishing its authority over the major part of India. With this started the colonial exploitation of the British in India. The drain of Indian wealth after the battle of Plassey also helped the Industrial Revolution in
England, because it supplied capital to England’s new industries.\(^\text{10}\) In Bengal the British merchants became supreme in inland and export trade. Subsequently the manufacture of silk and cotton goods began to decline in India.\(^\text{11}\)

Industrial Revolution placed England in a position of great advantage.\(^\text{12}\) The first sample of English muslin was sent to Bengal in 1783. The two Indian industries which became practically extinct were the textile industry and ship building industry. Since most of the raw materials were found in India, the British started exporting them from India and in exchange imported finished goods from there. The export of raw materials was encouraged because such a policy was popular in England.\(^\text{13}\) The production of raw materials for British industries, particularly raw silk and indigo was encouraged. It is no wonder that in 1837 the export of British cotton goods to India was more than 5,40,00,000 yards whereas in 1824 it was hardly 10,00,000 yards. Even the transfer of power from the English East India Company to the British Crown did not materially alter the situation. The form changed but the colonial exploitation continued without any hindrances.

Britain had exploited India over a period of two centuries of its colonial rule, but the form of exploitation was not same throughout this period.\(^\text{14}\) On the basis of the form of colonial exploitation economic historians have divided the whole period into three phases.

1. The period of Merchant capital starting from the Battle of Plassey which continued till the end of the 18\(^\text{th}\) century.

2. The period of Industrial capital starting from the beginning of the nineteenth century which continued till the end of nineteenth century.
3. The period of Finance capital starting from late nineteenth century which continued till the independence of India.

I. Merchant capital and Colonial Exploitation

In 1600 when the East India Company got its first charter, its primary aim was to earn more profits from overseas trade. In the beginning when the Company started its trade with India, there was hardly anything which Britain could offer to this country, in exchange of goods it purchased. Therefore the company was given an authorization to export gold and silver. However the East India Company did not like the idea of paying gold and silver for Indian goods, and after the battle of Plassey the circumstances changed. The East India Company had captured political power and it enabled to secure maximum goods for minimum payment. Secondly under the East India Company the land revenue was an instrument of plunder. In 1793 Lord Cornwallis introduced the Permanent Settlement of land and the land revenue was fixed at £34,000,000. The land revenue collections were not spent on administration or public welfare, but were treated as the profit of the company.

Thirdly, the corrupt and unscrupulous officers of the English East India Company adopted all possible means to make large fortunes. For instance Robert Clive himself had nothing when he came to India but he accumulated large amount of wealth during his short stay in India. He returned home with a fortune estimated at two and a half lakhs of pounds. In addition to that he had acquired an Indian estate which had an annual income of £27,000. Lastly, after acquiring the Diwani rights for the civil administration of Bengal, Bihar and Orissa, the East India Company directly plundered the peasants of these states by continually raising the land revenue. This policy ruined the farmers.
II. Industrial Capital and the Colonial Exploitation

Two events of great significance occurred at the time when India was being conquered by Britain. The first was the Industrial Revolution which necessitated demand for raw materials and the other was her loss of American colonies. On the basis of these two the imperial policies were framed by Britain. The success of the Industrial Revolution required a change in the mode of exploitation. In the new phase the efforts were directed towards developing India as a market for the British Industries. In this period the important forms of exploitation were as follows.

1. Export of machine made goods to India

In the early period, it was very difficult for the textile industry of England to compete with Indian products. The British products were both inferior and costly and failed to penetrate in Indian markets. As a result of this the British government levied a heavy customs duty of 78 percent on imports of Indian products. The British goods imported in India were however kept duty free. This British policy restricted the imports of Indian cotton textiles to England and gave protection to the exports of British goods to India.

2. Development of jute industry and plantation

The very few industries which the British encouraged in India were such that could not be established elsewhere for geographical reasons. The most prominent among these was the jute industry. The British capitalists who established jute mills earned more profits. Apart from jute industry other main interest of the British capitalists was in tea, coffee and indigo plantations.
3. Revenue and expenditure policies of the British imperialists

The British power considered it very necessary to maintain a big army for retaining political power in India. It was the largest single item which consumed one third of the total government expenditure.\(^{22}\) Salaries of the members of the Indian council, pensions of army officers, expenditure on the office of the Secretary of State for India, expenditure on the India office and payment to the Bank of England for debt management were some other expenditure which had little concern with India.\(^{23}\)

III. Finance capital and the colonial exploitation

The massive investments in India were not brought from England. It was accumulated in India by using all kinds of unscrupulous methods by the British.

The British finance capital found its entry into the following main sectors.

1) The State sector

The British government unscrupulously charged India for expenditures which were not even remotely concerned with the people of this country. All these expenditures were arbitrarily treated as the loans granted to India.

2) Investment in plantations

The British capitalists had particular interest in tea, coffee and rubber plantations.\(^{24}\) Due to geographical factors tea, coffee and rubber plantations could not be developed in England. India’s climate and other geographical factors were particularly favourable. Moreover the cheap labour was an additional factor which induced the British capitalists to make investments in this sector.\(^{25}\)
3) Investment in Railways

The British capitalists used their capital for the construction of railways in India. The railways were long pieces of steel suitably moulded resting on sleepers on the ground.\(^{26}\) In Britain the railroad enthusiasts dreamed of covering the earth with cast iron rails. A few parts of the world seemed desperately in need of the new invention, and India, Britain’s colony, needed most.\(^{27}\)

REASONS FOR THE CONSTRUCTION OF RAILWAYS IN INDIA

The political condition and the economic trend of the 19\(^{th}\) century India induced the British to construct railways all over India. Railways, it was believed, would assist the economic development of India and provide both a market for British goods and a source of raw materials. It would also be helpful in the administration and protection of India by facilitating the movement of troops within the subcontinent.

I. The British Commercial Interest

Till the last decade of the 18\(^{th}\) Century India had been a source of luxury trade goods for Britain.\(^{28}\) But by the 19\(^{th}\) Century the situation was completely reversed. The rapid industrialization and the introduction of factory system in Europe compelled the British to find market for their finished products. They also wanted to get an uninterrupted supply of raw materials for their factories.\(^{29}\) So they penetrated to the Indian life through infrastructural developments, which were meant only to sub serve their interest. India became a source of raw materials for the British textile industries and a profitable market for their factory goods.\(^{30}\) British
took interest to develop the hinter lands as raw material producing areas for British industries, mainly due to the pressure created by the Manchester and Lancashire textile mills. It became important to link these hinter lands with the ports – Madras, Beypore, Cochin, Quilon and Mangalore.

The importance of Railways over other means of transport from the economic point of view came to be realised during the middle of the 19th century. Their main objectives were exploitation of the natural resources in India and the consolidation of the British empire. Certain kinds of goods like salt and sugar could not be carried in wet seasons because of the inconvenience of transport. Considering the greatest extent of India’s vast plains, the low value of land, cheapness of labour and general facilities for producing buildings, the Railway promoters in England brought political and economic pressures on The East India Company to introduce railways in India.

The British decided to construct the light railways of tramways just to carry the forest wealth to the nearly main lines. These were introduced as a temporary means of transport which would be given up after their purpose was served. However the condition prevalent in India and the adaptability of the people to the tramways with its slow speed paved the ways for the British companies to convert those temporary narrow gauge links into permanent ways.

To establish the Railways, the British Residents tactfully projected the importance of railway in the princely states of Cochin and Travancore. They said that these states did not raise enough food for their population, which largely depended on the grain imported by sea at Cochin. If the Railway was constructed, these places could be in direct connection with the large grain
producing districts of Tanjore and Trichinappalli and be able to meet their demands at greater advantage than from distant ports.

II. Military Motives

The early rail road policy of the British seems to have been largely dictated by military needs. The need for a railway system was felt because of the need for the improvement in commerce and troop movements, which was of primary concern to the British government in India. Lord Dalhousie pointed out the importance of railways both for maintaining internal order and for defense against external aggression. Being an imperialist he rightly wanted to perpetuate the British domination over India.

Before the construction of any railway bridge, whether a new one or the replacement of an existing one, the wishes of local governments and the military department were considered. It was the army of Madras Presidency that the British had chiefly looked for services beyond sea. By railway investment in India, the government had to reduce military expenditure, through quicker military transport and better internal administration.

III. Capital investment interest

The railway was one of the protected monopolies sponsored by the British mostly to provide scope for the fruitful investment of their capital in India. The successful running of the first train in England and the opportunities and profits which accompanied it attracted the attention of the capitalists and moneyed men who were searching for new areas for investments.
IV. Political Interest

The British realised the importance of cheap means of transport for the progress of the country materially and for the efficiency of the administration. The administration both of the East India Company and of the Crown was subjected to a continuous pressure to extend and multiply railway lines in India. The central elements of Dalhousie’s planned Railway lines in India were the Trunk lines connecting the major administrative centres of the presidencies and provinces. At a later stage the government was compelled to seek financial assistance of the Indian princes in the construction of railways within their territories.

The moving cause in the development of Indian Railways was the restless activities of the railway agents and managers. The railway promoters in India wanted rapid expansion of railways because it would provide political stability to India.

V. Other Reasons

The Press repeatedly advocated the desirability of rail roads in India emphasizing their superiority over other means of transport. The British were however lukewarm in their response to all the proposals as they anticipated the failure of railway projects in India. Merchants of different places in South India submitted several petitions to their authorities for the extension of railway lines. They said that the transmission of goods through canal was not safe. Therefore they continuously submitted petitions to open new railway lines. There was a strong felt need for the establishment of railways by the second half of the 19th century.
The security concerns in the post-mutiny years was so high that the construction of railways became a topmost priority for political consolidation and economic exploitation of the British in India. That is why they constructed national railway network connecting the major centres of the country. The need for a series of in-lets and out-lets for exporting raw materials and importing manufactured goods was another compelling factor to construct the railways. Similarly, the public demand also played an important role in the extension and expansion of railways in India.

WORLD’S FIRST TRAIN

The beginning of the Railways using the steam engine occurred in Great Britain. By the end of the 18th century steam engines were widely used to drive machinery in factories and pump water in mines. Though James Watt is generally known as the father of the stationary steam engine, Robert Trevithick was the originator of the steam locomotive. Though the earliest locomotive was built in 1804, but it was only in 1825 that the first train run for the public. The first Indian Railway rolled on its tracks just 28 years after the world’s first train had made its initial successful run in England. The Stockton and Darlington Railway Company, conceived in 1820, had as its Engineer George Stephenson and laid out its main line for 22 miles from Shildon to Stockton for locomotive haulage. The Stockton and Darlington Railway made history as the first railway handling public traffic. The transport of minerals, raw materials and finished products which was so far limited to the power and speed of the animals was now taken over by the steam locomotives and the Industrial Revolution got into its stride. By 1830, the Liverpool and Manchester Railway in Great Britain had set the pattern for land transport for the next hundred years all over the world.
In France, Railways started in 1828, in Germany in 1835, in Holland and Italy in 1839, Spain in 1844 and in China in 1875. The first railway in the United States of America was opened on a line of 15 miles of the Baltimore – Ohio in May 1830. Initially it was operated by horses and later locomotives were employed. The first Railway in Russia ran in 1837 and the British machines also pioneered railways in Spain, Switzerland, Austria, Belgium, Sweden and elsewhere.

**TRANSPORT IN PRE-BRITISH AND EARLY BRITISH INDIA**

It is said that ‘Transportation is the carriage, conveyance or transfer of persons or property from one place to another’. A comprehensive and efficient system of public transport is a great asset to the nation. For the efficient administration of a country good transport facilities are essential. Road building was not unknown to the Indians and the Indian kings built roads which involved much engineering skill. Some kings had built roads mainly for military purposes. Kautilya in the Arthasasthra mentions about the rules and regulations for constructing roads. Asoka who lived in the third century B.C, built roads with trees on either side of the road to provide shade. During the Medieval Period Muhammed Bin Tugh-laq built a road connecting Delhi and Daulatabad. He planted trees on either side and built inns for the use of travellers. Shersha started building the Grand Trunk Road but he was not able to complete it. One of the worst affected regions was South India where good roads were practically unknown and travelling was difficult. The existence of a number of rival kingdoms, and the fear that a good road would pave the way for an enemy invasion, led most of the kings to keep their states in isolation. Above all robbery was common in many parts of India. The poor man was not interested in travelling except for a visit to
some temple or holy place within walkable distance. Thus travelling both by land and water remained difficult for centuries.

Before the introduction of Railways the chief means of transport in India were mules, bullocks, bullock-carts, camels, horses, dolis and elephants. The use of elephants was restricted to the royalty. Horses were mostly used by the rich individuals and for postal services. However mules, pack oxen and bullock carts were commonly used. Camels were preferred in the sandy regions, such as parts of Gujarat, Malwa, Rajputana and Sind. They were greatly used on Agra-Surat route for carriage of men and materials. With the break up of the Mughal Empire travelling became all the more difficult in the absence of a strong body to maintain law and order. In the British period, the engineers of the Military Boards tried to maintain the Grand Trunk Road and built a few bridges. But, still journey across the length and breadth of the sub-continent were long, slow and hazardous.

INTRODUCTION OF RAILWAYS IN INDIA

The railway promoters in England, who were quite assured of the possibilities and potentialities of the general facilities of India pressurised the East India Company to introduce Railways in India. In 1843 George Clark, the chief engineer of the Bombay government gave the idea of a rail to connect Bombay with Thane. A meeting of the prominent citizens was later held at Bombay on 13 July 1844. There was also considerable demand in Bengal for Railway construction. However the initiative for railway construction came from the top, the government and not from below, the people. George Clark, in the meantime had prepared detailed plans for a line from Kurla to Thana. A committee headed by the Chief Secretary Henry Conybeare
investigated this scheme which was approved by a meeting of citizens of Bombay held at the Town hall on 19th April 1845. A railway association was formed for carrying out the scheme.

At the same time a fresh Company was formed in England named the Great Indian Peninsula Railway Company, and its first prospectus was issued on 15 July 1844. George Stephenson, the great British inventor was among the first directors of the company. His son Robert Stephenson was appointed as consulting engineer. Later an influential committee was formed in Bombay to work in conjunction with the London committee to give effect to the scheme.

Promoters like R.M. Stephenson, J. Chapman and W.P. Andrews were the railway enthusiasts who were keen on seeing the spread of railways. Their consistent efforts with the support of the merchants, succeeded in the establishment of private railway companies, like the East Indian Railway company, the Great Indian Peninsula Railway Company, the Madras Railway Company and the Bombay-Baroda and Central India Railway company.

1. The East Indian Railway Company

Rowland Macdonald Stephenson realised the urgency to develop a rail network for India as a whole. He gave priority to the Calcutta-Delhi line as it would cater to the Gangetic plains, which had the largest concentrations of Indian population and military forces. He had made the first proposal of the above link in 1841 but the East India Company had rebuffed him. Because of the unsuccessful negotiations with the East India Company, he sailed for Calcutta to plead his case with the Government of India in 1843 and his first step was to make aware the public of Calcutta and England.
In July 1844 he presented his proposal to the Government of Bengal for its support and approval. The government replied with great enthusiasm in August 1844. This support of the Government of Bengal automatically carried with it the support of the Government of India, as till 1854 the Governor General was also the ex. officio Governor of Bengal. Thereafter Stephenson sailed for London for the final work. On his return he contacted the leading East India Commercial Houses such as Cockerell and company, Fletcher, Alexander and company, Crawford, Calvin and company, etc. He proposed the name of the Joint Stock Company as the East Indian Railway Company. The provisional committee of the East Indian Railway Company generally known as EIR was formed under the chairmanship of Sir George Larpent. The EIR presented its prospects to the Court of Directors on January 28, 1845 and the Court made its first official pronouncement on the subject of Railways on May 7, 1845. This gave a green signal to the Railway promoters and in May 1845 the provisional committee of Stephenson established themselves into a Joint Stock Company, The East Indian Railway Company with a capital outlay of £40,00,000. Thus in 1845 The East Indian Railway Company was formed for construction of and experimental line to bring down coal from Raniganj to Calcutta. The construction of this line was completed in August 1854.

In March 1846 F.M. Simms, Boileau, and Western presented their report of introducing Railways in India and an eligible line to connect Calcutta with Mirzapur and the North West provinces.

East Indian Railway Company faced competition from three companies viz 1) Northern and Eastern Railway company of Bengal (NERCB) 2) Great Western of Bengal (GWB) 3) Great North of India Railway Company.
1. Northern and Eastern Railway Company of Bengal (NERCB)

This railway company was domiciled in London. It formed a local board in Calcutta in January 1846. It sponsored a 150 mile railway line from Calcutta to Bhagwangola. But this was rejected by the government of India because Simms had surveyed that the course of Ganga in the vicinity of Bhagwangola shifted continually and extensively.

2. Great Western of Bengal Railway Company (GWB)

This was the most formidable rival of the EIR for the line to Rajmahal. General Macleod, chief engineer of Bengal and William Patrick Andrew, a retired Indian postmaster were the chief architects of this company. But the EIR was not happy about this project and it suggested that there was no need for the separate existence of the GWB as the Rajmahal-Calcutta line could be a branch line of Calcutta-Burdwan-Mirzapur-Delhi link. Finally in 1849 it failed to get any support from the East India Company.

3. Great North of India Railway Company

Great North of India Railway Company was registered in London in October 1845. It was supported by army officers and civil servants of the East India Company. Simms and his associates had recommended that the entire Calcutta-Delhi line should be constructed and worked by one single enterprise as it was easy for the maintenance and working of the line. It was also one of the important lines projected by the EIR. Thus Great North of India Railway Company also failed to get attention.
II. The Madras Railway Company

The first abortive railway project was put forwarded for a line in Madras as early as 1831-32. In 1836 A.P. Cotton, 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 8 July 1845 with the general object of constructing rail roads in Madras Presidency. But unable to obtain concessions from the Court of Directors, it dissolved. But in 1849 after the East India Railway Company and the Great Indian peninsula Railway company succeeded in obtaining the 5% guarantee, the scheme of Madras Railway from Madras to Walajah Road (Arcot) revived. Madras Railway Company gained the confidence of the Court of Directors but the Board of Control still opposed the scheme.

The government of Madras, the mercantile community and elite of the society in Madras took great initiative in building railways in the Presidency of Madras. They held a meeting on 29 May 1849 and resolved to pursue the revival of Madras Railway Company. The promoters of the Madras Railway company again pleaded for support on the grounds of political importance and commercial necessity of railroads in Madras presidency. In their memorandum dated 20 February 1850, the promoters suggested to undertake the project in public interest. Two years later the Board of Control, East India Company and the Government of Madras approved Madras Railway Company’s proposal and guaranteed return of 4% on the capital. Madras Railway Company was registered on 26 July 1852. History of railways in Southern India started with the commencement
of work on the South-West line on 9 June, 1853. The line from Madras to Arcot, 63 miles, was opened to public on 1 July 1856.

III. The Bombay, Baroda and Central India Railway Company

Bombay, Baroda and Central India Railway Company was 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 Bombay, Baroda and Central India Railway Company like the Great Indian peninsula Railway, had wanted to start railway line from Bombay, but was not allowed due to the opposition from GIPR. So they proposed to construct the line from Surat. Thereby the BB & CI was authorised by the East India Company to conduct surveys for the above line in 1853. J.P. Kennedy presented the survey report in 1854. Finally a contract was entered into with the BB & CI for the Surat - Baroda-Ahemadabad line with 5% guarantee on 21 November 1855. Surat to Baroda line became operational in 1861. One noteworthy fact about this railway was that the cost of finished line was £24000 per mile - one of the costliest lines on flat country in the first phase of railway construction in India. At that time the average cost, elsewhere, of such line up to 1868 was £10,000 to £20,000 per mile in India.

IV. The Bengal-Nagpur Railway (BNR)

In India famine is a scourge of the greatest magnitude. Famine made frequent visits, rendering life miserable. Every time a famine broke out ameliorative measures were undertaken to reduce the rigors of famine. The devastating famine of 1878 had led the Famine Commission to urge the government for a rapid expansion of railways, which was necessary for the protection of
the country from famines. Since the progress of the railway construction by the government was slow due to financial constraints, it suggested that the extension of railways might be entrusted to new companies but on modified guarantee terms. This led to the formation of a new generation of railway companies viz: The Southern Mahratta in 1882, The Indian Midland in 1885 and the Bengal-Nagpur in 1887.

The Bengal-Nagpur Railway was formed in London in 1887. The BNR was given a guarantee of 4%. The conversion of Nagpur - Chhatisgarh railway to Broad Gauge, extension of this line to Asansol for a junction with East India Railway and the construction of a Broad Gauge line from Bilaspur to Umaria was the important projects of the Bengal Nagpur Railway company.

The conversion of the Nagpur-Chhatisgarh line was completed and opened to traffic on 27 November 1888. The link between Nagpur and Asanol was completed on 1 February 1891. Simultaneously the BNR was authorised to construct a line from Midnapur to Cuttack. By the end of the nineteenth century the BNR successfully provided the most direct route between Calcutta and Bombay; and for the first time linked Calcutta to Madras by a rail line.

V. Great Indian Peninsula Railway Company (GIPR)

The enthusiasm for railways inspired the people of Bombay very much. Mac Donald Stephenson made a proposal to the Bengal government in 1841, for a military line from Calcutta to the North West Frontier. The European businessmen from Bombay suggested a line across the Western Ghats. The magnificent geographical situation of Bombay with its natural harbour made it an obvious point of entry into India, when the activities of the East India Company were centered in Calcutta. It was natural enough to bring the mails ashore at the time of entry into the Gateway of
India. The first proposal for railways in India thus began in Bombay in 1843. An inland Railway Association was formed in January 1845.

Meanwhile in England, efforts were being made for the introduction and promotion of railways in India. One of the promoters was John Chapman, a gentleman with keen interest in learning and politics. He prepared a detailed document which dealt with all aspects of the proposed line- its route, areas and its construction costs etc. This document was sent to the East India Company in the name of Great Indian Railway Company. This railway was the forerunner of the Great Indian Peninsula Railway. The very first application for the introduction of railways in India was made in the name of the Great Indian Railway, on Nov 8, 1844. Unfortunately the East India Company did not show much interest in this project.

But Chapman’s energetic activities attracted the attention of John Stuart Wortley, an M.P who was highly impressed by him and was keenly following his moves and agreed to become the Chairman of the enterprise. The Great Indian Railway Company was renamed as the Great Indian Peninsula Railway in March 1845. It had its first meeting on 10 May 1845 at 35, Lincoln’s Inn Fields. It had John Stuart Wortley as its Chairman and eight others as founding members. This meeting heralded the dawn of the Railway era in India and laid the foundation of one of the largest Railway companies in India. Robert Stephenson, son of George Stephenson, accepted the GIPR’s offer to become its first consulting engineer.

Lord Hardinge, the Governor General of India from 1844 to 1848 advised the Court of Directors to give liberal concessions to private capitalists without waiting for proof that railways will yield reasonable profit. On 7 May 1845, The Court of Directors sent a dispatch to the Governor
General in which the policy for the construction was laid down in detail. This dispatch formed the first official recognition of the desirability of railway in India by the company officials.

**OPPOSITION OF INDIANS**

Like any other invention, in the early stages the railways had to overcome a great deal of prejudice, opposition and popular criticism. The economic historian Ramesh Chandra Dutt condemned the construction of railways as a wasteful expenditure. Sir Arthur Cotton, the architect of magnificent Godavari and Kaveri irrigation works stated, what India wanted were waterways and not railways. It was also very difficult to convince the common people that a journey by rail was safe.

Nature and the physical conditions also created greater obstacles. India was neither a flat country like Russia nor a small country like England. Several surveys made by Simms, Robert Stephenson and others finally led to the conclusion that Railway lines could successfully connect the various parts of India and the railways could be run safely and profitably under existing Indian conditions.

**INCORPORATION OF GIPR**

The incorporation of the GIPR was undergoing various discussions and readings in the Parliament by March 1847. Directors informed the shareholders that the incorporation of the company could place itself in an efficient position before the East India Company and Government of India both at home and in India. It would also give the company a legal status. In 1845 the managing director, Stephenson proceeded to Calcutta to survey the line from Calcutta to Delhi through Mirzapur. The survey was completed in 1846. A Contract was signed in 1849 between the
East Indian Railway Company and East India Company for an experimental line of 161km long which was estimated at the cost of $100,000 between Calcutta and Raj Mahal extending up to Delhi via Mirzapur. On April 23, 1849 the shareholders of the GIPR accepted the terms and conditions.

The Great Indian Peninsula Railway was incorporated in England by an Act on August 1, 1849 for the operation of an experimental line of 56km long at the cost of $5,00,000 connecting Bombay with Berar. John Chapman and Barnet sponsored the Great India Peninsula Railway Company. Sir Jamset jee was the first Indian Director of the company. On August 17, 1849, contracts were finally signed between the East India Company and the GIPR. James Cosmo Molwill was appointed as the Ex-officio Director of the GIPR by the East India Company.

ROLE OF DALHOUSIE

Lord Dalhousie is regarded as one of the greatest Governor Generals of India and his contribution to the building up of British India is enormous. Lord Dalhousie was born in 1812 and he came to India as Governor General at the age of 35. He is famous for the Doctrine of Lapse, annexing the dependent state whose ruler died without a natural heir to succeed him. In the field of transport and communication his contribution was remarkable. Introduction of Railways, telegraph and postal system, the three pillars in the field of transport and communication also goes to his credit.

The appointment of Dalhousie as the Governor General of India in 1848 was a turning point in respect of transport development in India. He can be called both as the father and the architect of Indian Railway system. (In 1850, the Governor General gave green signal to Simms, a railway engineer to proceed to Madras or Bombay to gain firsthand knowledge about the proposals for construction of railways in India). Dalhousie was able to form a balanced judgment over railway
matters. As Lee Warner remarks “The Marquis of Dalhousie found the country without a single line of railway. He left it with nearly three hundred miles either opens to traffic or under construction.”

Dalhousie’s great energy, careful investigation and real interest in the railway enterprise accelerated the work. In a historic minute written in July 1850 from the hill station of Chini, in the Himalayas he stressed the success of the experimental lines. The celebrated minute dated 20th April 1853 is one of the greatest documents in Indian Railway history. Dalhousie recommended the construction of railway lines under several different heads giving priority to defence. He pointed out how both Britain and India would benefit by the increase of trade and anticipated the economic and social developments which railways would bring to the country. The famous dispatch of the Governor General ended the hesitancy on the part of the Secretary of State and Court of Directors regarding the suitability of railway construction in India.

**PRELIMINARY WORK FOR THE CONSTRUCTION OF THE BOMBAY-THANE LINE**

In England, James J. Berkley was appointed as the Chief Resident Engineer to the company on 22 December 1849. He was accompanied by K. B. Ker as the second engineer and R. W. Graham as the third engineer. W. Walker was the store keeper. By 22 November 1850 seven tenders were received for the construction of the line from Bombay to Thane. Out of the seven tenders, the tender of Messens Faviell and Fowler was passed and a contract between the GIPR and Faviell and Fowler was signed.

The gauge to be adopted was also a subject which had been widely discussed. The standard gauge at that time in England and on the European continent was 4 feet and 8½ inches. Because of India’s extreme climatic conditions like cyclone, heavy rains and high wind, 4 feet and 8½ inches
were needed for the country. Lord Dalhousie even suggested a gauge of 6’ in view of dangers likely
to be caused by high winds particularly on bridges, curves and open places. But Dalhousie had to be
convinced that the gauge of 6’ would cause enormous expenditure and the gauge of 5’ -6’ was
enough to meet the climatic conditions of the country.

Meanwhile the contractors Fowler and Faviell employed as many as 10,000 workers at
construction sites. The first trial run was made on 18 November, 1852, when the Directors of the
Company accompanied by some friends travelled in the train from Bombay to Thane, a distance of
21 miles (33.79km) in 45 minutes.

THE FORMAL INAUGURATION CEREMONY

On 16 April (Saturday afternoon) 1853, history was made at Bori Bunder in Bombay, when
the booming sound of 21 guns saluted the first train, started its maiden journey of 21 miles to
Thane. It was performed when 14 railway carriages carrying about 400 guests left Bombay, Bori
Bunder station at 3.30pm to the loud applause of the vast multitude. The day was observed as a
public holiday by all government offices and banks. This line was inaugurated by the Chief Justice
of Bombay. The party reached Thana at about 4.45pm where refreshments were served in tents and
congratulations were bestowed upon the Chief Engineer J.J Berkley. The event was described as a
triumph without any humiliation, a victory without any corresponding defeat, a triumph of mind
over matter. The guests returned to Bombay at 7am on 17 April 1853. The credit goes to the GIPR
company which opened the first railway line in India which was thrown open for traffic on 18 April
1853.
After the opening of the line up to Thane, the line to Kalyan was completed on 1 May 1854 after bridging the Thane creek and driving two tunnels. The governor of Bombay, Lord Elphinstone performed the ceremonial opening of the line. The cost of the construction was about Rs.80,000 per mile, as it involved a bridge and two tunnels. Further extensions of the line were made soon after. The line from Kalyan to Khopoli was opened on 12 May 1856 and the line from Khandala to Poona was opened to traffic on 14 June 1858. The Kasara line was opened on 1 January 1861.

In the meantime building activity was going on in the Eastern parts of India with Calcutta as its base. Dalhousie recommended the line from Calcutta to Delhi since military threat was forthcoming from Kabul and Nepal. He thought the proposed line would provide a continuous link of communication from the seat of the government to the farthest regions. As regards the question of connecting Madras with the Indian Railway system, Dalhousie observed that the Presidency of Madras had a considerable army and it was free from any threat outside. It was found useful to connect the Presidency with Bombay for imperial defense. Dalhousie suggested two important lines connecting Madras with other presidencies. One line towards Arcot, Vellore and Salem connecting West coast as well as reaching to Bangalore and Nilgiris. Bangalore was the military station of the Madras presidency. He suggested a second line from Madras through Cuddapah and Bellary to Bombay.

The outbreak of the Great Rebellion or the First War of Indian Independence accelerated the process of railway construction in India. During rebellion the railways played an important role for the movement of troops although the revolt broke out in an area far away from the railway area. The Revolt of 1857 revealed the importance of railways. The outbreak of famine in South India further contributed to the process of construction. Sir Andrew Clarke stressed the importance of railways
in the Madras Legislative Council in 1877 saying that “the railway have proved to be the saviour of Southern India.” By the Madras railway alone, some 8,00,000 tons of grain were carried into the interior and distributed to the famine affected areas of Mysore. The famine affected areas of Bellari and Cuddapah in the Telugu region and North Arcot and Coimbatore in the Tamil region could be satisfied with food grains only through railways. The famine commission in 1880 also recommended the increase of some 20,000 miles to safeguard the people and the Parliamentary Select Committee of 1884 emphasised the speedy extension of railways to save the people from distress. This also gave a great impetus for the construction of railways in India.

In south India, the first line was opened on 1 July 1856 by the Madras Railway Company. It ran between Vyasarpadi and Walajah Road (Arcot) a distance of 63 miles. These were small beginnings of Railways in India.

The Old Guarantee System (1849-1869)

The first stage of railway development in India was under the guarantee system. The earliest contracts with the guaranteed companies were those between the Secretary of State for India and the East Indian and the Great Indian Peninsula Railway Companies dated August 1849. These two companies were the earliest and the most important among the old guaranteed companies. In 1869, eleven companies were incorporated in England for the purpose of constructing and managing railways in different parts of India. The main features of the contracts with these companies were:

1. Free grant of land
2. A guaranteed rate of interest ranging from 4.5 to 5 percent according to the market rates prevailing.

3. Utilization of half of the surplus profits earned by the companies to repay the government any sums by which they might have had previously to make good the guarantee of interest.

4. Reservation of certain powers of supervision and control by the government in all matters of importance except the choice of staff.

5. Option to the government to purchase the lines after 25 or 50 years.

The essence of the contracts was that the shareholders were relieved of all risk and given some expectation of profit over and above the guaranteed interest, while full powers of supervision and the ultimate right of purchase were retained by the government. In 1858 Lord Canning opposed the guarantee system and suggested strict control over the finances of the company. William. N. Massey, the Finance Minister of India under two viceroy - Lord Lawrence and Lord Mayo - also exposed the hollowness of the guarantee system.

State Construction And Ownership (1869-1882)

In his minute dated 9 January 1869, the Viceroy Lord Lawrence strongly recommended state ownership of railways. Under the system of guarantee “the whole profits go to the companies and the whole loss to the government.” He foresaw no difficulty in the ability of the government to bear the necessary funds and carry out the construction and operation of railways much more economically and efficiently than the companies. This minute was supported and submitted to the British Government by his successor, Lord Mayo. In July 1869 this Secretary of State for India, the Duke of Argyll, accepted the policy of State construction and ownership. The first of the old
guaranteed railway companies purchased was the East Indian Railway Company in 1879. By the end of 1879, 6,128 miles of railway had been constructed by companies at a cost of £9,78,72,000 as against 2,175 miles by the state at the much lower cost of £2,36,95,226.

**The Modified Guarantee System (1882-1924)**

During the years 1874-1879 India was ravaged by a series of severe and widespread famines. Bombay, Madras and Mysore were strongly affected by the famine. Accordingly a famine commission was appointed in 1880 to lay stress on the important part which railways could play in preventing famines. This commission put forward the necessity of 5,000 miles of railway lines. The Afghan campaign of 1878-79 was another event which forced the government to think of the Delhousie’s minute of 20 April 1853, which gave stress on the importance of railways for military purpose. While it was accepted that construction and operation of railways by the State gave the best results, the problem was to find the very considerable amount of money needed for this purpose. It was finally decided to undertake the construction of railway lines by government. Thus started the third phase of railway development, in which state and quasi state agencies and private companies took part, side by side. The Indian government took up unproductive lines required mainly for strategic purposes, to fulfill the needs of the army, and to serve areas where famine was endemic. The Princely State’s district boards, and other local authorities were actively encouraged to finance, construct and operate railway lines to serve their areas either directly or through some other agencies. Efforts were made to get private companies to build railways without any guarantees, otherwise on modified or limited guarantees. It was more favourable than the old guarantee system.
GROWTH OF INDIAN RAILWAYS

At first, Railway journey was considered less safe. It was in 1842, 17 years after the opening of the first railway line in England that queen Victoria undertook a journey from London to Slough. In India also many people opposed the introduction of railways as a ‘hazardous and dangerous venture’. It was not altogether without reason that the peasant called the railway as the devil’s engine and saw in it an instrument for riveting more firmly the bond of a hated alien rule.\(^\text{100}\) There was also a certain amount of doubt about the economic viability of making investments in railways. The nature of the physical terrain of India with its mountains and hills, plateaus and plains, rivers and lakes and varying climatic conditions also presented formidable difficulties to the pioneers.\(^\text{101}\)

During the period of the First War of Indian Independence all building activity was held up. Only after 1858, when the political control of India had passed from the East India Company to the Crown in England that further railway expansion could be taken up.\(^\text{102}\) GIPR started extending the line from Bori Bunder to Kalyan and over the Bhor Ghats to Poona and to the North towards Delhi. Nagpur, a distance of 519 miles from Bombay, was reached by May 1871 and Jubbal Pore, 615 miles from Bombay by 1870. The East Indian Railway had extended its line from Pundooah to Rajmahal later known as Sahibganj loop. In 1850 the work of Allahabad - Aligarh line had started. By the beginning of 1862 the company had 243 miles of railway track in the North West provinces and 359 miles in Bengal. In 1864, a distance of 1020 miles from Calcutta to Delhi was opened for traffic. On 15th August 1865 the bridge over the Jamuna at Allahabad was opened to traffic, which took 8 years to complete.

In the meantime, work was proceeding to connect East India Railway with Great Indian Peninsula Railway and the route connecting Calcutta, Allahabad, Jubbalpore and Bombay was
opened officially in March 1870. After 1870 the railway development was rapid. The Madras Railway company extended the railway to Raichur on the Madras Bombay route by 1871. During this period there was a great controversy regarding the status of gauges. Lord Mayo (1869-72) who succeeded Lord Lawrence suggested in 1870 to the Duke of Argyll, the Secretary of State for India, that one metre should be the standard gauge for railways. Major companies like the East Indian Railway, Great Indian Peninsula Railway and the Bombay, Baroda & Central India Railway Company, which had already made large investments in laying broad gauge lines protested against the proposal for the construction of Metre gauge. To settle the controversy, Argyll asked Lord Napier, the Commander-in-Chief of the Army, to give a final decision, as after all, the army was the first beneficiary of the railways. Napier was against any change. The controversy of the gauges however continued.

The Bombay, Baroda Central India Railway Company came into existence in 1860. It opened up the direct routes to Delhi, one via Surat, Baroda-Ratlam in Broad Gauge and the other via Ahmedabad and Ajmer through Ratputana in Meter Gauge. The Rajputana - Malwa Meter Gauge system was constructed in 1890. Serving as feeders to the Bombay, Baroda Central India Railway System, Indian State Railways consisting of Bhav Nagar State Railway, the Gondal Railway, the Baroda State Railway, the Jamnagar Dwaraka Railway, the Junagarh State Railway and the Marvi Railway constituted a network in Kathiawar now known as Gujarat. The Nizam State Railway started work in 1870 and the line from Wadi to Secunderabad was opened in 1874.

The progress of the construction of railways in India could be seen from the following figures of mileage over the years.
Thus about 20 years from the introduction of railways in India over 9000 miles had been constructed. Of these 6128 miles were constructed by companies and 2175 miles had been constructed by the government.

After the great famine of 1878, the Famine Commission urged the necessity for rapid expansion of railway system in the country. In order to fight such calamities it was necessary to increase the production of food grains and the expansion of transport system. The commission underlined the importance of railways for the prevention of famine and considered that 5000 miles of lines were needed.

The Afghan war was another motivating force for the expansion of the railway lines in India. After the conclusion of the Afghan war, the government of Lord Ripon gave serious consideration to the introduction of strategic lines. Accordingly more companies were formed in order to construct additional lines. The Bengal Central in 1881, the Bengal Railway and North Western Railway and Rohilkhand and Kumaon in 1882 were formed without a guarantee system. Three guaranteed companies, namely the Southern Mahratta in 1882, the Indian Midland in 1885 and the Bengal-Nagpur in 1887 were also formed. The rate of interest guaranteed to these companies was much less than that of the earlier guarantees. The rate of interest guaranteed to the

<table>
<thead>
<tr>
<th>Year</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1860</td>
<td>838</td>
</tr>
<tr>
<td>1870</td>
<td>4771</td>
</tr>
<tr>
<td>1880</td>
<td>9162</td>
</tr>
</tbody>
</table>
Southern Mahratta Company was 3½ % and to the Indian Midland and the Bengal-Nagpur companies was 4%. The Assam-Bengal Railway Company was formed in 1892. By 1890, the mileage of Indian Railways went up to 16401 (26395km).

In 1879, the contract of the East Indian Railway Company was terminated and the main line companies were purchased by the government. Thus Eastern Bengal was purchased in 1884. Sind, Punjab and Delhi in 1885, Oudh and Rohilkhand in 1888 the South Indian Railway Company in 1890, the Great Indian Peninsula Railway Company in 1900 the B.B. & C.I in 1905 and the Madras Railway Company in 1907. 106

A large number of other railways, mostly narrow gauge branch and feeder lines, were built by companies under various contracts between 1896 and 1923. The terms of construction of these branch lines known as the Branch Line Terms were first published in 1893 and modified from time to time making more and more liberal provisions in order to encourage the construction of more railway lines.

By the end of 1920, the route mileage of railways in India was 37,029 miles (59,591 km) of which 26,889 miles (43,272 km) were owned by the Government and 5,746 miles (9,247 km) by private companies. In 1920 there were as many as 175 undertakings running these railways. This can be divided broadly into 14 categories. 107

Under the Indian Railway Act of 1890 the government of India exercised general powers of superintendence and regulation. Thus a railway could not be opened until the government inspector
of railways certified that it complied with the requirements laid down by the government and could be used for the public carriage of passengers without danger to them.

State Management of Railways 1920 - 1947

Public opinion in India had been consistently advocating state management of railways. Criticism against the company management grew rapidly and it was expressed on public platforms. The governments of Bombay and Madras favoured state management but the government of Bengal favoured the company management. On 1 November 1920 the Secretary of State appointed the East India Railway Committee under the chairmanship of Sir William M. Acworth. This committee consisted of ten members of whom three were Indians viz V.S. Srinivasa sastri (then member of the council of state), Purushothamdas Thakurdas (representing Indian commercial interest) and Rajendra Nath Mookerjee (an outstanding industrialist of Calcutta). This committee had to go into the whole question of railway policy, finances and administration. To recommend suitable methods of management, to examine the railway board and to consider arrangements for the financing of railways in India were other areas of consideration. The committee sat in India for 50 days and examined 142 witnesses besides receiving written statements from many of them. The Report of the committee was published in London in September 1921. The Acworth committee’s recommendations formed the basis of future development of Indian Railways.

The committee unanimously ruled out management either by English companies or by a combination of English and Indian companies, and by a majority decided in favour of direct management by the State. The report was debated in the Central Legislative Assembly in 1923 and the non-official opinion was in favour of the direct state management. The government of India
accordingly took over direct state management of the East Indian Railway from 1 January 1925 and the Great Indian Peninsula Railway from 1 July 1925.

Government appointed two other committees to suggest detailed measures to implement the Acworth committee report. These were the Railway Finance Committee and the Indian Retrenchment Committee (Inchcape committee). The Railway Finance committee was appointed to consider the separation of the railway budget from general finance and to plan the requirements of railways. The Inchcape committee was appointed in 1922 to recommend all round economy measures and ways and means for increasing revenues from railways. The separation of the railway budget from general finances in 1924 and the acceptance by the state in 1925 marked a revolutionary change in railway policy and it gave financial and administrative autonomy to the railways to conduct their own affairs.

February 1925 represents a landmark in the history of railway development in India. It was on this day that then Governor of Bombay declared to open the first electric railway, viz; the Harbour branch section of the Great Indian Peninsula Railway from Victoria Terminus to Kurla. Soon afterwards the Great Indian Peninsula Railway Suburban line was electrified up to Kalyan. The Madras suburban line started in 1928 and it was completed in 1931. In 1929-30 the route kilometres went up to 66,758 and capital investment was Rs. 857 crores. During this period large amount of money was spent on doubling and quadrupling the track in many places. Strengthening and rebuilding some of the bridges, remodelling station yards, reorganizing and improving workshops, improving passenger amenities by providing better platform and refreshment stalls were some significant activities of this period.
From 1931 - 35 was the period of the economic depression and it affected the railways also. The years from 1936 -39 was a period of recovery from the economic depression. During this period 2,080 kms of railway lines were laid. In 1937, Burma was separated from India and the total Burmese railway kilometre was 3,315. In 1939 the total route kilometres of Indian Railways was 65,850.

Second World War gave stress and strain on the resources of the Indian Railways. During the war years, materials and equipments were diverted to the war effort to the maximum possible extent. A considerable number of locomotives, coaches and wagons were sent to the centres of war in the Middle East. Almost every railway workshop was turned over to the manufacture of war equipments. Meanwhile, all the important company owned or company managed lines were brought under state management. The following railways were accordingly taken over for direct state management on the dates indicated below

1) The Burma Railway from 1 January 1929. This railway came under the control of the Government of Burma in 1937 on the separation of Burma.

2) The Bombay, Baroda and Central India Railway from 1 January 1942

3) The Assam Bengal Railway from 1 January 1942 and after purchase it was amalgamated with the old Eastern Bengal Railway under the name of Bengal and Assam Railway.

4) The Oudh and Tirhut Railway from 1943

5) The Madras and Southern Mahratta and South Indian Railways on 1 April 1944.

6) The Bengal-Nagpur Railway on 1 October 1944.

Thus on the eve of independence, the government of India practically owned and administered all the railways in India excepting a few non-governmental railways of short lengths.
independence India was divided into India and Pakistan and this led to the partition of railway assets between India and Pakistan. 5026 miles of the North Western Railway and 1613 miles of the Bengal Assam Railway went to Pakistan. The Sind Section of the Jodhpur - Hyderabad Railway also went to Pakistan.

The following table indicates the division of railway lines and rolling stock between India and Pakistan.

**TABLE – I**

<table>
<thead>
<tr>
<th></th>
<th>Engines</th>
<th>Coaches</th>
<th>Wagons</th>
<th>Route/Kms</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>7248</td>
<td>20161</td>
<td>210099</td>
<td>53000</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1339</td>
<td>4280</td>
<td>40221</td>
<td>11133</td>
</tr>
</tbody>
</table>

**After Independence**

After 1947 the entire transport system of India attuned to the developmental needs of the economy. Soon after independence, as initial step, all the railways in India were brought under the direct management of the government of India. Following Independence of India the Railway Department was designated as the Ministry of Railways (Railway Board) with effect from 29th August 1947. The integration of the Indian states during 1949 - 50 resulted in the taking over of the state railways by the government of India. These railways were later on merged with the contiguous railway systems when the Zonal Railways were formed.
The following table shows the important state railways which were taken over by the centre and were later on merged with the adjoining railway system.

**TABLE – II**

<table>
<thead>
<tr>
<th>Name of Railway</th>
<th>Mileage</th>
<th>Date from which taken over by the Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaekwar’s Baroda State Railway</td>
<td>736</td>
<td>I August 1949</td>
</tr>
<tr>
<td>Bikaner State Railway</td>
<td>883</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Cutch State Railway</td>
<td>72</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Dholpur State Railway</td>
<td>55</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Jaipur State Railway</td>
<td>275</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Jodhpur Railway</td>
<td>811</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Mysore State Railway</td>
<td>712</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Nizam’s State Railway</td>
<td>1375</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Rajasthan State Railway</td>
<td>197</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Saurashtra Railway</td>
<td>1342</td>
<td>I April 1950</td>
</tr>
<tr>
<td>Scindia State Railway</td>
<td>294</td>
<td>I April 1950</td>
</tr>
</tbody>
</table>

With a view to secure uniformity in practice and improving efficiency and for better and more economic use of the assets of the railways, it was decided by the Central Government to establish a smaller number of railways. The different government railways were therefore re-grouped and formed into six Zonal Railway systems.

1) **Southern Railway**: Southern Railway was formed on 14 April 1951 by the amalgamation of Madras and Southern Mahratta railway, the South Indian Railway and the Mysore State Railway. Its route mileage was 6016 (9682km).
2) **Central Railway:** Central Railway was formed on 5 November 1951 by the amalgamation of the Great Indian Peninsula Railway Company, the Nizam’s state, the Scindia and Dholpur state railways. Its route mileage was 5428 (8735km).

3) **Western Railway:** Western Railway was formed on 5 November 1951 by the integration of the Bombay, Baroda and the Central India Railway Company, Sourashtra Railway, the Jaipur State Railway, the Rajasthan Railway, the Cutch State Railway and the Marwar - Pulad section of the Jodhpur Railway. It’s route mileage was 5461 (8788kms).

4) **Northern Railway:** Northern Railway was formed on 14 April 1952 by the integration of the Jodhpur Bikaner State and Eastern Punjab Railways, Lucknow Moradabad and Allahabad divisions of the East Indian Railway and the Delhi - Rewani - Fazilka section of the Western Railway. Its route mileage was 6000 (9656kms).

5) **Eastern Railway:** Eastern railway was formed on 14 April 1952 by the amalgamation of the Bengal-Nagpur Railway with the divisions of the East Indian Railway not transferred to the Northern Railway. Its route mileage was 5667 (9120kms).

6) **North Eastern Railway:** North Eastern Railway was formed on 14 April, 1952 by the integration of the Oudh - Tirhut and the Assam Railways and the Kanpur - Achnera section of the Western Railway.

In 1955 the Eastern Railway was divided into Eastern and South Eastern zones. In 1958 the North Eastern Railway was divided into the North East and the North East Frontier railways. In
1966, the ninth Railway Zone, the South Central Railway comprising portions of Southern and Central Railways was formed.

In short, the transport system of India before the beginning of Railways was fragile and weak. But the introduction of Railways marks a turning point in the transport system of India. Even though the British started Railways for serving the needs of their administration, it became a boon to India. Different Railway companies like Great Indian Peninsula Company, East Indian Railway Company, Madras Railway Company, Bombay, Baroda and Central India Railway Company and the Bengal Nagpur Railway Company played their important roles for the introduction of railways in India. The year 1853 is remarkable in the history of India as it laid the foundation of the Railways.
END NOTES


63. Extract from the Statement of The Moral and Material Progress in India Present to the British Parliament on 5 July 1866, National Archives New Delhi, p:7.


68. Correspondence between the promoters of the Madras Railway and the Court of Directors of the East India Company, East India House, Part 1, 1853, p:3.


3. A European who came to India to discuss the starting of Railways in India.


107. Appendix I


113. Swadesamitran Daily, Dated 22 June 1922, Madras, Tamil Nadu Archives


115. History of the Indian Railways Constructed and in Progress, Corrected up to 31 March 1925, Railway Statistics, May 1925, No. 731-St/3-4, National Archives, New Delhi, p: 16.

116. Prathidinam Daily, dated 11 January 1926, Kottayam, Tamil Nadu Archives


123. Guide to the Sources of Asian History, Published under the Auspicious of UNESCO, National Archives of India, New Delhi, 1987, p: 116.


129. Ibid.


