CHAPTER - 1

EARLY STAGES OF DEVELOPMENT OF COAL MINES IN INDIA

The development of coal mining industry in India is a very important aspect of the industrial expansion of the country. It was prime energy fuel that propelled the rapid expansion of the railways and other industrial concerns in India. The earliest recorded reference to coal mine in India can be traced to an application of 11.8.1774, which Messrs S.G. Heatly and J.Summer of the Bengal civil services sent with 'proposals for working coal mines and selling coal in Bengal' to the Council of Revenue at Calcutta. An application made to Government for the right of working mine of coal in 'Panchete and Bheerbhoom'. S.G.Heatly was at the time collector of Chotanagpur (modern Chhotanagpur) and Palamow (modern Palamau) and he was in all probability, the first discoverer of the existence of coal in Bengal. Redferne subsequently joined the firm, which applied for an exclusive right for eighteen years, to work and sell coal in Bengal and its dependencies.\(^1\)

The limits of the area, within which they applied for and obtained permission to mine were the Adjai (modern Ajoy) and Damuda (modern Damodar) rivers on the north and south, a semi circular line drawn from the village Aitura with a radius of 10 miles to

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the west (this carried their boundaries for some distance beyond Barakar) borders on Burdwan district in the east. They agreed to pay one fifth of the produce to government, and to supply for five year 10,000 maund per annum at a price of 2 rupees 12 annas per maund probably the value of English coal at the times. The mines first worked by Messrs Sumner, Heatly and Redferne and subsequently by S.G. Heatly alone are said to have been six in numbers three of which were at Aitura, Chinakuri and Damulia. It is stated that S.G. Heatly procured English miners and made preparation for working the coal upon a large scale. At least several thousand maunds of coal were raised of which some 2,500 maunds were delivered to government in 1775. Only after few reminders the government could obtain the supply to be sent to the Military Board on 24th December 1777 to check the efficiency of the coal. According to the report of the Military Board dated 20th January, 1778 it was found comparatively inferior to British coal. Apparently the coal supplied to the Military Board was undoubtedly worked from surface mines. So it seems due to comparatively higher price of coal extracted in India the first mine was

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2 Ibid., p.155
3 Ibid.
closed. After the fiasco of Summer and Heatly project, a setback was felt in exploration of chances of commercial use of Indian coal by the Company.

In 1808, the Court of Directors in consequence of the expenses incurred in procuring and importing coal from England and difficulties they experienced in procuring coal in sufficient quantities from England, made some enquiries concerning coal on the Damuda (mod. Damodar). It was with the efforts of Warren Hasting in 1814 that Rupert Jones was sent by the Government to survey the coalfields and submit his report and recommendations to the government. He could trace the evidence of coal, in a place called Jurwah (Jirwaghar). Rupert Jones got a shaft sunk at Jirwaghar at a depth of 9 feet in coal. He stopped at that depth but reported that the quality of coal improved with the depth of mining and found that it fared well in comparison to British coal. During the course of survey he also rediscovered Heatly’s working site. Rupert Jones also found coal seams at Raniganj. He opened a coalmine at Eagara village near Raniganj and invested a sum of 40,000 rupees borrowed from the public treasury at a low rate of interest to enable him to accomplish his enterprise. He got the coal extracted from pit and not quarries, and

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6 D.H. Buchanan, p.255.
7 L. J. Barraclough, p.156.
9 The place where he found the coal, in the 7th section of the Rennel chart beyond Ruggoonathpoor
10 Ibid., p.156.
12 William Blamford, p. 156.
probably was the first to introduced Indian coal into the general market. But either he did not succeed in extracting it profitably, or as has more probable he failed in other speculation for he was unable to repay the government loan; and an agency house, Messrs Alexander and Company who had been security for Jones were obliged to do so. They became the owner of the colliery (in) about 1820. This was the first regularly constituted mining company with European capital in Bengal.

The study of development of the coal mine in India can be broadly divided into three major landmarks as follows:

1. The development of coal mines in Pre-Railway Period.
2. Post railway phase preceding opening of the Jharia mines.
3. Post Jharia mine’s opening and the ‘coal rush’

In the first phase the development was very slow halting, and episodic. After the initial enterprise the industry started growing at snail’s pace.

In 1823-1824, Chinakuri Colliery was opened by Bates, which had formerly been S.G. Heatly’s working site. In 1824 Messrs Jessop and Company opened mines at Damulia, but lost it in a law suit against its

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14 William Blamford, p.157.
operation and subsequently opened Narrainkuri mines and worked them until 1839 when the mines were transferred to Messrs Gilmore Homfray and Company.\textsuperscript{16} The quarries at Chanch and Nuchibad were also commenced about 1830 by Gilmore Homfray of Jessop and Company. In 1843 Messrs Gilmore Homfray and Company and Carr, Tagore and Company amalgamated to form the Bengal Coal Company.\textsuperscript{17}

On the wake of failure of many large agency houses in 1835 Raniganj mine was purchased by Dwarkanath Tagore, and subsequently worked by the firm Carr, Tagore and Company. It proved a disastrous venture. The whole estate, including several valuable \textit{patni} and other tenures, together with buildings and works, steam engines, nearly 250,000 maunds of coal (above 9000 tons) at market, and even a larger quantity at the mine, together with all advances made to the boatmen was sold for 70,000 rupees: less than the value of the coal at market alone.\textsuperscript{18}

Daltonganj field was worked by the Bengal Coal Company up to 1857, when the work was attacked by the protesting people and destroyed. Since then coal has been mined or rather quarried on limited scale.\textsuperscript{19}

It was constant endeavour of Messrs Alexander and Company, and their successors, to obtain the monopoly of the valuable coal districts around

\textsuperscript{16} William Blamford, p.158. see also B.P.Guha, \textit{Wage Rates in the Indian coal Mining Industry}, New Delhi, 1973, p. 10.

\textsuperscript{17} William Blamford, p.158; B.P.Guha, p.11.

\textsuperscript{18} H.D.G.Humphrey, p.152.

them, and to prevent others from operating there. For every mine it was necessary to have, not merely a lease or *pattah* of the land on which the coal was to be extracted, but also of a *ghat* or shipping place from which the coal could be sent through the river to Calcutta, the construction of road to connect the *ghat* with mine passing through land of other person, all were very contentious issues. On all these points, there were many litigations. When endless lawsuits were the price at which alone it was possible for anyone to commence mines in Raniganj district, it was not surprising that the greater number of speculators were discouraged, and the one with longest purse would in the end, have all the advantage.  

During the first phase (till coming of Railway) under consideration only mode of transit of coal was by boat on the river Damuda (mod. Damodar), which could only be carried out during the rainy season which meant it can be navigable for four months only. This by implication meant those mines that were away from the river had to depend upon the bullock carts to reach the river for further transportation by boat. In addition, other problems during the rains was created by the unmetalled muddy roads, bridgeless *nullas* full of water, and the carting was held up for days. Transportation of coal by carts had the additional disadvantage in the form of villagers carrying away coal which while the carts passed through them. The carters levied a small charge for

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20 S.Heslop, ‘Presidential Address’, *Transactions of the Mining and Geological Institute of India*. (henceforth referred as *T.M.G.I*), 1910, Vol., V,p.18
21 Ibid.,p.18
every maund of coal taken. The consequence of this pilfering was discrepancies between output and despatches for which the Colliery Manager was held responsible. So large was the problem of transportation that Dwarkanath’s firm, Carr, Tagore & Co., is reported in 1844 to have offered to raise one-third of the capital required for laying a railway line from northwest Calcutta to the coalfields above Burdwan. After Dwarkanath’s premature death a few years later, the other Indian businessmen adopted a pessimistic approach. They at best became followers of British merchants and railway promoters. The conception, promotion, and launching of India's railways were all British. Talking about the coalmines, H. McLeod, Chairman of the Indian Mining Association, had observed: ‘From the old records of my own Company, I find that 45,000 tons, or expressed in maunds, 12 ½ lakhs, were raised during the year ending September 1848. The whole of this quantity was transported in boats, a fleet of over 1,500 being required for the purpose.’

By mid 19th century, systematic survey of the mineral resource of India remained undone. Several appointments were made in India for geological and mineralogical investigations. There were several enterprising civil, medical and military officers in the East India Company who took interest in similar works in their spare times for promoting the economic development of the tracts for which they were responsible. These were individual efforts. McClelland, one

23 Ibid.
of members of the Coal Committee, 1835, who raised the question of employing trained geologists in India to investigate the coal formations of the country.  

D. H. Williams was the possibly first qualified geologist appointed as Geological Surveyor on 5th February 1846 for five years. He surveyed the Raniganj field, followed by the Kymore range of hills to the west of the Son river and lastly the Karanpura coal field. But he died on 15th November 1848. Thomas Oldham, a very experienced man was appointed as Geological Surveyor of the East India Company in November 1850, for five years and his appointment was renewed periodically until he retired in 1876. It was during this time that Geological Department assumed a distinct entity, with a permanent headquarter at Calcutta with its own publication of its finding in, Memoires of Geological Survey of India, and Annual Report of the Geological Survey of India, and establishment of the Museum of Geology during 1858-59. He used to describe himself as Superintendent of Geological Survey of India. The first geological map on the scale of 1 inch to a mile was published in 1863 along with the Memoirs of the Raniganj Coalfield. The first mineral statistical return published in 1869, was entirely related to the Raniganj Coalfield.


27 He was a local Director of the Geological Survey for Ireland in 1846, was also occupying the Chair of Geology in Dublin in 1845, and was President of the Geological Society, Dublin in 1848 and was also elected a Fellow of the Royal Society of London, c.f, K.S. Murthy, p.172.

28 Ibid.
The study of India's coal supplies for running steamers for inland navigation was discussed in 1835 and a Coal Committee dealing with the question presented a report or a set of reports enumerating 'all the sites of coal at present known to exist on the continent of India'. The list included not only the Bengal fields—Raniganj (Damoda), Rajmahal and Palamow—but also those of the Nerbudda (Narbada) valley, Chanda and Wardha, the Mahanadi valley, Assam, Sylhet and Burma. By the time the final report of the coal committee was issued in 1845 there was an impressive increase in the quantity of coal mined in Bengal. According to Homfray, coal brought from Raniganj into Calcutta was around 10,00,000 in 1839 and it touched a figure of 25,00,000 maunds by 1846. The Coal Committee entrusted 17,00,000 maunds as the probable consumption and 12,00,000 maunds as the average for the previous years. However Homfray calculated it to be around 20,50,000 and 16,30,000 maunds for the respective years.

The second phase starts with the entry of the railways into the Raniganj coalfield. The line to Raniganj was opened early in 1855 and this was held to be the termination of the first or experimental line. During the eleven months of 1855—contract were entered upon to carry over 100,000tons of coal from Raniganj to Calcutta. In the 2nd half of 1855 the revenue from coal was

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29 H.D.G. Humphrey, 189
30 Ibid.
31 William Blanford, Mineral Statistics, 180
32 Ibid
33 G. Huddleston, History of the East Indian Railway, Calcutta, 1906, p.15
£7,856. The weight of goods carried was 299,424 ton in 1859 against 190,566 tons in 1858, and the increase in mineral traffic was so great that it was decided to extend a branch to the collieries from Raniganj to Barrakar. The extension of the branch line from Raniganj to Barrakar coalfield in 1865 relieved many collieries of their transport difficulties and gave fresh impetus to the industry. This phase also saw the formation of large coal companies. The floatation of the Equitable Coal Company disturbed the noncompetitive position of the Bengal coal company. The Equitable Coal Company was registered in the year 1863, and there were five collieries in full working order, particulars of which are as follows: In the Raneegunge field there was the Dishergarh Colliery, 2,000 biggahs in extent; Jamuria, with an area of 5,588 biggahs; Bejdih, 1,983 biggahs; Chowrassie, 3,533 biggahs; and Hurriladih, in the Jherria field, consisting of 950 biggahs. The capital of the company consisted of Rs. 400,000, in 6 per cent, cumulative preference shares divided into 4,000 shares at Rs. 100. together with Rs. 20,00,000 in ordinary shares, divided into 200,000 shares each of Rs. 10.

The Raneegunge Coal Association Ltd., was founded in 1873 by taking over from Messrs. E. D. Kilburn and others’ the lands known as Lot Jamgram and Bansra in the district of Burdwan; but other properties were acquired from time to time with the result that the Association was by 1916 in possession

34 Ibid p.17
35 Ibid p. 27
thirty-four separate villages, having a total measurement of 39,586 bighas. Nearly 37,000 bighas have been leased for periods ranging from 99 to 999 years, at an annual rent of about Rs. 44,368. The principal colliery, Kustore, was situated in the Jharia field, and covered area of 2,428 bighas. It was divided into three parts known as Kustore North, Kustore South, and Alkusa District including Gundudihand part of Keska, and each was managed by a European holding a first-class certificate of competency, while the colliery as a whole was supervised by a General Manager.  

The Bengal Coal Company, usually referred as “the premier coal company of India”, was formed in 1843. The Company had acquired over about 80,000 acres of land, but the area in which coal deposits were located lied scattered over 50,000 acres in Raniganj, Giridih, Jharia, and Palamu. Further the main collieries were located at Seetalpore, Sanctoria, Sodepore, Banksimulia, Damudarpore, Koilhi, Bhatdee, Murulidih, Chanch, Dumarkunda, Dhobidih, and Raniganj.

The first systematic geological examination of the Giridih Coalfield was done in 1848 by Dr. J. MacClelland soon after assumption of the office of the

38 Ibid.
39 Ibid., p.230.
40 Ibid
Geological Survey of India.\textsuperscript{41} The vacancy was created by the death of D. H. Williams.\textsuperscript{42} In 1852, Dr. T. Oldham visited the field and afterwards arranged for the completion of the geological map by Dr. W. L. Wilson; but on account of the unsatisfactory nature of the topographical maps, the geological work had to be abandoned until the ground was re-surveyed. After the completion of this map, Dr. T. W. H. Hughes was deputed in 1868 to revise the previous observations, and to express the new results in the form of a general geological map of the field.\textsuperscript{43}

The Giridih coalfield was acquired by the East Indian Railway Company in the early years due to the intelligence and foresight of Mr. Macdonal Stephenson.\textsuperscript{44} Initially, there was a dispute between the government and the Company on the question of the use of coalfield. The government was against the utilisation of guaranteed capital in excavating the coalmine. The East Indian Railway Company on the other hand argued in favour of such an investment to ensure uninterrupted supply of coal for its moving stock. The East Indian Railway Company, on the contrary, launched ‘the Auxiliary Railway Company’ to lay line to develop the Giridih property. Eventually it was Sir Charles Wood who could see the reason and permitted construction of

\begin{itemize}
\item \textsuperscript{42} K.S. Murthy, “Geological Science in India in the 18th-19th Century”, \textit{Indian Journal of History of Science}, Vol., 17, (No.1); 20-178
\item \textsuperscript{43} T. H. Holland and T. M. Ward, p.198.
\item \textsuperscript{44} G . Huddleston, \textit{History of the East Indian Railway}, Calcutta, 1906, p. 82.
\end{itemize}
the chord line to access those mines.\textsuperscript{45} Consequently the East Indian Railway Company could reach the Giridih field in 1871.\textsuperscript{46} The coal worked out by the East Indian Railway Company collieries not only ensured a steady supply of coal against the vagaries of market production but also helped the Company to make a substantial saving in fuel component of the working expenses as can be seen in the table given below. However it had a detrimental impact on the health of the mining industry of the country. Being the largest consumer of the coal industry and also producer of the same helped it to keep the price at the bottom line.\textsuperscript{47}

\begin{table}
\centering
\caption{Consumption of coal by different coal companies}
\begin{tabular}{|l|c|}
\hline
Coal used by different railway companies (in tons) & Half year ended 30\textsuperscript{th} June 1885 (tons) \\
\hline
East Indian Railway & 100,175 \\
Great Indian Peninsular Railway Company & 108,490 \\
Bombay - Baroda & 24,987 \\
\hline
\end{tabular}
\end{table}

(Source: G. Huddleston, \textit{History of the East Indian Railway}, Calcutta, 1906, p. 96.)

\begin{table}
\centering
\caption{Cost of coal}
\begin{tabular}{|l|c|}
\hline
East Indian Railway & Rs 479,422 \\
Great Indian Peninsular & Rs 1,678,778 \\
Bombay - Baroda & Rs 493,112 \\
\hline
\end{tabular}
\end{table}

(Source: G. Huddleston, \textit{History of the east Indian Railway}, Calcutta, 1906, p. 96.)

\textsuperscript{45} Ibid., p92.

\textsuperscript{46} Ibid.

\textsuperscript{47} Ibid., p.96.
Giridih coal worth rupees 3 a ton in wagon at the collieries cost rupees 30 a ton by the time it reached Lahore, while at Calcutta the freight charge from Sitarampur was no less than rupees 3-13 a ton.48

In 1870s and 1880s it became a normal feature to appoint a managing agent for the companies to handle day to day activities of the company. The managing agent need not hold shares in the company; he played the role of a hired manager. The remuneration of the managing agent in the early period was a in the form of commission on the sale of the Company, irrespective of the Company’s profit.49 During this phase not only the numbers of mines increased but also the demand started. In 1873 some Bengal coal was taken to Madras for the use of Madras Railway and some was conveyed to Singapore for the manufacture of gas and some to Bombay for cotton spinning works. The quantity exported was small, but this was the first recorded trade in export of coal.50

The problems of the collieries were aggravated by the slow expansion of railways in comparison to the expansion of the coalfields. Only those collieries that were on the line of railway were served with sidings, and such sidings had to be paid for in full by the colliery using it. Collieries distant from the railway had to rely on the bullock-cart for their carriage. Every ton of machinery had to

48 Ibid. p.116.
be conveyed across country. The expensive labour was required to transport heavy boilers, large flywheels and other parts of colliery machinery, to distant road deficient parts of coalfields. One Apcar and Company, had to purchase and to engage an elephant to carry machinery from colliery to colliery, and this method proved satisfactory.\textsuperscript{51} The railway magnates of the time held court at Jamalpur, and they looked upon every colliery and every colliery owner as a nuisance. It is attributed to a certain Railway Official that he had remarked, "it would be a very good thing for the E.I.R. if the collieries did not exist, as they were always wanting something."\textsuperscript{52} The railway officials were not known for any taking any keen interest in the extension of railways to the mines which were one of the reasons for slow pace of development.\textsuperscript{53} It was left to private 6" narrow gaugeline of over 5 miles that Messrs. Apcar and Company constructed in conjunction with Messrs. Shib Kisto Daw and Company, in 1876, which had enabled them to make their Charanpur collieries a commercial success.\textsuperscript{54} Messrs. Apcar and Company was the first to lay down at their own expense a broad gauge line from Sitarampur to their Lachipur Colliery in 1881.\textsuperscript{55} The success of this undertaking was assured from its beginning as the neighbouring collieries belonging to the Bengal Equitable, and native owners were too glad to avail themselves of this line for the despatch of their output to

\begin{itemize}
\item \textsuperscript{51} Frank J. Agabeg, Presidential address, \textit{T.M.G.I}, 1914, Vol. IX, p.18
\item \textsuperscript{52} Ibid.
\item \textsuperscript{53} Ibid. p.18
\item \textsuperscript{54} Ibid.
\item \textsuperscript{55} Ibid., p.19
\end{itemize}
Sitarampur by paying a comparatively small royalty.\textsuperscript{56} In some cases the saving was estimated to be as much as 12 annas to Rs. 1 per ton, and an average of 20,000 tons a month was transported by this branch of only two miles in length.\textsuperscript{57} By 1860 fifty collieries were at work in Raniganj field and by 1868 they contributed over 99\% of the half million tons produced in the area.\textsuperscript{58} In 1872 six companies, namely—The Bengal, Raniganj Coal Association, Equitable, Barakar, Beerbhoom and Messrs. Apcar and Company operated in the area along with approximately 44 small and native-owned concerns. More than half of the latter category produced less than 10,000 tons per annum.\textsuperscript{59}

The third phase started with the opening of the Jharia field. The Jharia field was discovered even earlier than Raniganj by Rupert Jones but the inaccessibility of it made working impossible without improvement of the means of transport. The Collector of Birbhum (Birbhoom) had admitted that coal had been discovered at Jharia but the bed were superficial\textsuperscript{60} and never been worked. He had also observed that the cost of transport to Calcutta by ‘new land route’ would have amounted to 85 rupees per 100 maund or alternatively if sent down by boat during the rain, the cost would have been

\textsuperscript{56} Ibid.
\textsuperscript{57} H.D.G.Humphrey, p.152.
\textsuperscript{58} D. H. Buchanan, p. 257.
\textsuperscript{59} T.M.G.I, Vol. V, p.18
\textsuperscript{60} H.D.G.Humphrey, p.152
Rs.12 per 100 maund. This meant that there was enormous difference of Rs.
Per 100 maund of coal.

In 1856 Messrs Brrodaile & Company applied for lease of Jharia mine but denied by Court of Wards. The first geological survey of Jharia was done by T.W.H. Hughes in 1866 and further attention was drawn to the field in 1887 by Dr.V.Ball of the G.S.I. The field was next examined by T.H.Ward, Mining Engineer, on behalf of the East Indian Railway.

The Jharia Coalfield contributed to the extension of railway across Barakar River. A proposal was made by the East India Railway Company to extend the Barakar Branch across the Barakar River in 1886, and despite the support of Directors of the Board, the Government, refused to sanction it till 1889. Notwithstanding this decision, the then Chairman of the Board, Sir Richard Strachey, had deputed T. H. Ward, the Colliery Superintendent to examine and report on the prospects of the Jharia coal-field, who submitted the report in August 1894. In 1892 the government of India had sanctioned the

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61 Ibid.
64 Ibid.
65 Huddlestone, p.145.
66 Ibid.
67 T.M.G.I. Vol. XVI, pp.75-76
work and it was at once started and by 20th May 1894 railway linked Ghootrya some seven miles beyond Barakar, carrying 100 tons coal and 50 passengers.68

The firms which helped in the development of the Jharia coalfield were an outgrowth of the Agency Houses. These Agency houses collapsed in the 1830s, and their successors, the Managing Agencies, began controlling joint-stock associations by proxy, a practice initiated by Dwarkanath Tagore.69 The typical form of remuneration of the managing agent in the early period was a commission on the sale of the company, irrespective of the company’s profit. But in this phase the newly established coal mining companies, usually paid the managing agent a fixed percentage of their profit, where the commission was paid on the basis of ‘net profits’ the interests were not identical. The net profits were calculated before depreciation on investment and funds put on reserve.70

The chances for the success of any newly established company in Bengal in 1890s were judged by the composition of the companies under the control of the same managing agent. A certain degree of vertical integration guaranteed a good demand for coal, a certain degree of horizontal concentration guaranteed the necessary know-how and distribution facilities in the industry, a high number of companies under their control a substantial financial backing. The entry of managing agencies also started the period of

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68 G.Huddleston, p.147
69 Dilip Simeon, p. 46
70 Henner Papendieck, p.190
distorted growth for the rapidly expanding Jharia coalfield with the corresponding expansion in the coal trade. Much closer to finance and markets, the agents were able to supplement the work of men in actual charge of operation....  

Focusing on immediate rather than future gain, they transferred profits from one company to another, and manipulated the price of fuel supplied to their non-mining concerns. From 1890 to 1920 the number of coal companies witnessed a phenomenal growth in Bengal and Bihar; it increased from six to 227; and between 1890 1918 coal production increased tenfold, capital invested in coal twelvefold, and the size of the workforce fivefold. In 1911, seven Managing Agents controlled 55 per cent of the jute, 61 per cent of the tea and 46 per cent of the coal companies

The Agents’ remuneration consisted of commissions on proceeds, raisings or dividends. The calculation of net profits before making deductions for depreciation and reserves rendered this form of management detrimental to the collieries. Commissions paid were apart from salaries and share dividends, and agents could make poundage even when the firm was facing loss. In certain areas more machinery was installed than was required, owing to

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72 Report of Indian Coalfields Committee, 1946, p.28.

73 Dilip Simeon, p. 6.

74 C.f, Dilip Simeon, p.46. There were marked and arbitrary differences between prices for independent and associated buyers (CMC: 27; Papendieck 1978: 204-12.)
the fact that although the coal was near the surface, the advisors had an interest in the sale of mining equipment.\textsuperscript{75}

In November 1894, the General Traffic Manager of the East Indian Railway announced that the coal traffic from the Jharia field had increased from 500 tons a month in the early period of the year to 1,000 tons a month in the later half of the year.\textsuperscript{76} The coal trade from Jharia field witnessed regular growth. It was 1,000 tons a month at the end of 1894, and by 1912 it was over 14,000 tons a day.\textsuperscript{77} The East Indian Railway could touch the fringe of the fields in 1894 only and by 1912 the Bengal-Nagpur Railway, the East Indian Railway and the collieries themselves had amongst them a network of several hundred miles in length.\textsuperscript{78}

Glancing at the returns of the two railways serving the Jharia and Raniganj coal-fields, it was found that in the seven years between 1895 to 1902 the internal consumption had increased from 3\(1/2\) to 5\(1/2\) million tons, or by 2 million tons.\textsuperscript{79} It was in 1911 that the Board of the East Indian Railway had introduced the new carrying rates.\textsuperscript{80}

\begin{flushright}
\textsuperscript{75} D.S. Buchanan, p.221.
\textsuperscript{77} Ibid.
\textsuperscript{78} Ibid.
\textsuperscript{79} Huddleston, p.190.
\end{flushright}
Table-1.3: Coal traffic from Jharia branch

<table>
<thead>
<tr>
<th>Years</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1894</td>
<td>38,831</td>
</tr>
<tr>
<td>1899</td>
<td>1,310,397</td>
</tr>
<tr>
<td>1905</td>
<td>2,827,725</td>
</tr>
</tbody>
</table>


In 1891 the freight earnings of the East Indian Railway from coal were little more than 63 lakhs of rupees and within five years 1896 they had risen to over 97 lakhs and by 1901 it rose to over 180 lakhs of rupees.  

Between 1890 to 1920 the number of public limited companies engaged in coal mining in Bengal grew from 6 to 227, their nominal capital increased from 5 to 87 million rupees. The average capital per company sank from 9 lakhs of rupees to 3.5 lakhs. With the exception of two companies all were registered in Calcutta.

Andrew Yule and Company was one of the largest managing agency houses in Bengal. It managed about 120 industrial companies in Bengal. It handled the affairs of jute industry (about 10% in Bengal in 1907), inland steam shipping, cotton industry and tea garden etc. Its bank was Bank of Calcutta, latter the Mercantile Bank of India Ltd. It successfully launched Katras-Jherriah Coal Company. It established the Seebpore Company in 1900.

81 G. Huddleston, p.154.  
82 Henner Papendieck, p.184.  
83 Ibid.  
84 Ibid.  
85 Ibid., p.193  
86 Ibid
by selling a part of its property to new share holder. Similarly a second dependent coal company was launched in 1908 known as the Minto Coal Company. In 1893 the Adjai Coal Company was launched. It took over the management of The Bengal Nagpur Coal Company in 1896. But its single significant gain was the takeover of the management of the Bengal Coal Company, during the boom year of 1908. This group excavated the largest quality and at same time owned the largest reserve of lands. So by the end of 1908 Andrew Yule & Co’s coal department controlled around 13% of the total production of Bihar and Orissa: 1.4 million tons of a total of 11.6 million tons raised. The group capital reached 6.5 million rupees or 10% of the capital invested in coal mining in India by that time.

M. V. Apcar & Company founded by Mr. Minas Vertannes Apcar commenced business on his own account, holding jute agencies, then becoming successively a Zamindar and a colliery owner. They were the proprietors of the M. V. A. coal concern at Joyrampore, in the famous Jhariah field; and they were also agents for the Seang line of steamers plying between Chinese and Indian ports.

The Lodna Colliery Company, Ltd., formed in 1896, were owners of mines in Mouza Lodna, Puttiadih, Mankanali Chuck, and Madhuba, all of which are situated in the famous Jharia coal-fields in the district of Manbhum, (Mod. Jharkhand) and they subsequently acquired the Chasnala property, about five

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87 Ibid, p.194.
88 J. A. Sandbrook, ‘Commerce and Industries’, p. 221
miles distant from Lodna. In 1913 an extensive coal-bearing tract of land was purchased at Sripur in the well-known Raniganj area. Later they obtained from the Jharria Coal Company the property known as Bhaga, adjacent to Lodna colliery.\footnote{Ibid., p. 221.}

W. C. Banerjee started as a coal broker and merchant, before shifting to financing other concerns and by 1907 shifted to promotion of few limited companies and then started purchasing collieries. The following particulars relate to half a dozen collieries owned by Messrs. Banerjee and Company. The Poniati Coal Concern and the Poniati Coal Company in Raniganj field, Joogidih Coal Concern in Jharia, Sinidih Colliery near Katrasgarh Station, on the East Indian Railway route and South Baraboni Coal Concern, New Baraboni Coal Concern on the East Indian Railway.\footnote{Ibid., pp.229-230.}

Another important managing agent was Messrs. Bird and Company. From the various collieries controlled by Messrs. Bird and Company by 1911 the annual output of coal was 1,500,000 tons. These collieries were electrically equipped and installed with modern machinery for the preparation and screening of coal, and were situated at Loyabad, Mudidih, Teetunmuri, Budroochuck, Katras, Choytoodih, and Jumoni, in the Jerriah field; and Saltore, Lutchipore, Hatgoori, Bhaskajuri, Charanpur, Burelia, Bankola, Kantapahari, Jamgram, and Joba, in the Raniganj fields.\footnote{Ibid., p.226.}
Messrs. F. W. Heilgers & Company, of the Chartered Bank Buildings, Calcutta, was managing agent for the following colliery and coal companies, namely: the Borrea Coal Company, Ltd., the Bhulanbararee Coal Company, Ltd., the Govindpur Coal Company, Ltd., the Khas Jherriah Colliery Company, Ltd., the Sendra Coal Company, Ltd., and the Standard Coal Company, Ltd., with mines of first-class coal in the famous Jhariah fields in the district of Manbhum together with the Ondal Coal Company, Ltd., whose works were in the Ranecgunge coal area, in the district of Burdwan, of the Bengal Presidency. These companies had a total authorized capital of Rs. 40,25,000. By 1918 these companies started paying satisfactory dividends: the Khas Jhariah Company alone having declared 170,200, and 180 per cent, per annum for 1913, 1914, and 1915. Nearly 1,000,000 tons of coal were extracted annually from the various mines by 1918.92

The area of the Bokaro coalfield from the Koonar river to the eastern end of the field was described by Thomas H. Ward in 1908. No further steps were taken till 1913 when, the East Indian Railway and Bengal Nagpur Railway companies acquired this property known as the Joint Colliery. The area was around 3,750 bigahas (1/3 to 2/3 of an acre). Actual development work started in August 1914 only. It was a forest area and was being connected with Mohuda by railway. The railway eventually reached the colliery towards the end of 1914, and was opened for passenger traffic on the 1st April, 1915. In August 1915 coal raising commenced and the output from that date up to 1919

92 Ibid. p.230.
registered ascendancy in terms of output and by 1919 30,000 tons per month were mined.\textsuperscript{93}

The price of coal reached such a height by 1908 that it encouraged numerous Companies to get involved in this sector. About 50 companies with an aggregated capital of 283 lakhs rupees had started mining by March 1908, or in other words, on an average of about one coal company in per week. It reached a record in February 1908 when some 14 companies were registered, or one every other day.\textsuperscript{94} The previous year had seen an average of about one nearly every fortnight, while prior to that, it had not reached an average of even one a year in the whole history of mining and joint stock companies. The demand had exceeded the supply. There was a kind of coal famine, and it was observed that anything that was black seemed to sell so long as it would burn.\textsuperscript{95} Old abandoned places were re-opened and new mines were started, even with indifferent quality of coal. The price of properties and establishment of new companies soared in such a manner that this phase was characterised as of the ‘coal boom’ of Chhota Nagpur. There was a race for opening mines. The floating of a coal company became quite exceedingly popular enterprise.\textsuperscript{96} This sudden and enormous increase in the number of coal companies with the capital invested, however, received a heavy set back by 1909, when a sharp


\textsuperscript{95} Ibid.

\textsuperscript{96} Ibid., p.21.
decline was witnessed both in demand and price with a resulting slump in shares, and speculators became as anxious to get rid of it as they had been to take it up. Many of these new concerns had been floated by investing on enormous amount of capital. This had created a situation, in the face of fall of demand and price, where infrastructural cost diminished the rate of profit which further prevented them from opting for deep mining. In fact, the never concerns found it difficult to compete with, well-established companies with strong financial foundation, large properties, and good coal. Consequently a number of mines were closed or hampered considerably. In many cases, most part of the profits made in heydays were paid away in dividends. Therefore the excellent opportunity of building up and strengthening the concerns against monsoon rains was lost. The commercial journal *Capital*, a few months ago, gave a comparative statement of prices of some 22 companies of 1909-1910 and showed that nearly five crores of rupees were lost. The situation started changing after 1919. The prices of coal rose and the industry witnessed growth. The strike in Australia had enabled the industry to ship coal there and get to the Straits Settlements and it was hoped only good coal would continue to be exported in order to permanently retain the hold. The working up of an export trade was undoubtedly of the greatest importance. It was realised that inland consumption would increase considerably with the extension of

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97 Ibid., p.20.
98 Ibid.p.21.
99 Ibid.
railways and the expansion of industries. But at the same time it was felt that the size of export of coal to foreign destinations should be stabilised.\(^{100}\)

The opening of Jharia coalfield and establishment of large numbers of coal mines by last decade of nineteenth century, the gradual expansion in the demand for coal combined with pressure from the philanthropist forced the government’s intervention in the coalfield for the first time to regulate development of the industry by promulgation of Indian Mining Act of 1901. The Indian Mines Act came into force in 1901 and has been productive of much good in causing mines to be better managed generally by appointment of Chief Inspector of Mine for whole of British India, and appointment of Inspector of mines at provincial level to see the condition of mine, safety of the workers and ventilation in mines.\(^{101}\) All the mines were to have certificated managers causing mines to be better managed.\(^{102}\)

The Mining and Geological Institute of India was successfully launched on the 16th of January 1906 for providing service to the mining industry of the country. This was backed by scheme of organising academic lectures to enable mine officials to get the necessary technical knowledge to qualify for the certificate of competency as mine manager and to improve the mining

\(^{100}\) Ibid. pp.22-23.


\(^{102}\) This act will be dealt in detail in subsequent chapters.
knowledge in general.\textsuperscript{103} As a consequence, 86 of the trained mine managers were produced by 1910.\textsuperscript{104}

So by the end of the third phase there was a mad rush to open a coal mine. The demand for coal increased with the opening of new markets and the extension of railways, increasing industrial demand and also due to the export of coal. Large number of coal mines were opened to reap the benefits in form of profit, large investment of capital without concerning itself with the future prospect, and closed when the profit declined. There was a saying; anything that was black seemed to sell so long as it would burn. But in spite of all the shortcomings the coal mining industry acquired a structure and basic infrastructure propelled the growth and unequal growth till the end of our period. So this chapter is an attempt to highlights the broad development pattern of coalmine in India and its auxiliary departments and the capital structure which will be used latter for the lopsided development of the industry. Subsequently the production pattern will be dealt with the labour section.

\textsuperscript{103} S. Heslop, Presidential address, \textit{T.M.G.I.} Vol. V,1910, p. 28.
\textsuperscript{104} Ibid.