

## THE PRESENT STATUS OF THE COAL INDUSTRY.

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Coal is an indispensable commodity in modern industrial life being, in fact, the corner stone on which rests the mighty structure of modern industrial development. It is a basic industry and is also called a key-industry, as it holds the key to other industries. Coal will, therefore, play an important part in any scheme of industrial planning for the country and it augurs well for the future of the coal industry in India that the matter has attracted the serious attention of the Government and of industrial experts who have applied their minds to devise ways and means to prevent waste of this national asset.

Compared to the coal mining industry in other countries, the coal mining industry in India is one of recent growth and its development and expansion on modern scientific lines can be said to have commenced only about half a century ago. The lack of proper transport facilities was one of the main hindrances to the development of the coal industry in the earlier part of the 19th century when some attempts were made at mining coal in the Bengal coalfield near about Raneegunge. The existence of coal has been known to the people of the country since ancient times and as has been observed by the authors of the 'Report of the Indian Coal Mining Committee of 1937' 'Names of villages and localities as Kalipahari (black hill), Damodar (fire in womb), Barakar (big mine) and Angarpathra (charcoal stone) indicate that in olden times coal was used for fuel and reducing iron ore'.

The history of the coal industry in India dates from the year 1774 when Messrs. Sumner and Suetonius Grant Heatly (who was at the time the Collector of Chotanagpur) obtained permission from the Government to work coal mines in an extensive area near Sitarampur in Bengal. There were no facilities for Railway transport in those days and 2,500 maunds of coal that was worked in these mines were transported to Calcutta by river in 1775. Eventually the whole project had to be abandoned and the first venture in coal proved to be an unsuccessful one.

Forty years later in 1814, when the Marquis of Hastings was the Governor-General of India, the Government deputed Mr. Rupert Jones, a mining expert from England to prospect and report upon the Bengal coalfields. With financial help from the Government, he began mining operation in a village near Raneegunge and this undertaking was subsequently taken up in 1835 by Messrs. Alexander & Co., a Calcutta firm and subsequently by Messrs. Carr,

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\* Pure Jharia Colliery, Manbhum.

Tagore & Co. of which the late Dwarkanath Tagore, the grandfather of our illustrious countryman and poet Dr. Rabindranath Tagore, was a partner.

By this time another company, Messrs. Jessop & Co., had stepped into the field and opened coal mines at Damulia and Narainpur and worked there up till 1839 when they were transferred to Messrs. Gilmore Humfray & Co. In 1843 by amalgamating the two firms of Gilmore & Co. and Carr, Tagore & Co., Messrs. Bengal Coal Company who still own and work a very large number of coal mines in the Raneegunge and Jharia coalfields, came into existence. Messrs. Bengal Coal Co. may thus be regarded as one of the pioneers in the Indian coal industry and they form the link between the old and the new workers in the field. Then chronologically we come to the Giridih field where in 1871 the East Indian Railway acquired extensive coal land and opened mines which are being still worked.

Though coal mining operations were first started in the Raneegunge field and actual mining operations in the Jharia field commenced as late as 1890, the Jharia coalfield gradually acquired its position of special importance and it now accounts for three-fourths of the total output of coal from the Provinces of Bihar and Orissa.

The Jharia coalfield covers an area of about 180 sq. miles in extent lying within the district of Manbhum in Bihar. On its western border the Jharia field practically joins on to the Bokaro-Ramgarh field in the Hazaribagh district where the Railways have been working their own mines since 1915.

The existence of rich deposits of coal in the Jharia coalfield was known as early as 1839 and an attempt was made to obtain a lease for mining coal within Jharia State in 1858, but the Court of Wards which was then in charge of the State did not grant any lease. The creation of the Department of the Geological Survey of India by the Government and the geological survey of the Jharia coalfield by experts like Mr. T. W. H. Hughes in 1866 and by Dr. V. Ball in 1887 and Mr. T. H. Ward in 1890 gradually drew the attention of enterprising businessmen to the prospect of coal industry in the Jharia field, and also impressed upon the East Indian Railway the necessity of extending their branch lines from Barakar to Katrasgarh in 1894 and from Kusunda to Patherdih in 1895, in order to facilitate the development and expansion of coal industry, as without transport facilities it is absolutely impossible for the industry to make any headway.

Though in recent years there has been a very brisk development of the coal mining industry in the Central Provinces and some other places in India, yet the Raneegunge and Jharia fields have still retained their positions of importance and in 1935 the Jharia and Raneegunge coalfields accounted for 78.96% of the total output. It will be interesting to note here that the yield of the Jharia and Raneegunge fields in relation to the total Indian output has been climbing down since 1920, it being 83.67% of the total in 1920, 84.76% in 1923, 79.23% in 1930 and 78.96% in 1935.

The early methods that were adopted for mining coal were comparatively simple and coal was raised gradually by working quarries at shallow depths and later galleries were driven from the quarries and work was mostly carried out in the daytime and night work was only introduced still later.

With the expansion of Railways and better transport facilities, better and improved methods of mining were undertaken by enterprising businessmen and mining gradually became a more difficult and hazardous job.

The enactment of the Indian Mines Act in 1901, which provided for better and more scientific methods of working under properly qualified and trained colliery managers, marked a new epoch in the history of the mining industry in this country and ensured better safety for workers and more methodical working under the supervision and control of a Government Inspectorate headed by a Chief Inspector of Mines. The office of the Chief Inspector of Mines was at first located at Calcutta where it remained until 1907 when it was removed to Dhanbad, so that better and more effective control could be exercised over the coal mines which have been daily increasing in number round about the Jharia coalfield.

As workings became old and depillaring operations were sought to be carried out, and the chances of accidents and collapses and of fires in mines increased, considerable amendments have been effected in recent years in the Indian Mines Act and in the various Rules and Regulations framed thereunder to minimise the chances of such accidents. The recent enactment of provisions for compulsory stowing of deep mines and of setting up of two Rescue Stations, one in the Jharia field and another in the Raneegunge field, are attempts to check the growing evil of underground accidents by subsidence and fire.

I do not think, in speaking about the present status of the coal industry, I should allow myself to drift away into the details of the various legislative measures that have been enacted in recent years to ensure and provide for the better safety of workers, adoption of better and more improved methods of mining and other ameliorative measures for the welfare of labour and compensation to workers in case of accidents. All that I need say is that they have to a certain extent added to our cost of production and when we take into consideration the Provincial enactments such as the Bihar and Orissa Mining Settlement Act or the Bengal Mining Settlement Act or the Jharia Water Supply Act or the Amended Road Cess Act, the burden that has been thrown upon the industry will appear by no means to be inconsiderable.

As I have already stated, the two coalfields of major importance are the Raneegunge and the Jharia coalfields though, in recent years, in spite of the comparative inferiority of its coal, the Central Provinces has, because of its geographical position, turned out to be a formidable rival of Bengal and Bihar coal in the important coal-consuming centres of Western India, such as Bombay and Ahmedabad.

The broad difference between Raneegunge and Jharia coal is that, while Jharia coal is caking coal, the Raneegunge coal is mostly non-caking or partially

caking. Raneegeunge coal is richer in volatile matter and because of its low volatile matter Jharia coal gives better results in an ordinary locomotive boiler, but Raneegeunge and Jharia coal each has its own use and is good for its own purpose.

The important position that the coal industry occupies today was not attained in a day. I have attempted to give you a very brief outline of its struggles during the early years of the 19th century when some pioneer attempts had failed, because of transport and other difficulties and the predilection of the consumers, who were also then very few and in favour of the superior quality of imported *Walesh* coal.

The history of the present coal industry therefore really dates from the beginning of the 20th century and a mere glance at the annual figures of the output of coal during the last 40 years will show how rapid has been the development. According to the Report of the Coal Mining Committee, between 1880 and 1919 the production of coal in India doubled every 10 years. The reason which led to this phenomenal growth of the coal industry during these years were:—

- (i) Development in the export trade of coal.
- (ii) The expansion of Railways which are the biggest consumers of coal at present.
- (iii) The development of iron and steel industry which is the second big consumer next to the Railways.
- (iv) The establishment of cotton, jute and other mills.
- (v) The development of other various industries and factories and
- (vi) The last, though not least, an increased use of coal as domestic fuel, in the shape of soft coke.

In comparison to the vast size of the Indian population, the figure of coal used for domestic consumption at present is almost negligible. There is a very great potential market for low grade coal of the country in the domestic hearth of India's teeming millions and if this market can be properly tapped I am sure it will go a great way to remove the hardship under which many second class collieries are labouring at present. The work that is being done by the Soft Coke Cess Committee for popularising the use of soft coke as domestic fuel has to a certain extent stimulated the internal demand for domestic coal and the possibilities that lie ahead are still very great. It may be interesting to note here the approximate figures of coal consumed by the various industries during the year 1936.

|  | Tons.     |
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| Railways .. .. .                             | 7,482,000 |
| Iron and steel industries .. .. .            | 6,681,000 |
| Other industrial and domestic consumption .. | 2,759,000 |
| Cotton mills .. .. .                         | 1,697,000 |
| Bunker coal .. .. .                          | 990,000   |
| Brick manufacture .. .. .                    | 858,000   |
| Jute mills .. .. .                           | 745,000   |

|                                    | Tons.   |
|------------------------------------|---------|
| Inland steamers . . . . .          | 567,000 |
| Tea and paper industries . . . . . | 379,000 |

Though the Railways have been and are still the biggest consumers of coal, yet the development of their own collieries by the Railways has adversely affected the general trade due to the loss of a considerable portion of the Railway custom.

The exports of Indian coal to foreign countries began to increase gradually from the beginning of the present century and from an annual average figure of 305,000 tons prior to 1900, it reached the figure of 1,224,758 tons in 1920 which was the highest ever recorded.

The chief places of export outside India were Colombo, Singapore, Penang, Sabang, Rangoon and some other places, while coal was exported coastwise to inland ports like Madras, Bombay and Karachi.

Closely following on the Great War and taking advantage of the immobile position of the trade due to scarcity in the supply of Railway wagons for transport of coal, consequent on the greater demand for Railway wagons for other trades and industries, two formidable rivals in the shape of Welsh and Natal coal appeared in the important coal-consuming centres of Western India. The Welsh coal could compete favourably because of its superior quality, while the South African coal was placed in a position of advantage because of the bounty it received from the South African Government by way of rebate in shipping freight. Though the cost of production of Indian coal is very low in comparison to the cost of production in the other countries, yet the exorbitant railway freight on Indian coal made it possible for sea-borne foreign coal to oust successfully the Indian coal from some of its paying internal markets. While faced on the one hand with this keen competition with foreign coal in the internal markets, the Bengal and Bihar coal had also to reckon with the competition from C.P. coal, because of the special advantage enjoyed by it owing to its proximity to coal-consuming centres like Bombay and Ahmedabad and the consequent cheapness in Railway freight. On top of this came the embargo that was placed by the Government of India in 1920 on the export of Indian coal to foreign countries with the result that the Indian coal trade in overseas markets was completely lost. The position of the Indian coal trade became so very critical in or about this time that it shook the attitude of the stolid indifference taken up so long by the public and the government. In March 1924 the Indian Legislative Assembly recommended to the Tariff Board the investigation into the question of offering some protection to the Indian coal trade against foreign competition. The result was the subsequent imposition of a countervailing duty of annas eight per ton on all foreign coals imported into India. But as was expected, the relief was extremely inadequate.

In the very same year, *i.e.* September 1924, the Government of India appointed an expert committee under the chairmanship of Sir Frank Noyce

to enquire and report on measures to stimulate the export of Indian coal to Indian and foreign ports and in particular to see what effective measures could be taken for pooling and grading Indian coal for export and bunkering. The Noyce Committee carried out a thorough investigation into the matter and on the recommendation of that Committee the Indian Coal Grading Board was constituted and the Coal Grading Act was passed providing for certification of coal intended for export.

The Indian Coal Grading Board under the able guidance of the Chief Mining Engineer to the Railway Board, who is the Chairman of the Board, and his Inspection Staff, both on the collieries and at the Kidderpore Docks, are doing valuable work. Through the efforts of the Board Indian coal has been able to win back much of the confidence that it had lost in the foreign markets and has been able to retrieve partially its position in those places.

The export trade has considerably improved during recent years. In 1937, the total shipment of Indian coal to various Indian and Chinese ports was over 1½ million tons. In 1938, there was a heavy demand for coal from China and the total export figure reached 2,210,130 tons as against the annual average of 3,28,000 tons for the previous five years.

The output of Indian coal has been rising higher and higher every year and the year 1937 was perhaps the peak year with a total figure of over 25 million tons. But this rise in output is no index to the prosperity of the trade and has been, on the contrary, one of its sources of weakness as it has led to keen internal competition and suicidal cutting down of prices below the actual cost of production.

Overproduction has been characterised by some as a special disease of the Indian coal trade. I cannot do better than quote in this connection the observations of the Coal Mining Committee:—

‘Economic science says that “supply price” is cost of production plus a reasonable profit, but there seems little or no margin of profit in prices which most coal of good quality has been fetching during the past few years. These low prices are due to interaction of keen competition and decreased demand due to general depression. Potential production exceeds demand and competition compels the quotation of prices based on potential rather than actual production.’

The truth of these observations will be apparent from the fact that during the last five years the average selling price of first class or selected grade coal was Rs.3-12-0, Rs.3-4-0, Rs.3-2-0, Rs.5-8-0 and Rs.5-0-0 per ton, f.o.r. colliery siding, while average raising cost comes to over Rs.5-0-0 per ton.

The Indian coal industry stands at present faced with a variety of problems the chief amongst which are the better utilisation of the low grade coal, (2) prevention of the present wasteful methods of working, (3) the recovery of the by-products of coal, and (4) conservation of the caking coal for metallurgical purposes.