

# The Coal Sector of the Plan

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If the Plan estimate of India's requirements of coal by 1960-61 were correct.—happily, it is not—the industrial segment of the Plan would, have foundered on the rock of an acute shortage of coal

The target of coal production put at 60 million tons in the last Plan year may not be attainable but the author does not think that the requirements in that year are likely to exceed 52 million tons. A rise of output of 15 million tons above the present output of 37 million tons is, however, feasible though it is perhaps the maximum that can be attained. Therefore there is no reason to fear an imbalance between supply of and demand for coal in the Second Plan period, though annual balances may not be easy to strike.

COAL is of major importance in the Second Plan, not only because of its basic role in any large industrial programme, but because of the particular pattern of industrial investment envisaged in the Plan, too. The highlights of that proposed pattern are the large expansions of steel and cement output, which will make heavy demands on our available resources of coal.

Even in Prof Mahalanobis' Draft of the Plan, released in April last year, the 1960-61 target for coal was placed at 60 million tons. Its breakdown into different uses was as shown under:

	mn tons
Railways	14
Electricity	5
Iron & Steel	15
Brick Manufacture	5
Cotton Mills	1.5
Jute Mills	0.5
Paper Mills	1
Fertiliser Industry	1
Other Industries	4
Bunker & Steamers	2
Domestic Fuel	7.5
Synthetic Petrol	1.5
All other uses	2
<b>TOTAL</b>	<b>60</b>

This is a near output-input analysis for coal consumption as envisaged in the last year of the Plan. This same estimation has been retained in the Plan. Also, the requirements of coal during the current and four subsequent years were given as shown below:

Year	Production mn tons	Requirements mn tons	Estimated Gap mn tons
1956-57	40.5	47.5	7
1957-58	43.7	48.9	6.2
1958-59	47.6	56.6	9
1959-60	53.9	59.4	5.5
1960-61	60	61	1

Thus, according to the Plan, the coal situation in the country is likely

to be critical even in the current year, and though by 1960-61 the situation is expected to improve considerably, a short-fall of 1 million tons is estimated even then.

## Sources of Production

Much thought has been given to evolving a programme regarding the sources from which the additional supply of coal may be derived during the Second Plan. This programme is at present, as follows:

Mining Source	Output in 1961 (mn tons)	Increases over Current level (mn tons)
Raniganj Coalfield	18.6	5.94
Jharia coalfield	16.69	3.50
Karanpura coalfield	6.00	4.56
Bokharo Coalfield	2.88	.50
Korba coalfield (virgin area in MP)	4.00	4.00
Central India field	5.31	3.00
Singarani (MP)	2.92	1.50
<b>Total increase</b>		<b>23.00</b>

The figures in the last column were based on the output in 1954 of 36.7 million tons. In 1955 total output has moved up by about a million tons, so that if the planned output is achieved, the 61 million tons mark will be reached by the end of 1960.

## Critical Appraisal

Against this background of reality and planning in our coal situation, four issues emerge for a critical appraisal. In the first place, are the estimates of the demand for coal in 1960-61 reliable? Secondly, is the target of production set in the Plan capable of achievement, and if not, what is the likely output, taking the various limiting factors into account." Thirdly, is the problem of additional output entirely quantitative, or has it a qualitative aspect as well? And lastly, how will the wage award recently announced for colliery labour-

ers affect the programme for increased production?

Regarding the first, question, it appears that even with all the luck in our favour in the expansion of the steel industry, its requirements for coal are not likely to exceed 10 million tons, calculated at the rate of 3 tons of steam coal usable as hard coke for every ton of pig iron manufactured. The two new plants for chemical fertiliser are not likely to be based on sulphur, so that hard coke for its recovery from gypsum will not be needed. The synthetic oil project has been practically dropped. The chances for the demand for coal for domestic use reaching a figure higher than 5 million tons appear very remote. On the whole, India's requirements of coal by 1960-61 are very unlikely to exceed 50 million tons. A maximum of another 2 million tons may be allowed to cover a margin of error in these estimates.

## Probable Growth of Output

We turn next to the probable growth in output. There is hardly any virgin coal-bearing land left in the Raniganj field, and mining has been already carried to considerable depths below the ground. As against the 5.94 million tons of additional coal estimated to be raised from this field, it does not seem to be able to yield more than another 1.94 million tons, so that the estimate is too high by 4 million tons. For Jharia too, the estimate is high by at least 1 million tons, and by perhaps the same amount in the case of Karanpura field. The virgin area of Korba in South-east Madhya Pradesh is no doubt a very rich potential source, but its exploitation raises a number of problems incidental to opening a new area. Thus, the likely effective output front, this field within the deadline of 1960-61 is perhaps 2.5 million tons, showing the estimate in the Plan being at least 1.5 million tons too high. Summing up the overall prospect, a rise of output of 15 million tons is the maximum achievable. This gives an output of 53 million tons by 1960-61, which balances well the

maximum likely requirements of 52 mn. tons. Indeed, If the planners' estimate of India's requirements of coal by 1960-61 were correct—which happily is not so—the industrial segment of the Plan would have foundered on the rock of an acute shortage of coal.

#### Metallurgical Coal

It is an over-simplification of the problem to estimate the demand for coal almost wholly in quantitative terms. Actually, it is the metallurgical coal—the quality with high carbon and low volatile—the deficit of which constitutes the crux of the problem. Today about 8 mn. tons of this quality are being mined. Of this 5 mn. tons are used in the steel furnaces and allied uses, and the balance of 2 to 3 mn. tons go for non-metallurgical consumption. Even according to our own estimates given earlier, the additional requirement for steel furnaces is about 5 mn. tons—a deficit not likely to be met by diverting all the available metallurgical coal to steel furnaces only. The current official assumption is

that low grade high carbon coal will be first washed and then carbonised into hard cokes. The method will be wasteful and raises numerous incidental problems. A real solution of the problem lies in the adaptation of non-coking coal, as it is, in low-shaft steel furnaces. Experiments on this are in progress in a pilot plant in Jamshedpur, and on its results depend very considerably the future solution of India's coal problem from the qualitative point of view.

#### Wage Rates and Coal Price

Lastly, it is certain that our coal economy will receive a heavy blow by the introduction of the new enhanced wage rates for colliery labour, awarded recently by an Industrial Tribunal, after a prolonged hearing of the points of view of the workers and employers, for a period of over two years. Briefly the terms of the award are these: that on the present level of wages, dating to the Conciliation Board Award of 1947, the wages of the time-rated unskilled workers have been increased by 61

per cent, those of the skilled uurrace and underground workers by 31 per cent, and of the piecerrated miners and time-rated loaders and trammers by the same proportion.

Whether these increased wage costs variously estimated at Hs 3 to Rs 3/12 per ton of coal—will be covered by a corresponding increase in the controlled price of coal is yet to be seen. A large gap between costs and price will send many collieries to the wall. Further, the effect of higher piece-rates for machine miners will largely eliminate the cost-advantage of mechanised as against hand-picked mining. On the whole, the award will not operate as an incentive, but rather as a disincentive, in boosting up production by the workers. Thus, even without going into the other economic effects of the award, its probable "unfortunate effect on production is hardly to be doubted. But the situation is yet fluid, and any clear conclusions must wait announcement, by Government of the revised schedule of coal prices.

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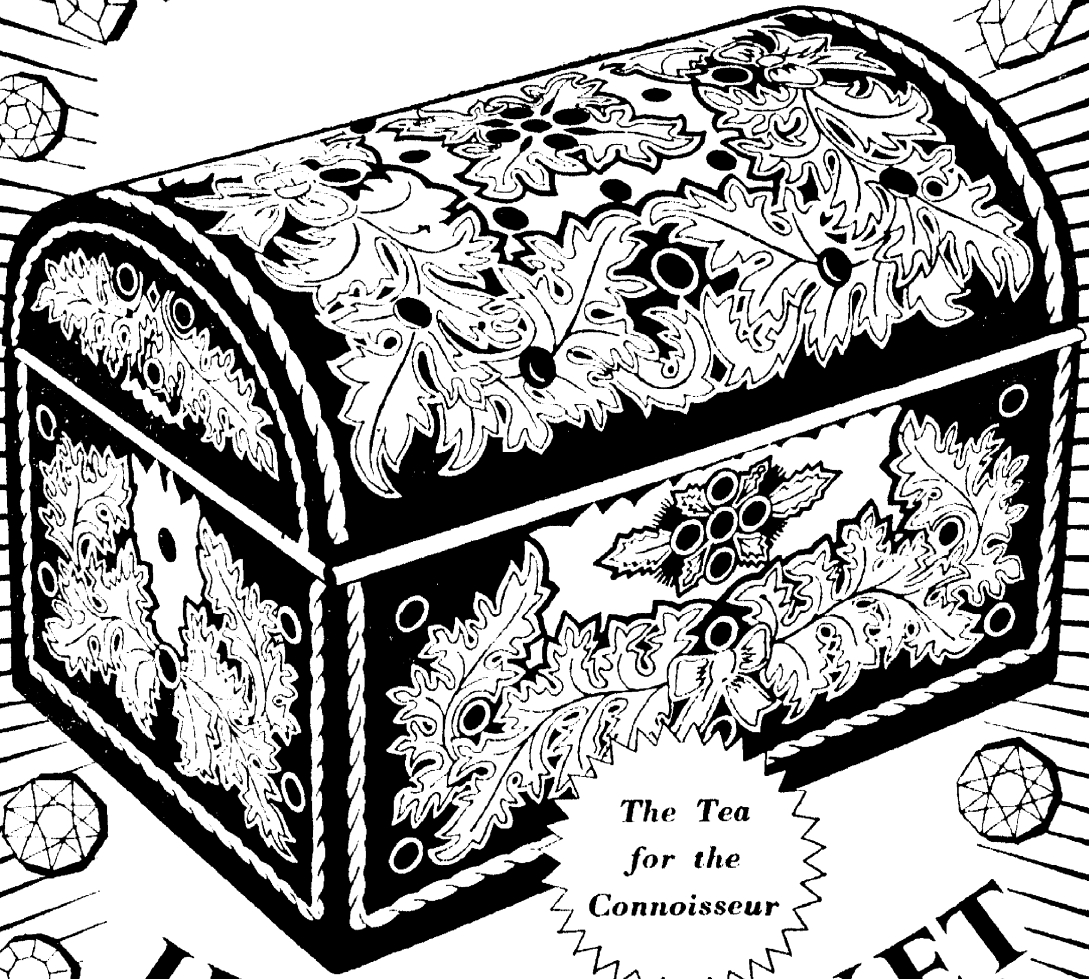
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