

CHAPTER - 2.

THE GROWTH INFLUENCING FACTORS OF DURGAPUR INDUSTRIAL COMPLEX

The Geo-historical Background

Durgapur industrial complex has been promoted and grown by the government with a view to tide over the socio-economic constraints particularly of West Bengal and the country in general. It is, therefore, an obvious subject to study as to what are the standing factors in support of Durgapur for the selection as a site for a modern industrial complex. The study will also help to analyse the rate of performance of the operating enterprises and the prospect of the complex in general.

Geo-historically, Durgapur was not a prospective place in the conventional terms. The agriculture was the only profession of the area.¹ But for the unfavourable land and soil conditions and very remote prospect of modern irrigation facilities, the only profession of the area was not at all beneficial for the inhabitants; nor it inspired others to come over here. This might be considered as the main reason for the low density of population of the area.

The people in general of the area were very poor and had to drive a life below the poverty line.² The rate of education of the time was also very poor in the area. The people were mostly mud-hut dwellers. They had, in fact, no special attraction for the place.

The Industrial Potentiality.

Although Durgapur area was not socio-economically prospecting in the conventional terms, the place was, however, found very

much potential for modern industrial development. The supporting factors were the locational peculiarities, geo-economical conditions, easy availability of commercial transportation facilities, cheap labour, proximity to natural water source, potentiality of power generation, etc.

These are the conventional important supporting factors for the promotion of a place as a modern industrial complex. In absence of either of the factors, it is practically not possible to promote an industrial complex as in Durgapur. It is, therefore, worthwhile to study at least some of the factors with a view to observe the conditions of this place. The phase-changing factors here are the availability of sufficient space and the related factors, closeness to raw materials bases, the prospect of power generation, the easy availability of cheap commercial transportation facilities, the source of commercial water and the availability of cheap labour³.

The Availability of sufficient space and the related factors.

The availability of sufficient space in a 'suitable place' is always an inseparable factor for the promotion of a modern industrial complex⁴. Incidentally, it may be mentioned here that the complex of Durgapur is a planned one and it is just around 30 years old. It is, therefore, expected to grow. The nature of the enterprises and the scope of their ancillary development may be taken into account to draw a clear picture in this respect.

The density of population is always a decisive factor in

this direction. A highly populated place is normally not suitable in this context, particularly due to the fact that it is really very difficult to uproot the inhabitants of the area for some obvious reasons at least under the running socio-political state of affairs. On the other hand, it is not desirable, since the high density of population is an indication of better living conditions of the place in some other socio-economic point of view.

Durgapur was found as a suitable place in this consideration. The density of population of the area was comparatively poor as compared to that of other parts of the state and the people were not socio-economically sound. There was hardly any scope of better living even in the conventional terms.

Secondly, the soil conditions of the area are a reckoning factor in this context ⁵. It is usually believed that a modern industrial complex as in Durgapur with a good number of heavy and basic industries can only be grown on the hard soil. Durgapur is found as a suitable place in this consideration.

Last but not the least, the locational suitability is another important factor in this respect. It is normally believed that a modern industrial complex should be located in a place, where the 'in and out' facilities for the incoming enterprises are favourable. Durgapur is undoubtedly a suitable place in this consideration.

In fine, it may be said that so far the space and the related factors are concerned, Durgapur is surely a suitable place for the promotion of a planned industrial complex.

The Proximity to the Raw Materials Bases.

The proximity at least to the major raw materials bases is another decisive factor for the promotion of a place as a modern industrial complex.⁶ Incidentally, it may be mentioned here that coal and iron ore are the two major basic raw materials used by the enterprises of Durgapur.

So far coal is concerned, Durgapur may be found in the 'front-door' of Raniganj-Jharia coal belt. It is the single largest coal belt of the country at that time. It may further be noted that coal is the single highest amount of basic raw material used in the complex.

The iron ore is the second highest amount of basic raw materials used in Durgapur belt. It is brought from Orissa-Bihar boarder region. The distance of this area from Durgapur on the Railways is just average 450 km.

Other basic raw materials used in the complex are lime stone, dolomite, manganese, etc. These raw materials are brought from comparatively distant places. But, the distance here is kept out of consideration, since their amounts are always far less as compared to that of coal and iron ore and coal and iron ore, the dominating raw materials of the complex are found available in comparatively far less distant places.

The larger number of other major raw materials used in the complex, viz, the steels, pig iron, coal products and by-products are widely produced and available in the complex itself.

Availability of Commercial Transportation Facilities:

The availability of commercial transportation facilities is considered as a prominent factor for the promotion of a modern industrial complex ⁷. Incidentally, it may be mentioned that Durgapur industrial complex has been founded upon heavy industries, viz, Durgapur Steel Plant, Durgapur Projects Limited, Durgapur Thermal Power Station, ACC-Babcock Limited, Mining & Allied Machinery Corporation, etc. These enterprises need sufficient roadway and railway transportation facilities to cater their day to day operations.

Durgapur is a very much potential place in this consideration. A 'four-way' Railway connection is running across the place and the Grand Trunk Road has gone over the heart of the area(Annex/ Fig - 4). Moreover, the most modern Railway Marshalling Yard of Andal is just 7 km from Durgapur. Again, the place comes in the working zone of Asansol Railway Divisional Head Quarter, which is considered one of the finest of its kind of the country. In fine, it may be said that in terms of commercial transportation facilities, Durgapur may be found in a fine position.

Availability of Cheap Labour :

The availability of cheap labour is another potential factor for the promotion of a place as a modern industrial complex ⁸. So far this issue is concerned, Durgapur may be found as a suitable place.

The area itself was socio-economically unsound before being taken up for planned industrial development. The same was the condition of the attached districts, viz, Bankura and Birbhum. Under the same circumstances, there was practically no problem to get cheap labour.

But, the issue was very much restricted here to the level of unskilled workers. Incidentally, it might be noted here that the requirements of the enterprises were extended widely to other categories, viz, semiskilled, skilled, highly skilled and specialists.

A few types of semiskilled and skilled workers were available from Asansol area, Dhanbad region, Janshedpur complex and Howrah district, which were already established as industrial town. These places were not far away from Durgapur. But, for the highly skilled specialist personnel, it might be noted that at that time, it was a crisis all over the country.

Availability of Commercial Water :

The availability of commercial water is considered as an important factor for the promotion of a place as a modern industrial complex.⁹ The amount of water consumption expectedly would be quite remarkable in this circumstance. It would be increasing for the increasing population. It would be in dire need for the operation of the industrial enterprises. Such a huge amount of water need^{is}/usually considered to be met only from a regular natural source.

So far Durgapur complex is concerned, the water needs were considered to be met from the River Damodar. The river was already barraged and it was found very close to the^{proposed}/complex. In fine, it might be said that in terms of water availability, Durgapur was surely a sound place for industrial development.

Prospect of Power :

The prospect of power is an important factor for the promotion of a place as a modern industrial complex.¹⁰ Although by the aids

of updated technology and invention of new machineries, it is now possible to transmit power to a distant place; but it is usually considered in unavoidable circumstances. The scope of availability in and around the area is surely an added advantage. It is believed to be economical as well. Durgapur may be found in an advantageous position in this consideration. It is already found that Durgapur is closely attached to the famous Raniganj-Jharia coal belt. The easy availability of coal was considered as an advantage of thermal power generation in and around the area. Incidentally, two commercial thermal power units, viz, Durgapur Projects Limited (Power Plant Division) and Durgapur Thermal Power Station were promoted upon the advantage.

By power here, it is wanted to mean only the thermal power. In absence of a regularly water-flowing river in this region, there is hardly any scope of hydro power generation in this area. Incidentally, the thermal power generation is the first kind of industry to come in Durgapur industrial complex.

While concluding the study on the subject, it may be said that so far the major potential factors are concerned, Durgapur may be considered as a suitable place for the promotion as a modern industrial complex. Some other kinds of facilities are also required in this direction; but it may be mentioned here that all the facilities are seldom available in a particular place. Under the same circumstances, it is an usual practice to take care of the major factors.

The Potentialities-utilisation
of Durgapur Industrial Complex.

Making inroad to a considerably high potential place, it is normally expected that the operating industrial enterprises of Durgapur complex will show good result at least in terms of capacity utilisation. Incidentally, it may be mentioned here that the major enterprises of the complex are the iron & steel making, thermal power generating, coal-processing, heavy engineering, steel consuming, coal byproducts consuming enterprises, for which there has been found many kinds of inward facilities in the complex.

THE CHARACTER & RATE OF CAPACITY
UTILISATION IN DURGAPUR COMPLEX.

TABLE NO : 4.

Sl. NO.	NAME OF THE ENTERPRISE	OWNER-SHIP	CHARACTER	RATE OF CAPACITY UTILISATION
<u>A. LARGE SCALE ENTERPRISES:</u>				
1.	Durgapur Steel Plant	- Public	- I & S Making	- 56.05
			Sector.	
2.	Mining & Allied Machinery Corporation	- do-	- Steel based Engineering	- 30.86
3.	Hindustan Fertilisers Corporation Limited	- do-	- Naptha based	- 28.12
4.	Durgapur Thermal Power Station (DVC)	- do-	- Coal based	- 44.22
5.	Alloy Steels Plant	- do-	- I & S Scrap and Alloy based	- 55.46
6.	Durgapur Projects Ltd.	- do-	- Coal based	- 55.39
7.	Durgapur Chemicals Ltd.	- do-	- Coal Byproducts based.	- 51.49
8.	Bharat Ophthalmic Glass Plant.	- do-	- Lime Stone based.	- 39.56
9.	ACC-Babcock Limited	- Private-Sector	- I & S based Engineering.	- 59.31
<u>B. MEDIUM SCALE ENTERPRISES:</u>				
1.	Philips Carbon Black Ltd.	- do-	- Coal Byproducts based.	- 88.82
2.	Sankey Wheels Limited	- do-	- Steel based.	- 71.77
3.	Graphite India Limited	- do-	- Coal Byproducts based.	- 86.00

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SL NO	NAME OF THE ENTERPRISE	OWNER-SHIP	CHARACTER	RATE OF CAPACITY UTILISATION.
4.	Durgapur Cement Works	- Private Sector	- Iron Slag Based.	65.00
5.	Asiatic Oxygen Limited	- -do-	- Natural Air	47.00
6.	Indo-American Electricals Limited	- -do-	- Copper & Aluminium based.	90.00
7.	Durgapur Thermaeuticals Works	- -do-	- Chemical Drug Makers.	60.00
8.	Hein-Lehmann India Ltd.	- -do-	- I & S based	90.00
9.	Jessop & Company Ltd.	- Public Sector	- I & S based	45.62

Source : Field Survey.

It is, therefore, observed that none of the large scale industrial enterprises of Durgapur complex is doing good in terms of capacity utilisation. Another salient feature of the study is that other than ACC-Babcock Limited, all the operating large scale enterprises of the complex are public sector enterprises. These organisations are the backbone of the complex and form the molecules of its growth. Besides, most of them have come in the earlier days of the complex.

Finally, it is observed that the larger number of the operating enterprises of the complex of either category are iron & steel making or iron & steel based industrial enterprise.

With the observations in hand, it is worthwhile to make a systematic sample survey on the rate of capacity utilisation of a few key enterprises of the complex with a view to get the accurate picture in this respect. The selection is rested to Durgapur Steel Plant and Mining & Allied Machinery Corporation due to their dominance in the

complex. Incidentally, it may be mentioned that the prospect and growth of a modern industrial/Complex in Durgapur usually depends upon the rate of performance of the operating major units.

THE AVERAGE PRODUCTION OF
DURGAPUR STEEL PLANT(INGOT STEEL)

TABLE NO : 5.

YEAR	PRODUCTION ('000)/T	MOVING AVERAGE(3 YEARS)
1972-73	723	-
1973-74	776	772.67
1974-75	819	865.33
1975-76	1,001	970.33
1976-77	1,091	1,090.67
1977-78	1,180	1,042.67
1978-79	857	973.33
1979-80	883	827.00
1980-81	741	851.33
1981-82	930	874.33
1982-83	952	896.00
1983-84	806	-

Source : The Technical Secretariate of Durgapur Steel Plant.

It is, therefore, observed that the trend of production of Durgapur Steel Plant is upward till 1977-78. Whereas, the same has not been maintained in the subsequent years under consideration (Annex/Pic-5). This is an unhealthy indication. Incidentally, it may be noted here that the annual capacity of the plant is 1.6 million tonnes of ingot steel and its rate of capacity utilisation is only 56.05%. This is also an unhealthy sign and believed to be not sufficient to show a positive financial result.

THE AVERAGE PRODUCTION OF
MINING & ALLIED MACHINERY CORPN (MOVING AVERAGE)

TABLE No: 6

<u>YEAR</u>	<u>% PRODUCTION (TONNES)</u>	<u>% MOVING AVERAGE(3 YEARS)</u>
1971-72	11,991	-
1972-73	15,456	14,902.00
1973-74	17,259	17,276.00
1974-75	19,113	18,957.00
1975-76	20,499	20,461.67
1976-77	21,773	17,248.67
1977-78	9,474	14,079.67
1978-79	10,992	10,933.00
1979-80	12,333	11,643.33
1980-81	11,605	11,499.33
1981-82	10,560	11,490.67
1982-83	12,307	11,919.00
1983-84	12,890	-

Source : The Central Administrative Office of MMIC.

Here also the trend of average production is not found at all satisfactory. It has been found upward till 1975-76. Whereas, the same has been found downward in the subsequent years under consideration (Annex/Tic-6). This is usually considered as an unhealthy sign. Incidentally, it may be noted that the annual capacity of the organisation is 50,000 tonnes and its annual rate of capacity utilisation has been observed only 30.36%. This is also an unhealthy sign and usually considered not sufficient to show a positive financial result.

The trend may be found in the same condition in all other major operating organisation of the complex. The subject

may, however, be left to be taken up at the appropriate level of the study.

On the other hand, the condition is comparatively better in the medium scale enterprises. Incidentally, it is worthwhile to mention that other than Jessop & Company Limited, all of them are private sector organisations. It may also be noted here that the average ^{rate} of capacity utilisation of the company is worst in the group.

In fine, it may be said that the trend and rate of production are not satisfactory in the major enterprises of the complex, which are incidentally the state-owned organisations. Whereas, both the criteria are found comparatively better in the medium scale units, which are mostly the private sector enterprises.

SUMMARY

So far the geo-historical background and the conventional socio-economic conditions were concerned, Durgapur was not a sound place. The only profession of the area was the under-productive agriculture, which did not appear to be flourish^{ed} due to the substandard land and soil conditions and remote prospect of modern irrigation facilities. The people of the area were widely poor, under-educated and mud-hut dwellers.

But, the area appeared highly potential for industrial development. The assessment was made upon scientific and systematic survey by the state agencies and state-sponsored international expert body.

Sufficient cheap land was available in Durgapur area due to low density of population and substandard financial conditions of the

people. The soil conditions of the area were also found very much favourable for the heavy industries.

Secondly, Some major basic raw materials, viz, coal and iron ore, were found available in reasonable distance, which was considered as a pragmatic factor for Durgapur in this respect.

Thirdly, Durgapur was found in a favourable position of the roadway and railway map of the country long before the planned industrial development.

Fourthly, the socio-economic conditions of the people of Durgapur and attached areas were being not good, there appeared the scope of cheap but unskilled worker. But for the skilled personnel, it was found as a nation-wide crisis.

Fifthly, the required amount of water was found available from the barraged River Damodar, which was found flowing just across the southern front of Durgapur.

Last but not the least, the coal being easily available, there appeared bright scope of thermal power generation in Durgapur area.

These were some of the prime factors for industrial promotion in Durgapur area. Other factors were not taken into account, since the important factors were available easily and economically.

In spite of inroading in a highly favourable place, the operating enterprises of the complex are not found to show a fair rate of capacity utilisation. The position is very much dismal in case of the major enterprises; whereas it is found comparatively better of the medium scale organisations. The major units are mostly

owned by the state; whereas, most of the medium scale enterprises are in the private sector.

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