CHAPTER - 3.

THE SYSTEM APPROACH OF THE STATE SPONSORED INDUSTRIAL ACTIVITIES OF THE COUNTRY

The Concept.

The national socio-economic development throughout the whole world is found to take a new concept after the Second World War. Before that, any clear and commonly followed concept is hardly found in the greater world. Excepting the communist countries, the socio-economic development of a country is very rarely found to be taken up by the state. It is almost a hapazard matter in the greater world. To the communists, the planned national economic development is always an ideological issue [1]. Elsewhere in the world, whenever they have come to rule a country, they are found to take up the socio-economic development in a planned way. The name of Soviet Russia may be mentioned as the first country in this respect. Other communist countries are found to follow the same path. It is commonly believed that there is no alternative of state-controlled planned socio-economic development of a country under communist rule [2].

But for the greater world, a conceptual approach for the socio-economic development of a country as a whole has been waited till the Second World War [3]. After the war, there may be found a massive change in the political map of the world. In between 1940 & 1960, nearly 50 colonised countries attained political freedom. These countries were mostly poor and highly populated [4]. There were huge unemployment, undereducation, proverty, etc, in these countries. Unscientific agriculture was the main profession of their people. Industrial development was in a very primary stage and it was found

to make no significant contribution in the national economy. Under the same circumstances, the planned economic development came as a national policy in the developing countries [5]. The main target of the approach was to get the optimum utilisation of the available resources of the country in the services of the people in a planned way. Incidentally, difference might be found in the approach; but there would be found hardly any difference in the basic outlook.

The general out-line of the socio-economic development programme of the developing countries may be found to have been founded upon some common factors [6]. Firstly, the socio-economic development of a developing country appears no more an isolated affair. It comes to stay as a planned national programme. Secondly, the emerged state administrative culture is found to enshoulder the responsibility. Last but not the least, the industrial development appears as a very important part of the total programme [7].

The Approach in India.

In the global culture, planned socio-economic development programme is found to have been taken in India since the early days of independence [8]. For the first time in the history of the country, planned development approach has been made in the socio-economic fronts since 1951 in the name of Five Year Plan. Industrial development as usually appears as an important part of the plans.

Incidentally, the economic conditions of the country on the eve of independence were not at all favourable to afford the minimum means of livelihood for the total population. More than 70% people were living below the poverty line [9]. The government of the sovereign

state had no alternative but to look for the betterment of the population as a whole. The Five Year Plan concept was aimed basically in this direction.

The development of agriculture was given the highest priority in the First Plan. It was, however, very closely followed by the development of the industrial sectors.[10]

Analysing the plan, it might be marked that the development of agriculture was given the highest priority with a view to arrange food as the basic means of livelihood in the first ever attempt by the state. It was also felt that sufficient rate of development of agriculture could not be attained unless the sector was adequately supported by the development of the industries of the country. Incidentally, it might be mentioned here that the progress of agriculture in the scientific line was very much dependent upon the progress of the related industrial sectors.[11] The First Five Year Plan of the country was designed accordingly.

While finding the development of agriculture in the highest priority in the First Plant, it might be noted here that it was not considered only as the means of making up the food deficit of the country, it was found as the main profession of more than 80% of the total population.[12] On the other hand, only 17% of the total national income used to come from the industrial sectors.[13] Under the same circumstances, with a view to attain a balance in the total development programme of the country, the development of industrial sectors became essential.

The industrial development of the country being found in such a vital role in the proposed economic structure of the coun-

try, it was usefully expected to be done in the planned way. Incidentally, it might be mentioned that industrial development was always a very critical affair. It was more critical in a developing country as India due to some remarkable negative preconditions. It might further be mentioned here that industrial development was expected to grow various kinds of socio-economic facilities for the people of the area in particular. One of such benifits was the gainful employment. Another expected development was the facilities of the urbanisation.

Under the same circumstances, the planned and state-sponsored industrial development appeared to face a grave problem in India, where there was huge unemployment in the length and breadth of the country. Whereas, due to many obvious reasons, particularly the scarcity of investable resources, it appeared practically not possible to take up industrial development scheme in all parts of the country at a time, so that the facilities might be availed by the total population. Moreover, by industrial development, it meant many things, which could not be brought together at a time by a problem-stricken developing country as India. Under the same circumstances, as an useful policy, a list of priority of the sectors was drawn and the development schemes were designed accordingly.

For the socio-economic constraints and the political implications as well, with a view to attain the best possible results, it was decided in India to take up industrial development schemes in some particular areas, which were considered techno-economically more suitable.[14] Durgapur was systematically found out as a potential place in this direction.

When among all some particular places were considered suitable in the industrial development programme of the country, it was an obvious issue to study the reasons of their selection.

The available positive factors for the development of a particular type of industries in a particular place is commonly called the spatial characteristics[15]. Durgapur industrial complex is dominated by coal-based, iron & steel making and the related industries. The spatial characteristics of the place are expected to be found favourable for the industries of these kinds.

The Spatial Characteristics.

Although the spatial characteristics are the supporting factors for the selection of a place for the promotion of a particular kind of industry, the issue should not be assumed as a static one. It may vary in course of time. The spatial characteristics may, therefore, be of two kinds, viz, the basic and the developed characteristics.

The basic spatial characteristics are those, which are widely natural in character. Whereas, the developed spatial characteristics are those, which have been made available by exploiting the basic factors.

Incidentally, it may be mentioned here that the quality and quantity of the developed spatial characteristics are very much dependent upon the nature and rate of exploitation of the basic spatial characteristics by the early development programme of the place. More clearly, it may be said that if the plan and programme of exploitation of the basic spatial characteristics are not done in right direction, the quality and quantity of the developed spatial characteristics would not be favourable.

A study on spatial characteristics is always a very critical subject. Although the basic spatial characteristics are widely static in nature; but their useful exploitation is always a very much dynamic affair. The planning of exploitation isthe primary step in this direction. It is the cornerstone as well. But, it is useful to mention here that for the useful exploitation of the available spatial facilities, far more critical ways are to be crossed beyond the planning stage. It may again be noted here that the success of industrial operation is very much dependent upon various types of related and interrelated issues, viz, the up-to-date technology, sufficient fund, well trained personnel, good industrial relations, scientific management, marketing prospect, etc.

As the primary step of the study on Durgapur industrial complex, it is, therefore, worthwhile to take up the basic spatial characteristics, which appeared as the cornerstone for the selection of the place in this respect. Incidentally, it may be mentioned here that Durgapur industrial complex has been initiated with thermal power generation industry, for which the coal isthe raw material. The complex has, thereafter, been promoted for iron & steel making, heavy engineering, coal processing and the related industries.

Taking note of the character of the industries of Durgapur complex, the spatial characteristics of the place may be analysed in that line. It will help to estimate the solidity of the foundation of the complex. Incidentally, it may be mentioned here that there are many kinds of spatial characteristics, which are required for the promotion of a planned industrial complex as in Durgapur. Side by side,

it should also be noted that all of them are very rarely available in a particular place. Moreover, all of them are not equally important in all such cases. Some of them may be substituted or brought from the nearby places. But, there are certain factors, which are almost inseparable in this direction in all cases. These are the availability of sufficient space, the prospect of power and transportation, the easy availability of raw materials and the availability of sufficient water. The importance of these factors leaves hardly any doubt for the promotion of a planned industrial complex.

The Spatial Characteristics & the Industries of Durgapur.

A planned industrial complex like that of Durgapur, having so many giant and basic industrial enterprises, is most likely to grow to a far larger shape in future. It is the general characteristics of a planned industrial complex. It is, therefore, useful to study the suitability of the place in the direction in the light of the above mentioned spatial characteristics. The study would help not only to present the scope of success of the running enterprises, it would help equally to foresee the prospect of the complex.

It is already observed that Durgapur is very much a suitable place in terms of the basic spatial characteristics, ie, the availability of sufficient space, the prospect of power and transportation, scope of sufficient water and proximity to raw materials bases.

Taking note of the above study, there are sufficient reasons to assume that so far the planning is concerned, the prospect of Durgapur industrial complex is reasonably bright. The character of the

operating enterprises are found to stand brightly in this respect. It may, therefore, be said that the foundation of Durgapur complex is quite solid to forecaste a bright operational prospect of the enterprises. Of course, the success of the enterprises is surely related to some other affairs, which is left to be discussed in the appropriate level of the study.

The Prospect of the Industries from National Point of View.

Taking note of bright prospect of the enterprises from the spatial characteristics point of view, the subject, however, is not ending here itself. It is equally an important issue to see whether the industries have sufficient national market. A study of its character may only reveal the total clear picture in this respect.

Incidentally, it is worthful to note that the industrie cannot prosper in a limited market. It may also be noted here that the enterprises of Durgapur complex are not short-term business. Durgapur market or a limited market is not sufficient to contain the success of the enterprises. Moreover, a market for a limited period would surely lead to ill-investment. Incidentally, it may be noted that the industries of Durgapur complex are very much capital-intensive. Any wrong decision in this direction would not only be injurious for the enterprises, it would also cause tremendous strain on the national economy. A developing country as India, where there are so many socio-economic problems, can hardly bear such a wrong decision. Under the same circumstances, it is useful

to study the prospect of the industries of Durgapur complex in the national market.

On the eve of independence, the mining and manufacturing industries of the country employed 3.4 million persons.[16] The gross value of their output was nearly Rs 17,200 million.[17] The mining industry accounted for 4.4% of the total value of output and 14.9% of the employed; the manufacturing industries accounted for 95.6% of the output value and 85.1% of the labour force.[18]

Even against the background of the country's backwardness, the mining industry was outstanding for its extremely poor development. That was due to Britain's lack of sufficient interest in importing Indian mineral raw materials and the weak connection existing between the mining and manufacturing industries of the country itself. Though the country exported many kinds of minerals, the total value and volume of each of those minerals, excluding manganese ore and mica, was insignificant. On the average, the export accounted for some 25% of the mining industry's gross output.[19]

Because the Group-I industries were underdeveloped, the manufacturing industries presented little demand for the mining industry's products. The import of processed minerals and metals limited the possibilities for expanding mining output. So, it was the consumers' demand and the transport, construction and other sectors of economy rather than the requirement of the manufacturing industries that stimulated the branches of the manufacturing industries that served the domestic market. Consequently, it was the coal and salt industries, which accounted for the greatest share of products designed for non-industrial consumption, that advanced most rapidly. These

circumstances determined the specific structure of the mining industry - its extremely narrow range of output and the highly disproportionate growth of different branches. In 1949, the country was mining only 36 minerals.[20] The total output of this industry was valued at Rs 759.40 million; ten of the minerals accounted for 93.3% of the total value of output (coal for 62.6%; mica for 7.5%; precious metals and stones, i.e, gold, silver, diamonds for 6.6%; manganese ore for 5.8%; salt for 5.4%; oil for 2.5%; iron ore for 1.6%; copper ore for 1.4%).[21]

The manufacturing industries were dominated by light industry, particularly by those of its branches which were engaged in processing agricultural raw materials.[22]

The various light industries accounted for approximately 78% of the manufacturing industry's gross value of output. The industries in Group - II were developed very unevenly. The textile industry produced 46.2%, the food industry 39.7% and the primary processing of agricultural raw materials 5.1% of the total value of gross output. The remaining industries accounted for a mere 9% of the output value. The limited scope of Group - II industries followed in the final analysis directly from the traditional nature of demand and the low purchasing power of the population of the country. To put it in another way, light industry was specialising above all in the production of the prime necessities. In the given circumstances, it could not produce economically those consumer goods, whose marketing depended on the increased purchasing power of the population. So, even though light industry was the most important section of the country's industrial structure, the country was compelled to import many consumer goods.

The manufacturing industries which could come under Group-I,

produced only about 22% of the gross value of industrial output.[23] The leading place was held by the ferrous metallurgy (Primary and Secondary production), which accounted for 20.6% of the total cost of the heavy industry's gross output. The cost of ferrous products was nearly double that of the engineering industries. This paradox was due to the fact that it was the Railways and construction, not the engineering, that held out the main demand for ferrous products (rail, metallic sleepers, girders, cast piles, etc). The range of ferrous products, limited by the small scale of production, meant that a large amount of semi-finished products had to be imported to meet the demands of the engineering industries. Thus, there were no close links between metallurgy and engineering industries of the country at that time.

The repair shops continued to make a large contribution to the machine building industries. Even leaving out the Railway Workshops, they accounted for 48% of the total value of the production. Such a situation was typical of engineering industry under the British Rule. The repair shops were not threatened by foreign competition and they were often ecouraged by the foreign companies because imported equipments needed proper servicing.

Most of the factories involved in the engineering jobs, were capable of producing a wide range of various articles for the state organisations, the Railways and the open market. Most enterprises concentrated on metal construction - bridge trustee, supports for the electric transmission lines, water towers, railway equipments, etc. The output of engineering articles depended, to a large extend, on the import of parts and units.

The chemicals industry had a small volume of production

and was largely dependent on the import of raw materials and semi-finished products. Soda and sulphuric and nitric acids were produced largely to satisfy the military needs; the production of mineral fertilisers was also started up while the production of light and organic chemicals was still in its cradle.

Thus, heavy industry was mainly supplying the needs of transport and civil engineering and to a lesser degree, the maintenance needs of light industry. The reproduction of heavy industry depended wholly on the import of equipment and on the import of many types of raw materials and semifinished products. In general, the functioning of heavy industry was not yet an inalienable feature of the intra-industrial reproduction.

On the eve of independence the fact was that power generation industry lagged behind the needs of the country's economy as whole; particularly the requirements of industry became very apparent. Power generation was dominated by small, technically backward enterprises. The cost of electricity generation was one of the highest in the world. Electric power stations were also very unevenly distributed so that the greatest production capacity was concentrated in two states, viz. Bombay and West Bengal. This held back industrial development, particularly in the inland areas.

In terms of absolute figures the value of the 1951 output of large scale industry (mining and manufacturing) made the fairly impressive total of Rs 22,900 million. But, it should not be forgotten that India had the World's second largest population . The per capita value of the goods and services that industry provided might, therefore, be worked out at Rs 61.00 only. The real significance of this

was illustrated by the fact that the per capita value of industrial output was equivalent to a mere 22% of the average per capita national income. A comparison of the per capita output of certain industrial goods in India and Britain in 1948 might be presented to highlight the backwardness of Indian industry [24].

THE INDIAN & BRITISH INDUSTRY IN 1948.

TABLE NO : 7.

ITEMS	BRITAIN	INDIA	INDIA'S OUTPUT IN % TO BRITAIN'S
Electric Energy, Kw-hr.	1,095	13.1	1.2
Pig Iron, Kg.	189	4.0	2.1
Steel , Kg.	302	3.6	1.2
Finished Steel , Kg.	238	2.4	1.1
Coal, Kg.	4,251	85.5	2.0
Cement, Kg.	174	4.4	2.5
Cotton Fabrics, Mts.	35	14.5	41.4

Even in the fairly established industries, the production was from 1 to 2.5% of the corresponding per capita production achieved by the British industries. The per capita output of other types of industrial goods in India was so low that there was no sense of making any comparison.

Because of the general backwardness of industry, the limited range of manufactured articles, the sharp dislimited range of manufactured articles and the sharp disproportion in the industrial structure, the reproduction of the modern sectors of industry and of the country's economy in general depended on the import of industrial commodities designed for consumption and production. In 1947-48, the value of imported goods came to Rs 3,986 million. Imports of grains and

fruits accounted for Rs 212 million (5.3%), agricultural raw materials (Cotton, Wool, Oilsheeds, etc) for Rs 399 million (10%) and manufactured goods for Rs 3,375 million (84.7%). Among the imported manufactured goods, the first places went to oil products (8%), industrial and electrical equipment (7%), chemical raw materials and finished products (5.8%), metal articles (3.2%). Prominent among the imported consumer goods were cotton and woolen fabrics and ready-made garments (7%) and paper (2.2%).[25]

On the other hand, a very low organic structure of capital and a wide use of manual labour in many of the production processes was a general feature of the industrial structure of India. In 1947, in the manufacturing industry fixed capital for every worker employed had an average of Rs 1,200.00, including amere Rs 700.00 worth of machinery and equipment. The power available per worker was also very low - 889 kw-hr.[26] The situation in the mining industries was even worse. In 1947, there were 902 coal mines but only 169 ventilators and 306 coal-cutting machines. Only 5.6% of the coal was mined by machinery.[27]

Industrial development and eradication of the negative features of a weak economy require a sharp increase in the economic functions of the state. In India, where the mixed economy takes the form of co-existance and co-operation between the public and private sectors, the government, besides expanding the scope of its own business undertakings, also has to co-ordinate and encourage the industrial development in the private sector. The government policy must ensure the speedy elimination of the short-comings of a backward economy and the industrialisation of the country, as well as the co-ordinated development of the various sectors and structures of industry.

The theory of industrial development in India was, however, closely related to the idea of a planned economy. The National Planning Committee noted : As a step towards such industrialisation, a comprehensive scheme of national planning should be formulated.[28] After the attainment of independence, the planning of economic development became one of the most important principles of the state policy.[29]

The main reason for the need to make a planned approach to the industrial development was that the backwardness of Indian economy, as compared with the other industrially developed countries, could be overcome in a comparatively short period only with the help of the state.

SUMMARY.

On the eve of the independence, the socio-economic conditions of India was not at all favourable to afford even the minimum living means for the total population. Planned development programme was adopted and industrial development became an important part of the plans. Durgapur was found as a favourable place to be promoted as a modern industrial complex.

The spatial characteristics of Durgapur were conducive for the growth of coal based, iron & steel making and the related industries. There was found sufficient space in the area. The transportation facilities, the prospect of power and availability of sufficient water were also favourable in Durgapur region. The coal was found in the 'next door' and other raw materials, viz, iron ore, manganese, dolomite, limestone could also be availed easily. Thus, there was good prospect of the above industries in the area.

But, the prospect of the industries in Durgapur should not be measured only in the yardstick of manufacturing facilities. There should be good marketing prospect for them. It is an essential precondition in this respect.

As far the prospect of the industries of Durgapur is concerned, it is very much important to note here that these industries cannot prosper in a limited and short term market. It should be measured in the national yardstick.

The industrial level of the country on the eve of independence may be measured in the yardstick of the rate of contribution of the industries in the national income. It was just 17%, when the country was looking for planned development. It was, however, the broad picture. Taking the details, it might be safely said that the foundation of modern industrial development was yet to be laid, when the planned techno-economic development was on the cards of the country.

By the foundation of planned industrial development, it means many things. The growth of electricity generation and iron & steel making industries make a very important headway in this direction. The foundation of Durgapur industrial complex is being laid on these industries.

In fine, it may, therefore, be said that the spatial characteristics of Durgapur are good enough to be chosen for the promotion of a modern industrial complex. The coal-based, iron & steel making and the related industries may be developed in these conditions, when the nation is having high demand of these products.

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REFERENCES

1. Shvyrkov, Y.M. – Centralised Planning of the Economy; Moscow, 1980.
2. Stanis, V. – The Rise of Socialist Economy; Moscow, 1985.
3. Shvyrkov, Y.M. – Centralised Planning of the Economy; Op.cit.
4. Stanis, V. – The Rise ofSocialist Economy; Op.cit.
5. Ibid.
6. Agarwal, A.N. – Indian Economy : Nature, Problems and Progress; New Delhi, 1977.
7. Chaudhuri, M.R. – Indian Industries : Development & Location; Calcutta, 1970.
8. Ghosh, Aloke – Indian Economy : Its Nature and Problems; Calcutta , 1970.
9. The Census of India Report,1951; New Delhi, 1952.
10. The First Five Year Plan; New Delhi, 1952.
11. Ghosh, A.K. – " Krishi & Rastria Silpa ", Ananda Bazar Patrika, Calcutta , dated 18-10-1980.
12. The Census of India Report, 1951; Op. cit.
13. Shirokov, G.K. – Industrialisation of India; Moscow,1973.
14. Ghosh, B.C. – Industrial Location; Calcutta, 1972.
15. Ibid.
16. National Sample Survey No.11 Report on the Sample Survey of Manufacturing Industry 1949 and 1950; New Delhi, 1958.
17. Ibid.
18. Ibid.
19. Progress of Mineral Industries of India 1906 - 1955; Calcutta,

Contd.....

20. Directory of Indian Mines and Metals; Complied by P.K.Ghosh; Delhi, 1952.

21. Ibid.

22. Shirokov, G.K. - Industrialisation of India, Op.cit.

23. Ibid.

24. Ibid.

25. Annual Statement of the Foreign Trade of India for the Four Fiscal Years ending March 1951; Delhi, 1955.

26. The Census of Manufacturers of India : Second,1947; Calcutta, 1949.

27. Directory of Indian Mines and Metals; Op.cit.

28. National Planning Committee No. 1 ; Bombay, 1939.

29. Chaudhuri , M.R. - The Public Sector in Indian Industry; Calcutta, 1982.

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