CHAPTER - II

Industrial and Regional Growth in India: An Overview

2.1 Need of Industrialisation

Industrialization is a wide-ranging process, implying not only the development of certain industries but certain basic changes in the structure, technology and organization of economic activity. According to the League of Nations¹, industrialization is a meaningful utilization of power, machine, latest techniques, organizational methods, divisibility of labour and developed monetary system of goods and commodities.

Industrialization is essential for economic growth in most countries. Industrialization tends to be viewed as a superior way of life. Rich countries are believed to be rich because they are industrialized and the poor countries are believed to be poor because they are primary producing. Since high per capita income is associated with rising share of industry in GDP, the acknowledged strategy for achieving this objective is to accelerate the process of industrialization². Successful industrialization is one aspect of effective

1. League of Nations, Industrialization and foreign trade
Only a few countries, with small population and
great oil and other natural wealth, like Kuwait or Libya, can
expect to achieve high levels of per capita income without
industrializing. The fact is that no agricultural economy has
ever achieved per capita income above U.S. $ 500 for any
lengthy period. In order to reach high per capita income,
countries must follow the path of industrialization.
Industrialization is not the end of road, but it is one path
that most countries must travel to reach high per capita
income. This is because of two reasons: (1) output per
worker and therefore wages per worker are high in the
manufacturing activities because of high capital intensity of
production, (2) the agricultural growth faces diminishing
returns to scale in contrast to the prevalence economies of
scale in manufacturing activities.

Lewis's model of economic development with unlimited
supplies of labour clearly indicates that the main reason for
lagging performance of developing countries is the
inadequate industrialization. Industry gets more pressure to

Alternative views of East Asia in Helen
Hughes (eds.), Achieving Industrialization in East Asia,
New York, Cambridge University Press, Cambridge,
PP.56.

4. Kahn (1979), World Economic Development, Boulder; West
View Press

Asia: Doing What Comes Naturally, in Helen
Hughes (eds.), Achieving Industrialization in East Asia,
Cambridge University Press, p.6
hire more workers when there is an independent increase in demand for industrial output or capital formation. The disguised unemployed in agriculture are transferred into industry. So long as the price of industrial output remains high and wages steady, profits are made, saved and reinvested, and development process is underway in a feedback process.

Kuznets has stressed the importance of industrialization in the modern economic growth.

The way to become developed is to industrialize as shown by the case of developed countries. The transfer of unemployed from agriculture to industry raises the national product because the marginal value product of labour is higher in industry than in agriculture. Industrialization has external economies whereas agriculture has not. These reside in training, in stimulating communication, interaction, demonstration effect in production as well as consumption, and so on. Industrialization is better than the stimulation of agriculture because it brings urbanization as the rural


society is stagnant and urban society is dynamic. The agricultural development also depends on the availability of manufactured inputs such as fertilizers and farm machinery.

While recognizing that industrialization is necessary condition for economic development, there are differing views on sequencing of growth in various sectors. N. Kaldor, has emphasized that the industrial growth leads to the overall growth. He found a positive correlation between the rates of growth of GDP and the rates of growth of manufacturing output in his study of 12 industrially advanced countries during the period 1953-54 to 1963-64. He observed that the fast rates of economic growth are almost invariably associated with the fast rate of growth of the secondary sector, mainly, manufacturing.

Economic growth entails the movement of resources from a low productivity sector - agriculture to high productivity sector - industry. Economies of scale are present in manufacturing, transport, and communications especially in manufacturing. According to Kaldor, the manufacturing is the leading sector in an economy because of the presence of economies of scale. Allen A. Young has identified the

9. Kaldor, Nicholas(1967), Strategic Factors in economic Development, New York State School of Industrial and Labour relations, Cornell University, Ithaca, p.7-9


economies of scale referred to by Kaldor as (1) internal economies of scale where there is decreasing cost per unit of output and increasing returns to scale. Its underlying causes are specialization of workers and machines, (2) economies of agglomeration. This is because there is skilled labour force in town; infrastructural facilities like banks and financial institutions are present; when industries get very specialized, for example, a factory that makes ball bearings only, there are decreasing cost per unit of output due to specialization. However, this can happen only when the scale industrial system grows.

Economies of scale cause productivity in manufacturing to rise. When labour shifts from other sectors to manufacturing this would cause the productivity of the entire economy to rise. If technical progress is fastest in manufacturing, the rate of growth of labour productivity in manufacturing is greatest compared to other sectors. Following the same reasoning above, the shift of workers from other sectors into manufacturing pulls up growth rate of productivity of the entire economy.

There is another way in which economies of scale affects the economy, where there are increasing returns to scale, the expansion of supply would cause the relative prices of manufacturing goods to fall. This fall in prices would lead to a substitution effect that would accelerate the demand for manufactured goods, and an income effect that would increase the demand for other goods. The sustained
growth of manufacturing depends on the market, domestic or external or both.

Mellor\textsuperscript{13}, on the other hand, advocates an agricultural-led growth strategy on the ground that the foodgrains bottleneck cause the collapse of the industrial growth as happened in India during 1965-66 to 1974-75. Indeed, one year that was in 1966-67 India had to import nearly 10 million tonnes of wheat.

The relevant question for a poor country is whether agricultural development or industrial development is now the appropriate strategy for accelerating the country's economic development. Rangarajan\textsuperscript{14}, in his study of agriculture-industry linkage in India concludes that 1 per cent growth in agricultural output increases industrial production by about 0.5 per cent and national income by 0.7 per cent. Prof. Bhalla's\textsuperscript{15} study on Punjab also shows that how the rapid agricultural growth influenced the development of agro-input, agro-processing and consumption goods industries through backward, forward and consumption linkages.

\begin{itemize}
\item \textsuperscript{14}Rangarajan, C. (1983), \textit{Agricultural Growth and Industrial Performance in India}, Research report No.33, IFPRI, Washington D.C.
\item \textsuperscript{15}Bhalla, G.S. (1991), \textit{Agricultural Growth and Industrial Development: Agricultural on the Road to industrialization}, ISID, New Delhi.
\end{itemize}
2.2 Industrialization and Sustainable Development

Economic development through the process of industrialization, specially the development of large and medium industries, is not without limitations. Development through heavy industrialization result in the deterioration of environment, loss of ecological balance and depletion of rare natural resources earlier, unmindful to natural environment and its capacity to create and preserve valuable wealth. The pollution of water or air escalates the public expenditure on the preventive measures. The loss of tree cover gives rise to the droughts which hit the rural wage labour and farming population, specially small and marginal ones. The foul air and polluted water equally affects the slum and pavement dwellers in urban areas. The prevention of desertification and reduction of droughts and floods leads to enhanced national output.

Thus, sustainable development embraces wider concerns of the quality of life, e.g. increases in real income per capita, educational attainment, improvement in health and nutritional status, access to basic freedoms and a fairer distribution of income. The development would become sustainable when a set of maximum conditions are fulfilled.

The emphasis on sustainability suggests that what is needed is a policy effort aimed at making these developmental achievements last well into the future.

2.3 Indian Ideology on Industrialization

The theories of India's economic development were put forth as back as the end of the 19th century. It was at that time India was a commodity market and a raw material base for Britain and the national entrepreneurs were discriminated against. The principles of free trade and non-interference in production, the absence of support and protectionism upheld by the colonial administration not only ruined the traditional industries but prevented the foundation of new ones. In that context most comprehensive ideas on the role of government in developing the country's economy, protecting local production from foreign competition and encouraging national private enterprise were put forward by M.G.Ranade\(^\text{19}\) and G.K.Gokhale\(^\text{20}\). R.C.Dutt\(^\text{21}\) put forward his ideas in its most logical form that the poverty and economic backwardness could be eradicated only by rapidly developing industry which would then become the principle source of national income. M.Visvesvaraya\(^\text{22}\) believed that the industrialization with the


22. Visvesvaraya,M.(1934), *Planned Economy for India*, Bangalore, p.2
emphasis on the development of the heavy industries should be the main course of the country's economic orientation.

The National Planning Committee, set up the Indian congress in 1938 fully expounded the problems of industrialization in the colonial period. The committee declared that industrialization was to be the cornerstone of this party's industrial policy. ".....without industrialization no country can have political or economic freedom.....without industrialization also the rapid and effective raising of the standard of the people is not possible." The main objective of industrialization was to be the creation of self-reliant economy based on the domestic market.

The ideas set out in the Bombay plan, the People's Plan and the Gandhian Plan were highly influenced by the conclusions reached by the National Planning Committee. The Gandhian and the People's plan, for instance, envisaged key industries being brought into the public sector, and the wide-scale nationalisation(with compensation) of industries run by local and foreign proprietors. The Bombay Plan gave the public sector a far wider scope of activities than the National Planning Committee, suggesting that the key industries, as well as defence industry and the infrastructural industries be included in the public sector, and that an effective system of state control be established over the private sector. Thus, by the time independence had

been achieved the ideas of active government interference in the process of economic development had taken strong root in the country. This naturally had an impact on the government of independent India.

The first Industrial Policy Resolution announced on April 6, 1948, was rather vague and set aside only a modest role for the public sector in industry. According to this Resolution, the defence, atomic industries and the railways should be the exclusive monopoly of the central Government. Since defence industry and railways are already in Government hands and there was as yet no atomic industry, the document simply endorsed the existing state of affairs. The Government was also exclusively responsible for the establishment of new undertakings in six other industries. Private enterprises which operated there were allowed to develop and expand without hindrance for ten years, at the end of which period the Government was to decide the question of their future. Depending on the circumstances, they would either be nationalized with compensation or allowed to continue as private enterprises. The rest of the industrial fields will normally be open to private enterprise, individual as well as co-operative. Though the official documents envisaged the considerable expansion of the sphere of public undertakings they rejected the idea of nationalisation. The Resolution on Industrial Policy dated April 6, 1948 declared that the Government would participate in industrial development mainly by constructing new enterprises rather than by acquiring and running existing
ones. The new industrial policy resolution dated April 30, 1956, which divided the country's industries into three groups. The first group included all industries where the government would be responsible for the new undertakings. The defence and atomic industries and railways and air transport were in the first group. New undertakings in the second group (List B) could be established by both the private entrepreneurs and the government although the government's role was to be gradually increased.

The concept of industrialization provided for both Indian and foreign entrepreneurs retaining the ownership of the means of production. Thus, the public and private sectors in industry, and in the economy as a whole, were to be developed side by side.

2.4 Mahalanobis Strategy

Emphasis on heavy industry (as against the strategy of giving priority to light industry and agriculture in the early phase of development which Prof. C.N. Vakil and Dr. P.R. Brahamananda 24-25 termed as the wage goods model of development) was one of the features of India's industrial strategy. The future rate of sustainable investment and the rate of growth in the economy would be determined by the allocation of investment between the capital goods sector and other sectors. Accordingly, a conscious effort was made to


use public investment to build capacity in the heavy industries sector which included capital goods as well as core intermediate goods as steel. The Mahalanobis model 26 presumes that the present consumption could somehow be kept in check so that the marginal savings rate would rise sufficiently to permit investment levels to rise rapidly enough to absorb output of capital goods sector. In the short and medium run this kind of industrialization does not enlarge the employment and increase the supply of consumer goods. The high employment growth with heavy capital goods base could also be observed in Mahalanobis four sector model in which he wanted to define a dual development thesis.

Mahalanobis model of industrialization might have worked reasonably well, if the rate of growth of population would have been arrested. Had the rate of growth of population been only 1.1 per cent during the sixties and the seventies instead of 2.2 per cent, the situation would have been different and the magnitude of problems of poverty and unemployment would have been generally diminished 27. The situation would have been different if the planners had accepted the wage goods model of plan strategy given by Vakil and Brahmananda.


2.5 Industrial Growth in India: A Review

2.5.1 Pre-independence Period:

The industrial growth in India during the post-independence period has to be seen in an historical perspective. While in terms of practically all conceivable economic indices, India has performed remarkably better in the period before it (including the entire period of British rule from the 18th century), we need to remember that the tradition of economic growth, entrepreneurship and industrialization, which modern India inherited, was quite impressive by contemporary standards, and this tradition certainly made the task of Indian planners considerably easier, enabling them to start building on a base of a semi-industrialized system already endowed with entrepreneurial activity. India was a great manufacturing country prior to the 19th century. India and China were the only Asian countries with a very rich merchant class trading in its own ships with distant markets in the 17th and 18th centuries. In Europe one could find the merchants so well provided with liquid capital and with such a wide area of operation only in a few countries. It is important to note that India was one of the pioneers of third world industrialization. The cornerstones of economic policy in Britain and colonial dependencies were laissez-faire and free trade when India started its industrialization in the 1860s. The rate of

growth of Indian industry, 10.4 per cent per annum during the latter part of the 19th century (1868-1900) has not been bettered since. The overall rate of industrial growth was higher in India (4 to 5 per cent per annum) between 1880 and 1914 than in most other tropical countries and also exceeded that of Germany (4 per cent). As Lidman and Damerie have observed, 'An index of industrial production, based on six large scale manufacturing industries, more than doubled from 1896 to 1914. By 1914, the Indian economy had developed the world's fourth largest cotton textile industry and the second largest jute manufacturing industry.' Nor was India's performance in export manufacturing insignificant during the first phase of industrialization. By 1913, about 20 per cent of Indian exports were of modern manufactured goods. Total exports amount to 10.7 per cent of national income, a share not reached either before or since this free trade laissez-faire period. It was India's agricultural export growth rate that was disappointing. This was in contrast to Japan's experience. In India, while aggregate exports grew by 3 per cent per annum between 1883 and 1913, agricultural exports grew at an annual rate of only 1.4 per cent. Japan's agricultural exports grew at an annual rate of over 4 per cent during the same period. After this initial burst, the


growth rate of Indian industry has stagnated in the 20th century, but even in the period 1913-38 Indian industrial growth was above the world average. Nevertheless, the performance of Indian industry during the pre-1913 free trade period was better than in the protectionist 1919-1939 period, even if we judge the performance by crude and inadequate criteria such as the rate of growth of manufacturing output, employment and investment.

2.5.2 Industrial Growth during Post-Independence Period

India is one of the few among the developing countries which launched an ambitious industrialization programme in the post-war period. India had all the best prospects of fostering modern economic growth— in Kuznet's sense—through the process of industrialization or in other words by embarking on an industrial revolution. India vigorously pursued the Mahalanobis strategy of development with minor shifts in emphasis. Since independence the industrial production increased remarkably accompanied by substantial changes in industrial structures in favour of basic and capital goods industries. A substantial expansion has taken place in the industrial base of the economy and it is able to produce a wide range industrial products. A considerable development has taken place in entrepreneurship, technological capabilities and skills in the economy. Large investments were made in building up capacity over a wide spectrum of industries in order to achieve rapid industrialization on the one hand, and self-sufficiency on the other. The role of government in bringing about these
changes in the industrial scene were reflected through its policies, relating to domestic industrial licensing, imports substitution and through its investments in infrastructure and public sector industrial enterprises. India was one among a few third world countries most likely to embark on an industrial revolution and with the prospects of fostering modern economic growth- in Kuznet's sense in 1950. Because India had a potentially large domestic market, a relatively efficient bureaucracy, a political leadership seemingly committed to development, fairly elastic supplies of skilled and unskilled labour and abundance of domestic entrepreneurship. Yet, despite these favourable conditions, apart from creating a highly diversified industrial base, both the absolute level of industrialization as well as its contribution to per capita growth has been disappointing and dismal compared with the experience of the so called 'Gang of Four' of East Asian countries, Singapore, Hongkong, Taiwan and the Republic of Korea. It is worthwhile to recapitulate the salient features of the pattern of industrial growth in India since independence. In regard to the achievements in industrial output growth and productive efficiency some disillusionment has been created. The growth of industrial output in India has considerably fallen short of the targets laid down in the successive plans. In the first three five year plans, the target growth rate for industry were set approximately at 7, 10.5 and 10.75

per cent per annum respectively. The rates of growth actually realized over the corresponding plan periods were 6, 7.25 and 8 per cent per annum respectively. The impressive performance of industrial output in the period 1950-65 can be attributed to the operation of the following factors. (1) the supply of inputs to the private sector was ensured as the government made a large doses of public investment which created an infrastructure and set up intermediate goods industries. (2) An ever increasing level of public expenditure gave rise to a demand for outputs manufactured in the corporate sector. Domestic demand for goods added stimulous because of the import substitution policies implemented through protection. Domestic producers were not only guaranteed existing markets but were also ensured a future in so far as the excess demand attributable to import restrictions would continue to provide markets at least in the medium term. Infrastructural development and import substitution in the consumer goods industries stimulated industrial production in the years following independence. Thereafter, the investment on the part of the government in the capital goods sector and basic and intermediate goods industries sustained the growth rate of industrial growth in the late 1950s and early 1960s. During the phase of rapid development, a rapid rate of expansion of agricultural output ensured the supply of food—the basic wage good and raw materials, thereby allowing the industrialization to be sustained at a moderate rate. But the role of public investment and import substitution was very important in
achieving the high growth in industrial production. But the rate of industrial growth slowed down starting around 1965 which led to the near stagnation of industrial output in the early 1970s. In fact, industrial growth in the first three plans i.e. from the beginning of the fifties to the mid-sixties, while failing significantly short of the targets, was not too bad in itself. Even if the poor performance of the subsequent plan holiday is ignored as exception, the industrial growth in the period thereafter was not only short of the targets, but was also much slower than in the earlier period. The fourth plan targeted 12 per cent growth in industrial production, but its actual achievement was 4.7 per cent. The fifth and sixth five year plans aimed for industrial growth at 8 per cent per annum. But the actual growth rates were 5.9 and 5.9 per cent respectively. Actual growth in industry between 1968-69 and 1982-83, however, was of the order of 4.8 per cent per annum32.

2.6 Deceleration in Industrial Growth

A number of studies on the performance of industries in India show that the annual rate growth of production achieved during the first three five year plans declined substantially over the time. During 1950-51 to 1964-65, the industrial output grew at 7.00 per cent per annum. The industrial output grew at 3.3 per cent per annum during 1964-

Table 2.1

Growth Rates of Industrial Production (Per cent per Annum)

<table>
<thead>
<tr>
<th>Plan</th>
<th>Period</th>
<th>Target</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1951-52 to 1955-56</td>
<td>7.00</td>
<td>7.30</td>
</tr>
<tr>
<td>II</td>
<td>1956-57 to 1960-61</td>
<td>10.50</td>
<td>6.60</td>
</tr>
<tr>
<td>III</td>
<td>1961-62 to 1965-66</td>
<td>11.75</td>
<td>9.00</td>
</tr>
<tr>
<td>Annual</td>
<td>1966-67 to 1968-69</td>
<td>-</td>
<td>2.00</td>
</tr>
<tr>
<td>IV</td>
<td>1969-70 to 1973-74</td>
<td>12.00</td>
<td>4.70</td>
</tr>
<tr>
<td>V</td>
<td>1974-75 to 1978-79</td>
<td>8.00</td>
<td>5.90</td>
</tr>
<tr>
<td>Annual</td>
<td>1979-80</td>
<td>-</td>
<td>-1.40</td>
</tr>
<tr>
<td>VI</td>
<td>1980-81 to 1984-85</td>
<td>8.00</td>
<td>5.90</td>
</tr>
<tr>
<td>VII</td>
<td>1985-86 to 1989-90</td>
<td>8.70</td>
<td>8.50</td>
</tr>
</tbody>
</table>

Source: (1) Planning Commission

65 to 1969-70. It was 3.6 per cent during 1969-70 to 1974-75, 3.5 per cent during 1966-67 to 1977-78 and 4.8 per cent during 1970-77. On an average industry had an annual growth rate of 7.7 per cent per annum during 1950-51 to 1964-65 but 3.6 per cent during 1964-65 to 1974-75. Ahluwalia's study


34. Ahluwalia, I.J., op. cit.

35. Raj K.N. (1976), Growth and Stagnation in Indian industrial Development, Economic and Political weekly, Nos. 5&6, Annual Number, February.

Table 2.2

Estimates of rates of Industrial Growth (percent/Annum)

<table>
<thead>
<tr>
<th>Time Periods</th>
<th>K.N. Raj 35</th>
<th>Prabhat 36</th>
<th>Deepak 37</th>
<th>S.N. Dalal 38</th>
<th>J.J. 39</th>
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<tr>
<td>1951-65</td>
<td>7.00</td>
<td>7.70</td>
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<td>1965-75</td>
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<td>1970-75</td>
<td></td>
<td></td>
<td>3.6</td>
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<td>1966-67-77-78</td>
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<td>1970-77</td>
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<td>1966-67 to 79-80</td>
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<td>1966-67 to 81-82</td>
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<td>1956-57 to 81-82</td>
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</tbody>
</table>

Source: Various articles by the authors

shows that over the years 1956-57 to 1981-82 the industrial output grew at 5.5 per cent. It was 7.1 per cent during 1956-57 to 1965-66 and 5.4 per cent during 1966-67 to 1981-82.

How does one explain the poor performance of Indian industrial growth during 1965-66 to 1975-76 in comparison with the earlier period 1950-51 to 1964-65. There is of course no shortage of explanations for industrial stagnation. Why did the industrial sector perform satisfactorily until 1965 in spite of many short-run problems, and why did other

economies operating in a framework similar to that of India achieve significantly high rates of industrial growth?

A number of hypotheses have been put forward to explain industrial stagnation in particular and economic stagnation in general during 1965-66 to 1975-76. There has been a marked deceleration of both the agricultural and industrial output growth rates since the mid-sixties is beyond dispute. This has necessarily to be the result of mutually interacting forces. Different economists have stressed different factors as being the prime movers in the process of growth. Some of the major explanations advanced to account for the sluggishness of industrial growth since mid-sixties are examined below. Prominent among them are (1) inadequate infrastructure investment because of slow growth of public investment, (2) inefficient management of infrastructure sector, (3) the slow growth in demand for industrial products because of the slow growth in agricultural incomes, and (4) the high cost industrial structure because of the restrictive industrial and foreign trade policies.

The short-run explanations are as following: (1) the wars of 1962, 1965 and 1971 which diverted potential public investment into unproductive uses, (2) the successive draughts of 1965-66 to 1966-67 and later 1971-72 to 72-73, which restricted the supply of raw materials and the demand for industrial goods from the agricultural sector (3) in the late 1960s the supply constraints which became more pronounced in the form of infrastructural bottlenecks.
and transport) or shortages of intermediate goods and (4) the crisis of 1973 which led to considerable industrial dislocation and severe balance of payments difficulties.

Merely because of the operation of the random factors cannot cause the persistence of industrial stagnation as the economy did not come back to the normalcy even after the event. Scholars have tried to give various explanations for marked deceleration in the rate of industrial growth which transformed a scenario of rapid industrial growth into a situation of persistent industrial stagnation. A detailed study of the industrial sector in India was undertaken by S.L. Shetty who portrayed a picture of industrial stagnation. According to him one of the most disappointing aspects of the performance of the Indian economy since the mid-sixties relates to the deceleration in the growth of output in organized industry, accompanied by sluggish investment, vast underutilisation of capacity and very meagre increase in employment in organized industry. Some of these explanations are critically examined below.

2.6.1 Impact of Agricultural Growth on Industrial Stagnation

There are those who believe that the drag emnated principally from the agricultural sector through its various demand and supply linkages with the industrial sector. The performance of agriculture has a direct impact on the pace of industrialization through the following mechanism. A slow

increase in agricultural production would act as a brake on industrial growth if (1) surplus of wage goods and or inevitable resources is not forthcoming (2) supply of agricultural raw materials is restricted and (3) the demand for industrial goods is constrained. On the other hand, a rapid expansion in agricultural output, would, through the same linkages, provide a sustained stimulus to growth in the industrial sector. Various studies show that there was a marked deceleration in growth rates, not only of agricultural produce but also of foodgrains production. For the period 1950-51 to 1964-65, the industrial production showed an annual compound growth rate of about 7 per cent as against a growth rate of 3.2 per cent in agricultural production. This rate of growth of industrial production dropped to 3.3 per cent for the period 1965-66 to 1969-70, 3.6 per cent during 1970-75. Similarly, the rate of agricultural production dropped to 2.3 per cent during 1967-68 to 1979-80. During 1970-71 to 1975-76, the per capita income recorded a negligible growth because the overall agricultural growth was just around 2 per cent and an overall industrial growth rate of just around 4 per cent. During the period 1950-51 to 1963-64, the foodgrains production grew at 3.1 per cent which declined to 2.3 per cent per annum during

41. Raj, K.N. (1976), Growth and Stagnation in Indian Industrial Development, Economic and Political weekly, Nos. 5&6, Annual Number, February.


1967-68 to 1979-80. The rate of growth of commercial crops also declined from 3.5 per cent during 1950-51 to 1964-65 to 2.4 per cent during the period 1967-68 to 1979-80. There is no doubt that the growth of agriculture was slow throughout the period, 1967-68 to 1979-80 (Table 1.3).

Table 1.3

<table>
<thead>
<tr>
<th>Period</th>
<th>Agricultural production indices</th>
<th>Value added in agriculture</th>
<th>Index of industrial production</th>
</tr>
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<tbody>
<tr>
<td>Food grains</td>
<td>Commercial crops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1950-51-64-65</td>
<td>3.1</td>
<td>3.5</td>
<td>3.2</td>
</tr>
<tr>
<td>1967-68-79-80</td>
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<td>1967-68-82-83</td>
<td>2.5</td>
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</tbody>
</table>

Source: Ahluwalia, I.J. (1985) op. cit.

In retrospect, the slowing down in the agricultural performance on industrial development turned out to be far more significant. Starting around mid-sixties, growth in the agricultural sector began to slow down. Food prices began to rise and raw materials became scarce, so that the indirect support provided by the agriculture to industrialisation diminished markedly. As the intersectoral terms of trade moved in favour of the agricultural sector, even the reduced support was now available to the industrial sector on less favourable terms. According to Dr. D.S. Tyagi, the terms

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of trade had remained against the agricultural sector during the period 1964-65 to 1974-75. During the period 1964-65 to 1974-75 the rise in the prices of commodities sold by the agricultural sector for final consumption has been faster than the rise in the prices of commodities sold for intermediate consumption. Other things remaining the same, the unit cost of industrial output should rise over the years as a consequence of the movement in relative prices against industry because of the rise in the cost of raw materials, foodgrains and in turn, wages of industrial workers so the profits of the manufacturers decline.

A shift in the terms of trade in favour of agriculture, other things remaining the same, lead to a shift in income distribution in favour of the relatively richer farmer. In certain regions, the accretion of additional income with affluent rural sections may result in a rise in the level of money earnings of wage labour as also to an increase in the incomes of small farmers. But this percolation effect can have only a limited significance. The relative share of farm income going to the small cultivators and agricultural labourers decline as the terms of trade move in favour of agriculture. They deploy a larger proportion of their earnings than before for purchasing foodgrains or they

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46. Mitra Ashok (1977), op.cit.
are forced to reduce their food consumption. If the quantity of food consumed is not cut back the proportion of total income spent on food increases, so that a smaller proportion of earnings than before is available for the purchase of industrial commodities by the preponderant majority of the rural community falls as the prices of industrial goods go up.

The reduction in the demand for industrial consumption goods on the part of the majority of the rural community can conceivably be compensated in the event of a proportionately larger outlay on the part of the rich farmers who experience major increase in their levels of income, in money as well as real term. This is unlikely to happen because of the operation of the Engel's law. Though the absolute level of income spent by the affluent farmers on mass consumption goods increases, the proportion spent actually decreases. Most of their additional demand would be for the luxury consumption and capital goods.

2.6.2 Income Distribution and Demand factor

A satisfactory explanation of industrial stagnation give due importance to the relationship between income distribution and the industrial growth. A number of studies in India emphasize the importance of income


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distribution in the determination of industrial growth.

There are two types of thought which emphasize two types of linkages between income distribution and industrial growth:

(1) those relating to the pattern of demand and (2) those relating to the level of demand.

Those who are emphasizing the pattern of demand say that the unequal distribution of income inhibit the industrial growth. As Mitra puts it, 'the erosion of the level of real incomes of the majority of the population means that the demand for mass consumption goods has levelled off as a result .... At the other end...... a number of luxury consumer goods industries have sprung up to satisfy their (the rich minority's) relatively sophisticated requirements. Nayar spells out this argument further, stating that manufactured goods sold to the relatively few rich can use up only so much and no more of the capacity in the intermediate and capital goods sector. Only a broad-based demand for consumption goods can lead to a full utilisation of capacity and generate sustainable increase in output, but that in turn requires income for the poor. K.N.Raj has also emphasized the

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51. Raj, K.N. (1976), Growth and Stagnation in Industrial development, Economic and Political Weekly, Nos.5&6, Annual Number, February.
importance of an analysis of the factors governing demand for manufactured goods. Basically there are three kinds of demand that are generated within the country, they being (1) demand for consumption goods, and (2) demand for investment goods and (3) demand for intermediate products going into the production of consumption or investment goods. Consumer demand for manufactured goods has been coming from a minority of the population and pattern of industrial demand based on high rates of growth of demand for luxury and semi-luxury products may well come to be regarded as the only way of maintaining a high rate of growth in output in this sector.

The second school, on the other hand, attempts to establish a link between growing inequality and the overall level of demand and therefore of savings in the economy and relates this to performance. The prospects of industrial growth would be restricted because of the operation of demand factor through the unequal distribution of income. A purported worsening of income distribution increase the demand for luxury goods. Demand deficiency is linked basically with unequal income distribution which is primarily due to inequitable distribution of assets. As the income distribution influences the expenditure patterns and the standard of living, extreme inequality would also restrict the market base for manufactured goods. Given the already inadequate food consumption among the majority of the Indian population, any redistribution would affect the cereals market first and if there is further rise in income this would lead to demand for manufactured good. According to
Krishnaji, in terms of total expenditure there has hardly been any dramatic change in distribution of expenditure. He points out that the redistribution of income in favour of the poor has not taken place to a significant extent and nothing more is needed to characterise the narrowness of the market for manufactured goods.

2.6.3 Impact of Productivity Growth on Industrial Stagnation

Another important explanation given by various scholars for industrial stagnation is because of the decline in overall productivity. Ahluwalia has estimated the growth of TFP for the period 1959-80 and for the two sub-periods 1959-65 and 1966-80 with the solow and translog measures at different levels of disaggregation. For the aggregate manufacturing, the estimates of average annual TFP change over the period 1959-80 ranged between -0.2 and 0.3 and for total industry between -0.3 and 0.6. It shows that there was little change in TFP during the period of sixties and seventies as a whole at the aggregate industry level and manufacturing level. The study also indicates increasing capital-output ratio over the period. However, this study does not reach a conclusion that the industrial stagnation arise on account of the fall in factor productivity because the productivity growth estimates do not show a worsening of


the situation after the mid-sixties. The rot seems to have set in at an earlier stage.

Another important study relating to the productivity is given by Dr. P. R. Brahmananda. According to his study, the productivity performance during 1971-80 was worse than in the earlier two decades in all four sub-sectors. Between 1950-51 and 1970-71, productivity growth rate in Indian economy was at 1.8 per cent per annum, the total growth rate being 3.7 per cent. Thus, India obtained nearly 50 per cent of its contribution to growth from the growth of productivity during the first two decades. During 1970-71 to 1980-81, there was no growth in productivity of the 14 detailed sectors in the economy, more than 12 had positive and high productivity growth during 1950-51 to 1960-61. During 1970-71 to 1980-81, 12 sectors of 14 manifest negative productivity growth.

The study of Deepak Lal complements with that of Brahmananda. The growth performance in selected countries indicate that the TFP growth in all Indian industries grew negatively ranging between 0.2 to 1.3 per cent per annum between 1954-69 to 1969-80. The performance is very poor when a comparison is made with other countries. For example, it grew at 5.7 per cent in Republic of Korea, 2 per cent in Turkey, 0.8 per cent in Yugoslavia and 3.1 per cent in Japan in the same period.


Goldar's findings contradicts all the findings of Brahmananda and Ahluwalia. He observes that the growth of TFP during 1951-75 was about 1.3 per cent per annum, its contribution to growth in value added being about 21 per cent. He proves that productivity performance in the seventies was better than in the sixties. The study clearly shows that the productivity growth improved in the post-1965 period over the pre-1965 period, TFP growth being positive in both the sub-periods.

According to C. Rangarajan, the root cause of stagnation in India has been the rising incremental capital-output ratio.

2.6.4 The level Investment

The real investment in the economy increased rapidly during the decade 1955-65, but the pace of expansion slackened markedly thereafter, notably in the public sector. Some economists have attempted to explain the slow down in industrial growth in terms of stagnation in investment. The stagnation in real investment, especially public investment, is among principal causes of sluggish industrial investment and if the economy is to surmount its present crisis there should be vigorous expansion of public investment.

There was a dramatic deceleration in the growth of real public expenditure and investment. The prominent causes of this occurrence might appear to lie in the wars which diverted investment into unproductive uses, or the successive droughts of the mid-sixties which generated unforeseen consumption needs, but, in the ultimate analysis it was a direct consequence of the government's failure to mobilise domestic resources. Given the critical role of public sector in the economy, one of the important factors responsible for the deceleration in industrial growth was slow down in public investment after the mid-sixties.

2.6.5 Exhaustion of Domestic Market

Another demand side explanation which has been emphasized by many is the exhaustion of import-substitution after the mid-sixties. Inward-looking import substitution measure accepted by the Indian planners was highly influenced by Prebisch and Nurkse being two of the most influential prophets of export pessimism. There was an assured market, the size of which was determined by the levels of imports and the state of excess demand for importables, irrespective of the income distribution. Once the import substitution in consumer goods was complete, this guaranteed source of demand was exhausted.

The limits of an import-substituting strategy of industrialization was the main subject of discussion in the

early seventies. It was felt that India had followed a policy of producing at home manufactured commodities which could be produced much more cheaply abroad, because of economies of and other related advantages. The rate of growth of industrial production could not be stepped up on a sustained basis because neither the home market nor the foreign market could absorb\textsuperscript{60} them. The foreign market was limited because of the lack of competitiveness of Indian manufactured exports and the domestic market was limited because of the uneveness in the distribution of incomes.

2.6.6 Policy Constraints

There is another school of thought which postulates that the problems of growth are essentially rooted in the economic environment which does not permit competition—be it from within the economy or without—and provides little if any incentive for reducing costs or improving quality. An elaborate exposition of this view could be observed in Bhagavati and Desai\textsuperscript{61} and Bhagwati and Srinivasan\textsuperscript{62}. The complex bureaucratic system of licensing, restrictions and controls led not only to the inefficiencies but also to the misallocation of resources.

\textsuperscript{60} Chakravarty, S. (1979), On the question of Home Market and Prospects for Indian Growth, Economic and Political Weekly, Special Number, August.

\textsuperscript{61} Bhagwati, J.N. and Padma Desai (1970), India Planning for Industrialization, Industrialization and Trade Policies

\textsuperscript{62} Bhagwati, J.N. and T.N. Srinivasan (1975), Foreign Trade Regimes and Economic Development: India, A special Reference to series on Foreign Trade Regimes and Economic Development, vol. vi, NBER, Columbia University
The cumulative impact of all the policies became an obstacle to growth. Industrial planning was for laying down the targets by using inefficient economic policies. Bhagwati and Desai observes, "......that Indian planning for industrialization suffered from excessive attention to targets down to product level, and a wasteful physical approach to setting and implementation thereof, along with a generally inefficient framework of economic policies generally designed to regulate the growth of industrialization."63.

2.7 Regional Growth and Disparities: An overview

The following section examines some of the studies related to the regional pattern of development in general, and particularly, those related to India, as its focus is on the regional pattern of industrial development. The review of various regional studies reveal the differences of opinions and judgements on the basic determinants of regional economic growth and the prediction of ultimate convergence as the nation reaches matured stages of development.

There are three hypotheses regarding the pattern of change in interregional disparities in per capita net domestic product during the process of national economic development. The 'self-perpetuation' hypothesis propounded by

Hughes\textsuperscript{64} was empirically found valid by Booth\textsuperscript{65}. The proponents of this hypothesis hold the view that the regional disparities diverge in the process of economic development.

The 'accordion effect' hypothesis propounded by Hanna\textsuperscript{66} was found empirically true by Perloff\textsuperscript{67} and Hanna\textsuperscript{68}. They hold the view that the regional disparities converge in the course of national economic development.

The 'concentration cycle' hypothesis developed by Myrdal\textsuperscript{69}, Hirschman\textsuperscript{70}, Williamson\textsuperscript{71} and Alonso\textsuperscript{72} was found valid.

\begin{itemize}
\item \textsuperscript{64} Hughes, R.B. (1961), \textit{Inter-Regional Income Differences: Self Perpetuation}, \textit{Southern Economic Journal}, vol. 28, no. 1, July, pp. 41-65.
\item \textsuperscript{65} Booth, E.J.R. (1964), \textit{Inter-Regional Income Differences}, \textit{Southern Economic Journal} vol. 31, no. 1, July, pp. 44-51.
\item \textsuperscript{68} Hanna (1959), op.cit.
\item \textsuperscript{69} Myrdal, Gunnar (1957), \textit{Economic Theory and Underdeveloped Regions}, London.
\item \textsuperscript{70} Hirschman, A.O. (1961), \textit{The Strategy of Economic Development}, Yale University, New Haven.
\item \textsuperscript{71} Williamson, J.G. (1965), \textit{Regional Inequality and the Process of National Development: a Description of the Patterns in Economic Development and Cultural Change}, vol. 13, no. 4, Part. II, July.
\item \textsuperscript{72} Alonso, W. (1968), "Urban and Regional Imbalances in Economic Development and Cultural Change", vol. 17, no. 1, October, pp. 1-14.
\end{itemize}
empirically valid by Williamson and Koropeckyj. According to this view the regional disparities diverge initially, only to converge later on.

In the opinion of Myrdal and Kaldor, the basic forces of work are disequilibrating in nature. Once the divergence from the equality occurs, the forces at work would be such that there is further divergence. Though Myrdal recognizes that the spread effects usually become stronger as a nation develops, he believes that backwash effects are on an average more powerful than the spread effects. Myrdal is preoccupied with the doctrine of cumulative causation and hence ignores the emergence of strong forces making for a turning point.

Hirschman also felt that the polarization effects are stronger than the trickling down effects in the earlier stages of development of a nation. Hirschman's formulation of these arguments clearly give rise to a hypothesis of an inverted U-shape curve between the extent of regional disparity and the level of national development.


empirical findings of Kuznets\textsuperscript{77} and Williamson\textsuperscript{78} support the hypothesis of an inverted U-shaped curve.

Williamson\textsuperscript{79} explains the shape of regional inequality curve with the help of four factors viz, labour migration, capital migration, interregional linkages and central Government policy. On the basis of the historical evidence in the case of several countries, Williamson, however, expects an automatic reversal in the earlier trend of increasing regional inequality again through the working of same four factors. Myrdal explains that in the absence of state intervention the market forces tend to increase rather than to decrease the income disparities among the regions. Almost all economic activities which tend to yield a return higher than the average in a developing country cluster in certain prosperous areas, leaving the rest of the economy more or less in a backwater. In the words of Hirschman, in a free market economy the polarization effects (Myrdal's backwash effects) of progress in the advanced area gain the upper hand over its trickling down effects (Myrdal's spread effects) and fail to pull the adjoining backward areas out of the rut.


\textsuperscript{78} Williamson ( , op.cit.).

\textsuperscript{79} Ibid
Hirschman argues that an economy to lift to higher income levels, must first develop within itself a few regional centres of economic strength, that is growth poles or points, not confined to one place, but instead dispersed over the economy at certain carefully chosen places.

There exists a clear conflict between the national objectives of efficiency and equity. Balogh\(^80\) points out that the programmes designed to relieve inter-regional disparity of income levels in India may well curtail the efficiency of the national economy to the extent that no region really become better-off as a result of equalization policy. Renaud\(^81\) complements Balogh by arguing that, 'if under free market forces, we can maximize national output, policies for greater inter-regional equality will tend to reduce total output.'

In maximizing the national output, the objective of reducing regional disparity is a constraint. Hence, it is not the economic, rather, social and political factors which enhances to have the regional development as a separate objective. Consequently, it normally appears at a latter phase of economic development when the national cake is grown sufficiently and the fruits of planning can be more

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widely shared without significantly hampering the development process.

On the contrary, B. Singh\(^{82}\) argues that the case for the development of a backward region is essentially similar to that for the development of infant industries, the fundamental logic being the delayed profitability involving time preference and risk-subsidization. Rosenstein-Rodan\(^{83}\) observes that induced industrialization in a non-industrial country or area does not take place automatically. It requires direct as well as indirect incentives. Myrdal\(^{84}\) goes to the extent of asserting that 'greater equality in under developed countries is almost a condition for more rapid growth.' Isard and Reiner\(^{85}\) also argue that a policy of pure equalization is necessarily a poor policy, although a policy toward greater equalization can be and is likely to be valid. Both the colonial economic policies and the planned economic development efforts were responsible for the prevailing regional pattern of development in India. Nair\(^{86}\)

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observes that the first decade of Indian planning does not seem to have witnessed any major decrease in inter-state differentials. On the basis of a composite index of six indicators of development, S.K. Rao\(^87\) concludes that regional disparities have not been reduced in course of 15 years of planning. V. Nath\(^88\) finds that economic growth during the 1950s and early 1960s was probably somewhat more rapid in the developed states than in the less developed ones. Majumdar's\(^89\) study for the period 1950-51 to 1967-68 finds intriguingly a U-shape rather than an inverted U-shape curve of regional disparity with respect to time. Majumdar and Kapoor\(^90\), taking three yearly averages find a clear rising trend in the extent of regional disparity in India during 1962-76. J.C. Sandesara\(^91\) has found the role of organized industries in narrowing the inter-state imbalances.

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S.P. Gupta's findings are similar to that of J.C. Sandesara. He finds that the public sector investment activities in India over the period 1950-66 have contributed to reducing the spatial income disparities in the country. The regional disparities in value added in the registered manufacturing sector declined during the sixties and early seventies. On the other hand, Majumdar, although finds the regional disparity in the secondary sector increasing during 1951-61, concludes that, 'the private investment exhibited a continued strong preference for location in the high income regions despite the Government's efforts to steer the private sector investment through investments in the low income regions'.

As against this Nath finds that state plan expenditures under various plans do not show high levels of investment in less developed states and on the basis of similar analysis of the state plan expenditures conclude that 'reduction of regional disparities has not been considered important enough to influence either locational decisions relating to large public sector projects or to merit large


95. Majumdar, M (1977), op.cit.

special provisions for development of backward areas. K.N. Reddy's study shows that the recommendations of the Finance commissions, are not in line with the objectives of reducing regional disparities. Bhagwati also comes to the conclusion that planning for regional balance in India has been at best weak and at worst negligent and negligible. Misra et al also argue that there was hardly any significant national policy with regard to the spatial dimensions of planning. V.V. Bhatt points out that there has been a remarkable lack of consistent policies in India. Excessive incentives for investment exist side by side with excessive physical control on investment. Bhagwati and Desai argue that the licensing policy, which is one of the major policy instruments in the hands of the Government to achieve the objectives regarding the concentration of economic power in regions and individuals, suffered from serious drawbacks not only in terms of its conception but more so in its implementation as a result of which most of


the objectives were frustrated. Prof. Bhalla's study on the national and regional economic development in India between 1961 and 1971 shows the prevalence of wide disparities in per capita income among the states. The study examines several alternative hypotheses to analyse the nature and pattern of state income growth during the period from 1961 to 1971. Nair's study for the period 1950-51 to 1975-76 show that the regional disparities undergo a decline till 1964-65 to experience an increase since then. This study seems to indicate that there have been no major changes in the relative positions of different states of India in the period 1950-51 to 1975-76 in terms of per capita N.D.P. while states like Gujarat, Maharashtra and Punjab continue to occupy very high positions in this regard all through, the reverse is the case with states like Bihar, Madhya Pradesh and Orissa. Hence, the evidence here further corroborates the earlier findings by many including Hanna(1959) and Perloff et al (1960) that the changes in the relative economic status of the different regions take place only very slowly. The findings here would thus substantiate the usually held view that the regional change takes place only over several decades, particularly in the absence of deliberate and concerted policy measures to bring it about.


Dholakia's study for the period 1960-61 to 1979-80 shows an increasing inequalities in the per capita state product. It seems that the state product inequalities have first fallen and then risen considerably so much so that, on the whole, it appears to have increased over the twenty year period. Infact, the initial fall in the inequality has not been very significant at all. In the case of primary and tertiary sectors also there clearly appears to be an increasing trend in inequalities. In the secondary sector, however, there have been fluctuations, though, on the whole, the inequality appears to have risen. Another important study dealing with the regional variations in growth rates and sources of growth in India for the period 1951-81 is given by Prof. Ashok Mathur. For the period 1950-51 to 1980-81 as a whole the secondary sector had grown the fastest followed by the tertiary and primary sectors. The primary and secondary sectors reveal a tendency towards retardation in their decadal growth rates. Though the service sector registered an acceleration, its impact was not as much powerful as to prevent a retardation in the overall rate of growth. The study finds a significant correlation between infrastructural constraints and deceleration in industrial growth. Dr. R.K. Sharma has examined the nature and pattern of


regional development in India over the period 1961 to 1981. The study attributes the existing wide regional per capita disparities in the country to the systematic differential pattern of growth experienced by them. Some of the hypotheses used by various scholars and their empirical evidences were based on the implicit assumption that the per capita N.D.P. of region is an index of the average level of living of the people in the region. There exists a trade-off between economic development at the national level and reduction of regional disparities within the nation. At the national level the N.D.P can be immediately maximised by concentrating economic activities in the more developed regions. Opposite has to be done in order to reduce regional disparities in the levels of living if the assumption that the per capita N.D.P is an indicator of the regional level of living is valid.

The progress of a nation depends in a real sense on the development of the backward area. The political tensions in different parts of the country are on account of large and persistent disparities in the levels of economic development and well-being of different states.

Various policy instruments are used in the Indian planning to achieve reduction in regional disparities. Such instruments would typically include priority in industrial licensing, incentive schemes for attracting greater private investments to backward areas, greater allocation of resources through plan investments and special programmes for building up infrastructural facilities in backward areas.