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**INDUSTRIAL LOCATION POLICIES AND POLICY
MEASURES IN DEVELOPING COUNTRIES 1/**

Presented by the Executive Director of the United Nations
Industrial Development Organisation

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We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

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I. EXISTING PATTERNS OF GEOGRAPHICAL DISTRIBUTION OF MANUFACTURING ACTIVITIES

1. In most developing countries, the prevailing tendency has been for industry to concentrate in a few locations, preferably in metropolitan areas. For example, in 1960, there was in India an overwhelming concentration in two states, namely Maharashtra and West Bengal. Although these two states accounted for only 17 per cent of India's population, they contained 36 per cent of the total number of manufacturing establishments,^{1/} 44 per cent of the employment and 50 per cent of value added.^{2/} Moreover, even in these states, industrial activity had predominantly centred around the two metropolitan cities of Bombay and Calcutta, especially around the former city.

2. In Brazil, another country of continental dimensions and vast resources, 62 per cent of industrial employment in 1959 was concentrated in the South with only 35 per cent of Brazil's population. The South also accounted for 36 per cent of the number of manufacturing establishments and 68 per cent of value added. Here, again, there was an overwhelming concentration of industry in the state of São Paulo, which in 1959 accounted for well over half of Brazil's industrial workers. Even in this state, about 50 per cent of the workers were employed in the city of São Paulo,^{3/} which accounted for 50 per cent of the value added by industrial production in Brazil.

3. As in India and Brazil, industrial development in Pakistan is characterized by concentration in comparatively few regions and by a growing population in industrial towns. The maximum concentration of industry in West Pakistan in 1961 was at Karachi, followed by Lyallpur, Lahore and Multan. These four main centres of industrial activity accounted for 40 per cent of total industrial activity in terms of industrial employment.^{4/}

1/ The establishments covered were those employing fifty or more workers with the aid of power, or 100 or more workers without the aid of power.

2/ Annual Survey of Industries, 1960, Dept. of Statistics, Central Statistical Organization, Calcutta, India, 1960.

3/ Data reported by Servico Nacional de Aprendizagem Industrial, Servico de Cadastrol e Controle de Departamentos Regional and published in Associacao Commericel da Rio de Jansiro, Revista, June 1960, Rio de Janeiro.

4/ Sartaj Aziz, "A Study of Industrial Location Policy in Pakistan" (mimeographed) page 12; prepared for the United Nations Centre for Industrial Development.

4. The relative concentration of industry in East Pakistan is even more pronounced than in West Pakistan, with the four main industrial centres accounting for 55 per cent of total industrial workers. These centres are Dacca, with 25.5 per cent of the total (of which 15.8 per cent are in the city of Narayanganj), followed by Chittagong (14.2 per cent), Mymensingh (8.0 per cent) and Khulna (7.5 per cent). On the other hand, in terms of value added. West Pakistan accounted for 74.5 per cent of industrial activity as compared with 25.5 per cent in East Pakistan. In fact, Karachi alone, with 29.7 per cent of value added in 1960, exceeded that of the whole of East Pakistan.^{2/}
5. Similar patterns of geographical distribution of manufacturing activities are to be found in almost all developing countries. In Argentina, for instance, about 83 per cent of the industrial establishments and 83 per cent of the industrial workers were concentrated in the East-Centre region in 1963, with the greatest concentration of industrial establishments (52.5 per cent) and workers (63.4 per cent) in Buenos Aires. In the Philippines, 50 per cent of the industrial employments and 49 per cent of value added in 1959 were concentrated in Metropolitan Manila which accounted for only 4.2 per cent of the total population.
6. Despite these tendencies towards concentration and agglomeration, some industrial activities in most developing countries continue to be dispersed over a wide number of regions and areas. What are the significant characteristics of the concentrated as compared with the dispersed industrial activities?
7. In general, it may be said that the dispersed industrial activities are carried out mostly by small-scale industries catering for local markets, with the majority of the producing units represented by small craft establishments. Another characteristic is a limited degree of mechanization, both for establishment and per person employed. By comparison, the geographically-concentrated industries are carried out by medium and large-scale establishments catering for a wider market. Moreover, unlike geographically-dispersed industries, those that are geographically-concentrated tend to be capital-intensive rather than labour-intensive industries.
8. Perhaps the most important characteristic of concentrated industrial activity is its diversity. In Pakistan, for example, the main industrial centres like

^{2/} Ibid., page 12-13.

Karachi, Lahore, Dacca and Chittagong have a variety of industries, including such consumer goods as textiles, electric bulbs, sewing machines, radios, footwear, pharmaceuticals, processed foods and tobacco manufactures; intermediate goods, including wire and wire products, pipes, fittings, plywood, oil refining, paper products, tires and tubes, steel re-rolling, dry batteries, electric wires and cables; and such capital goods as diesel engines, transformers and electric pumps, shipbuilding, motor manufacture and assembly plants, machine tools and scientific instruments.^{6/}

9. The dispersed industrial activities in Pakistan consist primarily of consumer goods, such as textiles and food products for the local markets. They are based either on local materials or on raw materials produced in remoter areas. However, there are some regions outside the main industrial centres of Pakistan where engineering industry is spreading rapidly because of the traditional skill of the people of these areas in handling metals. "Large communities residing in places like Wasirabad and Daska have been traditionally blacksmiths. With the availability of machine tools and the rising demand for pumps and diesel engines in the agricultural sector, a very large number of small units have sprung up in their places for the manufacture of these items. The spontaneous growth of this capacity has contributed to the success of the private tubewell programme in West Pakistan, which, in turn, was a major factor in accelerating agricultural growth during the Second Plan Period."^{7/}

II. PROBLEMS OF INDUSTRIAL LOCATION

10. In a number of developing countries concern has often been expressed about manufacturing industry being concentrated too heavily in the metropolitan areas of their countries. To remedy this undesirable situation, consideration has been given to various measures for slowing down the trend, both by putting obstacles in the way of establishment of more industry in these areas, and by encouraging the establishment of new industry in other areas.

^{6/} Sartaj Aziz, op. cit., page 20.

^{7/} Ibid., page 21-22.

11. Furthermore, it is agreed that decentralization is desirable not only because the development of large cities and over-expanded industrial regions has to be slowed down but also because the development of backward regions has to be accelerated.

12. Before dealing with these two aspects of decentralization policies, it is necessary to review very briefly some of the major factors influencing industrial location.

Factors influencing industrial location

13. The factors that influenced the existing distribution patterns of manufacturing activities are well known. Stated briefly, proximity to consuming centres, access to export markets and to raw materials, availability of special skills and availability of fuel and power presented obvious advantages; and large towns, particularly large port towns, provided all these advantages. Once industries started around certain locations, and infrastructure facilities grew up around them, several other industries were attracted to these locations. The external economies resulting from the concentration of industries around large towns provided, in turn, a strong attraction for new industries to be established around these urban areas.

14. By contrast, industries in far-flung and isolated locations would have to provide for themselves all essential facilities and services. An industry established in an isolated location would have to have not only its own workshop, foundry, water and power facilities, but would also have to build expensive access roads, railway sidings, dispensaries, schools and housing colonies. In addition, it would be forced to stock large inventories of spare parts and provide elaborate training facilities.

15. It is therefore clear that, unless promising secondary centres of industrial activities can be developed around small towns where the essential facilities can be centralized or, if necessary, subsidized, regional dispersal of industries would not prove an economic proposition.

Unfavourable effects of concentration

16. As noted earlier, industrial development in developing countries is characterized by concentration in particular centres around large cities. Many of

these cities have become congested and filled with slums, thus leading to mounting costs of housing, transport, sewage disposal, water supply, fire protection and other social overheads.

17. For example, with the progress of industrialization in India, there has been a large influx of population from rural areas into Bombay and Calcutta. "The continuing inflow of population has tended to press heavily on the existing amenities of life. Shortages of water supply, electricity, housing accommodation and education and health facilities have become recurring phenomena, the severity of which has become more acute with the passage of years. Even as early as 1944 it was observed that 74 per cent of the total population of Bombay lived in one-room tenements, and in some areas, on an average, fifteen persons lived in one room."^{8/} Furthermore, high rents, pressure on transport, inadequacy in the supply of labour, and unhealthy conditions are said to have tended to raise costs of production and to offset the advantages of concentration.^{9/} In other words, quite apart from the social problems created by over-concentration, there is also the presumption that increasing costs of public utilities and services and the rising production costs of firms may outweigh the benefits derived from external economies.

18. The unfavourable effects of rapid urbanization in Pakistan are reported by Sartaj Aziz as follows. "Cities like Karachi, Lahore, Lyallpur, Dacca and Chittagong, which house the bulk of industrial activity in Pakistan, are also characterized by slums, overcrowding, smoke, noise and transport congestion." Some of the unfavourable consequences of rapid growth in the population of the cities, revealed by various surveys and special studies of Karachi, Lahore, Dacca and Chittagong and Lyallpur are summarized below:

(a) "The over rapid rate of increase places an excessive strain on housing facilities and has forced a large segment of population to live in sub-standard conditions."

^{8/} K.J. George and A.S.L. Rao, "A Study on Industrial Location in India" (mimeographed) 1966, page 30. (Prepared for the United Nations Centre for Industrial Development).

^{9/} Ibid., page 31.

(b) "The increasing concentration in inner areas has shifted a substantial part of the population to suburbs, but this has resulted in acute congestion on the suburban transport system."

(c) "The long daily journeys which the working population has to undergo has reduced their real income, undermined their health and affected their over-all efficiency and output."

(d) "Increase in land value which resulted from concentration has placed a heavy burden on industry and local authorities and has increased the difficulties of town planning."

(e) "As a result of congestion, smoke and malnutrition, there is abnormal incidence of infant mortality, respiratory and allied diseases."

(f) "In places like Karachi which does not have a sizeable hinterland to provide fresh supplies of eatables, the cost of living has been going up more rapidly than in the rest of the country. The problem was relieved somewhat when government decided to shift the capital from Karachi to Islamabad, 1,000 miles to the north, but is still quite acute."^{10/}

19. In the light of the foregoing, therefore, it is hardly surprising that many developing countries have often emphasized the importance of decentralisation of industry or industrial dispersal and regional balance. This is not to say, however, that the actual circumstances prevailing in most developing countries justify industrial dispersal.

III. GOVERNMENT POLICIES REGARDING INDUSTRIAL LOCATION

20. Industrial location policies consist of two sets of policy objectives. The first objective, namely, dispersal from congested and over-developed areas, though mainly encountered in developed countries, is, as we have seen earlier, also found in India and Pakistan. On the other hand, it is very doubtful whether there is an actual need for such a policy in other developing countries, especially in Africa and Latin America.

21. It is true that in Argentina, for example, the thesis that metropolitan Buenos Aires is industrially in the "diminishing return" stage has been widely

^{10/} Sartaj Aziz, op. cit., page 27.

accepted. "It is very common to hear in political circles that Buenos Aires is overcrowded, that it suffers from gigantism, that new poles have to be stimulated not only because a more balanced regional distribution of income and activities is socially justified but also because it is compatible with maximizing the national rate of growth."^{11/} In fact, this view is also held by the Consejo Federal de Inversiones, an inter-provincial agency created in 1959. However, as Brodersohn points out, there is no empirical evidence that net returns in Buenos Aires are really diminishing.^{12/}

22. The second main objective of an industrial location policy is to accelerate the growth of backward regions with a view to correcting regional economic disparities. The latter are attributed to initial differences in factor endowments - to the fact that natural and human resources are not equally distributed over space, to historical reasons and to cumulative effects of external economies. Owing to these inequalities, regional disparities exist in both developed and developing countries, and a policy of balanced regional growth has to be considered in the framework of national economic growth. There is this difference, however, that in developed countries the problem of accelerating growth in backward regions is largely one of "regional balance" rather than one of national economic growth.

23. This is obviously not the problem in developing countries where the average per capita income is at a very low level. Here the objective of regional policy is closely connected with the general objective of economic growth at the national level. In other words, the economic problem of balanced regional growth in developing countries consists essentially of a choice between spreading thinly the limited resources available for investment over all regions and in a relatively even way or, at the outset, concentrating development in selected regions to the temporary neglect of others.^{13/}

^{11/} Mario S. Brodersohn, "Industrial Location Policy and Regional Development in Argentina" (mimeographed), 1966, page 44.

^{12/} Ibid., page 44-46.

^{13/} "Problems of Regional Economic Planning and Development in Europe and the United States" Economic Commission for Europe, Economic Bulletin for Europe, vol. 17, November 1955, United Nations, New York, page 5.

24. Unfortunately, the choice between a higher rate of national growth and balanced regional growth is not just a choice between two economic alternatives. For, as will be shown below, what is involved here is a conflict between economic and socio-political objectives. As suggested in a recent publication of the Economic Bulletin for Europe, such a conflict should be solved by a compromise between the maximization of economic growth and the achievement of income equalization. As the article rightly points out, "The nature of this compromise, of course, would vary between countries according to their political systems, social maturity and the strength of vested interests."^{14/}

Pakistan

25. That Governments are well aware of this conflict between economic and socio-political objectives is brought out clearly in the policy statement of the Government of Pakistan on the question of industrial location in the first Five Year Plan, 1955-1960:

Location of new capacity: In the earlier phase of industrialization, industries have tended to congregate near a few main towns such as Karachi, Lyallpur, Narayanganj and Chittagong. This has been natural because of the facilities and economies available at such places. Karachi, in particular, has figured prominently, due to the advantages of the port, the special facilities of industrial estates, close proximity to the centres of administration and the presence of a large business class that settled there on migration from India. On purely economic grounds, new capacity should be installed where the costs of production and transport will be lowest. But location cannot be determined on economic grounds alone. In the interest of balanced regional development and social stability, it is desirable that industries should be more widely dispersed, to spread the benefits of employment and increased income over large areas. Dispersal will lessen the magnitude and intensity of the social problems created when populations are moved from rural to urban areas, inadequately provided with public facilities.

The Government already exercises the power to determine the location of new industrial units. The PIDC has used its opportunities freely to locate new units in areas close to sources of raw materials such as Chandragona, Nowshera and Daud Khel. More can be done, however, to encourage industries to spread out. The development of integrated systems of power supply, and the availability of natural gas in extended areas, could be utilized in support of such a policy. Consideration should be given also to the possibility of offering concessions in land, local taxes and freight rates.

^{14/} Ibid., page 5.

If undue concentration of industry is to be prevented, the Central and provincial Governments, local bodies, railways and power authorities will have to follow appropriate policies. 15/

26. Accordingly, the industrial location policy in Pakistan between 1955 and 1960 consisted mainly in preventing the spread of industrial activity in congested centres, though the need to develop "smaller" or secondary centres of industrial activity as an alternative to dispersal in isolated locations was also recognized.

27. It is interesting, however, that the Second Five-Year Plan, 1960-1965, instead of emphasizing the need for spreading out industries in remote or isolated areas, suggested some relaxation of restrictions in areas which are suitable from an economic point of view and the encouragement of industries in places which can provide transport and other facilities.

28. The relevant paragraph reads as follows:

During the past few years, establishment of industries in Karachi has been severely restricted, and expansion has not been welcomed in certain districts of West Pakistan. The effort has been to establish industries in areas where little or no industry exists. The effect of these limitations has been to discourage industrialization in those areas of the country, notably the large industrial centres, where new investments will become most fruitful, at least in the short run. These limitations will need to be relaxed, and location of new capacity encouraged in all suitable areas. In this context it will be of advantage to provide the establishment of industrial estates in centres where the transport system, water and power resources, and availability of raw material and potential markets offer suitable opportunities. Apart from the large centres, efforts will be made, notably through the small scale industry programme, to encourage smaller centres for industries which mainly supply local markets. Close co-operation will be necessary between authorities responsible for industrial planning and those dealing with urban and regional physical planning, in order to promote the dispersal of industries in suitable locations. 16/

29. Finally, the Third Five-Year Plan, 1965-1970, which was published in June 1965, contains the latest official views on industrial location in Pakistan. It emphasizes rational and pragmatic criteria, subject to the "over riding" objective of removing economic disparity between East and West Pakistan, and

15/ Government of Pakistan, Planning Board: First Five-Year Plan, page 414.

16/ Government of Pakistan, Planning Commission: Second Five-Year Plan: page 225.

recognizes the need for special locations for different kinds of industries, and reads as follows:

Industrial investment policy as to kind and location of industry will be pragmatic and rational to the maximum extent consistent with over-riding the Plan objective of eliminating economic disparity between East and West Pakistan. As a general guide, investment opportunity which offers maximum rate of return on invested capital will be selected over alternative investments for the same purpose but indirect benefits of dispersing industries throughout the country will be fully taken into account. Clustering of industries around a few industrial centres entails many additional costs inherent in rapid urbanization, besides numerous social problems in the long run. Besides these general criteria, special considerations must determine the location of different kinds of industries. For some industries such as cement and steel, proximity to raw material is essential, while for others, factors such as availability of skilled labour, or easy access to markets are more important. Export industries are more competitive if located near port towns, but this factor must be weighed against possible advantages from proximity to raw materials such as natural gas or power supply. Subject to these considerations, industries will be sanctioned for locations where they will maximize contribution to economic growth on the basis of rational and pragmatic analysis subject to exceptional considerations of intra-regional disparities and long-term development. 17/

30. In addition to these policy statements in the three Five-Year Plans, the Government of Pakistan has issued a large number of ad hoc instructions to regulate the location of industries, including orders to ban the setting up of new industries in Karachi. The latter were issued in 1957 but were cancelled in 1960. Some of the ad hoc instructions did not always reflect the over-all policy. The effects of these policies and measures, particularly the policy of removing interregional disparity, will be discussed in the following chapter.

India

31. Although balanced regional growth is one of the most desirable national objectives in India, it is also realized that it may, at least in the short run, conflict with the objective of maximizing the rate of over-all national growth. Nevertheless, so far as public sector projects are concerned, the important criterion in the location of new plants in India seems to be the need for "correcting regional imbalances" rather than over-all national growth. Similarly,

17/ Government of Pakistan, Planning Commission, Third Five-Year Plan, June 1965, pp. 451-52.

the promotion of small-scale industries, one of the main planks of government policy in India, has played its part in encouraging regional dispersal. In fact, one of the most important provisions of the Resolution adopted by Parliament in 1948 from the point of view of "balanced regional development" was the one relating to small-scale industries. It was the 1948 Resolution which guided the First Five-Year Plan, 1951-56.

32. The Second Five-Year Plan, 1956-61, was based on the Second Industrial Policy Resolution of 1956. Although the new policy encouraged the freedom of the private sector of the economy, the public sector assumed an increasing role in industrial development and has contributed greatly to regional dispersal of industries.

33. The Second Industrial Policy Resolution stated that "in order that industrialization may benefit the economy of the country as a whole, it is important that disparities in levels of development between different regions should be progressively reduced." Recognizing the importance of the ready availability of infrastructure facilities, it emphasized the importance of ensuring that such facilities be steadily made available to areas lagging behind industrially or to areas in which the need for employment opportunities were greatest.

34. Although the Government of India favours regional dispersal of industries, it seems to be of the opinion that in the case of basic capital and producer goods industries, the choice of locations should be primarily determined by economic and technical considerations rather than by such objectives as regional dispersal and development of under-developed regions. However, in the case of certain consumer goods and processing industries such as cotton textiles, bicycles, sewing machines etc., a policy of regional balance has met with greater success.

35. As will be shown in the next chapter, one of the policy measures taken by the Government of India to secure regional dispersal of balanced regional development has been the government licensing powers under which the Government is able to check what it considers excessive concentration of industry in certain regions in the belief that refusal of a licence in a developed region would encourage establishment of additional capacity in under-developed regions. In actual practice, however, while licensing powers can prevent concentration of new industries in congested areas, it cannot be depended upon to foster industrial growth in areas which are under-developed. Indeed, the entrepreneur can be

prevented from going to a particular area but the Government cannot compel him to set up industries in other areas.

36. On the other hand, the objective of regional dispersal can be more effectively implemented through direct State participation in industry. It is true that the location of heavy and basic projects has to be decided on economic considerations such as the proximity of raw materials, availability of cheap power and transport facilities. However, where alternative locations are available in backward areas due consideration is given to the possibility of locating the project in such areas. "Some of the basic industries such as steel, aluminum, copper, zinc, oil refineries, fertilizer plants and heavy machine building have in fact offered such alternatives, and the development of backward regions has also been taken into consideration in deciding upon the location of these projects."^{18/}

37. According to K.J. George and A.S.L. Rao, "As a result of the springing up of the public sector factories, several new areas have been opened up. The growth of the Sundargarh area in Oriss has been mainly due to the establishment of the Rourkela Steel Factory. Similarly, the Durg area in Madhya Pradesh owes its present prosperity to the establishment of the Bhilai Steel Works and associated industries. The Sehora area in Madhya Pradesh was developed after the establishment of the Hindustan Heavy Electricals at Bhopal. The phenomenal growth of the Ranchi area in Bihar has been due to the large projects which have been undertaken in the public sector in this area, such as heavy machinery, the foundry forge etc. The establishment of the Neyveli Project has stimulated the economic growth of the South Arcot District in the Madras State."^{19/}

38. Even so, as the Third Five-Year Plan observes, "Excessive emphasis on the problem of particular regions and attempts to plan for their development without relating their needs to the requirements of the national economy have to be guarded against. In the final analysis it is as integral parts of the country that different regions can best hope to realize their full potential for growth."^{20/}

^{18/} K.J. George and A.S.L. Rao, op cit., page 57.

^{19/} Ibid., page 57-58.

^{20/} Cited by K.J. George and A.S.L. Rao, ibid., page 47.

Argentina

39. Between the 1930's and the mid 1950's, the objective of industrial development policy in Argentina appears to have been one of import substitution of consumer goods. Favoured by external economies derived from the agglomeration of activities and factors of production, the East-Centre region, particularly Metropolitan Buenos Aires, attracted most of the industrial activities.

40. By the mid 1950's, the pattern of industrialization based on import substitution of consumer goods came to an end, and Argentina embarked on a policy of import substitution of intermediate and capital goods. This new pattern, while helping the further development of Buenos Aires, also created new centres in the states of Córdoba and Santa Fe, both of which had been well provided with infrastructure facilities and appropriate inputs. The state of Córdoba was able to develop a metallurgical centre by attracting tractor, automobile and railway equipment, while Santa Fe attracted a petrochemical complex.

41. It was also during the latter period that government policy was directed towards achieving a more balanced regional growth. Decentralization was encouraged not only by the two Five-Year Plans, of 1947-1951, and 1952-1956, but also by the national industrial promotion laws and, more recently, by the national plan of 1965-1969, the climax of this decentralization process being the 1964 industrial promotion law excluding investments in Metropolitan Buenos Aires from any type of benefits.^{21/}

42. Needless to say, as in other developing countries, these policy decisions in Argentina involve an unavoidable conflict between the maximization of national economic growth and the achievement of regional equity. How, and by what means, the Government of Argentina proposes to solve this conflict is still not clear.

IV. POLICY MEASURES AIMED AT INFLUENCING GEOGRAPHICAL DISTRIBUTION OF INDUSTRIAL ACTIVITIES

43. In analysing the policies and measures adopted by the various national Governments or the State and Provincial Governments to influence the geographical

^{1/} Mario S. Brodersohn, op. cit., page 43-44.

distribution of industrial activity three groups of measures may be distinguished:

- (a) Measures for inducing national and foreign industrial enterprises or factors of production (capital, labour entrepreneurship and technical and managerial "know-how") to move into a less developed region;
- (b) Measures to mobilize the resources of less developed regions for industrial development; and
- (c) Measures for preventing the establishment of new industries in congested areas.

Measures to encourage industrial dispersal

(a) The role of public sector projects

44. In India several incentives have been provided, both by the Central Government and the State Governments, to facilitate the movement of industries to backward areas. As noted earlier, the location of large public sector projects established by the Central Government in backward areas has greatly contributed to the economic growth of these areas.

45. A limitation of the public sector is that the projects undertaken in this sector are generally those involving heavy investments in which technological and economic considerations cannot be easily overlooked in the interest of balanced regional dispersal. It is only where alternative sites are available that the development of backward areas in India has been taken into consideration before deciding upon the final location of the project. India has therefore been in the fortunate position that such alternative locations could be found there. As a result, it is claimed that the locations so far selected for public sector projects have to a substantial extent achieved the objective of opening up areas which were hitherto backward.

46. Apart from the projects which have been sponsored by the Central Government, some manufacturing companies have been operated by the State Governments either on their own or jointly with the Central Government or with the private sector. The resources at the disposal of State Governments being more limited than those of the Central Government, the State Government projects are generally smaller. Nevertheless, they have played an important part in bringing about a wider geographical distribution of manufacturing activities in India. As examples of

State Government projects, mention may be made of the Nizam Sugar Factory and the Andhra Paper Mills in Andhra Pradesh; the Travancore Cochin Chemicals and Travancore Titanium products in Kerala; Mysore Sugar Company, Mysore Iron and Steel Works and the new Government Electric Factory in Mysore; the Superphosphate Factory in Bihar; and Silk and Woollen Mills in Kashmir.^{22/}

47. Apart from direct investment in industrial projects, funds have been provided in successive Five-Year Plans for infrastructure development in the various states. This has contributed indirectly to a wider dispersal of industrial activities in India.^{23/}

48. Similarly, in Pakistan, one of the measures adopted since 1960 for the removal of interregional disparity between East and West Pakistan has been diversion of an increasing proportion of public sector resources for development activities to East Pakistan, particularly for the building of infrastructure and for industrial development.^{24/}

49. Although industrial policy in Pakistan relies primarily on private initiative and investment, a Pakistan Industrial Development Corporation (PIDC) was created as early as 1952 with a view to making up for the lack of private enterprise in specified fields. Between 1952 and 1965, the corporation had set up twenty-nine units involving a total investment equivalent to \$US142 million. Of these, fourteen were exclusively owned by Governments and fifteen jointly with the private sector.

50. The decisions to locate a large number (more than half) of government-sponsored plants in less developed regions of the country have undoubtedly had an important effect on the geographical distribution of industrial activity in Pakistan. Unfortunately, a number of these plants have been set up in uneconomic locations. They have only been able to survive by direct subsidy grants or by maintaining artificially high prices for their products.^{25/}

^{22/} K.J. George and A.S.L. Rao, op. cit., page 54-55.

^{23/} Ibid., page 55.

^{24/} Sartaj Aziz, op. cit., page 35.

^{25/} Ibid., page 48.

51. In reviewing the locational factors of the various public-sector projects in Pakistan, Mr. Aziz^{26/} makes, inter alia, the following observations:

(a) Industries located near the source of local raw material have generally proved to be economically viable, particularly if the raw materials are scattered throughout the province. Such industries included jute, sugar, paper and fertilizer plants.

(b) Industries based on imported raw material but located away from port towns have not been able to maintain an economic cost structure because of the additional cost of transporting raw materials and in some cases transporting the finished products back to the markets in or near the port towns.

(c) The average rate of return on industries established in completely isolated locations has generally been lower than those put up in the main and secondary centres of industrial activity because of larger overhead expenditure in providing access roads, water storage and housing facilities.

(d) In the case of certain sophisticated industries like the telephone factory in Haripur, the higher economic cost is partly compensated by the development and spread of skill in the region, but in the case of certain industries like some of the woollen mills which are not even located in wool-growing areas, the indirect social advantages, if any, would not seem to compensate for the very high economic subsidy involved.

52. In Pakistan, the initial spurt in industrialization was influenced by the infrastructure facilities that already existed in different regions at the time of independence in 1947. As noted earlier, larger allocations have been made since 1960 for the growth of infrastructure facilities in less developed areas, particularly East Pakistan. Although no systematic attempt has been made to spread these facilities within a province on a regional basis, it is hoped that the rural works programme initiated in 1963 will pave the way for a more comprehensive regional approach.

53. In Argentina, Patagonia is a region richly endowed with resources but lacking in the necessary infrastructure facilities. Recently, the Consejo Federal de Inversiones has organized jointly with the United Nations, a study group to formulate a development plan for the "Comahue" region, which includes part of Patagonia. The main purpose of the study is to identify a number of projects and the need for infrastructure facilities in this region.^{27/}

^{26/} Ibid., page 49-50.

^{27/} Mario S. Brodersohn, op. cit., page 60-61.

(b) Measures to encourage dispersal through the private sector

54. The policy measures open to Governments to induce the private sector to move industrial activities into less developed regions are many and vary from country to country. Apart from the provision of infrastructure facilities by the public sector and government participation in or subsidization of private enterprises, policies and measures adopted by Central and State Governments to influence the geographical distribution of private manufacturing activities may be grouped under four major headings: (a) Regulation and control; (b) Financial measures; (c) Fiscal incentives; and (d) Industrial estates.

(a) Regulation and control

55. In India, the most important legislative and administrative framework which the Government designed for the purpose of realizing the objective of the Industrial Policy Resolution of 1948 was the Industries (Development and Regulation) Act of 1951. The provisions of the Act apply to all units employing fifty or more persons, if operated with power, or 100 or more persons if operated without power, and give the Central Government wide powers of direction and control.

56. The licensing committee established under the Act screens applications for the setting up of new units or for effecting substantial expansion to existing industrial undertakings or for the manufacture of new products. In considering applications for industrial licences, one of the basic considerations is the balanced dispersal of industries in the various regions. By virtue of the provision that requires authorization of Government for substantial expansion of an existing industrial undertaking, the Government is able to check the "excessive concentration" in certain regions.

57. However, as noted earlier, the licensing powers under the Act can prevent concentration of industries in certain areas, but cannot be depended upon to foster the growth of industries in areas which are less developed.

58. In Pakistan, between 1948 and 1958, each and every industrial unit was specifically approved by the Government, the sanctioning agencies being expected to prefer applicants who were prepared to install their units in less developed regions. Administrative measures have also been devised to prevent the concentration of industry in certain areas. In 1957, for instance, the Government

decided to ban the setting up of new industries in Karachi. However, this ban was partially lifted in 1960, when it was realized that certain industries, like a steel plant based on imported raw materials, had to be located in Karachi.

59. On the whole, therefore, it may be concluded that the direct control measures have not proved adequate to the task of securing balanced regional development of industries. In what follows an attempt will be made to examine the effects of positive incentives, both fiscal and otherwise, on wider decentralization of industries in the private sector.

(b) Financial measures

60. One of the positive methods by which the Central Government of India has promoted industrial development is through financial assistance. The Industrial Finance Corporation which has been set up by the Central Government has assisted the growth of several industries through loans on reasonable terms. The small-scale sector of industries has received a good deal of assistance through the national Small Industries Corporation which has devised several schemes such as the hire-purchase scheme and the industrial estates scheme. Direct loans (including subscription to debentures) have been given by the Central Government to private firms as in the case of the Indian Iron and Steel Co., and the Tata Iron and Steel Co. Financial facilities have been given by the Central Government to many co-operative societies. Several village and small-scale industries have benefited through the assistance given by the centrally sponsored boards, such as the All India Khadi and Village Industries Commission, the Coir Board, the Silk Board, the Rubber Board and the Handicrafts Board. Many of the State Governments have set up State Finance Corporations which have been rendering financial assistance to industries.

61. While it is true that financial assistance to private industry by the State has contributed to the promotion of over-all industrial development, there is no doubt that the objective of regional dispersal can be more effectively implemented through direct State participation in industry. On the other hand, the Industrial Finance Corporation in India, for example, could not always be expected to adjust its lending policies to subservise the objective of regional development if the latter conflicted with the soundness of the corporation's lending operations.

62. Village and small-scale industries in India provide effective media for the dispersal of industries, including industrial co-operatives, in rural areas and small towns. The measures to promote such dispersal include the provision of credit and finance through loans and subsidies and the provision of tools and machines as well as technical advice.

63. In the State of Maharashtra, for example, when private entrepreneurs undertake feasibility studies with a view to setting up an industry in the under-developed regions, the State Government provides 75 per cent of the cost of preparation of the study, provided it is done through an agency approved by Government. Loans raised by such industries are guaranteed by the Government. Other assistance include refund of sales taxes on purchased raw materials and finished products; exemption from duty on the import of capital equipment, building materials and raw materials used in industry; and exemption from the payment of water royalties when water is lifted from public water sources. These and other concessions are available to thirty-one industries, such as iron castings, steel forging, cotton textile machinery, sewing machines, soda ash, and fibre board. The maximum period up to which these concessions are granted is generally thirteen years.

(c) Fiscal incentives

64. One of the most important policy measures for encouragement of the growth of industries in less developed regions has been the tax holiday scheme. Tax holidays for new industrial ventures take the form of total exemption from the company income tax on profits earned during a given period of time. In Pakistan, the most under-developed regions receive the longest tax holiday while Karachi and other industrial centres receive the shortest. The tax holiday scheme was started in Pakistan in April 1959 and provided for tax holidays ranging from two to eight years. It was to expire at the end of the Second Plan in June 1965, but the law was extended with some modifications for the duration of the Third Plan. It now allows tax holidays ranging from two to six years. To be eligible for tax holiday, a new industrial venture must fulfil a number of conditions. The conditions specify the industrial sectors and the geographical areas of the country whose development the Government seeks to foster.

65. The extent to which the subsidy inherent in the tax holiday compensates for possible additional costs in locating industries in less developed areas is difficult to assess. What is of immediate concern here is the question as to the effect of fiscal incentives on industrial dispersion.

66. As far as Pakistan is concerned, industrialists, despite the tax holiday, generally continue to prefer urban centres like Karachi, Lahore, Hyderabad and Chittagong, except of course where proximity to raw materials is an overriding consideration. The incentives offered by tax holidays are, however, more effective in secondary centres where transport, power and other facilities are being developed through industrial estates, than in totally isolated areas where these facilities cost much more and where skilled labour shifted from industrial centres demands considerably higher wages.

67. On the other hand, the dispersal of industries in secondary centres and some isolated regions in Pakistan in the past six years has been stimulated by the tax holiday system, supplemented to some extent by administrative measures referred to earlier viz. the policy of the sanctioning agencies and development banks to prefer applicants who wish to set up industries in less developed regions.

68. In Argentina, too, a number of fiscal measures have been promulgated for the purpose of granting concessions to investors in specific industrial sectors and in certain geographical areas, particularly in the interior of the country. The concessions include the following:

- (a) Duty-free import of machinery and equipment that cannot be made locally;
- (b) Imposing or raising tariffs and other import charges on goods whose importation would impede the development of local production;
- (c) Suspension or limitation of imports of finished products or raw materials already produced in the country;
- (d) Preferential exchange arrangements for export of industrial goods;
- (e) Preferential credit arrangements for desired industries;
- (f) Preferential supplies of raw materials, electric power, fuels and transport;
- (g) Preferential treatment in government purchasing;
- (h) Tax exemption and relief for specified periods.

When these projects are considered by an Executive Decree of "national interest", the following exemptions to the income tax were also granted:

(i) Tax exemption for interests on bonds, debentures, stocks, and for dividends on preferred stocks issued to finance investment;

(j) Deductions from income taxes on the amount invested on stocks.

69. In order to encourage investment, tax exemptions and duty-free licenses are given for the import of machinery and equipment that cannot be made locally. Tax exemptions, for a maximum of ten years are granted either to the enterprise or to the investor, but not to both simultaneously, modifying in this way previous legislation, which granted tax exemptions to both the enterprise and investor. The benefits granted to enterprises are related to a yearly reduction of business income tax; to substitute tax on corporate capital; to excess profits tax (which ranges from a maximum of 100 per cent during the first four years to a minimum of 10 per cent in the tenth year); a stamp tax; authorization for temporary residency in the country for the required foreign personnel and their families; and special prices for gas, electricity, fuel and transport.

70. To qualify for special benefits, the enterprise must process the natural resources of the region and/or help to increase exports or substitute imports. In particular, the following activities are promoted: (a) impregnation, hardening, artificial drying and processing of wood, fibres and bagasse; (b) processing of natural fibres until complete, at least up to the process of spinning; (c) tanning; (d) food processing; (e) metallurgical industries; (f) chemical industries; (g) ceramics and glass production.

71. However, in spite of the benefits provided by the industrial promotion laws in Argentina, the aim of decentralizing industrial activity in the country was not achieved. In fact, investment tended to concentrate heavily in metropolitan Buenos Aires, Cordoba and Santa Fe, the only exception being resource-oriented industries. The difficulties in achieving the policy objectives are not far to seek. Basically, the only instruments used to implement dispersal were tax and import duty exemptions. With no adequate transport system or energy supply, and lack of other infrastructure facilities, the fiscal incentives were not effective in stimulating investment in less developed regions.^{28/}

^{28/} Mario S. Brodersohn, op. cit., page 68-70.

(d) Industrial estates

72. In Pakistan, the programme for setting up large, medium and small-scale industrial estates in various parts of East and West Pakistan is regarded as one of the most important instruments for accelerating rational industrialization.

Pakistan's experience in this field of endeavour is therefore of particular interest.

73. Pakistan's initial experiment with industrial estates, initiated in the period between 1953 and 1955, was not aimed at the regional dispersal of industries.

The large estates set up during this period at Karachi and Hyderabad in West Pakistan and later at Tejgaon (near Dacca) in East Pakistan, have actually contributed to the current over-concentration of industries in these cities. The Karachi Estate, for example, covers a gross area of 4,000 acres, has 500 factories and employed about 55,000 workers i.e., about half the total industrial workers in the Karachi area.

74. As noted earlier, the role of industrial estates as an institutional tool for encouraging industrialization in less developed areas was recognized in the Second Five-Year Plan of Pakistan. However, the success of the industrial estates programme in Pakistan has so far been mixed, with the large-scale estates having on the whole fared better than the small-scale estates. Attempts are being made to evaluate the experience of the Second Plan period to formulate guidelines for improvement in future. Some of the difficulties are common to both large and small estates; others are peculiar to small estates.

75. The most important difficulty pertains to problems of land acquisition. One of the basic objectives of setting up industrial estates or industrial zones is to overcome the impediment of land availability for industries in suitable locations, but even the industrial estates sometimes run into difficulties, because in a number of locations, the land owners resort to litigation and some of the legal questions involved take time to sort out. Meanwhile, all work on the estates is held up.

76. Many other difficulties which have hindered the progress of industrial development in Pakistan have arisen from inadequate tie-up with town and regional planning. Apart from acquiring land and providing water, transport and power, the success of an industrial estate depends on the requisite expansion of technical education, appropriate modifications in local tax policies and speedy development

of public housing and satellite towns. In locations where this tie-up has been secured, the industrial estates have made rapid progress, but in several locations the estates have either not been developed according to schedule or even when completed, have not attracted many industrial units. Polytechnics or technical schools planned for several locations selected for industrial estates have not yet started feeding the industries that are being set up. The result has been a relative shortage of technicians, particularly at the middle level.

77. Numerous difficulties have hampered the growth of small industrial estates; some seem inherent, others may be ephemeral and could perhaps be alleviated by appropriate policies or actions.

78. Small or very small enterprises, by definition, cater to local requirements, command limited managerial or technical skills, employ relatively less skilled and poorly paid workers and as a result show a low level of productivity in their operations. The costs of infrastructure facilities for small estates are generally relatively higher than for large estates. Some of the facilities are indivisible and their cost for each unit in the estate is not always related to the size of the unit. Even after substantial subsidies, the price of industrial plots, which includes a part of the development charges and cost of facilities, is excessively high for small investors.

79. As a result of these factors and the difficulties of land acquisition referred to earlier, the progress of several small industrial estates has been relatively slow. Measures now contemplated in Pakistan include the following:

- (a) Allowing medium-scale industries to be set up on the smaller estates;
- (b) Expanding facilities for technical education in the areas covered by industrial estates, and providing technical advisory services;
- (c) Closer co-ordination between town planning and local authorities and those responsible for the development of industrial estates; and
- (d) Simplifying land acquisition procedures.

80. As some of the existing difficulties are removed and more industries are set up in the large number of industrial estates now being developed, industrial estates will become economically attractive nuclei for setting up industries in less-developed regions. The growth of a larger number of such secondary centres

of industrial activity is one of the most hopeful manifestations of the regional dispersal of industries in Pakistan.^{29/}

CONCLUDING OBSERVATIONS

81. The purpose of this paper has been to present a brief analysis of the industrial location policies in several developing countries.
82. Balanced regional development has been the declared policy of the countries under review. To achieve this end, Central and State Governments have taken measures to influence industrial location. Some of these measures may be said to be negative in character, in the sense that they can be quite effective in preventing an industry from being set up in a congested area but ineffective in causing it to be set up elsewhere, especially in a backward or less developed area. Thus, the choice is very often not between establishing an industry in a developed or in an undeveloped area but between further industrial development in a specific area or nothing.
83. As far as the public sector is concerned, some large enterprises established by the Central Government in less developed areas have contributed to the economic growth of these areas and consequently to a wider regional dispersal. However, the public sector is limited by the fact that projects undertaken in this sector are generally those involving heavy investments. In such projects, technological considerations such as the availability of raw materials, power, labour, close proximity to markets etc. cannot be overlooked. In other words, the location of heavy and basic projects has necessarily to be decided on economic considerations. It is only where alternative sites are possible that the development of backward areas has been adopted as an additional consideration before deciding upon the final location of a project.
84. Notwithstanding these limitations, it cannot be denied that over the years the trend has been towards greater regional dispersal. This has been made possible by the various fiscal and other incentives offered by the Central and State Governments and by the development of basic infrastructure facilities.
85. In the private sector, the explicit policy of regional dispersal of industries has not been very successful, mainly because the policy was not backed by other complementary policies and programmes.

^{29/} Sartj Aziz, op. cit., pp. 42-43; 46-47.

86. In general, too, the actual circumstances prevailing in most developing countries do not seem to justify industrial dispersion. In fact, it is very doubtful whether there is as yet an actual need for such a policy in most developing countries.

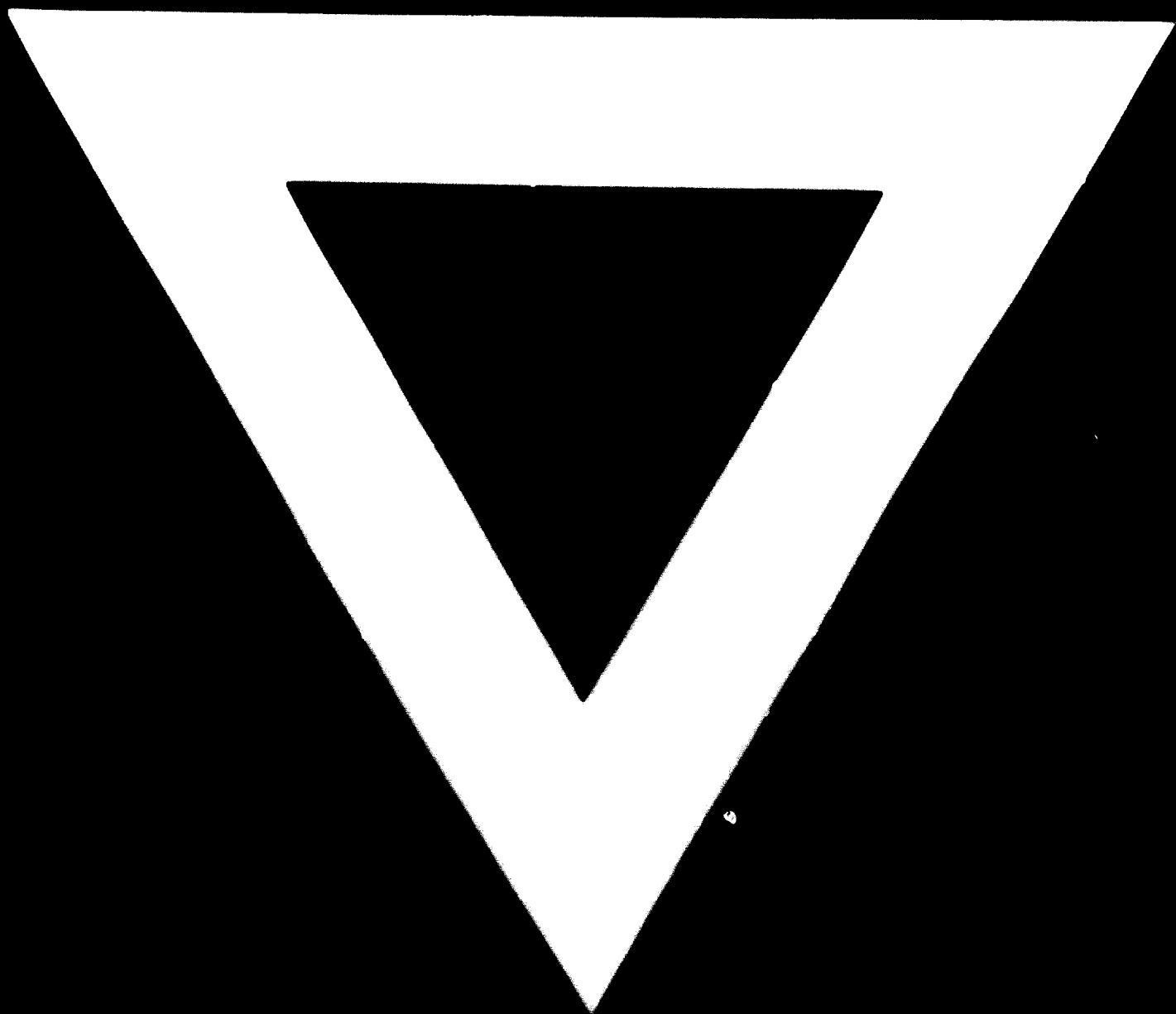
87. The main lesson of Pakistan's experience with industrial location is that the best approach to the objective of a regionally equitable distribution of industries is to develop a growing number of secondary centres of industrial activity rather than to scatter industries in totally isolated locations as the latter involves an unduly high economic cost.

88. The second lesson is the importance of indirect control measures, such as fiscal incentives through tax holidays or differential tariff and power rates for encouraging industries in less developed regions. Administrative decisions or direct controls on the location of industrial units involve an indeterminate subsidy and vitiate the economic criteria to a disproportionate extent.

89. Thirdly, measures to confine the development of certain areas exclusively to small-scale industries are unlikely to succeed because small industries, unless they are feeder industries, suffer from low productivity and cannot bear the cost of all the infrastructure facilities essential for efficient industrialization. It is necessary to allow the setting up of medium-scale industries in the so-called small industrial estates.

90. Finally, of all the infrastructure facilities for industrialization, cheap and effective means of communications is perhaps the most important.





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