

INDUSTRIAL DECENTRALIZATION IN PENINSULAR MALAYSIA

By

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Introduction

In recent years there has been a sudden interest in the development problems of subnational areas. This is due mainly to the fact that regional (subnational) planning is a national accompaniment to national development.¹ Some of the most prominent regional development programmes include the Tennessee Valley Authority programme in the United States,² the regional development programme in Italy to expedite the development of Southern Italy,³ the regional development planning of Guayana in Venezuela,⁴ and Brazil's Northeast regional plan.⁵ Regional development is now considered as an important instrument in guiding societal change.

At the regional level,⁶ Peninsular Malaysia's development planning involves the creation of a more equal growth rate among the states,

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¹Haris McCrone, *Regional Policy in Britain*, (London: George Allen & Unwin, 1969), p. 13.

²Marguerite Owen, *The Tennessee Valley Authority*, (New York: Praeger, 1961).

³Keith B. Chenery, "Development Policies for Southern Italy," in J. Friedmann and W. Alonso (eds.), *Regional Development and Planning: A Case Study*, (Cambridge, Mass.: MIT Press, 1964).

⁴John Friedmann, *Regional Development Policy: A Case Study of Venezuela*, (Cambridge, Mass.: MIT Press, 1966).

⁵Walter R. Boock, *Brazil's Developing Northeast: A Study of Regional Planning and Foreign Aid*, (Brookings Institution, Washington, D.C., 1961).

⁶A "region" is defined in this paper as coinciding with a state boundary, that is, a "region" is synonymous to a state in Malaysia. Both terms will be used interchangeably in this paper.

using various measures: the development of physical infrastructure, agricultural land development, decentralization of industries, deliberate urbanization and creation of new growth centers. During the period of the first three national plans⁷ agricultural development was accorded top priority in regional development for two main reasons. First, agriculture represented the main economic activity of the depressed regions, and there is always the tendency to concentrate attention on developing the major economic sectors. Moreover, it was felt that the poverty of the depressed regions resulted from low agricultural productivity. Second, it was believed that industry would locate in the depressed regions once the right environment was created. Infrastructure was considered to be the major element for such an environment, but it was also believed that the development of agriculture as well as the expected increase in income as a result of the regional multiplier of infrastructure works would attract industries to move to these regions.

Today, industrial decentralization⁸ is a vital strategy in regional development. Emphasis has increasingly been placed on the planning of industrial location because of three main reasons: (1) the importance of industry in influencing regional development (2) the greater possibilities of influencing industrial location than of influencing agriculture and services; and (3) the government's objective, under the "New Economic Policy," of encouraging the Malays, a predominant proportion of whom reside in five of the six poorest states in the country,⁹ to play a more active part in modern economic activities, especially in manufacturing.

Regional Distribution of Industry

Economic development has long been confined to the west coast states of Peninsular Malaysia, that is, in the tin and rubber areas. For example, the less developed east coast states (Kelantan and Terengganu) and the rice growing states of the northwest (Kedah and Perlis)

⁷ *The First Five-Year Plan of the Federation of Malaya 1956-1960*, (Kuala Lumpur: Government Printer, 1956); *The Second Five-Year Plan of the Federation of Malaya 1961-1965*, (Kuala Lumpur: Government Printer, 1961), and *The First Malaysia Plan 1966-1970*, (Kuala Lumpur: Government Printer, 1966).

⁸ "Industrial decentralization" is defined here as the directing of new manufacturing industries to selected areas in the less developed states. This is synonymous to the "dispersal of industries" policy under the Second Malaysia Plan 1971-1975 and the Third Malaysia Plan 1976-1980.

⁹ See Appendix I.

a relatively smaller share of the Gross Domestic Product. As seen in Table 1, the GDP per capita income of the richest state, Selangor, was in absolute terms over three times that of the poorest, Kelantan, in 1970. Table 2 indicates that Selangor's per capita GDP in 1970 was more than one and one-half times that of the national average, while Kelantan's was about one-half. Between 1963 and 1970 only five of the eleven states had a per capita GDP that was above the national average, namely, Johore, Negri Sembilan, Pahang, Perak, and Selangor. These five states accounted for 62 per cent of Peninsular Malaysia's population in 1970. In general, there has been an improvement in the relative disparity in the country. Some of the poorer states have, in fact, become relatively poorer. For example, Perak's per capita GDP fell from 0.87 in 1963 to 0.76 in 1970, and Trengganu's share declined from 0.83 to 0.71 over the same period.

The rapid post-World War II development in the country has resulted in the concentration of industrial activities in the relatively richer states. Table 3, which indicates the percentage share of industries for each state, shows that Selangor, the richest state and the largest producer of rubber and tin, is also the most important state in the country of manufacturing industry. In 1968,¹⁰ Selangor had 23.5 per cent of the total number of manufacturing establishments in Peninsular Malaysia, but 43.5 per cent of the value of gross sales, and 51.1 per cent of total value added. Almost 47 per cent of salaries in the country were earned in Selangor, although it had only 38.76 per cent of the full-time industrial labour force. In 1970, Selangor was the most populous state in Malaysia with 18.62 per cent of the population; the percentage of its share of industrial production was much higher, however, than the percentage of its share of the total population.

Johore is the next most important state in value added from manufacturing. It is especially important for rubber and timber processing industries, textiles, glass products, dry cells and batteries. The development of manufacturing in this state has been due mainly to its proximity to Singapore.

Perak, which has long benefited from the presence of rubber and tin, is the third most important state in manufacturing value added.

¹⁰ The 1968 Census on Manufacturing Industries, West Malaysia (published in 1970) is the latest census of manufacturing industry in Malaysia at the time of writing.

TABLE 1

West Malaysia: Per Capita Gross Domestic Product, By State, 1963-1970
(Malaysian \$)

State	1963	1964	1965	1966	1967	1968	1969	1970
Johore	740.2	760.8	839.0	851.6	789.3	786.5	912.5	962.6
Kedah	619.3	690.1	707.3	730.5	755.3	727.3	765.4	789.3
Kelantan	416.4	431.5	413.7	371.8	380.3	407.8	491.4	491.8
Malacca	625.0	605.1	625.9	684.7	606.2	609.8	745.2	677.2
Negri Sembilan	994.5	805.4	937.4	1022.1	985.6	1002.8	1101.2	1133.1
Pahang	839.7	933.6	940.4	973.9	918.5	923.6	1000.6	1004.6
Penang	519.3	570.3	619.8	635.8	651.4	675.4	719.5	767.7
Perak	788.2	877.2	953.9	942.3	948.2	937.8	1025.2	1044.7
Perlis	532.1	619.8	649.9	705.6	753.2	794.2	809.3	753.8
Selangor	1174.7	1250.1	1241.6	1274.3	1351.4	1331.3	1407.6	1502.8
Trengganu	598.9	594.3	549.8	547.1	572.2	556.6	590.3	628.3
Average	713.0	743.9	770.8	794.5	795.2	795.7	868.9	886.9

TABLE 2

Per Capita GDP of States as Proportion of West Malaysia Mean
GDP, 1963-1970

State	1963	1964	1965	1966	1967	1968	1969	1970
Johore	1.04	1.02	1.09	1.07	0.99	0.99	1.05	1.09
Kedah	0.87	0.93	0.92	0.92	0.95	0.91	0.88	0.89
Kelantan	0.58	0.58	0.53	0.47	0.48	0.51	0.57	0.56
Malacca	0.87	0.81	0.81	0.86	0.76	0.77	0.86	0.76
Negri Sembilan	1.39	1.14	1.22	1.29	1.24	1.26	1.27	1.28
Pahang	1.18	1.25	1.22	1.23	1.16	1.16	1.15	1.13
Penang	0.73	0.77	0.80	0.80	0.82	0.85	0.83	0.87
Perak	1.11	1.18	1.24	1.19	1.19	1.18	1.18	1.18
Perlis	0.75	0.83	0.84	0.89	0.95	0.99	0.93	0.85
Selangor	1.65	1.68	1.61	1.60	1.70	1.67	1.62	1.69
Trengganu	0.83	0.80	0.71	0.69	0.72	0.70	0.68	0.71

Source: Computed from Table 1.

TABLE 3
West Malaysia: State Distribution of Industry, 1968
(Percentages)

State	No. of establishments	Value of sales	Value added	Employment		Salaries	1970 Population
				Full-time	Part-time		
Johore	12.48	14.09	12.43	17.69	11.10	14.83	14.51
Kedah	8.59	4.29	2.21	3.94	6.46	3.12	10.82
Kelantan	3.96	1.65	1.46	2.58	6.49	1.53	7.75
Malacca	4.57	2.68	2.03	2.47	4.47	2.06	4.58
Negri Sembilan	4.54	8.77	7.68	3.89	3.13	4.89	5.45
Pahang	4.47	1.84	2.38	2.95	1.92	3.61	5.65
Penang	14.99	10.91	9.21	11.92	15.13	10.24	8.73
Perak	18.78	11.64	10.91	14.42	18.12	11.63	17.86
Perlis	0.92	0.27	0.13	0.24	0.33	0.19	1.39
Selangor	23.50	43.50	51.10	38.76	31.57	46.89	18.62
Trengganu	3.20	0.36	0.48	1.14	1.21	1.00	4.64
	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Despite the establishment of several new industrial estates, Perak's development has been relatively slower than that of Selangor's.

Penang, the fourth most important state in value added from manufacturing, has been able to attract a substantial number of manufacturing industries in recent years. Its development has been due mainly to its being a free port, and handling the commerce in tin and rubber for the northern part of Peninsular Malaysia. However, its free port status was a hindrance to industrial development; industries which intended to serve the whole Malaysian market were not willing to locate on Penang island because they had to face a customs barrier when shipping products to the mainland. With the ending of its free port status on the island and the development of deep water facilities on the mainland side, manufacturing establishments have increased substantially in recent years.

Negeri Sembilan's economic development has been due to tin mining. This state occupies fifth position in value added from manufacturing. The major contribution to its industrial growth has been the development of the petroleum industry at Port Dickson. The Port Dickson district alone accounted for 74 per cent of the value added by industry in Negeri Sembilan in 1968, but for only 21 per cent of full-time industrial employment. The Seremban district accounted for 21 per cent of value added and 63 per cent of full-time industrial employment.

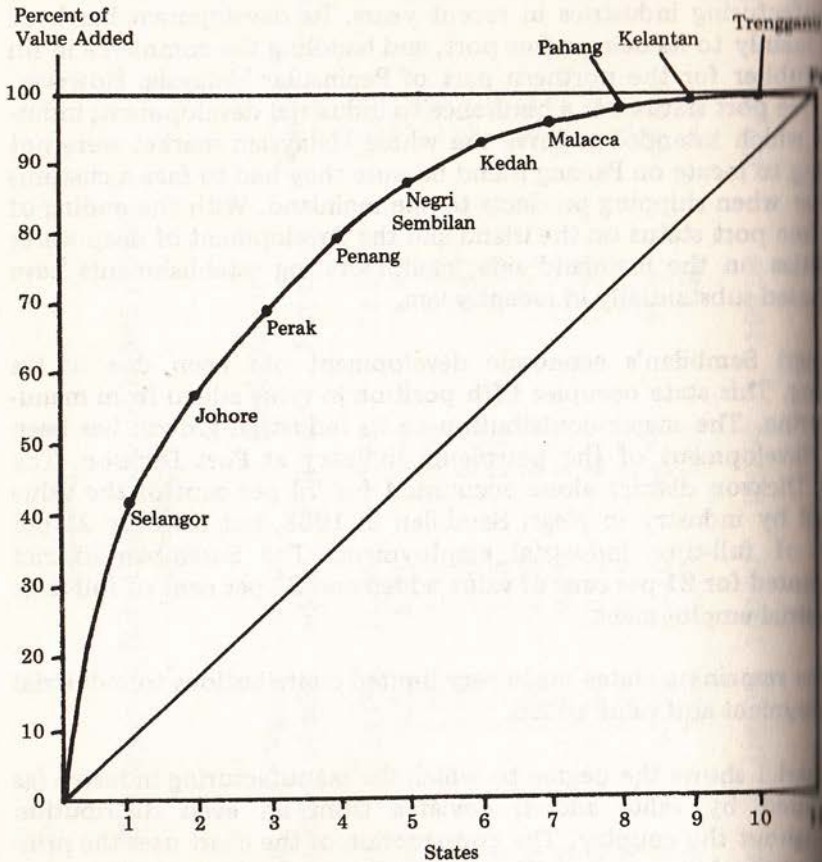
The remaining states made very limited contributions to industrial employment and value added.

Chart I shows the degree to which the manufacturing industry (as measured by value added) deviates from an even distribution throughout the country. The construction of the chart uses the principle of the Lorenz curve. The straight line extending from the lower left hand corner to the upper right hand corner indicates the line of even distribution of industries in the country, that is, a condition which would exist if all states had the same share of value added in manufacturing. If all manufacturing industries were concentrated in one state, the line would follow the outer boundaries of the diagram. The chart shows that four states (Selangor, Johore, Perak, and Penang) accounted for 80 per cent of the value added in manufacturing in 1968.

The concentration of industries and other high-income activities in the relatively rich states is both economically and politically unde-

CHART I

Distribution of Manufacturing Industry
in West Malaysia, 1968



sirable. It is politically undesirable because, since a large proportion of the Malays are concentrated in the relatively poor states, they feel that the government is not providing them with an opportunity to participate in manufacturing. Also, it is the government's policy not only to increase the overall welfare of the people in the poor states but also to eradicate the identification of race with economic activity. This process involves the development of modern economic activity (particularly manufacturing industry) in the poor regions, rapid and balanced growth of urban activities, and the creation of a Malay commercial and industrial community, so the "Malays

income full partners in all aspects of the economic life of the nation."¹¹

From the economic point of view industrial decentralization can accelerate development of the poor states through utilizing the unused resources (both labour and local raw materials). In the less developed states of Malaysia there are considerable pools of unused resources, which when utilized could increase regional output substantially. Another reason for establishing industries in the poor states is that there is a high correlation between the level of state income and the share of modern industries. This correlation applies to many countries. An example is the forty-eight states of the continental United States. Of the twelve with the highest proportion occupied in agriculture, ten were among the poorest twelve, the remaining two among the next poorest twelve. On the other end of the scale, ten of the least agriculturally occupied were among the twelve richest states and the remaining two among the next twelve richest.¹²

It would be an exaggeration to claim that there is always a balance of advantage in favour of accelerating industrial development in the depressed states, but it can be said that such a policy would enable people in these areas to find employment more easily and to obtain a higher standard of living. However, this policy is based on the ideas of equity rather than on potentiality.

A policy of taking industry to the depressed regions cannot be reconciled with the objective of attaining maximum rate of national growth. Some regions are relatively unsuitable for industrial development, so that it would not be economical to make the effort. It is true that some isolated factories may sometimes succeed, but experience everywhere shows that some concentration of industry is desirable because of the advantages of external economies.¹³ It

¹¹ *The Second Malaysia Plan 1971-1975*, p. 1.

¹² F. B. Florence, *Economics and Sociology of Industry*, (Baltimore: Johns Hopkins Press, 1969) p. 168.

¹³ See, for example, Sam Aaronovitch and Malcolm C. Sawyer, "The Concentration of British Manufacturing," *Lloyds Bank Review*, October 1974; M. C. Conroy, "Concentration in British Manufacturing Industry," *Oxford Economic Papers*, Vol. 23, No. 3, November 1971; and M. C. Conroy, "Alternative Strategies for Regional Industrial Diversification," *Journal of Regional Science*, Vol. 14, No. 1, April 1974.

would be unwise to scatter industries all over the depressed region. An effort to achieve a more balanced regional industrial development. This is not to argue that it is not economically feasible to stimulate industrial development in the poor states. Such a policy can be reconciled with the objective of maximizing the national economic growth rate if the poor states develop industries in areas where conditions are favourable or where they can be achieved at the lowest cost. Therefore, the appropriate policy would appear to be to concentrate industrial development in one or two major growth centers in each of the poor states.

The point to note here is that development strategy is becoming more oriented towards multiple goals — in output, employment, distribution of income, social development, environmental protection, etc. The relative weights to be attached to each of these objectives obviously vary among countries. In Malaysia, the goal of social equality is predominant at this stage of the country's development. Therefore, the Second Malaysia Plan emphasized that "the establishment of manufacturing activities in the less developed areas of the country represents an important dimension of the industrialization programme of the Plan."¹⁴ This policy is again stressed in the Third Malaysia Plan 1976-1980.¹⁵

Industrial Decentralization Policy

Having examined the need for industrial decentralization and the fact that decentralization implies the directing of new manufacturing industries to selected areas in the less developed states, we must now consider the question of how best the government can induce industrialists to locate in these areas. What kind of policy measures will be effective, and what are the problems involved?

The policy measure needed to influence industrial location can be classified into various categories. The following Sections 1 through 4 describe some of these measures.

(1) State Participation

Industrial decentralization may be more effective if it involves direct government participation in industry. An example of the

¹⁴ *The Second Malaysia Plan 1971-1975*, p. 154.

¹⁵ *The Third Malaysia Plan 1976-1980*, p. 314.

the public sector in industrial decentralization is the case of Southern Italy. Legislation of 1957 required state-controlled corporations to make at least 60 per cent of their new investments and 20 per cent of their total annual investments in Southern Italy.¹⁶ The largest state corporation, the Istituto per la Ricostruzione Industriale (IRI), has important holdings in steel, electricity, shipbuilding, and engineering. At the end of the 1960s, it was realized that the industrialization policy of Southern Italy has had less impact than was anticipated. The wide disparities in income between the north and the south still existed, and industrial development had been confined to only a few locations. To remedy this situation, the government introduced, in 1960, the concept of "contrattazione programmata," which called for the coordination of future public and private investment in the south, so as to achieve most efficiently the economic and social objectives of the Italian five-year plan.

Another measure adopted in Italy was the proposal to develop a state-planned growth point based on a carefully designed industrial complex. The assumption underlying this proposal is that achieving and sustaining growth will not be possible without creating some sort of intricate interindustry linkages such as are found in established industrial concentrations. The consultants proposed the setting up of an integrated industrial complex based on a combination of heavy and light mechanical engineering and including an appropriate range of ancillary industries providing input and making use of some output.¹⁷

The Italian government's policy toward industrialization in the south has changed drastically over the last twenty years. A policy of building up the infrastructure and then relying on the private investment has evolved through a growth-point strategy with conventional investment incentives to the prospect of large scale coordination of public and private development and the creation of a complete state-planned industrial complex.¹⁸ The most important lesson to be learned from the Italian experience is that total government involvement in the process of industrial development is essential for reducing interregional economic imbalances, since anything less is likely to

¹⁶David M. Smith, *Industrial Location. An Economic Geography Analysis*, (New York: John Wiley & Sons, 1971).

¹⁷V. S. Newcombe, "Creating an Industrial Development Pole in Southern Italy," *Journal of the Town Planning Institute*, Vol. 55, 1969, pp. 157-161.

¹⁸David M. Smith, *op. cit.*, p. 474.

be ineffectual.¹⁹ Even the greatest skeptic who takes an impartial look at Southern Italy now must admit that much improvement has been achieved through government participation.²⁰ International experiences of public involvement in economic development indicate that tentative small-scale action is perhaps worse than no action at all. Planning in the industrial sector, to be successful, should be according to some wider grand designs for the economy of the society.²¹ A United Nations report argues that "both in the developed and developing countries the problems of industrial location cannot be considered in isolation . . . comprehensive national programming should be recognized as the best framework for macro-economic solutions of the problems of industrial location."

(2) Regulation and Control

Under this measure it is hoped that the refusal of a license for establishing a plant in a developed region will induce the investor to establish it in a depressed (uncontrolled) region. This may be an effective way of limiting the concentration of new industries in congested areas, but it is a doubtful means of inducing industrial growth in the depressed regions.

In most cases, firms prohibited from establishing themselves in developed areas will make smaller profits in the depressed region than they would have made in their preferred location in a developed area. Such firms may nevertheless locate in the less developed region provided they can earn a sufficient rate of profit. That is, the expected rate of return in the less developed regions, though lower than in the developed regions, would have to exceed the rate obtainable in other investments in Malaysia or abroad.

There are a number of characteristics related to the prohibition on the expansion of existing plants which do not occur in the case of new plants. Three alternative ways of increasing output are open

¹⁹ *Ibid.*, p. 475.

²⁰ George Solveyitchik, "Reflections on Italy," *Lloyds Bank Review*, (October 1970), p. 48.

²¹ United Nations, *Industrial Location and Regional Development* (New York: 1971), p. 472.

²² United Nations, *Economic Commission for Europe*, (New York, 1971), p. 104.

which is refused permission to extend its factory in a controlled (developed) area. It may (a) increase production in the existing factory, solely by increasing its usage of factors of production; (b) relocate the entire plant in an uncontrolled area; or (c) establish a new branch plant in an uncontrolled area.

Obviously, in order for alternatives (a) and (b) to be chosen, the cost of increasing output by transferring the entire plant or by establishing a branch plant in an uncontrolled area must be smaller than the costs of increasing output at the old site. Because of the substantial costs involved in relocation, it is more difficult to induce an established plant that wishes to expand to transfer its entire production to a less developed region than it is to induce a potential new plant to locate in such a region. A.E. Holmans^{2,3} argues that if a plant is prevented from establishing a plant in a desired locality, it will do one of the following three things: (1) it may set up the plant in an uncontrolled region. (2) it may decide not to invest in the plant at all; or (3) it may decide to invest in a foreign country where there is no restriction to industrial location.

As favor Bell's study of South Africa showed that physical controls appeared to be unsuccessful. Bell concluded that the potential contribution of physical controls to industrial development in the less developed areas was based essentially on short term considerations.^{2,4}

It is because of the danger that direct controls will have a detrimental effect on output and economic growth that many economists favor government intervention through the market mechanism. As Lewis,^{2,5} for example, argues that:

When areas are scheduled for restrictions, it is important to restrict only the mobile industries, which will not be gravely handicapped if they locate elsewhere; other industries should have freedom to locate where they please. And when we are seeking to develop particular regions, it is better to proceed by inducement than by direction . . . If industry will not come to an area even

² A. E. Holmans, "Restriction of Industrial Expansion in South-east England: An appraisal," *Oxford Economic Papers*, July 1964.

³ Victor Bell, *Industrial Decentralization in South Africa*, (London: Oxford University Press, 1973).

⁴ J. S. Lewis, *The Principles of Economic Planning*, (London: D. Dobson, 1955), p. 79.

when special efforts are made to reduce the cost of working there, it is dangerous to direct it there, for there must be something basically wrong with the area.

(3) *Provision of Infrastructure*

The availability of good transportation is another major determinant of industrial location. It is evident that many firms in developing countries are strongly influenced by transport and communications. The presence of industrial sites close to the highway network is proof of this. A remote location not only increases the cost of transport, but may also cause difficulties in meeting orders. It is also essential to be in a location giving food access to linked producers.

Many countries tend to confine public intervention to expenditure on services and infrastructure. This is because "there is the feeling that social overhead capital is the proper sphere for public investment, while any direct industrial investment would be an encroachment on the public sector activities."²⁶ For example, during the early phase of the Italian industrial decentralisation programme (that is, inducing industries to move south), the emphasis was on a programme of pre-industrialization, involving investment in roads, railways, water supply, and other essential services as well as improvement of agriculture.

The French regional policy has always emphasized the need for improved communications both within and among regions as a key factor in any development strategy. The French believe that an effective communication system within a region is crucial for creating a wide and varied labour market and is a means of linking growth areas with other parts of the region, thus allowing the growth areas to become geographically more extensive.²⁷ In fact, the French Plan 1962-1965 stressed that infrastructure was the key to regional development; it was even more important than financing to private industry.

²⁶ P.N. Rosenstein-Rodan, "How to Industrialize an Under-developed Area," in W. Isard and J.H. Cumberland (eds.) *Regional Economic Planning: Techniques of Analysis for Less Developed Areas*, (Paris: Organization for Economic Cooperation, 1961), p. 206.

²⁷ K. Allen and M.C. MacLennan, *Regional Problems and Policies in France*, (London: George Allen & Unwin, 1970) p. 194, and Derek "Regional Policy in the European Economic Community," *National Institute for Economic Research Quarterly Review*, August 1973, p. 11.

Although land cost may be a major item in the initial setting up of a plant, it becomes less important when considered over a long period. It may, therefore, be a relatively unimportant factor in determining choice between comparable sites. A more important factor is the provision of a wide variety of ready-built factories on fully serviced sites. Such factories can facilitate immediate production and reduce some initial problems faced by the new firm. From an economic point of view, these buildings available for immediate occupancy are a subsidy to start-up costs, since the opportunity costs of time lost looking for a suitable plant are minimized. Firms anxious to begin operations are likely to choose a locality with available plants and other necessary facilities, in spite of other non-optimal location characteristics. Therefore, the availability of fully serviced industrial estates is likely to affect the regional distribution of industrial development. In particular, firms with longer expected search times will be more influenced by the availability of full serviced sites.

b) Fiscal and Financial Incentives

Tax exemption is one of the most common measures for inducing industrial decentralization. This incentive takes the form of total exemption from company tax on profits earned during a given period of time.

Many governments in the developing countries have assumed that investors (both local and foreign) are interested only in maximizing profits, that tax exemption is the most effective way of achieving this, and therefore also the most effective way of maximizing the flow of investment into the less developed regions. Some economists have challenged this hypothesis. They argue that this may be true of small firms which are neither subsidiaries nor associates of large international companies, and it may be true of industries which have been established solely to take advantage of the temporary tax concessions. However, this rationale cannot be applied to many firms. In fact, a large number of firms may not base their investment decisions on the maximization of profits per se, but on minimum or target rates of return below which investment will not be made. According to Dixon-Fyle, "tax concessions per se do not determine profitability. They cannot transform a basically unprofitable project into a profitable one. High taxes need not necessarily mean that profits will be low, while low taxes are no guarantee to high profits."²⁸

²⁸ H. Dixon-Fyle, "Economic Inducements to Private Foreign Investment in Developing Countries," *Journal of Development Studies*, Vol. IV, No. 1, October 1967, p. 121.

When discussed separately, some of these measures may seem more effective in inducing industrial decentralization than others. However, it must be noted here that the programme for industrial decentralization will require a package approach; that is, all these measures will have to be adopted simultaneously. In the case of Malaysia, however, the regulation and control method may not be feasible in encouraging industrial decentralization. This is because Malaysia is making an all-out effort to attract foreign private investors, and they need to have a free choice of location. The majority of foreign investors have reservations enough about investing in the developing countries, without being forced to locate their plants in the poor regions of these countries. Therefore, the practical strategy is to let investors have a free choice of location, but to offer extra benefits as an inducement to get them to locate their plants in the less developed states.

Plant Location in Peninsular Malaysia

To determine the effectiveness of the industrial decentralization policy in Malaysia it is first necessary to know what factors influenced the location decisions of manufacturing establishments in the country. To answer this question the managers of 292 manufacturing firms which were established between 1970 and 1976, were interviewed.²⁹ The geographical distribution of the 292 firms are as follows:

State	Town	Number of Firms
Johor	Johor Bahru Batu Pahat, Muar	48
Kedah	Alor Star Sungai Petani	25
Malacca	Air Keroh, Tanjong Kling, Batu Berendam	20
Negri Sembilan	Seremban	14
Pahang	Kuantan	21
Penang	Prai, Butterworth, Bayan Lepas	43
Perak	Ipoh, Taiping	23
Selangor	Kuala Lumpur, Klang, Petaling Jaya, Shah Alam	98
	Total	292

²⁹These interviews constitute part of my present research projects on "The Income and Employment Generation of New Manufacturing Establishments in Peninsular Malaysia" and "Criteria for Location of Industrial Plants". The projects involve interviews with both the plant managers and the employees of approximately 300 selected manufacturing firms in Peninsular Malaysia.

The study is also disaggregated into major industrial groupings in order to discover possible differences in the relative strength of factors among industries.

The plant managers were asked to indicate the factors which had the most influence on their location decisions. The ten most important factors are shown in Table 4.

TABLE 4
The Reasons for Plant Location for 292
New Manufacturing Establishments
in Peninsular Malaysia

Rank	Reasons for Plant Location	Total
1	Industrial estate (fully serviced site)	172
2	Good transport facilities for goods	161
3	Accessibility to main markets	141
4	Supply of trainable labour	123
5	Low labour rates	111
6	Accessibility to main suppliers (or raw materials)	108
7	Government tax incentives	74
8	Ready-built factory	71
9	Low factory rent	56
10	Supply of trained labour	48

The results of the study may surprise many policy makers in Malaysia. The study clearly indicates that industrial estates have been the major determinant in plant location in Peninsular Malaysia. One hundred and seventy-two firms quoted the availability of industrial estates (fully serviced sites) as one of the factors which influenced their location decisions; a close second was the availability of good

transportation facilities for their finished products. Accessibility to main markets ranked third, followed by the availability of trainable labour. The surprise, of course, is that only seventy-four firms cited government tax incentives (tax exemption, investment tax credit, etc.) as one of the factors which had affected their location decisions. This implies that tax incentive is generally not a decisive factor in the choice of plant location in Peninsular Malaysia. In fact, a large number of plant managers indicated that they applied for tax exemption only after they had decided on the location of the plants. One manager in Prai, Province Wellesley, even said that his firm had decided to start production even though its application for tax exemption was not yet approved. He cited the availability of industrial estate and good port facilities as the decisive factors in location in Prai.

Some Policy Recommendations for Industrial Decentralization in Peninsular Malaysia

The empirical study discussed above will help us determine the most effective measures to be included in a programme for industrial decentralization. It will also enable us to review the effectiveness of the present industrial decentralization policy in Peninsular Malaysia.

The effectiveness of the present policy can be measured by the number of industries that have been established in the less developed states. Table V indicates that the policy does not seem to be very successful in achieving industrial decentralization. It must be pointed out, however, that the table is not in itself conclusive evidence. "Approved companies" need not necessarily be the same as industries actually in production. Nor do they indicate the scale of the companies' operations. A higher percentage of the "approved companies" for Selangor and Penang in 1970 and 1971 have now started actual production compared to the other states. Therefore, a table of "industries started" might well indicate greater disparities.

Table 5 shows that Selangor has consistently secured more than one-third of all approvals. Penang and Selangor together have consistently attracted more than half of the new industries. The two most rapidly growing states — Selangor, Perak, Johor, and Penang — secured between 75 per cent and 85 per cent of new approvals. Malacca, Pahang, Kedah, Kelantan, Trengganu, and Perlis have grown from less than 10 per cent to slightly more than 20 per cent of the overall total.

TABLE 5

List of Approved Companies 1970-1973

Location	1970	1971	1972	1973
Selangor	139	126	129	167
Around Kuala Lumpur	14	26	28	38
Petaling Jaya	38	22	21	18
Bungai Way	—	—	10	14
Shah Alam	37	42	31	29
Klang	14	15	14	20
Other Areas	36	21	25	48
Penang	43	53	58	79
Around Georgetown	—	5	5	7
Prai and Mak Mandin	28	32	31	44
Bayan Lepas	3	3	17	7
Other Areas	12	13	15	21
Perak	37	21	24	46
Ipoh and Tasek	18	11	10	19
Taiping and Kamunting	6	3	8	5
Other Areas	13	7	9	22
Johore	51	44	49	48
Negeri Sembilan	7	15	12	18
Malacca	3	7	11	26
Pahang	5	5	9	13
Perak	6	3	10	12
Sarawak	—	2	2	5
Terrangau	4	1	5	6
Perlis	1	2	1	4

Source: *Far Eastern Economic Review*, August 30, 1974, p. 58.

There are several possible reasons for the slow progress of industrial decentralization. One reason could be attributed to industrial estate development. Industrial estate is one of the measures adopted to encourage industrial decentralization in Peninsular Malaysia. Appendix II shows the location of industrial estates in Malaysia on October 1, 1976. There is a total of 55 industrial estates in Malaysia. The question relevant at this point, however, is not how many industrial estates have been established but rather how efficiently industrial estates are managed and coordinated. We should also consider what measures need to be taken to make industrial estates in poor states more attractive to industries.

One striking point is that there is no federal control over management and administration of the industrial estates in Malaysia. The management of the industrial estate is in the hands of the Economic Development Corporation (SEDC). There is no evidence to indicate that this is not a satisfactory arrangement. In fact, most of the SEDCs are incapable of handling such a task. Although the industrial estates have been provided with the basic physical infrastructure facilities such as water, power, and telephone, essential social infrastructure facilities such as housing, have either not been provided or have been limited. For example, in the Kamunting Industrial Estate in Perak, there is a lack of housing facilities.³⁰ It is clear that failure to provide such facilities have created a labour shortage and wage disputes; the demand for higher wages by some employees could be due to the high cost of living as a result of the shortage of reasonable accommodation facilities.³¹

It has also been reported that basic social services were lacking in the industrial areas of Johor and Penang. For example, the influx of workers from other areas had resulted in a shortage of accommodation in Johor Bahru. Rentals for very modest rooms had more than tripled and many industrial workers were living in crowded conditions which would not have been condoned if they had been subject to government regulations. Furthermore, social services in the industrial areas were inadequate and poorly supplied. Unlicensed private taxis remained an essential part of transport in industrial areas. These were in poor condition and were thus a threat to the safety of those who used them. Finally, employees

³⁰ FIDA, "Report on the Industrial Development of the Northern and Peninsular Malaysia," (Kuala Lumpur: FIDA, 1972), p. 50.

³¹ *Ibid.*

employees alike complained of the quality of medical service at the General Hospital. There was, for example, no effective emergency service to deal with industrial accidents and often no doctor available during the second and third shifts (night and early morning).^{3 2}

Improper planning of the industrial estates has in fact resulted in the failure to achieve industrial decentralization in some countries, such as India.^{3 3} It has been rightly argued that "like other instruments of public policy, industrial estates can achieve well defined results if organized properly . . ."^{3 4}

At present there is no federal agency to coordinate the development of industrial estates in the country. The states can develop any number of industrial estates they want.^{3 5} To have a more systematic development of industrial estates there is an urgent need for a *National Policy of Industrial Estate Development and Administration*. Under such a programme, the Federal Industrial Development Authority (FIDA) should be empowered to formulate the national industrial estate development policy; it should also have the function of managing and administering the industrial estates. The programme should ensure that there is a proper balance in the size and the number of industrial estates in the less developed states.

Under such a policy, FIDA will be entrusted with the sole responsibility of carrying out the industrial decentralization programme in the country. To enable FIDA to bear the added responsibility, there will be changes in the organizational arrangement of FIDA vis-a-vis its relationships with other agencies concerned in one way or another in industrial development. One of the most crucial, and yet one of the most overlooked areas in which power is acquired by a new organization like FIDA lies in its relation to the rest of the administration. The increase of funds to an organization can produce an increase in activity, but there is no certainty that it will produce the kind of activity the government desires. Furthermore, speed is not

^{3 2} *The Straits Times*, December 20, 1972, p. 9.

^{3 3} Louis Lefebvre and Data-Chaudhuri, *Regional Development Experiences and Prospects in South and Southeast Asia*, (The Hague: Mouton, 1971), p. 176.

^{3 4} Ibid.

^{3 5} Except in the case where the state requests for financial aid from the central government. Here the latter has the power to decide on the need for an industrial estate, and its size and location.

ensured, because seldom can one single agency perform the wide range of tasks necessary to expand its funds. What is therefore essential is political backing³⁶ needed to induce other agencies to follow the desired programme. FIDA was established in order to be "the government's instrumentality for industrial development, absorption and superseding the existing fragmented setup. Thus, as with the Economic Development Board in Singapore, equipped with a wide range of services, access to resources, and ability to produce quick and binding decisions that will help a prospective investor carry out investment decisions."³⁷ However, has FIDA acquired the status and authority of the Singapore Economic Development Board? In fact, it can be argued that FIDA had been unable to establish strong functional and normative linkages with its environment. An example is that under the present arrangement, FIDA does not have the authority to coordinate the industrial estate programmes of the SEDCs and thus ensure the smooth implementation of the industrial decentralization policy; FIDA's role on the SEDC Board is purely advisory. It can therefore justifiably be said that the present organizational arrangements are more likely to frustrate than facilitate the objective of industrial decentralization.

The way in which such problems might be overcome is to bring FIDA under the jurisdiction of the Prime Minister's Department. Under this arrangement, FIDA will be able to obtain the political backing of the Prime Minister. This will also enhance FIDA's prestige and therefore facilitate the coordination of other agencies by aligning them with its policy.

At present FIDA operates essentially at the national level.³⁸ There is obviously a need to establish regional offices, at least one in each state. This will require additional resources, both finances and skilled manpower. However, such an obstacle can be overcome if FIDA has the full support of the Prime Minister's Office. These regional

³⁶ Or "enabling linkages," in institutional building terminology.

³⁷ Milton Esman, *Administration and Development in Malaysia* (London: Cornell University Press, 1972), p. 232.

³⁸ There are at present six FIDA branches throughout Malaysia — one each at Kota Bahru, Kuantan, Alor Star, Ipoh, Kota Kinabalu, and Kuching. However, the functions of these branches are extremely limited. Each is managed by FIDA personnel and its functions are limited to attending SEDC Board meetings and to provide information and explain any relevant matters to potential investors.

... be given the power to act independently, within a certain ... in accordance with the general policy laid down by the FIDA ... Since a regional unit is in direct contact with local people and ... it is potentially more capable than the central office in ... providing technical services to local industry. Regional offices ... should, therefore, include all the administrative and professional ... power needed to perform their functions. They would consist, ... for example, of a planning unit, an advisory unit, and an organiza- ... tional unit. Each regional office would be under a regional director ... and would operate in all areas of industrial development.

Another important aspect of the industrial decentralization policy ... which need to be reviewed is the system of fiscal and financial incen- ... tives to industries. The empirical study on plant location in Penin- ... sular Malaysia indicates that government tax incentives ranked very ... high among the factors that have influenced location decisions. Per- ... haps the main reason for this is that the tax incentives are not attrac- ... tive enough to induce manufacturers to locate their plants in the less ... developed states. A system of locational incentive has just been intro- ... duced. An approved company locating its plant in an area specified ... as a "locational incentive area" may be granted a maximum tax relief ... for up to ten years.³⁹

The qualifying criteria and number of years of tax relief are as follows:⁴⁰

<i>Qualifying Level of Fixed Capital Expenditure/Employment</i>	<i>Period of Tax Holiday Years</i>
For fixed capital expenditure less than \$250,000 or employment less than 101	5
For fixed capital expenditure not less than \$250,000 or employment not less than 101	6

³⁹ The areas which were appointed as designated "areas" for a period of two years from January 1, 1975 were: Kedah (excluding Kuala Muda District), Perlis (excluding Kuantan District), Kelantan, Trengganu, Perlis, Sabah, Sarawak, and Johor Tenggara Area. The exclusion of the Kuala Muda District and the Kuantan District is a questionable strategy, especially since Kuantan is one of the growth centers of the east coast states.

⁴⁰ FIDA, "All About Investment Incentives," (FIDA, 1975), p. 11.

For fixed capital expenditure not less than \$500,000 or employment not less than 201	7
For fixed capital expenditure not less than \$1,000,000 or employment not less than 351	8
Priority Product	1
Malaysian Content	<u>1</u>
Total number of years of tax relief	<u>10</u>

A maximum of ten years of tax relief for a plant located in the state of Kelantan, for example, is not very attractive in terms of the additional costs that have to be incurred, such as the higher cost of transporting the finished products to distant market centers (such as Kuala Lumpur). A more meaningful system of tax incentives is to divide the country into three areas and grant tax relief according to the area in which the plant is located. The areas will be classified according to the level of state per capita income and its stage or level of industrialization. Accordingly, the country might be divided into:

- (1) The top priority area, which could include Kedah, Kelantan, Perlis, Trengganu, Sabah, and Sarawak. Industries located in this area could be granted tax exemption for a period of up to 18 years;
- (2) The intermediate priority area, which could include Malacca, Negri Sembilan, Pahang, Penang, and Perak. Industries located here could be able to enjoy a tax exemption for a period of up to 12 years;
- (3) The low priority area which, of course, is Selangor. Industries located here could be granted tax exemption for a period of up to 6 years.

Another possibility is to provide grants in accordance with the location. Firms in the top priority area may, for example, be eligible for grants of up to 40 per cent of the capital cost of new plant and machinery and up to 50 per cent of the cost of new buildings.

Another strategy which is necessary to achieve industrial decentralization concerns the availability of good transport facilities. As stated in the empirical study, good transport system was the most and most important factor which had influenced plant location of the selected industries. Almost all the firms in Selangor indicated the availability of good transport as one of the reasons for locating in the state. Of course, good transport system also facilitates accessibility to the markets, which is another important factor in plant location. It can be argued that if the government is really serious in encouraging industries to locate in the less developed states, *a new programme for industrial development has to be incorporated into the Third Malaysia Plan, 1976-1980*. The minimum requirement of such a programme should include the construction of:

- (1) a dual carriageway from Kota Bahru, Kuala Trengganu, and Kuantan to Kuala Lumpur;
- (2) a dual carriageway from Kangar to Kuala Lumpur;
- (3) a dual carriageway from Johor Bahru to Kuala Lumpur; and
- (4) a dual carriageway from Kuantan to Johor Bahru.

Such a programme would, of course, involve a substantial amount of expenditure; however, it is unlikely that industrial decentralization will be successful without major improvement in our road system. An efficient transport and communication system will help create a wider market for the manufactured products and is a means of linking major growth centers of the less developed states thereby enabling these centers to become geographically more extensive.

Conclusion

It is obvious that the present industrial decentralization policy in Peninsular Malaysia has to be reformulated if it is to encourage the growth of industry in the less developed states. Shortcomings exist, not only with the industrial decentralization policy itself but also with the implementation of the policy. The above recommendations and suggested courses of action that appear to be necessary if the goal of developing industries in the less developed states is to be achieved.

APPENDIX I

Population by State and Race, West Malaysia, 1970

State	Malay		Chinese		Indian		Other		
	No.	%	No.	%	No.	%	No.	%	
Johore	682,525	53.5	502,978	39.4	85,262	6.7	6,204	0.4	1,276,969
Kedah	674,684	70.7	184,263	19.3	80,366	8.4	15,436	1.6	954,749
Kelantan	637,012	92.8	36,668	5.3	5,332	0.8	7,254	1.1	686,266
Malacca	209,543	51.9	160,084	39.6	31,619	7.8	2,889	0.7	404,491
Negri Sembilan	218,389	45.4	183,444	38.1	77,603	16.1	2,055	0.4	481,491
Pahang	308,986	61.2	157,666	31.2	36,656	7.3	1,593	0.3	504,900
Penang	237,780	30.7	435,366	56.1	89,319	11.5	12,975	1.7	775,440
Perak	675,995	43.1	666,237	42.5	222,718	14.2	4,211	0.2	1,569,161
Perlis	96,048	79.4	19,571	16.2	2,437	2.0	2,935	2.4	120,991
Selangor	564,029	34.6	754,348	46.3	298,876	18.3	13,454	0.8	1,630,707
Trengganu	380,847	93.9	21,725	5.4	2,441	0.6	526	0.1	405,539
Total	4,685,838	53.0	3,122,350	35.4	932,629	10.6	69,531	1.0	8,819,928

APPENDIX II

Industrial Estates in Malaysia
(As of October 1, 1976)

Name of Industrial Estate	Distance from Nearest Town	Total Area (Acre)	Type of Industries Preferred
JOHORE			
1. Larkin and Tampoi	2 miles from Johor Bahru	413.0	General
2. Pasir Gudang	18 miles from Johor Bahru	2294.0	General
3. Tanjung Agas	1 mile from Muar and 24 miles from Malacca	241.0	General
4. Tongkang Pecah	3.5 miles from Batu Pahat	37.5	Light and Medium industries
KEDAH			
1. Tikam Batu	Sungai Petani	100.0	General
2. Bakar Arang	2 miles from Sungai Petani	550.2	General
3. Kuala Kedah	6.5 miles from Alor Setar	43.3	General
4. Mergong	2.5 miles from Alor Setar	150.2	General
KELANTAN			
1. Pengkalan Chepa	6 miles from Kota Bharu	48.0	Light industries
MALACCA			
1. Air Keroh	9 miles from Malacca town	246.0	General
2. Batu Berendam - FTZ	3 miles from Malacca town	52.0	Electronic industries
3. Tanjung Kling - FTZ	8 miles from Malacca town	20.0	Shoes and textile industries
4. Tanjung Kling	9 miles from Malacca town	150.0	General
5. Alor Gajah	14 miles from Malacca town	100.0	General
6. Bukit Rambai	9 miles from Malacca town	35.4	General wood/wood-based industries
7. Merlimau	13.5 miles from Malacca town	180.0	General
NEGERI SEMBILAN			
1. Seremang	4.5 miles from Seremban	330.0	General
2. Kampong Dih	1/4 mile from Kuala Pilah	57.0	General
PERANG			
1. Seremban	3 miles from Kuanton	510.0	General
2. Taiping	5 miles from Temerloh	154.0	General
3. Peramu	2 miles from Pekan	310.0	Wood and agro-based industries requiring plentiful supply of water
4. Maran	30 miles from Temerloh 50 miles from Kuanton	35.0	General
PERAK			
1. Ipoh	4.5 miles from Ipoh	369.0	General
2. Taiping	2 miles from Ipoh	102.5	General
3. Taiping	2 miles from Taiping	808.0	General
4. Parit Buntar	1 mile from Parit Buntar, 30 miles from Taiping	300.0	General
5. Kuala Kangsar	1 mile from Kuala Kangsar, 30 miles from Ipoh	124.0	General

APPENDIX II (CONT)

Name of Industrial Estate	Distance from Nearest Town	Total Area (Acre)	Type of Industries Preferred
PENANG			
1. Baglan Serai	Bukit Mertajam	199.4	General
2. Bayan Lepas	10 miles from George-town	52.5	Industries requiring air transportation
3. Bayan Lepas FTZ	10 miles from George-town	438.9	Industries requiring air transportation
4. Prai	6 miles from Bukit Mertajam	1200.4	General
5. Prai FTZ	Bukit Mertajam	874.2	Industries requiring sea transportation
6. Prai Wharf FTZ	Bukit Mertajam	42.0	Industries requiring sea transportation
7. Mak Mandin	2 miles from Butterworth	248.8	General
8. Pulau Jerejak FTZ	Batik Pulau	406.0	Shipping industries
SELANGOR			
1. Shah Alam	15 miles from Kuala Lumpur and 7 miles from Klang	1362.0	General
2. Petaling Jaya	8 miles from Kuala Lumpur	770.0	General
3. Pandamaran	4 miles from Klang, 24 miles from Kuala Lumpur	171.65	General
4. Batu Caves	5 miles from Kuala Lumpur	141.7	General
5. Sungai Way/Subang FTZ	9 miles from Kuala Lumpur	140.5	Export oriented industries
6. Telok Panglima Garang	10 miles from Klang	99.0	General
7. Telok Panglima Garang FTZ	10 miles from Klang	52.5	Export oriented industries
8. Ampang/Ulu Klang	5 miles from Kuala Lumpur	60.0	General
9. Ampang/Ulu Klang FTZ	5 miles from Kuala Lumpur	50.0	Export oriented industries
10. Selat Kelang Utara	2 miles from Klang	1605.0	General
TRENGGANU			
1. Gong Badak	11 miles from Kuala Trengganu	233.0	General
2. Jakar	Jakar town	112.0	General
SABAH			
1. Kepayan	3 miles from Kuala Kota Kinabalu	130.0	General
2. Likas	5 miles from Kota Kinabalu	320.0	General
3. Likas (extension)	5.5 miles from Kota Kinabalu	257.0	General
SARAWAK			
1. Pending (Including private industrial land)	4 miles from Kuching	1194.0	General
2. Semariang	4 miles from Kuching	120.0	Light and heavy industries
3. Upper Lanang	7 miles from Sibiu	220.0	Shipping, wood-based vehicles and light industries
4. Piasau	4.5 miles from Miri	83.0	General

Total number of industrial estates in Malaysia

55

Total Area

18,513.67 acres

Source: Regional Affairs Division, FIDA.