Industrial Location and Physical Planning in Pakistan

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Introduction

The subject of industrial location, as an aspect of the economic development of the country, is one to which frequent references have been made in recent years by government officials and by the writers of newspaper editorials. During the period of the First Five Year Plan, the burden of such references was generally to the effect that further industrialization should be fostered in backward areas and that it should be discouraged or actually banned in Karachi, Lahore and other cities believed to be overcrowded or vulnerable from a defence point of view. More recently, the desire for the dispersal of industry and for the provision of jobs in less developed areas has led to the espousal of industrial estates as a means of solving the industrial location problem¹.

The concern of officials and of editors with the overconcentration of manufacturing in a few cities and with the lack of geographic balance in the location of industrial investments is well founded. The problem is a serious one in Pakistan, as well as in almost all countries in which a substantial amount of industrialization has taken place. However, it does not lend itself to simple solutions such as the banning of further investments in certain of the most advanced areas or the proliferation of industrial estates in backward, economically stagnant, or out-of-the-way towns. To say this is not to criticize the use of industrial estates as a method of channeling investment. These estates have a valuable function to perform if employed in conjunction with other tools of investment promotion and as a part of a systematic approach to the location of new industrial activity.

It is the contention of this paper that the location and promotion of industries is too important a matter to be dealt with on an uncoordinated, piecemeal basis, and that high priority should be given to the formulation of a positive, integrated, industrial location strategy, to be spelled out in

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^{1.} For example, see articles on industrial estates in the Civil and Military Gazette, Lahore, of 18th January, 1960, 9th October, 1960, 14th February, 1961, and 16th February, 1961.

comprehensive plans for both East and West Pakistan². The proposed plans should take into account the economic, military, political and social factors inherent in sound location policies and should provide both guiding principles and a practical framework within which industrial areas can be developed or expanded to best advantage.

It is further suggested that the location and expansion of industries should be more closely integrated with the development of other sectors of the economy. More specifically, the location of industries, on the one hand, and the location of transport facilities, satellite towns, technical institutes, electric power and natural gas installation, etc., on the other, should be fitted into unified plans for urban or regional development instead of being determined independently and on an *ad hoc* basis, as at present.

The Paradoxes of Past Policies

Since the achievement of national Independence, the location of the country's rapidly expanding industrial capacity has taken place in a relatively haphazard and unplanned manner. In the case of the private sector, factories have tended to be established either where the owners already were living and possessed land or where, as in the cases of Karachi or Lyallpur, there were substantial economic advantages to be enjoyed in such locations. Where government sponsored plants have been concerned, location decisions have often been affected by political and social considerations as well as by those of economy. Although many government plants have been well and wisely situated, an appreciable number of them have been constructed in uneconomic locations. Owing to the desire of government officials to assist frontier and backward areas, isolated mills were established at Quetta, Harnai, Bannu, Lawrencepur and Haripur. In the Thal, medium-scale manufacturing units were installed singly at Leiah, Bhakkar, Liaquatabad and Jauharabad in order to provide employment in those towns. What has happened to these plants? Most of them are still surviving and a few are making profits but only by receiving government subsidies, in one form or another, or by enjoying artificially high prices for their products. Such prices have not only yielded unreasonably large profits to better situated plants in the same industries, which have necessarily shared the same protective umbrella; they have also imposed a heavy burden on the general consumer and on the national economy. What is more, in no case has the establishment of one of these plants been followed by its own internally financed expansion or by

^{2.} The cases of East and of West Pakistan are somewhat different owing to the substantially greater degree of urbanization, industrialization and transport linkages in the West Wing as contrasted with the East. Nonetheless, the same general policy recommendations are believed to be applicable in both provinces. Owing to the above-named factors, as well as to the writer's greater familiarity with the western province, the majority of the geographical references in this article are to places in West Pakistan.

the growth of other industries in the same town or area. No self-sustaining growth process has been initiated even though dynamic industrial expansion has been taking place elsewhere in the country. These facts are pointed out with the intention, neither of questioning the need for decentralizing industry and helping backward areas nor with the objective of criticizing past location decisions of government agencies and officials. The intention is rather to show that the "one factory per town" approach to industrial location is expensive, inefficient and not really very helpful to backward areas. One of the main objectives of this paper is to present a better alternative.

In recent years, a number of ad hoc instructions regarding industrial location have been issued by the Ministry of Industries and by the Departments of Industries of the Provincial Governments. These appear for the most part to have been aimed at preventing further concentrations of factories in Karachi and Lahore, at discouraging industrial growth in areas to the east of the Chenab River, and at dispersing new industries over the country, with the avowed objectives of spreading employment opportunities and of avoiding social evils and law and order problems. Unfortunately such instructions have failed to take into account a number of the fundamental economic factors involved in establishing or expanding an industry. As a result they have often served to delay or inhibit new investment, especially on the part of foreign firms. At the same time, they have been ignored by the more determined among local entrepreneurs and, in the case of Karachi, the Government itself has made frequent exceptions to their applicability.

Investment Concentration in Karachi

The situation in Karachi illustrates most vividly the unwitting paradox of government sponsored location policies. For some years now the Government has wished to discourage the ever increasing concentration of industry and population in Karachi. Despite this frequently avowed intention, Karachi continues to expand at a rapid pace. It does so, in part, because the preconditions of growth have already been established there. It also expands because many current policies and programmes of the Government are aiding and abetting its expansion. Some of these policies are the result of historical and geographical circumstances, while others are the result of the efforts of the Government to meet crises or to deal with pressing problems in particular sectors. To illustrate, because Karachi is the only seaport of West Pakistan and provides the only non-air link with East Pakistan, industries depending on imported raw materials or on the sale of a substantial share of their output to East Pakistan have tended to locate there and have received official encouragement for so doing. Because, at the time of Independence, Karachi, as a seaport and national capital, attracted a substantial number of wealthy businessmen from Bombay and other parts of India, it

became the business capital of the country. Because Karachi became the main focal point of homeless refugees, the Government found it necessary to encourage industrial growth in and around the city and to embark on a costly programme of building refugee housing and of providing social overheads.

The estimated expenditure in Karachi on public housing and on water supply and sewage facilities, during the first Five Year Plan pericd (1955-60), were Rs. 122 million and Rs. 146 million, respectively³. These figures take on somewhat more meaning when it is realized that they represent 56 per cent and 64 per cent, respectively, of the expenditures for these purposes in the entire country during the same period. Although precise population figures for the city and for the country are not known for the 1955-1960 period, it is safe to assume that the population of Karachi has never been as much as 3 per cent of that of the nation as a whole.

The allocation to Karachi of the lion's share of specific development expenditures and other benefits has not been limited to the particular social overheads just mentioned but has extended also to road transport facilities, transmission and distribution of natural gas, development of industrial land and the distribution of import licences. To appreciate the significance of this last item, it is necessary to recall that from 1952 to the present the country has suffered from an acute shortage of imported goods, a shortage which has been only partially alleviated since 1959 by the introduction of the Export Bonus Scheme. During much of this period, it was not possible to import more than a small percentage of the raw materials and equipment required by the country's expanding industries. As a result, the possession of import licences or of ready access to licensed importers came to have a crucial significance to the economic health of industrial enterprises. This situation, combined with the fact that industrialists and importers in Karachi have consistently received a disproportionately large share of import licenses and foreign exchange allocations, has encouraged manufacturers to locate and expand in Karachi rather than risk economic starvation up country.

It should be noted that in each of the above situations there have been good reasons for the policies and practices adopted by the Government. It is doubtful if any concerted attempt was ever made to build up Karachi at the expense of the rest of the country. Nonetheless, the cumulative effect of a series of decisions to ameliorate problems in the former national capital has been to make this city the most advantageous location, from the private

^{3.} Government of Pakistan, Planning Commission. Preliminary Evaluation Report of the First Five Year Plan for Housing and Settlements. Karachi: December 1960. pp. 8-9.

investor's standpoint, in which to establish a large proportion of the industries projected under the country's Five Year Plans.

If the social overhead and other emergency developmental expenditures in Karachi had been "one shot" affairs it would be easier to justify the large sums being spent on a relatively small fraction of the nation's population. Unfortunately, this is not the case. The investments made by the Government to alleviate past pressures have attracted new industries and additional lakhs of population to the city, thereby creating new pressures and new demands on scarce national resources. Evidence of this self-perpetuating tendency can be adduced from the projected outlays for housing, water supply and road transport in the Second Plan.

TABLE I
Second Five Year Plan Allocations in Selected Sectors to Karachi
and to East and West Pakistan⁴

SECTOR Karachi Provincial Total Allocations Allocations Allocations Rs. % Rs. % Rs. Public Housing 160 40 240 60 400 Water Supply⁵ and Sewage 110 28 285 72. 395 Improvement Trusts and Development Authorities ... 200 38 320 62 520 Road Transport 32 27 88 73 120

(Figures in millions of rupees)

From the above figures it may be seen that from 27 to 40 per cent of all public and semi-public expenditures on certain major social overheads have been projected for Karachi over the 1960-1965 period. If a significant share

^{4.} Government of Pakistan, Planning Commission. The Second Five Year Plan (1960-65). Karachi: June 1960, pp. 306, 327-8.

^{5.} The relative share of Karachi in water supply and sewage schemes is as low as it is only because an outlay of Rs. 160 millions, or 40 per cent of the total, has been allocated to two other large city water supply schemes, those of Dacca and Chittagong. This latter sum provides further evidence of the high overhead costs associated with the growth of large cities.

of these and previous funds which have been allocated or spent to alleviate Karachi's growing pains and make it a viable metropolis and manufacturing centre had been diverted to the development of other towns and cities, it is not unlikely that an appreciably different industrial location pattern would now be emerging. Also, if past industrial location had been guided by a well conceived plan rather than by a series of independent, ad hoc decisions designed to meet temporary crises, the problem of overconcentration and imbalance would not exist to the extent that it does at present. Before suggesting the lines along which such a plan might be evolved, it may be useful to review briefly the major economic factors involved in location decisions.

The Economics of Industrial Location

The location of economic activity is a subject which has been explored and analyzed by economists for more than a century. No attempt will be made to summarize here the various theories of location which have been formulated primarily by German and British theorists during this period. The following paragraphs will merely attempt to give a highly simplified version of the major factors to be considered in putting together a practical industrial location plan. The interested reader is referred to two current works on the subject, a general treatment by Dr. E. M. Hoover⁶ and a theoretical analysis by Dr. Walter Isard⁷.

The activities of an industrial concern which must be considered in relationship to its location can be classified into three categories. These are:

- (a) The procurement of raw materials and their transportation to the factory;
- (b) The processing of these materials and their conversion into finished or semi-finished products; and
- (c) The transfer and distribution of products from factory to market or consumer.

Of these three, the first and third involve essentially the factor of transportation, with its related functions of materials handling and storage. If, as is frequently the case, transportation costs constitute a significant part of the cost of a product, the factory making that product will be located with a view to keeping transport costs to a minimum. If the cost per mile of bringing raw materials to the mill is substantially higher than the cost of

^{6.} Hoover, Edgar M. The Location of Economic Activity. New York: McGraw Hill, 1948.

^{7.} Isard, Walter. Location and Space Economy. New York: John Wiley, 1956.

moving the product derived from those materials from mill to market, then the mill will generally have to be located close to the raw material supplies. This condition obtains when the processing operation involves an appreciable reduction in weight, from raw materials to final products. Familiar examples of industries falling into this clause are sugar mills, cement plants and metal refineries. Special cases of this aspect of location occur when the raw materials to be processed have to be imported from outside of the country. Under these circumstances, minimum transport costs may be achieved by locating the factory at the port of entry for the materials.

The opposite situation to that described above holds true of certain industries in which the costs of transportation and distribution of finished products are higher than the transport costs of their ingredients. This situation holds true of perishable commodities, like ice cream and bakery products and of commodities, like bottled drinks which take a considerable weight during processing. It also holds true of those processing and packaging industries whose essential function it is to mix and package in small lots materials received by them in bulk shipments. In general it may be said that it is cheaper to transport goods in a semi-finished or semi-processed stage than it is to move either unprocessed raw materials or finished consumer goods. It may also be generalized that most industries lie somewhere in between the locational extremes of being overwhelmingly raw materials or market oriented. As a result, they may profitably be situated in a variety of locations between sources of supplies and places of consumption, provided always that total transport costs do not become excessive. This being the case, the decisive factor to be considered in the location of such industries will be the relationship of location to processing or manufacturing costs.

The locational factors which impinge on manufacturing costs are quite numerous. They include the cost and availability of basic utilities: of power, water and natural gas, of transportation services, of waste disposal and sanitation facilities. They cover the cost and suitability of land, of factory buildings and of storage areas, as well as the availability of banking and credit institutions and of industrial services and facilities, such as workshops and foundaries. They are closely bound up with the quality and availability of skilled and unskilled labour and with the price which has to be paid for that labour. In many instances they also involve the availability of technicians and managers, and the investments in health, educational and recreational facilities which must be made in order to recruit and hold qualified factory personnel. In addition, they include the nature and level of local taxes and the extent to which tax incentives are obtainable. Needless to say, not all of these factors are important, or even significant, to all industries. The relative importance of each will vary substantially, depending on the nature of the

product, the scale of operations, the level of technology, the extent of competition and other considerations.

Nonetheless, it is true that those locations which can provide a substantial number of the above-named services and facilities at a relatively low cost to the manufacturer will be preferred by him to other locations where such costs are higher. This is the main reason why industries tend to locate in cities such as Karachi, Lyallpur, Dacca and Chittagong. In such cities and larger towns, industrial firms can keep down their costs of operation because of the existence of external economies of production. To illustrate, if a single plant is set up in isolation, it must provide for itself all of the essential facilities and services it requires. It must have its own workshops, foundry, railway siding, water supply, power plant, access roads, transport equipment, hospital, etc. It must stock large inventories of spare parts, must make substantial investments in accommodation and amenities for its personnel, must train its entire work-force and must bring from outside its supervisory staff. The provision of all of these facilities adds a huge burden of overhead costs to the operations of such a plant. If, in addition, the plant must content with high transport costs, as is usually the case in so-called backward areas, the likelihood of its operation being an economic one is small indeed. In a large city, transport costs are often minimal and many of the overhead costs which must be borne by an isolated plant are either shared by the urban community or made unnecessary by the availability of local services and facilities. The conclusion to be drawn from these facts is that it is generally unwise and impractical to try to scatter new industrial enterprises in separate, isolated units in backward areas. To do so is to promote high cost, uneconomic units which can never prosper and which can only survive at a high cost to the consumer and to the economy.

Regional Industrial Centres

What then is the answer? The answer is to create favourable conditions for industrial growth at carefully selected locations in various regions of the country. Successful industrialization necessarily requires some degree of urbanization but it does not require the creation of unwieldy and costly (to the public) concentrations of population. What the country needs to promote is neither teeming cities nor factories in the fields, but secondary or regional industrial centres situated in those larger towns and smaller cities which have both the necessary resources and sufficiently favourable locations to sustain substantial industrial growth. For example, towns such as Hyderabad, Rahimyar Khan, Gujranwala, Jhelum and Nowshera, in West Pakistan, and Khulna and Sylhet, in East Pakistan, might be developed

into such secondary centres⁸. Each of these towns is reasonably well situated and each has already made a beginning towards industrial development. Each would benefit substantially from the establishment of new industries and each would be able to provide to a growing industrial complex progressively better services and facilities. As more industries are established in such towns, it will become economical to provide them with more and cheaper services both through the Government and through the private sector.

A town with only a handful of industries cannot justify or afford much in the way of overhead investments, but a town with a dozen or more factories can. When there is enough concentration of industry in a single urban area. it becomes economical for government agencies to provide improved transport and communications services, common facilities centres, technical institutes, better schools and hospitals and up-to-date water supply and sewage disposal. Concurrently, the private sector finds it profitable to establish foundries, workshops, service industries, improve retail establishments and better recreational facilities. These improved facilities tend to attract more industries, and a self-sustaining growth process is begun. As the towns grow larger, they become regional centres of economic activity, providing job opportunities and bringing a measure of prosperity to the surrounding countrysides. The growth of such industrial towns necessarily entails certain social costs and problems, but these are substantially smaller than they would be in really large cities. Not only are the social costs lower, but the benefits that accompany urban development are diffused more widely through the country.

A further extension of the concept of regional industrial centres may also merit the consideration of government policy makers at this time. This extension contemplates the establishment of what may be called third level or tertiary industrial centres. It entails the selection of a number of rural market towns or regional sub-centres and the establishment in these towns of small to medium scale industries to process raw materials and to supply and service expanding local markets. The development of tertiary centres is proposed as a means of speeding and assisting the transition from the self-contained but primitive village economy to the modern exchange economy of the more urbanized areas. This approach is believed to have particular applicability to East Pakistan and to offer a useful development approach to the provincial Small Industries Corporations. In their early stages the

^{8.} Owing to the very limited extent of industrialization in East Pakistan, at the present time, there are only a few towns in which a nucleus of industries already exists and may readily be expended. However, as industrialization proceeds, additional nuclei will be created, and these can systematically be developed into new, regional, manufacturing centres.

tertiary centres would cater chiefly to limited regional markets, but at a later stage they would be linked up with one another and with the rest of the economy by improved communications networks. These centres would provide encouragement to traditional village industries to modernize, merge, consolidate or expand their operations so as to meet the requirements of growing and changing market areas. The tertiary centres should also begin to provide large enough local markets to justify the establishment of foundries, machine shops, fairly large repair shops and other facilities and services which facilitate the growth of other industries by reducing their costs of operation. In time, it is likely that some of the tertiary centres would become suitable sites for the location of numbers of large and medium scale industries and would thereby become secondary centres.

The Role of Government

It has been pointed out in the preceding pages that current trends in industrial location in Pakistan are leading to greater and greater concentrations of people and plants in a few large cities, and that efforts to disperse industries throughout the country have met with only limited success. As an alternative to overconcentration, on the one hand, and to isolated operations, on the other, it has been suggested that the Government should encourage the development of a number of secondary and tertiary regional industrial centres. This proposal implies not only that the Government has a legitimate concern with the issue of industrial location but also that it has at its disposal the means to influence substantially the location of industrial activity in the future.

The justification for government intervention need not be argued at length here. It is widely accepted that one of the major responsibilities of the governments of the less developed countries is to guide and accelerate economic growth so as to raise living standards as rapidly as possible. It is also generally agreed that political stability, national defence and the cultural and social welfare of the people are the proper concern of modern day governments. Since the nature and location of industrial growth have highly significant implications for all of the above named spheres of national interest, it would be surprising if the Government of Pakistan were not to concern itself with this issue. In this connection, it is significant to remember that, whether the Government chooses to adopt a laissez faire approach or an active interventionist policy, it cannot avoid exerting a profound influence on all decisions which are made with respect to the location of economic activity. It has been pointed out by a leading location economist that:

All levels of government allocate expenditures in ways that bear no

close relation to the geographic pattern of tax collections and thereby redistribute large amounts of income among localities⁹.

In Pakistan, it is not merely tax revenues but also very large amounts of foreign aid which are constantly being allocated by government agencies to development activities in various parts of the country. Everytime the Government or one of its many agencies builds a road, installs a power line, adjusts a tariff, erects a factory, increases a tax rate, or provides a new service, it has an effect on industrial location. Because the Government of Pakistan, like the governments of many of the less developed countries, has found it necessary to undertake many economic activities which would have been left to the private sector in more developed, capitalistic countries, the effect of its activities on private location decisions is especially far-reaching. It has been shown that the rapid and continuing growth of Karachi is, in large part, attributable to a series of government decisions (including the decision to locate the capital there) aimed at quite different objectives, which have made it the most advantageous place in which to establish a host of industries. It may be noted, in passing, that the decision to move the national capital to Islamabad, while presumably taken for other reasons, will tend to reduce Karachi's attraction as an industrial location relative to that of a number of other towns and cities.

The foregoing evidence lends support to the view that the environment in which industrial development takes place in Pakistan is shaped, not alone by natural endowments and market forces but also, and very substantially, by past and present government policies and programmes. It is apparent that the economics of location can be substantially altered by deliberate Government action and, to a lesser extent, by private action. Government intervention can take many forms. It may invest directly in the construction of factories or it may grant subsidies to private owners to build plants in certain localities. It may improve the investment climate in specific locations by providing industrial land, utilities, services and credit at favourable rates or, alternatively, it may use its licensing and permission granting powers to discourage or prevent location in already overcrowded areas. It may directly influence the economics of location by the imposition of varying tax rates in different areas, or it may confine itself to purely "lubricative measures10." Such measures aim at increasing the mobility of labour and capital through systematic collection and dissemination of information on labour supply, investment opportunities, natural resources, industrial sites, local raw materials and other locational advantages of particular towns or cities.

^{9.} Hoover, op. cit., p. 253.

^{10.} See Hoover, op. cit., p. 273.

These are some of the many and varied measures which may be employed to channel industrial investment into desired locations. Each merits careful examination and consideration as an instrument of government policy. Some are already being employed by one government agency or another. A few of them will be further considered below in the context of current conditions in the country.

The Land Acquisition Problem

One of the major impediments to rapid industrial development is the problem of acquiring land in suitable locations. A recognition of the importance of this problem has led the governments of many industrializing countries to buy up large tracts of land in suitable locations, to develop this land for industrial use and to resell it at its developed cost to manufacturing concerns. In Pakistan, this practice has been fairly successfully followed in the industrial estates at Hyderabad and Karachi. Elsewhere, it has mostly been up to the private industrialist to find his own land. This has worked a serious hardship on the foreign investor and has served as a major deterrent to the establishment of a substantial number of new enterprises. The scarcity of suitable land which has been earmarked for industrial development; the unwillingness of agriculturists to part with their land even for a high price; the lengthy delays involved in obtaining the use of refugee land; and the difficulty in acquiring clear title to property in those parts of West Pakistan formerly included in the Punjab and North West Frontier Provinces have been among the obstacles which have caused delays of two and three years in the establishment of some enterprises and have discouraged certain others altogether11.

The land acquisition problem has proved less of a burden to local entrepreneurs than to foreign investors, since the former have often had government connections, have been better able to tolerate delays and have frequently had access to family land. However, the access to family-owned or other land has not always proved to be an unmixed blessing, either to the industrialist or to economy, since it has often caused factories to be located in disadvantageous places. Although there will always be some tendency for private interests to utilise land already in their possession for industrial purposes, the misapplication of this tendency could be greatly reduced by making it possible for private investors to acquire land, at reasonable prices, in areas where conditions are more conducive to healthy industrial growth.

^{11.} See Nazir Ahmad and Muhammad Iqbal Khan. The Punjab Pre-emption Act (I of 1913) and the N.W.F.P. Pre-emption Act (XIV of 1950). Lahore: All Pakistan Legal Decisions, 1958.

From the foregoing it may be seen that, among the more important steps to be taken to facilitate the decentralization of industry are the procurement, improvement and reservation for industrial use of land in suitable locations. There are several ways in which this may be done. One is through industrial estates. A second is through the establishment of industrial zones in, or adjacent to, selected towns and cities¹². In some cases it may be desirable for the Government, or for improvement trusts and municipal committees, merely to acquire the land in a predesignated industrial block and to sell it to prospective manufacturers or land developers. In other cases, it may prove advisable not only to acquire the land but also to improve it with roads, drains, utilities, etc. It is not inconceivable that in a few places the administering authority might erect standard type factory buildings, as has been done in Puerto Rico and in other countries. In all cases, such land purchase and development should be self-financing, with the new industries paying in full for the assets and other services received.

The Development of Industrial Estates

As noted at the beginning of this paper, much reliance is currently being placed on industrial estates as a means achieving a better geographical distribution of industries. In addition to the two estates for large and mediumscale industry already existing at Karachi and Hyderabad, four new estates for small industries are currently being established at Bahawalpur, Gujrat, Larkana and Peshawar and four others are under consideration for Sukkur. Sialkot, Gujranwala and Quetta, all in West Pakistan¹³. It is understood that similar steps are also being taken in East Pakistan. This evidence of the intention of government agencies to do something about the industrial location problem is most welcome. However, some questions arise as to how and why these sites for new estates were selected and also as to what sort of industrial estates are to be established. Were the above-named towns selected as the result of a systematic appraisal of the factors of location and of the likelihood that they could evolve into regional industrial centres? Were the selections made in consultation with the economic and regional planners, with agencies which may later be called upon to provide services,

^{12.} The establishment of industrial zones may be particularly appropriate in some of the larger industrial cities such as Chittagong, Dacca, Lahore and Lyallpur. Such cities already possess most of the prerequisites for industrial growth except for the availability of suitable land. Although government policy seeks to channel new investment into other centres, some provision must be made for those industries which, for a variety reasons, must be located in the larger cities. The creation of industrial zones costs very little but benefits the cities in many ways. By concentrating industrial activities in a few locations, it contributes to industrial efficiency, while minimizing public outlays for services and facilities and while conserving the attractions of the city as a place in which to live.

^{13.} Civil and Military Gazette. February 16, 1961, p. 5.

and with the local authorities? Are these estates to be for the exclusive use of small industries, as defined in the Second Five Year Plan¹⁴, or will they also accommodate medium-scale units? If the former, what provision is being made for acquiring and developing land for medium and large-scale plants? Are the proposed industrial estates to become protected enclaves for small and static operations or launching pads for the dynamic industries of tomorrow? The degree to which these estates are successful in fostering decentralized industrial growth will depend, to a considerable extent, on how well they are planned and how wisely located.

Industrial Location and National Defence

The issue of national defence as a factor in industrial location is one that cannot be entirely avoided in a discussion of this sort. It is evident that some of the existing restrictions on where new plants may be located are not unrelated to defence strategy. It is also evident that the excessive concentration of manufacturing plants in a few cities or the establishment of certain strategic industries close to sensitive national borders are likely to make the country more vulnerable from a military point of view. What is sometimes forgotten is the fact that the country's military strength rests ultimately on its economic strength, and especially on its industrial capabilities. If a restrictive location policy, based exclusively on short-run military consideration, has the effect of holding back or prejudicing healthy industrial development, its net effect will be to weaken rather than to strengthen the nation's military capacity. It is suggested here that certain existing restrictions may, unwittingly, be having this effect. It is felt that this situation could be corrected by joint discussions between military, economic and industrial planners. Such discussions should precede the formulation of national or provincial master plans for industrial location and expansion.

Coordination of Government Activities

One of the necessary aspects of an industrial location strategy must be the coordination, on a mutually supporting basis, of the separate programmes and activities of the sixteen or more government agencies and committees which are at present directly concerned with industrial development¹⁵. By merely coordinating the plant-siting decisions of the PIDC

^{14.} Second Five Year Plan, op. cit., p. 229.

^{15.} These include: The Pakistan Industrial Development Corps. (PIDC), the Pakistan Industrial Finance Corp. (PIFCO), The Pakistan Industrial Credit and Investment Corporation (PICIC), the Central and Provincial Small Industries Corporations, the Ministry of Industries and the Provincial Directorates of Industries, the Central and Provincial Permissions Committees, the Industrial Promotion Bureau and the Provincial Industrial Facilities Boards, and the Industries Section of the Planning Commission.

with the decisions for locating industrial estates by the Small Industries Corporations and with the foreign exchange allocation decisions of the Provincial Permissions Committees, the Government could significantly influence the pattern of industrial location. By promoting appropriate private investment adjacent to the existing government-sponsored plants at Sylhet, Khulna, Wah, Daud Khel and Multan, the Government could create new industrial complexes which would achieve substantial external economies for all firms connected with them. By assembling, tabulating and disseminating the kind of information required by industrialists for making intelligent location decisions, the Industrial Promotion Bureau and Provincial Facilities Boards could not only increase the effectiveness of a number of sister agencies, they could also help to channel private investment into the most economic locations. Through pooling and coordinating their efforts with a common plant or frame-work, all agencies could be made more effective and their contributions to industrial growth could be substantially enhanced.

There is also much to be gained by ensuring, in so far as possible, that the railways, the road transport agencies and the Water and Power Development Authorities pursue policies with respect to rates and services which will favour industrial expansion in desired areas. The rate setting decisions made by these agencies can affect significantly the course of such development. This fact is illustrated by the recent controversy in the former NWFP over the decision by the West Pakistan WAPDA to standardize electricity rates throughout the Province. This decision would have deprived industries in the Frontier regions of the low power rates which they had formerly enjoyed, and which had been a precondition of their being established in the Frontier. Since a number of these industries were dependent on concessional power rates to compensate them for high transport costs and thereby make their operations economical, a unilateral decision by WAPDA which failed to take this fact into account spelled serious trouble for them. Although this controversy has now been resolved, with a resumption of the old rates, it might have been entirely avoided by better coordination between departments. Such coordination would have been facilitated if there had been worked out, within an overall plan for industrial location and regional development, a schedule of power rates which would encourage industrial expansion in selected areas. Needless to say, the setting of power rates designed to foster industrial growth in particular places could best be accomplished through the joint efforts of the water and power, industries, and planning agencies of the Government.

Tax Incentives

The granting of favourable power or transportation rates to firms which

establish themselves in particular places is one of a number of ways in which the Government can quickly and directly improve the locational attractions by those places. A technique which may be even more effective is that of granting tax exemption or tax concessions to firms which set up shop in areas where the Government wishes to encourage development. This technique has proved remarkably successful in attracting industries to Puerto Rico and to the West Indies and is now being tried in many countries. It is sometimes employed in connection with real property taxes but it enjoys its greatest success in the form of a complete exemption from income taxes for a specified number of years.

The Government of Pakistan has recently granted this kind of exemption for four years to new industrial concerns which fulfill certain conditions, such as being based primarily on local raw materials. It has extended the exemption for two additional years "in respect of new industries set up in East Pakistan and in such of the particularly under-developed areas of West Pakistan as may be notified by Government from time to time¹⁶."

It is too soon to assess what the effects of these incentive tax on industrial growth and location will be but it is possible to make some logical inferences. Although tax exemption will probably encourage investment in East Pakistan, that investment is likely to take place mostly in the two overcrowded cities of Dacca and Chittagong, since no incentive is provided to locate outside of them. In West Pakistan, by contrast, it is doubtful if two additional years of tax exemption will induce firms to establish in the "particularly underdeveloped areas", especially since those areas have been defined so as to exclude virtually all towns which might qualify as secondary industrial centres. In order for income tax exemption to be an effective location incentive, the potential investor must see a good prospect of making a profit. As noted earlier, the profit outlook for most plants in out-of-way places is not bright. The locational effects of these tax incentives will also be limited by the fact that many industries which should be encouraged outside of the largest cities will not be eligible for tax exemption because they are not based on indigenous raw materials.

It is suggested that eligibility for tax exemption be revised within the framework of the proposed industrial location plan, with particular emphasis on encouraging the growth of regional industrial centres. It is also suggested that attention be given to the removal of tax disincentives. The most significant of the latter are "octroi" duties, which vary widely from town to town and tend to discourage industrial investment in some of the very places where

Government of Pakistan, Ministry of Industries, Investment Promotion Bureau.
 Guide to Investment in Pakistan. Karachi, 1960, pp. 5-8.

it would be most desirable¹⁷. The proposal to establish uniform octroi rates for all towns provides a possible solution to this problem. A better solution might be to eliminate octroi duties altogether and substitute other forms of taxation. However, no matter what tax policies are pursued, they will inevitably have their locational effects. It is desirable that these effects should be, in so far as possible, consistent with the Government's objectives of decentralizing industrial growth. It is doubtful if such consistency will be achieved unless tax policy is more closely integrated with industrial and physical planning.

The Tie-in with Physical Planning

It is apparent that the problem of selecting the most appropriate sites for promoting industrial growth involves a large number of considerations, many of which fall outside of the purview of a single department. The factors of land acquisition, of power rates, of national defence, of tax incentives, of government investments and of external economies have been referred to. Other considerations include the availability of transport, the projected extension of natural gas pipe-lines, the proposed expansion of technical education, and the planned proliferation of public housing and satellite towns. To fit these and other factors together into an integrated location plan will require the joint efforts of a number of departments.

The Second Five Year Plan, which is essentially an economic plan, has not provided many guidelines to physical planning or to allocations and priorities in land use. It has made provision for the preparation of town plans and provincial land use maps, supported by economic studies of selected regions¹⁸, but it has not indicated how government development activities should be coordinated on a geographical basis or fitted into regional development patterns. In consequence, there is a danger that various departments and agencies will tend to operate in relative isolation from one another and will fail to take adequately into account the effects of their programmes on those of other departments, and vice versa. This tendency can be seen in the separate decisions which have been announced with respect to the establishment of industrial estates, of satellite towns, of technical training institutions and of expanded transport facilities, respectively. The result is that facilities are being established for providing jobs in one town, houses in another, a technical school in a third, a common facilities centre in a fourth, and so on.

^{17.} For readers unfamiliar with this term, it may be explained that "Octroi" is a toll or tax levied by towns and cities on goods brought in to them or shipped out from them. This municipal tariff is the largest single source of local revenue for many towns and cities in Pakistan and India.

^{18.} Second Five Year Plan, op. cit., pp. 322-3.

The desire to spread public funds as broadly as possible and to insure that each town gets some share of government outlays has sometimes taken precedence over rational decisions as to where, a new facility can best be located. By way of illustration, two industrial cities. Multan and Lyallpur, are without technical institutes, while two much smaller towns, Bahawalpur and Khairpur, have technical institutes but few qualified students. It is, of course, true that political pressures and welfare considerations must be taken into account, along with factors of costs and efficiency, in determining the location of public expenditures. However, it is also true that, in its present stage of development, the country cannot afford to waste its resources or to saddle itself with facilities whose cost is high relative to the benefits realized. It is, therefore, suggested that industrial growth can best be promoted, without neglecting political and social factors and with a minimum of economic waste, by fitting it into an overall location plan which is turn related to plans for the physical development of towns and regions.

The problem of integrating the functions of economic planning with those of physical and regional planning is one which is achieving increasing significance in Pakistan and in other countries where forced-draft development is taking place. It is being recognized that economic planning, with its emphasis on the optimum allocation of capital resources, and physical planning, with its paramount concern for better use of land and physical facilities, are often closely interlinked and cannot be fully effective unless they are coordinated¹⁹. The need for far-sighted physical planning to supplement the economic development plans of many countries is being brought home by the incredibly rapid growth of one or two tremendous cities in each of these countries, while much of the rest of their economies remain stagnant and backward. The widening disparities in levels of economic activity, in extent of industrialization, in wage rates, in investments in social overheads, and in standards of living between the large cities, on the one hand, and the surrounding countrysides, on the other, are creating dualistic, or two-level economies for these countries²⁰. This dualism cannot be justified on grounds of either equity or efficiency, and represents a potentially dangerous political situation. Extreme examples of such over-concentration of population and wealth can be seen in such cities as Bangkok, Djakarta, Teheran, Saigon, Manila, Mexico City and Caracas. In India there has been a growing concern among planners over the uncontrolled expansion which has taken place in such cities as Bombay, Calcutta and Madras, and an

^{19.} See for example, Second Five Year Plan, op. cit., p. 225.

^{20.} This thesis has been developed in an illuminating article by Prof. Lloyd Rodwin in "Metropolitan Policy for Developing Areas." Journal of the American Academy of Arts and Science, Winter, 1960.

increasing awareness of the relationship of industrial location to urban growth. In October, 1957, the Autumn Seminar of State Planning Officials:

Took cognisance of the shortcomings in the industrial development policy especially in regard to physical implications of industrial planning and came to conclusion that appropriate emphasis should be laid on physical planning aspects in deciding upon industrial location in the Third Five Year Plan²¹.

The Draft Outline of the Third Five Year Plan of the Government of India, published in June, 1960, has made a number of significant policy recommendations along these lines: Among the recommendations for industrial location are the following: to channel the location of new investment in both the public and private sectors so as to secure "a white diffusion of development nuclei"; to employ industrial estates plus pricing and licensing policies to foster decentralisation of manufacturing; and to establish "Industrial Development Areas" equipped with all essential facilities in industrially backward regions²². In the provisions for housing development, the Draft Outline has stated:

Firstly, housing policies need to be set in the larger context of economic development and industrialization, both large scale and small scale, and the problems likely to emerge over the next two or three decades. Proposals relating to location and dispersal of industries will be of increasing importance in the solution of the housing problem.

In the second place, it is necessary to co-ordinate more closely the efforts of all the agencies concerned, whether public, co-operation or private. The need to undertake the preparation of master plans for urban areas becomes all the greater, for without these plans there is no means of bringing together and maximising the contribution of different agencies towards well-defined common objectives pursued systematically over a long period²³.

Implementation during the Second Plan

The problems of urban concentration and of economic imbalance between giant metropoli and backward countryside have not yet become as

^{21.} Journal of the Institute of Town Planners, India, Delhi, January-April 1958, pp. 1.

^{22.} Government of India, Planning Commission. Third Five Year Plan—Draft Outline. New Delhi, June 1960, pp. 73-75.

^{23.} Ibid., p. 118.

acute in Pakistan as they have in many other countries. They can be prevented from reaching the crisis stage and from demanding ever-increasing shares of public-sector investments by the adoption of foresighted policies while the Second Five Year Plan is still in its early stages of implementation.

The objection may be raised that the establishment of industrial estates. public housing, technical schools, etc., cannot be held up while an elaborate location plan and a series of town plans are being prepared. This is quite true. Nonetheless, if in the near future, the Government should decide that a location strategy should be evolved and a plan prepared, that priority should be given to the establishment of secondary industrial centres, and that industrial location should be tied in with physical and regional planning, implementation of these decisions could begin almost immediately. Although a complete location plan could probably not be put together in less than a year, and the preparation of town plans may be considered a never-ending job, it does not follow that planned location of industry cannot take place simultaneously with the preparation of the overall plans. The approach suggested in this case is to choose for immediate development three or four towns in each province whose suitability as sites for industrial and allied expansion is indisputable. Once selected, these towns can become the objects of intensive, coordinated development efforts as well as pilot studies in how such development can best be accomplished.

The Proposed Course of Action

With the above discussion as a background, the following specific proposals are advanced:

- (1) A comprehensive, industrial location and development plan should be prepared as soon as possible for each province. The long-range goal of this plan would be to give maximum encouragement to the growth of efficient competitive industries while avoiding dangers of over-concentration in a few cities.
- (2) The primary focus of such a plan would be the selection of the best locations for the establishment and expansion of various types of industries. The dominant criteria to be used in selection of sites should be the economic ones, but consideration should also be given to military, political and social factors.
- (3) The primary targets of the plan would be the procurement, development and transfer to private investors, on a self-financing basis, of industrial land in suitable locations. The means of achieving these

targets would be the creation of industrial estates, zones or blocks in or adjacent to existing urban areas.

- (4) The acquisition and development of suitable industrial land should be part of a broader programme of industrial promotion which might include tax incentives, expanded credit facilities, favourable transport and power rates, wider distribution of import licences, and reductions in the amount of official red tape involved in setting up a factory.
- (5) The secondary objective of this plan would be to foster unified economic and social development of the industrial areas selected. This would be achieved by integrating industrial development with town and regional planning and by coordinating the programmes of the separate ministries, agencies and departments in the areas in question so that they would be mutually supporting.
- (6) To avoid delays in the development of suitable industrial land the three or four towns in each province which, on the basis of current knowledge, are believed to have the brightest prospects for industrial growth, should be selected for immediate pilot development along the lines indicated.