CHAPTER TWO. EXPERIMENTS IN OTHER COUNTRIES

The tool of industrial estates, as the subsequent discussion will reveal, has been accepted as part of a broad programme of industrialization in both developed and developing countries. The idea of establishing industrial estates can be traced nearly eighty years back, when plans were made for setting up the Clearing Industrial District in Chicago in 1885.1 But the movement could not gather momentum until the 50's of the present century. The pioneering countries in the field are those with highly industrialised economies like the U.S.A. and the United Kingdom. Even there the early growth of industrial estates was rather slow. The movement got a serious impetus only during the rapid industrial upsurge beginning with the Second World War.

So far, only two underdeveloped countries - India and Puerto Rico - have given major emphasis in their industrialization policies to the establishment of industrial estates and have launched nation-wide construction programmes. The aims are to secure advantages of an economic and social nature to a community or a region, or to promote industrial development, in accordance with the policy of industrial location, frequently within the context of assistance to small scale industry. In some other underdeveloped countries, a few estates have been set up in recent years, in most cases on an experimental basis.

This chapter deals with an analytical history and the present

status of the programme and progress of industrial estates in major developed and underdeveloped countries, in the background of which the planning of industrial estates in India is to be considered. Section I and Section II discuss the historical development of industrial estates in the developed and developing countries respectively.

I. INDUSTRIAL ESTATES IN DEVELOPED COUNTRIES

The United Kingdom In view of the fact that the programme of industrial estates in India has been largely based on the British model, it is necessary to trace the history of industrial estates in the U.K. in some detail. The earliest industrial estate was set up at Trafford Park in Manchester, England in 1896. The Trafford Park Estates Limited has been called the "Mother of Industrial Estates". Some other estate companies were founded in the early 20th century, of which important ones are the Slough Estates Ltd, Queensbury and Park Royal. These oldest estates in the country grew up as profit-motivated private joint-stock companies without any assistance from the Government. Their income was raised from rental of sites and buildings and from the supply of utilities and services. They generally encouraged light engineering industries with the exception of the one at Trafford Park, where both heavy and light industries were established.1

The real history of Trading Estates in the United Kingdom, however, started since the Great Depression of the 1930's, although it had some early start under private


initiative. Since the thirties, the majority of the estates in the U.K. were started upon the initiative and with the assistance of the Government, and in British experience Government has played a greater role in promoting the development of industrial estates than in any other country, although Britain's oldest industrial estates are privately owned and operated.

During the economic slump of the thirties some areas in England, Wales and Scotland where employment depends largely upon the coal, steel and shipbuilding industries, were hit hardest. The complete dependance of the areas on a few basic industries rendered them peculiarly vulnerable to economic depression. To cope with the unemployment problem of these areas, quite a number of Government-sponsored trading estates grew up to attract new industries. Government on the whole focussed its attention in this period upon the general economic development and the social rehabilitation of those areas which were particularly depressed and where unemployment rates were high.

The first Act dealing with this problem, the Special Areas (Development and Improvement) Act, was passed in 1934, a time of acute economic depression. Its aim was to help certain large industrial regions, in which over a third of the working population were unemployed. Under this Act and an Amendment Act of 1937, industrialisation was promoted in certain 'special-areas'—West Cumberland, the
North-East Coast of England, South Wales and the Clyde Valley — by Government sponsored non-profit-making trading estate companies under the guidance of special commissions appointed for the purpose. These Companies, between 1936 and 1938, established six industrial estates in England and Wales and one in Scotland. Team Valley in Durham, developed in 1936, was the first estate developed in this period. The largest estates were at Treforest in South Wales and Hillington near Glasgow, Solway near Maryport in West Cumberland. Besides these, some smaller Government estates were established in Pallion and Saint Helens Auckland. Thus during the thirties, the whole of the United Kingdom witnessed a nationwide governmental policy of setting up trading estates mainly for combating the unemployment problem. But at the same time there grew also a realisation of the possible significant military weakness arising from vulnerability to air attack of centralised industrial areas. Town and country planning were extended over land use in 1932, and by 1939 half of the country was subject to industrial development control.

Several inducements were offered by the Estate Companies for attracting the industries to the estates. Generally these inducements were in the nature of provision of ready-made factory space, and the availability of services at prices no

5. Ibid.
higher than the national average. Other financial inducements
did, however, exist. Grants, loans at low interest rates, and
temporary relief from rent and from certain state and local
taxes and rates were available. But "The power to provide
factories has been of the greatest value", stated the
Commissioner for England and Wales. "It is, of course, an
indirect form of capital assistance as it frees funds which
would otherwise be required for buildings, and is therefore
of more lasting benefit than the contributions towards rents,
rates and taxes for a short period of years, which I was also
empowered to make under the Act of 1937. The latter
inducement has, however, been of special use in attracting
industry to smaller sites". Similar views were echoed by
the Commissioner for Scotland when he remarked: "The
Hillington Trading Estate is the most significant development
in the Scottish Area ... It is charging economic rents and
most of its tenants have had no special Areas Fund... I have
been particularly struck by the value of having factories
ready and available for the prospective tenants. In some
cases tenants have been lost because factories were not
completed and ready for occupation at the time of
application... The trading estates owe much of their success
to building in advance of orders".

6. Establishment of Industrial Estates in Underdeveloped
Countries, p.7
7. United Kingdom, Report of the Commissioner for the Special
Areas in England and Wales for the year ended 30th Sept.,
8. Establishment of Industrial Estates in the Under-developed
Countries, p.7.
9. United Kingdom, Report of the Commissioner for the Special
Areas in Scotland for the period 1st Sept.1937 to 30th Sept.
There did, however, occur an important shift of emphasis in the Government's policy between the pre-war period and the post-war years. While in the pre-war days the policy tended to further development of economic and social overhead and to extend inducements aimed at attracting industry for rehabilitating depressed regions, in postwar days it provided for direct control of industrial location throughout the country.

As the postwar construction boom was anticipated to be concentrated in large urban centres and the already industrialised areas, the approach of Government policy after the war years was towards better geographical distribution and regional diversification of industry. The depression of the thirties and World War II made the U.K. aware of the evil effects of excessive concentration of industries. Since the war years, therefore, Government followed a policy of active discouragement of industrial growth in the form of new manufacturing units in certain congested areas, and a positive approach by means of inducements to encourage firms to set up new units in other districts of heavy unemployment. These followed, on June, 1945, the Distribution of Industry Act, which gave effect to these policies. The purpose of the Act was "to provide for the development of certain areas for controlling the provision of industrial premises with a view to securing the proper distribution of industry". Under the Distribution of Industry Acts, 1945 and 1950, the original "Special Areas" were renamed as "Development Areas" and enlarged, and the Board of Trade
took over the Commissioners' powers to build and let factories in these areas while the Treasury had powers to make loans and grants to undertakings unable to secure finance through normal channels. Under the Town and Country Planning Act of 1947, no factory building requiring an industrial floor space of more than 5,000 square feet was allowed to be set up without having an 'industrial development certificate' to the effect that the development is consistent with the 'proper distribution of industry'. One object might be to try to limit the expansion of industry in congested areas like Greater London or Birmingham. Thus while the Government had no power to direct one individual firm to set up a new factory or plant in any particular area or site, it sought, on both economic and social grounds, to control the expansion of industry in some areas and to encourage it in others, and in pursuing such a policy, the trading or industrial estates served as an indirect form of inducement to the industrialists.

The Harlow Estates furnishes the most illustrious example of the estates which were set up as part of Town Planning. Besides, the new Towns Act of 1946 established a policy of planned decentralization of both population and industry from congested urban areas, specially from London, and in most of the fifteen new Towns which grew up, under this Act, in close proximity to large industrial centres like London and Glasgow, one or several industrial estates were established.

and operated by the development Corporation. In analysing all these facts it should, however, be remembered that the role of trading estates in the U.K. has been a part of a broad programme of alleviation of unemployment rather than of town planning programme.

After the war, partly as a result of the Governmental action, the special problems of some parts of the 'Development Areas' had disappeared and the general employment position became much better than it was before the war. On the other hand, a number of new and often quite small and isolated districts faced the problem more severely than before. To deal with the situation, the Distribution of Industry (Industrial Finance) Act, 1958, was passed to encourage the development of industry and other economic activities. Under this Act, loans and grants were made available to the areas which suffered from a high rate of unemployment, whether or not they were included within development areas. Last but not the least, the legislative powers of the Government to alleviate local unemployment and to control the distribution of industry were considerably extended and strengthened by the Local Employment Act of 1960. Promotion of industry appeared to be the principal tool of the policy that followed, and trading estates were deemed to play a significant role in this connection. Under this Act, the Board of Trade was empowered to assist any locality in Great Britain in which, in the opinion of the Board,

a high rate of unemployment exists or is imminent and is likely to persist (whether seasonally or generally); and any undertaking intending to reduce unemployment in Development Districts were eligible for various forms of help. Under the same Act, the Government sponsored industrial estate companies, which under the Distribution of Industry Acts had run the industrial estates in the development areas, have been replaced by three Industrial Estate Management Corporations, one for England, one for Wales and one for Scotland; and the Corporations are controlled and financed by the Board of Trade.

Success of the British policy is indicated by the alleviation of unemployment and the proper growth of industry throughout the United Kingdom at the present time. Geoffrey Percival, Assistant Manager of the Industrial Estate Management Corporation for Wales, remarked that "between 1936 and the present day, the level of unemployment in the area it serves has dropped considerably, and it may reasonably be presumed that the advantages offered by industrial estates have played an important part in this." It is estimated that between 1934 and 1938, about 50,000 people had obtained

15. Industry in Britain: Organisation and Production, p.5.
employment in new industry in the Special Areas. By the end of 1954, one-third of the post-war factory completions had been achieved in the 'Development Areas', which contained one-fifth of total manufacturing employment. In 1957 industrial estates developed by the Board of Trade provided employment for about 182,000 people and comprised a total space of 40 m. sq ft. of which only 12% dated from pre-war years. By the middle of 1960, thirty-nine industrial estates, forty-two group sites, and about 100 individual sites, containing a total of more than 1,000 factories, had been established by the trading estate companies in the five 'Development Areas'. From 1945 to 1959, the total capital expenditure on provision of factory premises in the Areas amounted to about £70 m. Between 1948 and 1958, the total ensured population in the Areas grew from about 3,700,000 to about 3,900,000, mostly on account of a rise in industrial employment. The average number of registered unemployed in all 'Development Areas' fell in 1955 to 80,000 as against 128,500 in 1950 and 300,000 in the Special Areas before the war.

The United States of America

As has been pointed out earlier, the idea of establishing

17. Establishment of Industrial Estates in the Underdeveloped Countries, p.9, Footnote 25.
industrial estates originated in the United States even before 1900, although it was not so mature as that of a planned industrial district or industrial park in the modern sense. It was simply in the nature of a tract of land sub-divided into industrial sites as single units. The earliest of the industrial estates in the United States was the Clearing Industrial District in Chicago which began its operations in 1899. After that the North City Industrial District and Central Manufacturing District of Chicago were set up respectively in 1900 and 1905. But in the U.S.A. as also in the U.K., the early growth of industrial estates was very slow. Prior to 1940, there existed only 33 projects as compared to 302 in 1957 and out of these nearly 90% were developed in the period of rapid industrial growth during and since the Second World War.

Most of the early industrial districts in the U.S.A. owe their origin to privately sponsored profit-motivated railroads, because of their interest in encouraging industrial growth that would generate freight traffic. Railroads played a contributing part in the development of industrial districts even as late as 1952. They were mainly interested in indirect benefits afforded by industrial districts and sought to ensure

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increased freight revenue. For that purpose, they offered special inducements in the form of low purchase prices of estate area and guaranteeing a minimum freight traffic to freight-receiving and freight-generating industries. Besides rail roads, other sponsors in the group included industrial development corporations, individual real estate brokers, contractors, architects, and others. Up to 1957 about 70% of the estates in the U.S. were owned by this group. 23 They sought their profits in the sale of improved land and provision of services to the occupants. The estates which fall in this category are: Fairfax Industrial District in Kansas City, Missouri (Union Pacific); Central Manufacturing District in Los Angeles, California (Santa Fe); Elizabeth, New Jersey Central District (Central Rail of New Jersey); Brookhollow Industrial District in Dallas, Texas (Windsor Properties); Trinity Industrial District in Dallas (Industrial Properties Corporation); New England Industrial Centre near Boston, Massachusetts (Cabot, Cabot and Forbes); Fair Lawn Industrial Park in Fair Lawn, New Jersey (McBride Real Estate); Los Angeles Airport Industrial Tract, California (Hayden Lee Development Company) 24


There are, however, several non-profit community organisations, which develop industrial estates. Out of 302 existing estates in 1957, nearly 24% were operated by this group. The community-sponsored industrial district organisations were for the indirect benefits that industrialisation brings to the community in the form of increased employment, pay rolls, trade, services and tax revenues. In establishing industrial districts, sometimes attempt is made to give employment to the local population and, at the same time, to hold down per capital real estate taxes on the assumption that the new industrial plants will increase local revenues without proportionate increase in the population of the town or in the consumption of municipal service. The examples of non-profit community-sponsored industrial parks are: Lowell (Massachusetts) Industrial Park (new Industrial Plants Foundation); Oklahoma Industries Industrial District in Oklahoma City (Oklahoma Industries, Inc.); Eire (Pennsylvania) Industrial Park (Greater Eire Industrial Development Corporation). In setting up industrial parks, the Community Organizations took particular interest for the development of relatively less developed and depressed sites and States, and an attempt was made to attract

25. Establishment of Industrial Estates in the Underdeveloped Countries, p.4.

industry to these areas by a variety of inducements, such as tax
abatement, community funds and lotteries and raffles.

The sharpest acceleration in the use of industrial
estates in the U.S., however, occurred since 1950, and at present
"the United States industry has a new look- the planned industrial
park, industrial counterpart of the landscaped residential
sub-division". There has been a rapid and widespread growth
of industrial parks, as pointed out above, throughout the country,
especially on the outskirts of Metropolitan areas. The industrial
parks established in the U.S. prior to 1940 were predominantly
tied to the railroads, whereas the recent parks are mostly related
to expressway development. For example, "Route 128, built in the
early nineteen-fifties as a by-pass to speed through traffic
around Boston rather than along its congested city streets, has
generated such a spectacular development of privately financed
industrial parks and individual manufacturing plants that it is
frequently called Boston's Golden Industrial Semi-Circle".

Although the earliest industrial districts or parks in the U.S.
got a start under profit-motivated private initiative, the recent
momentum in the development of industrial parks may be attributed
to several factors. First, as large cities have grown larger
and industry-zoned land in cities and towns becomes scarcer and
more expensive, new industry is forced to seek its location in the
outskirts of metropolitan areas affording the required markets,

27. Ibid, p.457
28. Ibid, p.457
labour or raw materials. In its search for outlying industry-
zoned sites, industry finds itself in competition and frequently
in conflict with residential communities growing outward into
the suburbs and semi-rural areas. Secondly, the fact that even
small establishments to-day desire relatively large lots add to
the difficulties encountered. Most of the firms - small or
large - prefer horizontal-line production and assembly methods
requiring land-consuming one-storey buildings; it is also due
to the fact that while settlement in outlying areas is made
possible by widespread private car ownership and availability
of truck transport, land-consuming off-street parking and loading
and unloading facilities must be provided as a counterpart.
Besides, planners and manufacturers to-day intend to reserve some
industrial land for future expansion. To some extent emphasis
has also been placed in recent years on aesthetics in plant
design and landscaping which has contributed towards increasing
the amount of land required in relation to its use.29 These
factors force industry to seek longer parcels of vacant land on
the outskirts of metropolitan areas. Thirdly, defence security
has recently been another contributing factor which invites the
location of industry at some distance from in-town industrial
and population concentration.30 Under the circumstances, the
offer of an immediately available improved site within easy
distance of a city has been a sufficient incentive for an
entrepreneur to locate his productive unit in an industrial
district or park.

29. Establishment of Industrial Estates in Underdeveloped
Countries, p.56.
30. Industrial Estates in Asia and the Far East.
Information paper from the U.S.A., p.457
It may, therefore, be said that the development of industrial districts or parks in the U.S.A., has been largely the resultant of industrial and urban overgrowth of metropolitan areas; and at present "planned industrial park provides a focal point for community planning in the outskirts of metropolitan areas". It is the result of a logical man-directed response to present-day trends and conditions in the location of industry. It has been stated that "planned districts have proven most effective in areas where good industrial sites are scarce, difficult to acquire or assemble into tracts of functional size, and not readily preserved under the pressure of residential and commercial expansion. Conditions such as these are commonly found in or near large urban and metropolitan areas".

Industrial estates in the U.S.A., as explained above, have been promoted and developed primarily under the initiative of private agencies, without any direct intervention from the Federal Government. It would, however, be wrong to suppose that the Government had no influence in directing the growth of industries. All the echelons of Government from national to local levels have had their indirect influence in deciding the location and characteristics of an industrial park. Specially, since 1951, industry in the U.S. has been mainly guided by the presidential policy statement, which, motivated by strategic considerations,

called for dispersal of new industrial establishments. Reliance, however, was placed on private initiative and on the States and local communities to see that dispersal within their areas was properly carried out. In recent years particularly, some public development agencies like municipalities and counties, port commissioners, airport authorities, redevelopment authorities and housing authorities have been increasingly influential, either directly or indirectly, in promoting estates following the policy of dispersal of industry at the outskirts of large cities. There has been an increasing realisation that organised industrial districts or parks may be a powerful tool for community industrial development; and consequently in recent years there has been an increasing tendency for the municipal and county governments to sponsor and develop industrial parks. 33

Italy

In Italy there exists no industrial estate either in the sense of the trading estates of the U.K. or in the sense of the industrial districts or industrial parks of the U.S.A. In early 1900 industrial zones were created for the development of industry. The first zone was established in 1904 in Naples. Industry in Italy has had a natural tendency to be located in the already industrialised North because of the availability of external economies. Most of the zones before 1950 were established in the economically developed northern part of the country and no attention was paid to the promotion of underdeveloped regions through planned industrial zones. These early zones were established under the initiative of local groups 33. For details see William Bredo; Op.cit., pp.4-5.
such as municipalities, chambers of commerce, associations of industrialists organised in public, semi-public or private agencies. They were mainly interested in profit created out of local economic and social environs. It was only in 1953 that several regional Governments passed laws permitting the establishment of industrial zones. This was specially the case in Sicily and Sardinia. Regional Governments aimed at overall economic and social development of each region and set forth uniform rules for the development of zones. To all industrial zones, established up to the middle of the country, a large number of industries were attracted by a variety of inducements like tax exemptions, abatements, loans at low rate of interest, grants, rate reductions on railroad freight, water and electricity etc.

After the Second World War, the Italian Government embarked on an economic development programme for Southern Italy which was then considered to be the most underdeveloped region in Europe. The Cassa per il Mezzogiorno (Fund for Southern Italy) was created by the law of 10th August, 1950, No. 646, to finance the basic economic development of that region. In 1937, a law was enacted to extend the duration and increase the resources of the Cassa per il Mezzogiorno and industrial Zones were visualised by the Central Government as a tool for location and development of new industry in Southern Italy under the control of the Central Authorities. But till then the initiative for the establishment of industrial estates was left to local authorities and groups like provinces, communes, chambers of commerce and other interested agencies. These local
authorities and groups were to be organised in "Consorzia" with due approval of the Government and to be made responsible for establishing, developing and managing zones. The Ministry of Industry and Commerce was in charge of the overall supervision.

Since the 50's of the present century, Government's attempt tended to stimulate some private investment, raising production levels in agriculture and industry, thereby bridging the gap in the levels of income and investment between the two parts of Italy. That Government's action in recent years has been concentrated for the industrial development of Southern Italy is indicated by the fact that about 60% of the industrial zones which were under construction in 1961 were located in the South and all the three Areas of Industrial Development were selected in Southern Italy. Recently a tendency has been witnessed for the creation of large industrial areas instead of industrial zones. On 30th July, 1959, the Committee of Ministers recommended that large and homogeneous 'Areas of Industrial Development' were to be substituted for industrial zones. Within these industrial areas, industry will be located in "industrial nuclei", that is, industrial estates and also single plants on individual sites; and in this respect the Italian Government liked the idea of following the British practice. In October, 1960, the Italian Government adopted the idea of a pilot project which aimed at setting up some medium-sized factories in the four areas of industrial development and in the 'industrial nuclei' when these are established. Besides, the Committee of Ministers for the
Mezzogiorno ruled that in certain parts where it would not be possible to create an 'Area of Industrial Development', small 'Industrial Nuclei', that is, industrial estates in the narrow sense may be established under certain circumstances.  

**Japan**

While the Japanese economy is characterised by the growth of small industry, in recent years the small industry sector is facing some locational disadvantages. Increasing difficulties are encountered in finding suitable sites for factories and their establishment. The existing small factories are scattered in the commercial districts or the residential areas of urban centres, and as industry develops, the location of small enterprises in these areas becomes an obstacle to their performance and development. Growing interest has, therefore, been evinced in Japan for the setting up of industrial estates since the 60's of the century and plans for the establishment of a sizeable number of estates are now being made throughout the country.

The primary objective in promoting industrial estates in Japan is to help the small businessmen to move in groups to certain sites fit for factories, and located far from the established city areas. It is expected that while contributing

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34. *Establishment of Industrial Estates in Underdeveloped Countries*, pp. 10-16.
to the wide dispersion of industry in the underdeveloped regions, such estates would help to modernize the small scale industry sector and thereby improve their productivity and operations.

In 1961, ten industrial estates existed in Japan and they provided accommodation to a total No. of 447 enterprises. The main industry of the estates was machinery of various types.

It has been felt that if the potentialities of industrial estates are to be realised, their establishment cannot be left entirely to the initiative and efforts of small business owners. Consequently, Government has decided to take some measures to guide the efforts of small industrialists under its general development policy. Government specially encourages the formation of co-operatives for taking initiative in drafting the plan of an industrial estate and also for carrying out the project as a whole. There is a provision for giving subsidy to the local Government by the Treasury in order to make an interest-free loan to the co-operatives to cover a part of the cost of land purchase, improvement, construction of the factory buildings and common facilities, and modernization of the equipment. The loan and the corresponding subsidy may cover one half or less of the total cost of the project. But to be subsidized, an industrial estate should fulfil certain conditions prescribed by the Government relating to the location of the site, the grouping of factories, the number and types of enterprises to be set up in the estate, the provision of co-operative facilities, the supply of utilities, the construction of buildings etc. The factories which enter into an industrial
estate are exempted from capital gains tax on the land owned or leased by them. Besides, long term low-interest credit for housing and welfare facilities within the premises of industrial estates, to be made available through the Industrial Labourers Housing Fund and the Fund of Welfare Pension, also forms part of the Government's industrial policy.  

Thus the Japanese Government have taken keen interest for the dispersal of industries through the instrumentality of industrial estates. It is too early to make any comment on the Government's attempt, but it is necessary to keep in mind that the success of industrial estates in Japan would be judged by the extent to which it can make any contribution to the promotion of small industry in conformity with the Government's policy of dispersal of industries.

Union of Soviet Socialist Republics

Although in the Union of Soviet Socialist Republics no trading estates or industrial estates of the British type, or industrial districts or industrial parks of the American type can be traced, in recent years a strong tendency has developed there to locate the enterprises of various industries in groups. This is done on the basis of industrial and economic co-operation between enterprises which provides for the highest economic efficiency in construction and operation. The problems

of group location of large industrial enterprises in relation to industrial towns are referred to by the expression "organisation of industrial regions".

As stated in the draft new programme of the Communist Party of the Soviet Union, "Full scale communist construction calls for a more rational geographic distribution of the industries in order to save social labour and ensure the comprehensive development of areas and the specialization of their industries, do away with the over-population of big cities, facilitate the elimination of essential distinctions between town and countryside, and further even out the economic levels of different parts of the country".

On the basis of these main principles of socialist planning, national long-term plans of development are worked out for each separate branch of industry with due consideration for the geographical location of the enterprises in each branch. The type, capacity, structure and product assortment of each large enterprise are determined after taking into account the requirements of neighbouring economical areas for the products of that enterprise. As a rule, the economy of each large economic area is divided into two main industrial groups. The first group includes key branches of industry, the products of which are of all-union or inter-area importance. It is this group that determines the degree of specialisation of the area and forms the basis of its economic structure. The second group includes
industries meeting the demand of the first group and utilising local raw materials and labour. Both groups attempt to ensure the comprehensive development of the large economic area. At present, the country is divided into seventeen large economic areas, each of them including several neighbouring economic administrative areas. Each economic administrative area, in its turn, comprises several industrial regions. Each industrial region project aims at achieving a rational location of towns and townships so as to achieve the best land use from the point of view of natural conditions and convenient transportation to the enterprises; an efficient organization and development of regional works and utilities-power supply, water supply, sewerage, transport, communications and storage facilities - serving both industrial enterprises and settlements, and an optimum location of industrial enterprises, power stations, and other utilities on particular construction sites; the location of building material plants so as to use as much as possible local natural resources - clay, sand, stone, metal, gravel and timber; proper sanitary living conditions, protection of nature and improvement of landscape. In recent years, a radical change has particularly occurred in the development and construction of new industrial towns. In the past, the enterprises even of heavy industries had limited capacities and occupied limited tracts of land, and could therefore be built.

within the city limits, thus forming the town's industrial area. But more recently, the rapid growth of industry and the consequent increase in the urban population have resulted in plans for the development and reconstruction of new ones in all areas of the country. The towns are constructed in the areas with favourable natural conditions; for the most part near rivers, open water reservoirs and huge tracts of forest. The suburbs are planned with a view to improving the climate in the town and providing recreation areas for the town population. The proper determination of the scale of development of a town in the Soviet Union, however, is ensured by schemes of district planning and general layouts of towns and by close co-ordination by hypotheses of the town's development with the long-term plans of development of the national economy. 37

It would, therefore, appear from the above discussion that in the developed countries, Government had a special role to play in directing and controlling industrial location, although some early industrial estates owed their origin to private initiative. The number of inducements offered to the industrial enterprises with a view to attracting them to some socially desirable location are wide and varied. Most of the industrial estates, particularly the earlier ones, had been established either on the fringes of large cities or on the heart of railway junctions and transhipment points. The industries accommodated in the estates are mainly of large and medium scale. Special

37. For details see Ibid, pp. 444-456.
effort has been made in the U.K. to take industries to the so-called depressed areas by the twin measures of prohibiting the growth of new industries through legislation in the relatively developed regions and providing some special inducements to new industries in the backward or depressed areas.
The discussion in the preceding section reveals that industrial estates have developed from different contexts and with different purposes in the developed countries. The movement towards industrial estates in the underdeveloped countries, however, is of rather recent origin, practically dating from the 50's of the present century, and many of the countries have learnt the lessons either of the British or the American experience. Nevertheless, the programmes of industrial estates in the developing countries have a different orientation and purpose of their own, which can be distinguished from those of the developed countries, particularly from that of the U.S.A.

The principal purpose behind the industrial parks in the U.S.A. is not industrial development by itself, nor the planned utilisation of the total land surface of the country, it is rather to ensure the availability of land for expansion of industries - large and small - in convenient locations near growing cities. The movement may be explained to a certain extent by the anxiety of States and cities to retain growing industries within their own jurisdiction and to a certain extent by the eagerness of growing new cities to attract industries to themselves. None of these purposes, however, plays a major role in the desire to establish industrial estates in the underdeveloped countries, although the second of these two as a measure of striking a balance between the land requirements of developing industries and of developing townships does play a part in determining the location of some particular estates.
In the newly developing countries, as is natural, plans for industrial estates or industrial zones or industrial areas, as the case may be, are to be conceived only in the perspective of their growing industrialization. In these countries industrial estates have been developed as a part and parcel of the governmental policy of industrialization; and they are mainly looked upon as indirect instruments for proper industrial location that will promote the growth of industries, particularly of the small scale industries sector. With the programme of industrial estates in the developing countries, as will be seen from the discussion in the following section, considerations relating to decentralisation or dispersal of industry, regional or town planning, employment creation, urban renewal and slum clearance frequently enter into the picture. In this section an attempt is made to consider the background and status of industrial estates, particularly of the underdeveloped countries of Asia and the Far East. Outside this region, some other underdeveloped countries of the Caribbean region such as Puerto Rico, Jamaica, Mexico, Brazil have made an effort to develop the equivalent of an industrial estate. But since our major emphasis is on the Asian countries, and since the non-Asian countries named above have not made an identical effort to build industrial estates, a discussion of the experience of these countries is not undertaken here, with the exception of Puerto Rico. Outside

38. For details see Establishment of Industrial Estates in Underdeveloped Countries, pp.25-28; and William Bredo: op.cit., pp.15-29.
the ECAFE region, Puerto Rico is the only country which has adopted a national-wide industrialization programme.

Puerto Rico

The general orientation of Puerto Rico's industrial estate policy does not seem to be typical of those likely to be adopted by most underdeveloped countries which rely principally on efforts to mobilize domestic resources. Faced with a serious dilemma of a rapidly increasing population with limited natural resources and a low degree of industrial development, the Puerto Rican Government adopted a policy of attracting industry mainly from the mainland of the United States.39

As a first measure, a broad programme of construction of factories on individual plots and on small industrial estates called "industrial subdivisions" was begun under a scheme known as "Operation Bootstrap" in the early nineteen fifties; and simultaneously, an intensive promotional campaign was launched in the United States to attract new industry.40 The planning and execution of "Operation Bootstrap", the industrialization programme, is the responsibility of the Puerto Rico Economic Development Administration (EDA). E.D.A's executive arm is the Puerto Rico Industrial Development Company (PRIDco).


40. Establishment of Industrial Estates in the Underdeveloped Countries, p.25.
a public corporation engaged in real estate, construction and financing, which is actually in charge of implementing the programme by establishing the industrial subdivisions and which deals with industrialists attracted to the sites. Tax differentials - exemption from most local taxes (for ten years from corporate and personal income tax and municipal levies, and from five to ten years from real and personal property taxes), inapplicability of corporate and personal federal income taxes in the Commonwealth, and low rates of taxation applying after expiration of the exemption period - are considered to be the key inducements in attracting new industries. It is acknowledged, however, that the inducement value of tax exemption, on the one hand, and low taxation, on the other, varies from one type of industry to another and that other factors have also influenced decisions to locate industries in Puerto Rico. But on the whole "the effectiveness of the Puerto Rican programme may be attributed to a well-balanced and skilfully published set of measures combining tax and other inducements with assistance in all phases of planning, construction and operation of industry. 

As on 30 June, 1959, thirty subdivisions had been completed, one was under construction, and twelve were in the


planning stage. The industrial subdivisions are located in areas zoned as industrial by the Planning Board. The three largest industrial subdivisions in Puerto Rico are the Hato Rey Subdivision, devoted to light industry; the Luchetti subdivision, devoted to heavy industry; and the Minillas subdivision, devoted to both heavy and light industry. Between 1950 and 1959, about 564 firms were attracted to the newly set up industrial subdivisions, most of them being either American concerns which shifted to Puerto Rico or new enterprises financed and controlled by mainland investors. The majority of the firms in the industrial subdivisions engage in light manufacturing and ship the bulk of their production to the United States. It is estimated that from the inception of the programme to the end of 1959, about 41,500 industrial jobs have been created in Puerto Rico. The industrial subdivision scheme in Puerto Rico has on the whole been a great success in achieving its main objective, i.e., attracting industries from outside, although so far stimulation of purely local entrepreneurship has been small.

In recent years, however, there has been a tendency to set up industrial subdivisions and industrial sites throughout the island in an effort to disperse industry and

and thereby promote a geographically balanced development. For creating incentives differential rental rates for standard factories apply in different geographical zones, the lower rates - which are subsidized - applying to the less developed areas of the island. Another point to be noted is that although the scheme of industrial subdivisions in Puerto Rico gathered impetus under Government initiative, since 1958 private builders also began to develop such subdivisions or sites, with the encouragement of the Government.

Malaya
In the Federation of Malaya, the programme of industrial estates found a place of importance in the governmental policy only since 1957 as a necessary means of strengthening the economy and providing productive employment to the people. The Federal Government realized that the provision of developed sites was an important means of assisting the establishment of new industries, and the Industrial Development Working Party recommended that for acquiring and improving land for industrial enterprises, industrial areas or estates should be set up. Even in 1954 a satellite industrial town was set up at Petaling Jaya, seven miles from Kuala Lumpur. In 1962, five industrial estates existed in Malaya, of which the estate situated at the end of the satellite industrial town at Petaling Jaya was in operation, and the other four were in the planning stage. These estates are

situated either in established industrial centres or in the heart of railway lines. One estate has lately been proposed to be set up at the Port Dickson area in Negru Semtilan. Recently, however, the Industrial Development Working Party recognised the need of encouraging industrial estates in areas other than urban so as to relieve over-congestion of industry and population in certain areas and to achieve a balanced industrial development as between different regions. 47

Indonesia

It was only in 1960 that the Indonesian Government considered the establishment of industrial estates as a tool for promoting small scale and medium-sized industries. In its first eight year development plan (1961-68) it laid considerable emphasis on the development of large as well as medium and small industries. Industrial estates have been devised as one of the means of strengthening the small and medium-sized industries in the planning period. The objectives are: to enable small-scale industries to have the advantage of common services and facilities; to increase their productivity and the quality of their products; to stimulate the development of small scale industries in village and small towns and encourage the use of improved techniques and better tools; to discourage the concentration of industries and population in large urban centres; to make available improved land and buildings at reasonable costs; and to facilitate easier training and supervision.

Up till now there has not been, however, any progress regarding the implementation of this scheme, except that one industrial estate has been recommended to be set up near Djakarta on a pilot project basis. The Government, however, considered the possibility of integrating the industrial estate programme with the 'Induks' - the policy of establishing central production units to provide cottage and small scale industries with technical and commercial services - and the Mechanization Aid Scheme which gives the small entrepreneurs opportunity to mechanize their enterprises on a hire-purchase basis. It may be expected that such an integrated programme will help to stimulate the growth of small scale and medium-sized industries in Indonesia in the near future.

Iran

The programme of industrial estates in Iran is an integral part of the governmental policy for the development of small scale industries which is contained in the Third Plan Frame. The Government of Iran has adopted various measures for helping the growth of small scale industries of which the establishment of industrial estates is of major importance. Three industrial estates have been designed to be established early in the third development plan period (1962-1967) with a view to reducing the over-concentration of industries in certain areas, and attracting investment where it is needed.49

49. Ibid, Information paper from Iran, pp.274-276.
It is only after World War II that Nepal paid any attention to the industrialization of the country. Realizing the important role that small scale industries can play in the industrialization of the country, the Government of Nepal has decided to carry out an industrial estate programme, with financial and technical assistance from India and the United States.

The problems faced by the small scale industries in Nepal are almost similar to those of India which will be discussed in the next chapter. Industrial estates seek to remove the difficulties of small scale industries and then quicken the progress of industrialization.

Three industrial estates were in the process of development in Nepal in 1960. Two estates - that of Patan and Balji are situated near Kathmandu, the capital and largest city, and the third at Hetawna in the Terai region bordering India. In deciding the location of industries, the Government of Nepal, however, has taken into consideration the topographical conditions of the country. In the Terai plains where transport and communications are less difficult than elsewhere, Government intends to establish large scale industries; in the mountainous areas of the Central and Himalayan regions, where transport and communication facilities are inadequate, it has been planned to encourage small scale industries. This may help to achieve a balanced development of the economy in all the regions of the country.

Pakistan The whole history of industrialization in Pakistan is confined to the few years since independence. After independence Pakistan became increasingly conscious of the need for industrialising the two wings of the country and the programme of industrial estates received serious attention during its planning period.

In 1947, the Government of what was at the time the province of Sind set up a public corporation - the Sind Industrial Trading Estates Company Ltd. (SITE) - to promote industrialization by building and managing industrial estates along the lines of the British Trading estates. The Company developed two estates, one on the outskirts of Karachi, and the other at Hyderabad, 100 miles North of Karachi. Its efforts were inspired by the need to provide work for the large number of refugees who had entered West Pakistan after partition.51 One thing to be noted here is that both the Karachi and the Hyderabad estates were meant for large scale industries. Besides these two estates, there exists one 'industrial area' operating in Tejgaon (East Pakistan) for helping the growth of large industries. The potentiality of industrial estates has to a large extent already been realised and these have been recognised as a tool which has a vital role to play in the economic development of Pakistan as a whole.52

As already mentioned, an ambitious programme for the establishment of industrial estates has been laid down in the Second Five Year Plan. In the plan the main "effort has been to

51. Establishment of Industrial Estates in the Underdeveloped Countries, p.29.
52. Industrial Estates in Asia and the Far East, Information Paper from Pakistan, pp.298.
establish industries in areas where little or no industry exists", and as such considerable emphasis has been put on encouraging, mainly through the small scale industry programme, the smaller centres for industries which primarily supply the local markets. A total of 24 small industrial estates 16 for East Pakistan and 8 for W. Pakistan, at a total cost of Rs.26 m. have been included in the Second Plan. These estates represent an experiment undertaken by the Government of Pakistan in the field of small industries. These small estates are located in or near small and medium sized towns with a view to relieving further industrial congestion in cities and big towns, and diversifying and decentralising industries. Another objective has been to promote industrialisation in less developed areas where in many cases important labour skills, resources and markets are available.

In respect of large industries, the recent thinking is that "industrial areas" rather than industrial estates in the literal sense of the word should be selected and located in accordance with the overall policies of the Government. For large industries, a sum of Rs.75 m (60 m for East Pakistan and Rs.15 m for West Pakistan) has been allocated for public investment in industrial areas. It is the basic policy of the Government to continue to leave the establishment and development of industry to private enterprise. Nevertheless, through the apparatus of public sanctioning for the setting up of industrial units, and import licensing, the Government exercises an important degree of control over the direction of industrialisation.
The responsibility for establishing and managing industrial estates lies with the Small Industries Corporation. Industrial land is acquired and developed by the Corporation and given on lease to industrialists for a period of 99 years. The 99 years lease system has been preferred to outright sale because it allows more control to the Corporation over the use of the land. As a general principle Government prefers to allow industrialists to construct their own buildings. Loans may be granted to occupants of the estates in rupees and foreign exchange mainly for the construction of buildings and for the purchase of machinery and equipment. As inducement to the industrialists arrangements are made to provide some facilities to the tenants in the form of advisory services centres and other common facility centres. Since there is some uncertainty about the extent to which industrialists may demand space on the estate, it has been decided to develop the estates on a phased basis, at least in respect of the bigger estates. 53

Hong Kong

In Hong Kong, which has a wholly free enterprise economy, there is no national industrialisation programme as such, nor is there a master plan to which urban and rural industrial development may be related. Industrial development in Hong Kong is handicapped by a lack of level land suitable for industry, keen competition for available land, and the high cost of site formation in the colony's predominantly hilly terrain. The Government was thus presented in the early Nineteen Fifties with the problem of finding suitable areas in which industrial expansion could take

53. Ibid, Information paper from Pakistan, pp.296-314.
place. Under the circumstances Government adopted the policy of (i) extending the existing urban centres mainly by reclamation and encouraging re-development to greater densities; (ii) decentralization of population by the deliberate construction of new towns and the control of density in existing areas as the long term solution. It was to help overcome the difficulty of finding suitable industrial sites and in order to capitalize fully on these assets that the colony's first industrial estate was planned at Kwun Tong.

The Kwun Tong industrial estate, Hong Kong's main post-war industrial estate, has been developed as a part and parcel of the Kwun Tong new town. It has been planned and built from bare hillsides and reclaimed land, but being situated only two or three miles from the limit of the then existing urban area, it was able to rely on the urban area for facilities, labour supply and services not immediately available in the new town itself.

The full Kwun Tong development scheme comprises an area of 514 acres of useful land. The area is subdivided into 275 acres of industrial land and 239 acres of housing and commercial land. At the end of 1961, 67 factories were operating in Kwun Tong industrial area providing employment to about 15,250 persons which was roughly 6% of the total working force in registered and recording factories and industrial undertakings in the colony.

In so far as site formation, layout and provision of basic facilities are concerned, the initial financing of planned
industrial estates or industrial areas comes entirely from Government funds. With the exception of one special set of circumstances, namely, the resettlement of squatter factories, the Government does not undertake the construction of industrial buildings. This is left to private enterprise. This is perhaps an important feature which distinguishes the meaning of the term 'industrial estate' when applied in Hong Kong as opposed to most other countries. Further, Hong Kong being a 'City State', functions such as water supply, medical facilities, health and sanitation, road maintenance etc. are provided by the responsible departments of Government.

In addition to Kwun Tong, the Government has continued to press forward the development and re-development of industrial areas in the existing urban parts of the mountain. Firm plans exist for the provision of about 500 acres of industrial land in some 24 different estates, the pattern and development for which are expected to follow that of the Kwun Tong.54

Singapore

The programme of industrial estates has been undertaken by the Government of Singapore to place the economy of the State on a sound basis and specially to provide employment for its young population which is growing at the rate of 4% per annum. The history of industrial estates in Singapore began in 1951 when the Bukil Timah industrial estate was set up through the sponsorship of the Colonial Development Corporation, a United

54. Ibid, Information paper from Hong Kong, pp 321-341
Kingdom Public Corporation, with the purpose of stimulating the growth of small and medium-sized industries. Besides this, there existed two other operating industrial estates — one in Alexandria and the other at Redhill — by the end of 1961. They also aimed at the promotion of small and medium-sized industries.

Recently, in order to make its industrialization policy successful, and also to relieve much of the overcrowding and slum conditions in the built-up areas of the city of Singapore, Government adopted the policy of creating self-contained new towns. Actually such a new town of about 15 sq. miles was created in 1961 at Jurang in the South West of the island. The Jurang new town comprises an area of about 10,000 acres and on the eastern half of the town an area of about 1,00 acres has been earmarked for an industrial estate or what is called "phase one" of the Jurang project. The Jurang new town is served by a deep-water harbour with adequate provision of land for heavy, light and waterfront industries. Extensive earthworks, roads and drainage projects were in progress in early 1962. The main importance of the estate lies only in being an integral part of Jurang New Town Project for accelerating the industrial growth in the new township. It accommodates both light and heavy industries.

Two other industrial estates were recently developed by the Government through the agency of the Housing and Development Board to attract small industrial concerns into the suburbs. In addition, two industrial sites have been planned for the development of cottage industries along the road between the
city and Singapore Airport.

Thailand

In recent years, the Government of Thailand adopted a number of important measures to promote the development of essential industries in the country, of which the latest one relates to the establishment of industrial estates. The Act on Promotion of Industries, enacted in 1954, was the first stepping stone in the development of industry in the country. The Six-year Development Plan launched in 1961 specially aimed at a greater contribution of the industrial sector to the national income, and in order to facilitate private industrial growth some industrial promotional measures have been adopted in the Plan.

As part of such industrial promotional measures 'industrial zoning' or 'industrial areas' have been planned for greater Bangkok as a Joint Project by the Government of Thailand and the United States Operations Mission. An area of about 25,000 rai (about 10,000 acres) for the future industrial land requirements for large establishments has been distributed in the plan in sixteen locations, of which nine are proposed as completely new industrial areas, and the other seven as expansions or consolidations of existing industrial or manufacturing concentrations. Sites for industrial areas have been selected so as to be easily accessible to a good transportation system either by major roads, major waterways or railways or ports.

serving as transhipment points, an adequate pool of labour, raw materials, water resources, electrical power, fuel and other supporting industries etc. It has been recommended that several proposed industrial areas would be developed as 'industrial parks' of the U.S. type.

It is in the Six-Year Development Plan again that the Government of Thailand adopted a programme of establishing industrial estates for removing the difficulties confronted by the industries to whom promotional privileges had been granted but who had to withdraw from the venture because of failure to obtain suitable premises at suitable sites and at reasonable price. Industrial estates aim at meeting the need for land area and worksheds for industrial enterprises. It is also expected that industrial estates will be playing a leading role in inducing, encouraging and stimulating industrial investors, both domestic and foreign, to take an active part in the industrial development programme. In the plan period (1961-66) two industrial estates have been proposed to be set up. One will be situated near Bangkok with all the basic facilities such as water and power supply as well as social overheads such as housing, schools and hospitals. Another estate is proposed to be established in the Province of Khon Khaen, where a hydro-electric scheme is to be set up under the Development Project. The estate is designed for existing small industries and a certain number of other prospective industries whose establishment will be made possible by the availability of power.56

Ceylon

Although Ceylon's first estate materialised only in 1961, the idea stems from an identical proposal made twenty-five years earlier than that. But the project failed at that time as the necessary pre-requisite to the success of the industrial estate, that is, an industrial consciousness and an industrial environment did not exist.

It was only by 1957, when industrialisation had sufficiently spread, that the proposal for an industrial estate was revived again from two considerations - the increasing scarcity of land in or near Colombo and the inadequacy of capital for the small-scale entrepreneurs. It is these two elements which, sometimes separately, have influenced the establishment of industrial estates in other countries. In Ceylon, both factors have jointly contributed to the speeding up of the estate project.

In 1957, the Director of Industries in a report remarked:

"Land and buildings in close proximity to our main market (which still remains Colombo) are becoming increasingly scarce and expensive. Moreover, ordinary amenities like water, transport, banking and marketing have become expensive when removed from the main consuming centre.

"The small-scale capitalist is somewhat lost in the general plan for industrial development as he has neither the capital nor the means wherewith to buy himself a suitable site readily accessible to the market.

"It is for the State to take the initiative by providing the minimum essentials needed for the small scale capitalist to
industrialise. This type of problem has been solved in many industrial countries. The concept of an industrial estate is fairly well advanced.\(^57\)

The National Planning Council on Incentives to Private Investment supported the establishment of industrial estates on the following grounds:

"Another serious handicap experienced by private enterprise at the moment is that of a lack of physical and other facilities to put up plant.

"Considerable difficulties are being encountered in acquiring land and getting such other facilities as water, electricity etc. Many small scale and medium-scale enterprises have to spend a good proportion of their capital in putting up buildings and providing those facilities. Consequently, they are badly handicapped by lack of capital for starting production.

"Another result of this is the tendency for such firms to establish themselves in Colombo, and thus add to the congestion in the city of Colombo".

The Government of Ceylon eventually launched a programme of setting up industrial estates to meet the demand for new space for factory industry and the inadequacy of capital, specially in the small scale industry sector. The plan aimed at five such estates at various points in the island.

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for dispersing industry and satisfying an insistent demand for an outlet for country development.

In these projects, the Government acquires land as a block and sets it apart as an area for industrial development. It then provides standard factory buildings for small and medium industries and serves the area and the buildings with basic facilities such as water, electricity, and postal and telecommunication services. 58

Taiwan
Taiwan has not directly resorted to industrial estates, but created conditions which either directly or indirectly help in the planned and grouped location of industries in desirable sites.

The first thing the Chinese Government did after her liberation from the Japanese occupation to rehabilitate the economy of Taiwan was to restore the war-damaged industries. As this work was largely completed in 1951 and the emphasis was shifted to the establishment of basic industries and the increase in production of goods of every-day need, the need for additional industrial land has become increasingly urgent.

The Republic of China entered upon a new phase of economic development in 1952 with United States financial and technical assistance through her Four Year Economic Development Plan, essentially a plan for industrialization. In 1958, that is, in her Second Four-Year Economic Development Plan, the

58. Ibid, p.112.
the industrial planning and co-ordination group of the Ministry of Economic Affairs initiated a survey of suitable locations for new industry and three industrial districts, one for North, one for South and the other for the central part, were recommended. The Northern and the Southern industrial districts started work as pilot projects in the early 60's. All the three districts are situated in or near harbour areas so as to ensure a ready supply of raw materials, power, water, labour and transport facilities.

Besides industrial districts, emphasis has been put on the creation of industrial zones. The development of such industrial lands is entrusted to municipalities, and it has been emphasised that some of the industrial lands may be developed into organised industrial districts, if necessary. As already stated, during the early stage of the establishment of industrial districts, the Government initiative has played an important role and all the three pilot industrial districts are largely financed with United States Aid loans.59

Burma

Since the attainment of independence in 1948, Burma has witnessed a spectacular growth of industries, mostly around the two big cities of Rangoon and Mandalay. But the establishment of new industries in and around these two cities has been rather haphazard and unsystematic. It was, therefore, 

necessary that for future industrial growth industries should be directed towards the smaller district towns and village areas; and it was for this purpose that the Government of Burma recognised the need for industrial estates.

Even in 1948, two industrial advisers from the Stanford Research Institute recommended the setting up of two industrial estates, one near Rangoon and the other near Mandalay, but the plan for them was dropped because of the considerable expenditure involved. The Four Year Plan (1961-65), however, included a programme of setting up one industrial estate.

Besides industrial estates, the Government of Burma has adopted other measures for controlling industrial location and their development. In 1953-54, a land allocation scheme was made with the idea of providing certain selected areas exclusively for industrial use. The purpose was to reduce the economic pressure on Rangoon by diverting the existing industries of the city to new towns. An industrial site scheme has been adopted in the Four Year Plan with the aim of carrying out development measures such as constructing roads, installing electric light and power lines, reclaiming land by earth filling and the like, with a view to encouraging the establishment of new medium and small industries.

For promoting: the mode of industrial financing, the Government has recently relaxed some rigidities in banking rules and an Industrial Development Bank was opened in 1961 for helping the financing of industries. 60

Conclusion

In most of the underdeveloped countries, therefore, as will be seen from the preceding discussion, industrial estates have been developed as part of the Governmental programme of industrialization and have their origin either in the later 50's or the early 60's of the present century. Industrial estates programmes, although originated in different contexts suiting the special circumstances of different underdeveloped countries, have mainly been designed to influence industrial location in accordance with policies of decentralization and dispersal of industries and the development of small scale industry.

In the Federation of Malaya as well as in Singapore the programme of industrial estates was adopted with a view to strengthening the economy and providing productive employment to the people. In Indonesia, the objectives of industrial estates were mainly to discourage the concentration of industries and population in large urban centres and to enable the small-scale industries to have some common services and facilities. In Pakistan the main purpose behind the setting up of industrial estates was to create smaller centres for industries in areas where little or no industry exists. The Government of Hongkong resorted to the policy of setting up industrial estates with the purpose of (a) extending the existing urban centres and (b) dispersing the population by the deliberate growth of new towns. Industrial estates in Ceylon were launched for (a) dispersing new industries and population to the areas where some industrial prerequisites like land, buildings, water, transport, banking are...
easily available and (b) helping the small capitalists with suitable sites readily accessible to markets. The Government of Taiwan, although not directly resorting to industrial estates, created conditions as in the U.S.S.R., which directly or indirectly help in the planned and bunched location of industries in desirable sites. The programme of industrial estates in Burma was designed to direct the new industries to smaller district towns and villages. It will, therefore, seem that the primary objectives in most of the underdeveloped countries which have launched the programme of industrial estates were to check the further growth of industries and population in the metropolitan areas as well as to help the growth of new industrial centres and villages which have so far lagged behind economically. Puerto Rico is the only underdeveloped country which has not followed a policy typical of others. The principal motive behind the industrialization policy of Puerto Rico was not the mobilization of domestic resources and capital. The Puerto Rican Government, faced with the dilemma of a rapidly increasing population with limited national resources and a small degree of industrial development, followed a policy of attracting industry mainly from the mainland of the United States.

The emphasis placed on small scale industry in the underdeveloped economies seems to be justified on economic and social grounds in view of the conditions of scarcity of capital, abundance of labour and low level of productivity in these countries. It is too early, however, to make any comment on the achievement of industrial estates in these countries. Nevertheless, it may be expected that industrial estates, if properly planned,
while helping the deliberate growth of industries in desirable locations, will be an effective means of promoting industrial development, modernising industrial enterprises, raising their productivity, and thus reducing their costs and improving the quality of their products.