POPULATION REDISTRIBUTION: AN ASPECT OF URBANIZATION
AND SETTLEMENT POLICY IN JAMAICA

by

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ABSTRACT

Urbanization as it affects the developing countries is one of the critical problems facing Jamaica today. The major urban centre, Kingston, is unable to cope with the many and varied problems introduced by the increasing number of people who are migrating from rural areas with the hope of finding a "better life" in the big city. However, its unhealthy magnetic power persists, draining the other areas of the country of the better educated, more ambitious, wealthier, as well as the less fortunate people, leaving these areas little developed and depriving the country as a whole of some of the greater social and economic potentials.

The quest for a livelihood among Jamaicans, having commenced from as early as the 1880's, also encouraged significant portions of the population to migrate to foreign countries in search of employment even from such early times. Studies show that even this emigration has been largely unsuccessful. Although the migrants may realize a regular (though small) money income at their destinations they often fail miserably to be desirably absorbed in the social and economic structures of the various societies to which they migrate - they have even descended steeply from the social status which they enjoyed at home.

On the basis of the above, it is contended that if Jamaica is to achieve its goals of social and economic stability,
the full national inventory of human and natural resources has to be mobilized into a process of regional development. A new process of urbanization is necessary, that is, an "ordered, guided, and purposeful" approach to this phenomenon. The fundamental needs for which the population is in constant search namely: social and economic security, and the full range of services and amenities are more feasibly provided at the urban level, therefore, any development contemplated should take place in urban areas. Puerto Rico has successfully demonstrated that an acute population and urbanization problem, can be resolved by a determination to resolve it, and by careful planning. To achieve a balanced distribution of the population in Jamaica and an equitable distribution of the social services and the wealth, all areas of the island should be included in the new urbanization process. The urban areas, in order to produce aggregate efficiency should be coordinated within regional systems.

Investigation of alternative regional systems of communities including the primate city hierarchy, the central place system, and the multi-nucleated system indicates that all exhibit characteristics of incompatibility with the island and would have to be subject to modifications in order to be adopted. Other determinants of location were investigated including theories of industrial location, transportation, incidence of natural resources, occurrence of
existing urban centres, and the surface configuration of the island. It is concluded that the urban centres displaying certain potentials conducive to industrial-location (industrialization is the chosen mode for development) are to be selected for development along with other areas which the government should provide with the industrial climate.

With respect to development implementation, planning and development are considered more effective if executed at the regional level. There is a tendency for national planning to neglect the small urban centre, while planning at the local level poses severe administrative problems as well as the probability of gross aggregate inefficiency introduced by the potential rivalry between various local units. Planning and development are also deemed more effective if situated close to the source of power. The Prime Minister's office seems to be the most suitable arm of government to which this should be attached. In order to avoid the inflexibilities of the civil service which retards efficiency, it is suggested that a Jamaica Development Corporation should be formed. This is to be an autonomous body created by and accountable to the Prime Minister and charged with the function of identifying regional needs and executing regional planning and development techniques in the best interest of the country. The Corporation could be realized through a merger of the present Jamaica Industrial Development Corporation
and the Jamaica Town Planning Department which should be dissolved after its tasks are accomplished and proper provision is made for constant review.

The hypothesis of the study is considered to be generally valid.
ACKNOWLEDGEMENTS

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CHAPTER I

INTRODUCTION

The Dominion of Jamaica has published its "Five Year Independence Plan 1963 - 1968". A remarkable recognition in this plan is that one of the fundamental problems facing the country is the one relating to population. The plan drew attention to the phenomenal rate of increase in the population of the major urban centre, Kingston - an increase of roughly 88% for the intercensal period 1943 - 1963. Such an increase it attributes "in large part to the continuation of the drift of population to this area from other parishes, a movement which has been in progress for a long time". ¹ The problem was further defined by the statement - "The attraction of the city, where development is most conspicuous, combined with the inability of the rural areas to absorb the growing population, create the movement into the towns and result in an unbalanced situation because in the town areas the rate of economic growth cannot cope with the abnormal growth in population". ²

This form of urbanization is a critical affair. It

² Ibid., p. 7.
affects Jamaica in a comparable manner as is evident in most of the developing countries of Latin America, Africa and Asia. The United Nations recognizes that the phenomenon is one of the more severe problems affecting mankind particularly in the areas of lower economic development today. It also established that in the urban centres of Latin America, Africa, and Asia; social, physical, and economic problems already acute are becoming even more inflamed by the increasing rate of urbanization.

Kingston, Jamaica is a proper demonstration of these findings. Already, it is unable to cope with the many and varied problems introduced by the increasing number of people who are migrating from rural areas with the hope of finding a "better life" in the city. Nevertheless, its unhealthy, strong, attractive power persists, draining the rural areas of the better educated, more ambitious, and wealthier, as well as the less fortunate people. This leaves the rural areas little developed and deprives the country as a whole of some of the greater economic potentials. And on the urban scene there is an observable mushrooming of slums and deteriorating social conditions as well as inadequate employment opportunities.

Another facet of the problem, one that is often taken for granted, is the question of emigration to foreign countries in search of employment. In this respect,
the Jamaican government's policy towards emigration is regarded to be unfortunate. The Jamaican Five Year Plan recognizes that emigration "has been the most powerful factor in the past in preventing unemployment from mounting to critical levels". Nevertheless, what is conceptualized as being even more critical in this thesis is the implications of emigration as it affects Jamaica and the Jamaican migrant.

The country is losing a great many of its better human resources as indicated by the Five Year Plan, "--- it is recognized that emigration usually involves the younger, more vigorous, and better trained section of the population". Further investigation reveals that not only is the country losing these valuable personnel but the result is a social, moral, and technical loss to the individual on arrival at his destination. Jamaican migrants converge on such cities as New York in the United States of America and London, Birmingham, Manchester, etc. in the United Kingdom. While no detailed studies have been encountered relative to the plight of the Jamaican migrant in the United States, a study in the United Kingdom divulges very discouraging conditions.

3 Ibid., p. 51.
4 Ibid.
The greater majority of the migrants invariably fail to procure employment in their chosen fields of endeavour and are obliged to settle for menial jobs. Major difficulties are also encountered in finding residential accommodation, "---the migrants have to go to patches of inner London which have been neglected, and which have been already for some time in the process of decline and social downgrading". These areas, they occupy in overcrowded conditions. "Fourteen to a room" is a phrase popularly used by the natives to describe migrant residential conditions. It was also shown that the migrants "descended steeply" from the social status they occupied in the home country.

Thus the government's policy of exploring new migration outlets may best be pursued with an awareness of these attendant problems.

In the interim it is believed that many of the problems caused by internal and external migration can be resolved through careful planning and organization of Jamaica's human and natural resources. To begin at home, it is believed that if a system of communities could be devised, provided with all necessary urban facilities and services, the current

migratory movements with their attendant problems could be alleviated.

**Objectives**

One of the conclusions of the United Nations study on urbanization in Latin America is that unskilled marginal groups can hardly be expected to halt the drift to the city slums unless they are offered real opportunities nearer home, and this could be done only if the smaller cities can hold persons with administrative talents, professionals, entrepreneurs and investors. This is a very profound statement and in it is contained the basic premise around which this study revolves.

A fundamental shortcoming of most development plans for "developing countries" seems to be the fallacious conceptualization of the nature of development. Development is conceived essentially as an economic process and this failure to give due consideration to other aspects particularly social and physical gives rise to a generally imbalanced structure of the countries involved. This imbalanced structure takes the form of unplanned distribution of industry and rural services, and poor location of transportation routes requiring expensive remedial measures. The urban centres are notorious for all forms of social disorganization: crime, over-crowding, unemployment, and other social problems. The simultaneous interrelationship of and consideration for the
social, economic, and physical elements in planning cannot be over emphasized.

The basic object of this thesis is to investigate Jamaica's capability of resolving its population problems, taking full cognizance of population growth and movements, the extent of natural resources, a desirable pattern of interaction of communities, and the rationalization of all these characteristics in an effort to realize a balanced development structure for the island.

Some developing countries have already diagnosed the situation as it affects them and are taking positive steps towards solutions. Some of these will be examined to determine their methods of approach and degree of success with the hope that some lessons can be derived to guide the Jamaican task.

**Significance of the Problem**

The significance of the phenomenon of urbanization in the developing countries is not only recognized at the national and local levels, it is one of the commonest present day phenomena. "It is hardly possible to point to any part or region of the world which is not faced in greater or lesser degree with the considerable changes in living and organizational patterns resulting from the growth not only of its towns but also of its spreading zones of urban
influence." It has aroused maximum interest at the international level resulting in the promotion of studies and knowledge of the situation in agencies at such levels. Santiago Conference

The United Nations on its own account or in conjunction with UNESCO has sponsored several seminars on the topic, an important one being the one held in Santiago, Chile. The analysis of the complex phenomenon of urbanization in Latin America which was the object of this seminar, "has of course an immediate purpose, namely, that of drawing conclusions not only as to the most important calling for research or propagation, but also as to the set of administrative measures of every kind which seem best calculated to solve or intelligently forestall the most pressing problems". Another objective of marked importance of the seminar, one of long term significance, was "that of helping simultaneously to develop international social science and to incite Latin American educational and research centres to accord the subject its due need of attention".

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7 Ibid.

8 Ibid.
The term "urban sociology" was derived from this seminar and it is recognized to be passing a crucial phase of growth, "attributable to its exponents' conviction that the previous national or local approach must be superseded by comparative research or more general bases". Contrarily, it was also recognized that this same branch of study has not received such attention in Latin America, because the nature of its specialization requires more than the "assimilation of the doctrines of others", in that it entails the formulation of an appropriate theory through empirical investigation of the data themselves.

World of Opportunity

A further conference of the United Nations, Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas, again dealt with the problems of rural development and urbanization. Here it was again recognised that "the 'rush to the cities' is a major and striking phenomenon in many of the developing countries and brings in its wake a host of social, economic, political and technical problems". It stated that although the problems

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9 Ibid.

10 Ibid.

caused by increasing world population and the continuous drift of population from the country-side to towns is a universal one, it is more serious for the developing countries, since population is increasing much more rapidly in Asia, Africa, and Latin America than in Europe or North America. Also, the exodus to the towns is undoubtedly assuming more alarming proportions in some of the emerging countries of Africa and certain Brazilian states.

A critical question was posed by the delegate from the United Arab Republic, "How can we prevent the exchange of rural poverty for urban misery?"

In response it was thought that it is necessary "to control the harmful effects of this rapid urbanization both on the rural areas where the drift from the country-side reduces agricultural output and leads to economic stagnation, and on the towns where it floods the labour market, depresses wages, increases the number of unemployed, and brings in its wake such problems as slums, the break-up of the family, juvenile delinquency and prostitution". It was considered that the monstrous and uncoordinated growth of modern towns makes them unfit for the accommodation of human beings or to provide them with a suitable environment. "Living conditions are becoming inhuman and people are

losing more and more of their basic qualities, turning more and more into displaced persons who are required to live like machines." The scope of the problem is demonstrated by the vastness of the slums surrounding many of the capital and other large cities, covering sometimes one third to a half of the total area of the city. It was predicted that the problems of urban settlements in the next 40 years will be much greater than the inhumanity suffered in the last 6,000 years.

It was made clear that the problems of rural development and urbanization are interdependent and that the social problems created by development and urbanization could not be considered in isolation from the other problems including economic, technical, administrative and political.

Assumptions

The assumption of this study is that despite the intense population density of the island of Jamaica and despite a lack of natural resources it is possible to organize the use of land through skillful planning such that all the needs of the population can be accommodated and that a balanced occupational structure of the island in terms of social, economic, and physical considerations is possible.

13 Ibid., p. 163.
Definitions

Urban and Rural

For the purposes of this study settlements are divided into two broad types according to the occupations of the inhabitants and according to the extent of interaction among inhabitants. Those in which the greater proportion of the inhabitants are engaged in primary occupations such as farming, fishing, hunting or forestry and in which there is little physical concentration are classified as "rural settlements".

Those in which the most of the working population are engaged in secondary occupations, that is, occupations not directly related to the soil or the sea, such as manufacturing, transport, teaching, office work, and the provision of various services; and in which there is much physical concentration are classified as "urban settlements".

Urbanization

Urbanization is the process of change from rural living to urban living, a process motivated by the rapid utilization of human and other resources at the urban level as well as the stimulant of rising expectancies.

Developing Country

The word "under-developed" has been widely used in referring to the countries of Latin America, Africa and Asia but there is much uncertainty as well as conflicting
definitions in this usage. Many different indices have been employed in the measurement of under-development which were found to be unsatisfactory. In this study the word "Developing Countries" will be used to refer to the countries of Latin America, Africa, and Asia since this word implies change rather than the status quo of under-development.

Scope of the Study

It is attempted in this study to enquire into the implications of, and possible approaches to the solutions of problems caused by the migration of population from rural areas to urban areas in developing countries. In particular, the study will ultimately concentrate on the problems as they relate to Jamaica.

Some of the developing countries have attacked the problem in various ways dependent on the uniqueness of the problem in the particular area. Some of these approaches will be examined, and based on the various experiences, it is hoped that a solution can be derived pertinent to the Jamaican situation. However, in the interim, it is believed that alleviation of the Jamaican urbanization problems is largely dependent on the redistribution of the population as will be demonstrated by a testing of the hypothesis.

Hypothesis

The hypothesis for the study is:
A PROPERLY ORGANIZED REGIONAL SYSTEM OF COMMUNITIES PROVIDED WITH ALL NECESSARY URBAN FACILITIES AND SERVICES WOULD AID IN A BALANCED DISTRIBUTION OF JAMAICA'S POPULATION AND WOULD ALSO AID IN THE MAXIMUM UTILIZATION OF HUMAN AND NATURAL RESOURCES OF THE ISLAND AND ULTIMATELY IN ITS SOCIAL AND ECONOMIC DEVELOPMENT.

For unpublished information all the relevant government departments and ministries in Jamaica have been asked for pertinent information. This, in many instances was very little establishing a basic limitation to the study. For published information, library resources were relied on.
CHAPTER II

THE SOCIAL AND ECONOMIC IMPLICATIONS
OF URBANIZATION IN DEVELOPING COUNTRIES

Movement to the Cities

"The rush to the cities is one of the most striking features of modern times". ¹ The rural exodus precipitated by the stagnant economic and cultural life of the villages and the magnet of the city, although a universal trend, is particularly marked in the developing countries bringing in its wake a whole series of social, political, economic and administrative problems. If unchecked these movements would lead to "unhealthy and problem oriented urban development and stagnant self retarding rural development". ²

Facts and figures presented to one of the United Nation's seminars³ on urbanization give some measure of the size of the problem for the developing countries.

Colombia's rate of population growth has been estimated at 2.9% per annum. This is one of the highest in Latin America.

² Ibid., p. 132.
³ The Seminar on Science & Technology for Development.
The rate of growth in the rural sector for the last ten years was 1% per annum compared to 5% in the urban sector. According to forecasts, in the 25 year period between 1945 and 1970 the urban population in Colombia is likely to treble, while the rural population will increase by less than 30%.

In Africa the urban population has doubled and in many cases more than doubled in fifteen years. In the area of the Central African Republic, for example, there were 50,000 urban dwellers before the second world war accounting for 5% of the population. Now that number has risen to 200,000 representing more than 15% of the total population. In the Congo, the urban population rose from 15% or 100,000 to roughly 300,000 or about one third of the total population.

In Israel, the percentage of urban population is among the highest in the world. Of the total population, 65% live in towns, 20% live in local councils, and 10% in regional councils. Eighty percent of all localities in the country are urban centres, but these comprise 77% of total population. Among the Jewish people, the urban inhabitants amounts to 84%.

In Nigeria, between 1930 and 1962 the eastern section of the territory lost not less than four million people to the urban centres of Lagos, Ibadon, Benin, Warri, Kano,
Zario, Jos and the Cameroons.

In India, where the villages offer limited opportunities, a trek to urban centres is again evident. Between 1941 and 1951 the urban population of India rose by 39.3% as against an increase of 13.3% of total population. In 1951 the urban population was 17.35% of the total population, but by 1961 it had increased to 17.97%.

In the United Arab Republic a study showed that over the last 60 years the rate of migration to the city of Cairo steadily increased, having reached its peak during the Second World War, after which it tended to decrease a little.

It was found that one of the significant factors in the transition is that it is mainly to the large cities that the migration seems to take place. "The big towns, particularly the capitals, seem to monopolize, for their own benefit, or for the benefit of only a few of their inhabitants, a disproportionate share of the resources available for the country as a whole." This accounts for their being such potent magnets.

The Human Condition

"The Development Decade is a pledge that the conscience of mankind can no longer tolerate the disparate living
standards of the rich and the poor nations of the world."5 What this disparity means in terms of human suffering was illustrated by the United Nations seminars in the discussions on the social implications of urbanization. Populations, faced with sub-standard living conditions in the decaying villages, migrate in search of jobs to towns that are ill-fit to cope with them, where their lives are dominated by squalor, ill health, and poverty. These conditions in turn create administrative problems for the towns, the local authorities of which are unable to provide even basic community facilities for the large numbers. The slums that surround many of the large cities in developing countries cover as much as one-third to one-half of the total city area.

"Because of their monstrous and uncoordinated growth, modern towns are ill fit to accommodate human beings or to provide them with a suitable environment."6 A seminar paper at the conference commented "living conditions are becoming inhuman and people are losing more and more of their basic qualities, turning more and more into displaced persons who are required to live like machines".7 Another

5 Ibid., p. 137.
6 Ibid.
7 Ibid.
speaker remarked that man is becoming a new centaur-half man and half machine, and that he is becoming an unhappy citizen of a world in which he will have no control over his surroundings.

Housing

Half the total population of Asia, Africa, and Latin America (over 1,000 millions) is estimated to be either homeless or living in accommodation that constitutes health hazards. This is another one of the findings of the United Nations. Major cities of these continents have large hovel settlements in which as much as 20% to 30% of the city's population live in rudimentary shelters with no water, sewers, roads, and other facilities. It was also found that rural areas are even more deficient in these facilities. "In the shanty towns that have grown up people often have no more than a 'corner to sleep in'."8

In Bueno Aires more than 600,000 persons from the interior of the country live in sub-standard settlements described as "villas miserias". In Colombia, where large shack developments surround cities, 58.7% of the population are without access to water mains and 72.3% have no access to proper sewage disposal systems. In urban areas

8 Ibid., p. 138.
approximately 80% of the dwellings are entirely or partially lacking in sanitary services.

In India, it was revealed that the plynths, walls, and roofs of only 13% of urban housing were made of durable materials; 20% of these were made of mud and thatch and the rest were made of a combination of durable and non-durable material. Regarding sizes of houses, 39% had only one room; 30% two rooms; 13% three rooms; and 18% four or more rooms. In terms of floor space per person, 49% of floor space allowed less than 200 square feet per person and 47% allowed only 50 square feet per person. Forty-two percent of the houses had no built-up latrine and only 20% had individual laterings. Municipal sources of drinking water were available to 51% of the households while 34% used tanks and ponds and the remainder utilized wells, lakes and rivers. 9

Again, the appalling housing conditions in many towns of the developing countries are further aggravated by speculation in land, housing, and rent. Exorbitant prices for even a 'corner to sleep in' results in over-crowding, poor sanitary conditions, and use of accommodation in rotation. In Greater Calcutta, and Greater Bombay, 77.6% of householders live in one room tenements, in Madras and Delhi the

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In Ghana, seasonal short term migrants from the North prevented by the building regulations from building their own houses according to village custom with traditional materials, instead build temporary structures with such materials as packing cases, flattened tins and corrugated iron sheets.

Many of the more permanent migrants stay with friends or relatives and sleep in parlours or enclosed verandahs. Over-crowding and low living standards are inevitable.

**Social and Health Services, and Employment**

Colombia, again was considered to be typical of a country still handicapped by inadequate social facilities. It has a high illiteracy rate (36% of the population over 15 years old) and only 5% of the adult population have access to university or adult education. Of the children who are school age, 30% have no education, 18% completed primary education, and of the 15% who go on to secondary education, only 10 - 15% complete it. The infant mortality rate is high, 33%, and the life expectancy is 40 - 50 years. Hospital facilities are negligible, with three beds per 1,000 and a shortage of medical and hospital staff.

Similar conditions exist in many other developing countries. In Enungu, the new regional capital of Eastern Nigeria for example, only 18 medical officers were found to service a population of 50,000. Other African towns
experience general inadequacy of health services, clinics, hospitals, maternity and child-welfare services, as well as sanitary facilities, roads and street lighting. It was stated that throughout the developing countries there are too few schools, libraries, community centres, and recreational facilities.

Unemployment and Under-employment are also basic problems facing the developing countries. The figures on India showed that in Calcutta 10% of the labour force was unemployed. In Delhi and Madras, the situation, though not critical as Calcutta, was also extremely unsatisfactory. In Poona, 9% of the labour force was unemployed and in Hyderabad and Boarda the percentages were 8.4 and 7.4 respectively.

Many of the migrants to the towns have no training and therefore are unable to find employment which introduces the feeling of insecurity in many instances. The Central African Republic referred to this as "those deep psychological and sociological causes of unemployment having their roots in non-specialization". This problem exists in Africa to a large degree. In most towns there are increasing numbers of young men who having completed a period of academic education, are unwilling or unable to find the

10 Ibid., p. 146.
type of work for which they consider their education fits them. Then there is the dilemma of people who migrate to cities in the hope of finding work and who are ashamed to return to the villages when they fail to do so. Ghana is a typical example of this. It was reported that the number of applicants competing to enter limited fields far outstrips existing vacancies at any given time. As a result, there are thousands of young men and women hanging about in places like Accra, Kumasi, Sekondi-Takoradi, and Tema hunting for jobs in vain. Impoverished, they feel reluctant to go back to the villages with empty pockets, thus they continue to hang on to friends and relatives under poor conditions of health, housing and diet.

"Family parasitism" is also found to be widespread. A member of a family who finds a job is a privileged person. Other relatives who fail to find jobs come to live at his expense, and, in accordance with the traditional code of family solidarity that still survives, he usually accepts them. This was regarded as an obstacle to the raising of the exercise of his own initiative. However, it was thought, at the same time, to constitute a spontaneous regulation of the effects of urban under-employment.

**Urbanization and Economic Development**

"There is no worse combination than urbanization without development because to the lack of urban facilities is
added the want of employment opportunities." The most widespread characteristic of economic development is the change in the structure of production which it involves, consisting of a reduction of the relative importance of agriculture and an increase in non-agricultural activities. Among countries where annual per capita income is less than $200 there is hardly any in which agricultural activity contributes less than 35% of the total annual product while among those with income levels higher than $500, the corresponding contribution is seldom found to exceed 25%.

Urbanization without economic development introduces changes in the structure of production to the detriment of agriculture and in favour of non-agricultural activities without a concomitant increment in total per capita income. Also, once an urbanization process commences as a result of development process, it tends to continue by sheer force of momentum, even if development comes to a standstill. The latter can be illustrated by the depression of the thirties which caused a halt to development in Latin America. It was noted that the migration from the countryside continued although at a less rapid rate.

"The relationship between urbanization and development

has both quantitative and qualitative aspects." In Latin America for example, the rechannelling of economic development from import substitution called for a much higher degree of State intervention, which was extended, among other fields, to the supply of social security services to alleviate the social tensions which industrialization brought in its wake, the rationing of the very limited supply of foreign exchange, and the creation of State sources of credit. Done on centralized lines this helped to reinforce the process of concentration inherent in the underlying development phenomena which were taking place.

The prospects for the prolongation of the urbanization process will be dependent on what happens in the case of economic development coming to a standstill, - urbanization is likely to slow up but not halted completely.

On the contrary, it is felt that if economic development continues it will pursue a course much different than that of the past, also, the same will be true of the trend of urbanization. Latin America, it was believed, could not continue to base its development on import substitution in respect of consumer goods. Its growth, hence forth would have to depend upon the substitution of domestic production for imports of raw material, intermediate products, and capital.

12 Ibid., p. 38.
goods. Such activities generally choose production sites close to necessary raw material, most of which seldom coincide with present large consumer centres. The development of this new type of activity was conceived as provoking the renaissance of old towns or the creation of new urban centres.

The fact that some capital cities have attained or are attaining disproportionate sizes and that the additional investment required for further expansion will produce declining yields is another factor that will contribute to the latter phenomenon. Cognizance of the increasingly costly venture of supplying cities with water, energy and food will awaken consciousness of the need to combat the trend towards centralization.

The Need for Planning

The United Nations conference on the Application of Science and Technology for the benefit of the less developed areas of the world recognized the importance of the need for planning, both physical and economical in these countries. The integration of both is considered more important.

It was emphasized that no development plan can succeed unless the local population is involved in it from the start. "Every society exhibits a persisting tension between widespread demands for improvements in the conditions of life, on the one hand, and the limited scarce resources on the
other." On the basis of this, it was considered that since every society will have to allocate its scarce resources without being able to satisfy all demands made on it, those modes of allocation are most likely to return the highest social yield which commands approval and assent from the widest range of persons in the society. The idea of securing the cooperation of the people was evolved.

Argentina's attitude towards this idea was "As a consequence of this new attitude, the social scientist and the planning technician shall definitely abandon all intent to promote changes in collectivities without their members' participation and deliberation. Better still, they shall try to elaborate objectives and techniques allowing the members of those communities a decisive function in the elaboration of the change considered indispensable".  

Puerto Rico and Israel were cited as examples of voluntary and spirited participation in rational development and which show the greater success of development enterprises when people of all levels get experience in problem solving,


14 Ibid.
decision making, and self-help. The diminution of extreme social stratification and the position of genuine opportunities for social mobility were considered to be high priorities for effective development. Also, it was conceived that only when men feel that they are valued by society, do they give of their best and come to feel valued only as they receive from that society that kind of share in its material rewards; its decision-making process; and in its symbols of social susceptibility that tell them more effectively than all the propaganda can achieve, that they are worthy people and that under the best of circumstances they are as worthy as anyone else. It was also considered that women should be assigned more important roles, the disparity between the sexes should be eliminated if the concept of the family as the nucleus of social stability is to be strengthened.

In terms of physical planning, there was general agreement at the conference that this is in urgent need particularly at the regional level. Town and country planning were regarded to be of fundamental importance to the developing countries. It was expressed that without radical agrarian changes and planned industrialization, all attempts to establish new urban centres and villages of an urban type are likely to be ineffectual. Planning and land organization are considered to be unavoidable. There was general recognition
for the need of active State participation to solve planning problems despite some disagreement on the extent to which the State should participate. Again, in order for planning to be effective it should be done well in advance and should be based on interdisciplinary research. Comprehensive planning is a must as emphasized and a dramatic description of this was "the orchestration of activities to achieve community goals and to reduce inconsistencies, duplications, and overlapping activities".  

In an effort to control migratory movements, the conference agreed that plans should consider the following:

(a) A gradual improvement in rural living standards;
(b) The equalization of the condition of life between sections of the population, and
(c) Balanced distribution of the population over the whole country.

A difficulty in some present planning systems is regarded to be the lack of legal powers in free enterprise and mixed economies, particularly as it applies to land. Many developed countries have experienced record success in public acquisition of land for urban development purposes in such cities as Stockholm, Rotterdam, and the English new towns but the policy has been little used in the developing countries.

15 Ibid., p. 173.
Another difficulty regarding plans related to the failure to relate national, regional, and local planning. National development plans were regarded to have centered on broad economic questions such as capital formation, productivity and income. Little attention has been given to planning in space; to the impact of new industries on local population concentrations, and resulting requirements for facilities and social services; to questions of urban development; such as the desirable size and spatial relationship of urban concentrations and optimum patterns of urban configurations.

Looking at the other side it was recognized that local planners, in their pre-occupation with physical design, have neglected economic and social considerations. The suggestion was for development plans to:

(a) Include the relation of plans to resources;
(b) Express the aspirations of the peoples concerned;
(c) Establish the relationship of planning, policy-making and administration and of legal jurisdiction to economic and social organization.

A main conclusion was the emphasis on the need for a more systematic approach to the problems of urbanization, particularly in connection with the human factor. These were regarded as problems of human settlements within the wider frame of the development process.

Humanity was considered to have reached the point of
looking at the human habitat as one single problem. "We must widen the frame of planning in space and time, conscious that urbanization is moving ahead in balance with economic, social, political, administrative, technological, and cultural developments." A new science, the science of human settlements, was thought necessary.

A suggestion was that in continuation of the effort to use science and technology in helping developing countries, special attention should be given to the problems of human settlements and that any future discussions on these should have the benefit of the views and experience not only of sociologists and town planners, but also of economists, geographers, civil engineers, architects, and artists.

Summary

Populations faced with substandard living conditions in rural areas of the developing countries migrate in search of jobs to towns that are ill fit to accommodate them. There is inadequate housing and employment and high incidence of social and moral deterioration. The lives of the migrants are dominated by squalor, ill health, and poverty.

There is a desperate need for planning and the recognition that urbanization and economic development should be combined.

\[16\text{Ibid.}, \text{p. 174.}\]
CHAPTER III

APPROACHES TO SOLUTIONS OF URBANIZATION AND POPULATION PROBLEMS IN SOME DEVELOPING COUNTRIES

Some of the developing countries have not only recognized the evils of urbanization but have taken firm action to alleviate them. Puerto Rico and Israel are chosen as case studies for this thesis because of their major accomplishments towards solutions of their severe urbanization and population problems and because it is felt that other developing countries can learn much from their examples.

Puerto Rico

Puerto Rico's population problems were so critical that some writers up to twenty years ago were extremely pessimistic about the future of the island in terms of its ability to cope with the resulting pressures. A typical example of this pessimism is as follows:

There is not enough land in Puerto Rico to care for the needs of the population. There is less than half an acre of arable land per inhabitant, or about two and a quarter acres per family, and only a small portion of this is highly productive. By 1965 the population will have become three million, reducing further the amount of arable land per person -------------. One is always wondering how long the hard-pressed peasants, who cling to their cabins on the crest of the hills and yearn to return to them when factors beyond their control take them away, can continue reproducing
without literally spilling over into the sea. ¹

This author summarised the population trends in Puerto Rico by stating that it has been doubling itself every fifty years. He predicted that if the trend continued 'standing room only' would have been the Puerto Rican dilemma.

The population problems of this island present itself in two different forms, that of urbanization and that of intense population density. In terms of urbanization, there was an observable mushrooming of slums, poor recreational and educational facilities, urban congestion and all the attendant problems of urbanization in the San Juan and other important metropolitan areas.

In terms of population density, this island ranks among the most densely populated areas of the world. With a land area of 3,435 square miles, the island has a population of 2,300,000 resulting in the fantastic density of 672 persons per square mile. To illustrate the meaning of this density one author states: "Population pressure in the United States would begin to compare with that of Puerto Rico if all the people of the world ---- landed there overnight, and if by the same nocturnal magic, all available mineral

resources were eliminated, heavy industry disappeared, agriculture became the main source of employment and your top executive officers were selected in some mysterious way by somebody else". 2

Coupled with the population problems this island is almost destitute of natural resources. Its exploitable economic resources are limited to its soil, which is greatly depleted; its manpower, mostly unskilled; and its climate and scenery.

However, despite these major disadvantages, Puerto Rico has emerged a thriving commonwealth holding its own as a viable unit and offering a wealth of examples for other developing nations to follow. An awareness of its problems was felt and positive action through careful planning was introduced to eradicate the sufferings of the population. One author comments on this vital awakening as follows:

Puerto Rico twenty years ago was one of the most poverty striken, disease ridden, under-developed countries in the world. Today it stands foremost as a prosperous, healthy land of opportunity. Largely by its own intensive effort, Puerto Rico has achieved today, a level of economic and social development little short of miraculous. 3

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3 Ibid., p. 1.
Another author states:

In the last 17 years Puerto Rico has successfully initiated a transformation from a predominantly agricultural economy based mainly on two commercial crops, sugar and tobacco, to a more diversified, high productivity economy.4

Planning was not only regarded to be a great essential but the integration of economic and physical planning resulted in a balanced economic and social structure for the island. A single authority, was given the responsibility of initiating and coordinating both these aspects of planning. The approaches to development are outlined as follows:

Approach to Development

Confronted with the two major problems of many people and few resources, the Puerto Rico Development Company, which was created to undertake development, recognized that the whole of the island's economic development program is directed towards adjusting the relationship between the island's people and its resources to achieve a higher level of living.

The two basic adjustments considered necessary were (1) "--- to effect a redistribution of the people so that they are in the right place to do the most economic good, and

4 Raphael Pico, Puerto Rico, Crossroad of the Americas, University of Massachusetts, Amherst, 1957, p. 8.
(2) to see that people are engaged in increasingly productive employment". 5

With a relative absence of natural resources Puerto Rico had the inevitable choice of turning to industry to achieve its economic viability and to raise the level of living for the population. Through its "Operation Boot-strap" program and through careful analysis of the island to determine the appropriate location of industries a balanced economic structure was possible.

Regional analyses were conducted to understand the regional differences in the economic and social structure as well as to assist the planning function of organizing agricultural and economic development and the provision of transportation, education, and other public services which are necessary to make development possible. It was realized that although the island is relatively small in area, it is sufficiently varied in its topography, soils, and economic pattern so that a division into sub-areas is necessary for industrial planning purposes.

Eleven Integrated Industrial Areas and twenty-eight Local Industrial Centres were designated. These have been developed not only to give a regional basis to planning but

also to show how the remainder of the island outside San Juan and other major cities would benefit by industrialization.

It was thought that the industrialization potential not only of the centres themselves but also of the surrounding areas could be increased by the provision of adequate and easily accessible services and facilities.

Criteria used for the selection of these centres were as follows:

1. Large centre of population
2. Existing industrial development
3. Trade centre for surrounding towns
4. Existing industrial and residential services and facilities
5. Accessible to surrounding towns as centre for new services and facilities

Based on these criteria ten municipalities were selected as industrial centres:

1. San Juan 6. Aguadilla
2. Ponce 7. Guayama
5. Manati-Vega Baja 10. Yauco

These centres were next studied to identify the towns with which they had economic relationships such as wholesale and retail trade, farm produce markets, professional
and business services, and so on. However, it was understood that for the provision of certain high order economic and social activities, San Juan would have to be relied on. Figure 1 page 38 shows the division of the island into industrial centres and dependent towns.

In terms of the economic relationships of centres to towns certain factors were considered -

(1) Topography. It was conceived that the extent of economic relationship among towns is often dictated by topographic relationships. For towns on the coastal plains this was found to be less important than distance but for those in the highlands their relationship with centres is highly determined by topography and the ease of access between both. Hence the central mountain spine of Puerto Rico makes a demarcation line between north and south and when lateral ridges extend from the central mountains to the coasts, these serve as barriers to separate groups of coastal towns. This configuration coupled with communication routes determined the location of centres and their related towns.

(2) Highway Connections. Economic and social inter-course among towns are determined to a great degree by the amount of movement of people and goods between them. Therefore, it was realized that highways are first constructed where there is demand for movement of people and goods
FIGURE 1
Regions and Industrial Centres of Puerto Rico

INTEGRATED INDUSTRIAL AREAS

1. San Juan Area
2. Ponce Area
3. Caguas-Humacao Area
4. Mayaguez Area
5. Manati-Vega Baja Area
6. Aguadilla Area
7. Guayama Area
8. Arecibo Area
9. Fajardo Area
10. Yauco Area
11. Cayey Area
12. Local Industrial Centers

Source:
FRIDCO - MASTER PLANNING DIVISION

P.R. INDUSTRIAL DEVELOPMENT CO.
PLANNING DEPARTMENT
MAY 1955
between centres of activity. The improved access generates a greater volume of movement, the result being that the centres become increasingly important and their growth is more rapid relative to the surrounding towns. "The grouping of towns around regional centres, therefore, reflects the existing pattern of highway connections." 6

(3) Average Daily Traffic Flows. This was considered to be another important factor. "The volume of flow of passenger and commercial traffic between towns is proportional to their importance as centres of economic activity and to the strength of the economic ties between them." 7 Counts were maintained for major highways and this indicated the pattern of movement between centres.

(4) Passenger Transportation Services. A field survey was conducted to determine the pattern of passenger transportation services between towns. The reason for this was to document general knowledge as to the cities which are the centres of economic activity and the towns which are tributary to them because economic relationships between areas are reflected in the demand for transportation services and the number of carriers which become available in response to


this demand.

(5) Commercial Banking Services. The geographic distribution of commercial banks is another factor which was regarded as further evidence of economic ties between areas. A survey of the location of these assisted in the delineation of the Integrated Industrial Areas.

(6) Potentiality as Centre of Industrial and Residential Services. It was thought that the subdivision of the island into regions would permit more detailed studies of resources and needs of each area and would help to reveal its characteristics and potentialities. In order to foster industrial development in towns outside the San Juan metropolitan region, additional industrial and residential services would be provided in the centres. This, it was thought, would increase the potentiality for industrial location of surrounding towns with easy access.

Resultant of these foregoing considerations, eleven Integrated Industrial Areas and twenty-eight Local Industrial Centres were delineated to serve as the basis for planning for future industrialization.

"The Integrated Industrial Areas have been delineated so as to include contiguous municipalities, which because of topography, transportation routes, population concentration, and existing economic development are seen as providing a homogeneous area within which concentrated industrial
development will take place in the future." It was con­
ceived that the areas would develop so as to permit, with­
in each area, a ready exchange of manufacturing, labour,
goods, and services between the municipalities included.

The twenty-eight Local Industrial Centres, because of
their isolation, rugged terrain, poor transportation and
scattered population were not regarded as being capable of
supporting very extensive industrial development, there­
fore, they were not included in the Integrated Industrial
Areas. Taken together, however, both categories were con­
ceived as forming a regional pattern for the entire island
by which the future industrialization could be guided in
such a manner as to balance area needs with area resources.

Industrial Resources

The next major step of the Puerto Rico Industrial De­
velopment Company was to examine the industrial resources
of the island. Land, pleasant climate, and people were
observed to be the basic resources of the island therefore,
the advancement of modern technology was found to be the
chief hope for improving social and economic conditions in
Puerto Rico. Technology, it was realized, had developed
"so that an earlier extreme dependence on the most easily
worked aspects of land and climate has been replaced by a

8 Ibid., p. 17.
situation where man is able to shape his environment more
to his needs and liking".  
Agriculture was discovered to be the basic raw ma-
terial, upon which dependence for an economy was changing.
The change, it was found, required shifts in land use,
 Improvements in production techniques, and changes in popu-
lation density. A limited amount of minerals were present
but were not considered generally to be in sufficient
quantities to warrant commercial exploitation. Some like
sand, limestone, gravel, kaolin, clay building and ornamental
stone, were found to be in quantities sufficient to support
considerable development while others such as lead, silver,
gold, platinum etc., were in such small deposits that they
would add no significant contribution.

Fish and forest industries were also found to offer
possibilities for future development. It was realized that
the development of the forest based industry was dependent
on the decrease of population pressure on the limited re-
source base of irregular terrain in the interior, with such
areas to be utilized for pasture and forest growth. The
improvement of the fishing industry depended on the

9 Ibid., p. 20.
replacement of primitive fishing devices and the introduction of modern refrigeration equipment.

The labour force was considered to be another major resource for future industrialization.

Industrial sites were in abundance. These are "considered as a resource from the viewpoint that an industrial site is not 'land alone' but land with certain necessary qualifications". Prime industrial land, it was recognized, must be of an adequate area, readily buildable, serviced with utilities, adjacent to labour, convenient to transportation, and available at a reasonable cost. All these supporting conditions were carefully investigated and aided tremendously in the orientation of industrial sites.

Israel

The State of Israel established in 1948 for the resettlement of the Jews experienced rapid population growth without a precedent in modern times. In the course of four years after establishment this State realized a population increase of approximately 240%, the result of not only natural increase but predominantly from the intense pattern of immigration from a host of different countries in Asia, Africa, Europe, and North and South America. The different

\[^{10}\text{Ibid.}, \text{p.} \, 22.\]
standards of living in the countries from which these immigrants came, the kinds of housing to which they were accustomed, and the various levels of their cultural development, all served to confront the authorities in the country with unique problems that had no precedent in any other country.

This mass immigration introduced severe problems. It was recognized that "if bringing this number of immigrants into the country was itself an impressive task, the housing of them, and their absorption into the economic and social structure of the country, was a tremendous responsibility". 11 Many world organizations and institutions gave decisive help, but onus of absorbing something more than one extra person for every person already settled in Israel at the foundation of the State fell, of course, on the state itself and on the 650,000 original Jewish residents. In the first few years conditions of severe economic and social austerity had to be practiced by Israel in order to make possible the settlement of the newcomers.

Settlement

"The coaxing of new immigrants to the land or at least away from the towns to areas of new development, has been one of the big problems of the Government and the national

When mass immigration began, the authorities were compelled to improvise and take advantage of whatever opportunities for the provision of housing, food and work there might be. Towns emptied of the Arabs, like Jaffa, Ramble, and Lydda, and other abandoned Arab villages as remained intact rapidly filled up with the newcomers. Still this was not sufficient and the government had to resort to tents and 'hutments' in camps intended merely as places of temporary sojourn with the hope of early distribution of the immigrants to the nation's advantage.

Early official emphasis was on land settlement but the amount of suitable, irrigated land was at that time severely limited, and so were the resources necessary for the erection of suitable villages. Then work for the newcomers had to be found, and the 'camp' system (dependent largely on such detention establishments, barracks and so on, as had existed in the time of the Mandate, and therefore not sited usefully from the point of view of economic or social absorption) was replaced by the Maabara - a transitional work-village system. This was not a particularly attractive place of residence but it was in an area adjacent to some town,

12 Ibid., p. 105.
group of villages, or development project, so that work was near at hand. Neatly designed and constructed huts took the place of tents. Schools, vocational training centres, medical clinics and other welfare facilities were provided in the Maabara.

But the Maabara played a very small role in inducing land settlement. Their value was in contributing to the expansion and development of small towns with large potentialities, such as Beersheba and Migdal Ashkelon in the Negev; Afuleh, Tiberias and Safed in the North; and a score of newly established townlets extending from Kiryat Shmone in the north to Elath in the south.

"The latest and most successful technique, and one that is likely to be lasting, is a regional settlement plan by which a whole district, with its villages and market centre, its communications, and a cautiously balanced admixture of farming and industry, is set up and made ready to receive, in more or less simultaneous occupation, the whole initial community."  

The regional plan is socially more attractive to the immigrants than preceding contrivances and has proved to be of great benefit to the state.

13 Ibid., p. 106.
Planning in Israel

Regional planning in Israel is not a result of a social group's recognition of the need to reform the structure of the country and its population. Regional and National Planning was begun by a decision of a Government which considered itself responsible not only to the population settled already in the country, but also to the hundreds of thousands of future inhabitants, who were expected to immigrate within a short period.¹⁴

The physical conditions of this backward country, and its economic structure, unfit for the support of a dense population, gave birth to a demand to plan in advance the way in which the new immigration was to be absorbed, its social adjustment, the activation of its creative powers, and its settlement locations. It was obvious from the beginning that in order to achieve the huge task efficiently without a waste of time, all the potentialities, natural resources and geographical factors inherent in the country had to be explored and brought to optimum use. The planning process of intensive regional development was recognized as an indispensable requirement in Israel.

The Regional planning problems were conceived to be characterized by the necessity to perform two types of development - development by colonization and development by consolidation. By 'development by colonization', the planners referred to population emigration to areas rich in

natural resources, whereas 'development by consolidation' refers to the consolidation of over-populated areas. The primary criterion determining the need for the second category, development by consolidation, is high population density. The population density of Israel is approximately 400 persons per square kilometre of developed arable land. It was realized that "what is peculiar to our problems is the fact that the population is rapidly approaching the degree of density called for by the estimated optimum absorptive capacity of the country, while the first stage in the development of the country's natural resources has not yet been concluded".\textsuperscript{15} The country faced a developmental process in the course of which a population is settled in permanent dwellings even before the development of local sources of livelihood had been started. It was recognized that only by planning and by unprecedented efforts at social, economic and educational progress, will Israel be able to bridge the gap between the stage of primary colonization and a stage where a dense population will be settled stably in regions developed to their optimum absorptive capacity.

Decentralization was regarded as an indispensable tool in planning as exemplified by the statement, "Our advocacy

\textsuperscript{15} \textit{Ibid.}, p. 90.
for population dispersion in Israel is motivated by two considerations: one is the intention of finding optimum locations for agricultural and urban settlements for the new immigrants in all parts of the country: the other is the contemplation of the future of the great Israeli cities Tel Aviv especially, whose size is already out of any reasonable proportion to realistic regional conditions whether national or international. In terms of the second consideration it was felt that besides the social consequences and problems of habitability, a big city means a heavy financial burden for a country caused by unproductive investments and expenditures on complex services for all kinds, which are needed for the maintenance of its functions and life.

Still another factor had to be considered. There exist great differences between Israel's highly organized pioneering agricultural population and the new immigrants who settled in the new towns. Whereas in most countries the urban population succeeds in developing enterprises and socio-economic forces which attract the rural population to visit the city and use its various services, in Israel the standard of living as well as the cultural level of the inhabitants of the small towns is still lower than that of the

16 Ibid., p. 102.
farmers living in their environment. These small towns, in the socio-economic sense, do not represent nuclei and the planners recognize that they have to prevent the transformation of the new towns into problem areas existing in the midst of developed and flourishing agricultural regions.

The National Plan

"The objectives of the Master Plan include: siting of agricultural settlements and agricultural areas; determination of a rational and healthy distribution of urban centres; effective disposition of industry in the various regions of the country; indication of the road network and centres of communication; and provision of a chain of forests and national parks." 17 It was thought best to profit by the experiences of such vast and rich countries like Australia and the Americas, the development of which was usually superficial and led sometimes to ruthless exploitation of the land resulting in rapid impoverishment of the soil, and its undesirable concomitants (erosion, floods, etc.), mainly because of the lack of adequate planning. Also, in these countries, extensive exploitation was accompanied by intensive settlement and by a concentration of the majority of the urban population in the large coastal towns, which were

transformed into vast congested conurbations, while immense tracts of the hinterland remained undeveloped.

Israel was considered to be too poor in land, natural resources, and man power to permit a repetition of the mistakes of these vaster, richer countries. Precise planning was considered to be indispensable.

Three factors which were considered to impress a unique character on planning in Israel were land, nation and time. In terms of land, the variations in climate are accompanied by changes in the properties of the soil, and the vegetative and topographic conditions produce a rich and colourful mosaic offering ample planning opportunities. In terms of the nation, the social aspects were emphasized. An objective of balanced distribution of the population demanded that attention be paid to social composition, and that a planning framework be prepared that would promote the acclimatisation of the diverse groups of population, and expedite their integration into one organized and productive entity. The third factor, time, was considered to be exerting a negative influence on planning since planning by its nature is a slow process. Immigrant camps, transit camps, permanent settlements and housing estates, all planned and built in haste, would remain as social and economic blots on the national landscape and may be succeeded by even worse blemishes later on.

The Master Plan aimed at guiding development by directing
the incessant and ever growing stream of immigration to undeveloped agricultural areas. The country was divided into planning districts as a planning measure for accomplishing decentralization. Each planning district was a distinct geographic entity delimited by physical and topographical factors, such as water-catchment areas or river basins; due consideration being given to present urban and rural concentrations, land ownership and existing services. Twenty-four of these planning districts, each to contain between 75,000 and 125,000 inhabitants were provided for the initial stage of the country's development, not including the principal large towns. It was thought possible to reduce the number to sixteen by uniting neighbouring districts during the transition stage prior to the completion of development. One or two urban centres were assigned to each district to serve the rural hinterland as foci of trade industry, social and educational activity, and seats of administration. "The districts mapped out as geographic and economic units can be expected to evolve into complete and well balanced social and economic units, deriving benefit from the mutual relations between the urban and rural centres." 18

18 Ibid., p. 72.
The Master Plan also made provision for the establishment of new towns to encourage development. The designation of the new towns was considered to be applicable to some existing centres like Safed, Tiberias, Acre, Affuleh, Migdal Gad, Beersheba, Lidda, and Ramleh. The small nuclei of population in these centres do not permit development on any scale without a comprehensive development plan backed by generous government support. The structure of the new towns was based on a division into neighbourhood units which differs from the conservative town planning methods employed in European towns. The basic principle adopted was to divide the new town into neighbourhood units, each to serve as a self sufficient entity, supplying its residents with all their needs in the most efficient fashion. Each unit contains different types of dwellings answering to social and family requirements, public buildings and business premises in the local centres, educational institutions situated near public gardens, sports grounds and playing fields.

Summary

Both Puerto Rico and Israel were confronted with very acute urbanization and population problems equal to or surpassing those of many developing countries. In the case of Puerto Rico, its situation was considered so serious that many people were pessimistic about a solution. Coupled with its population problems the island is almost destitute of
natural resources. Yet by intensive effort Puerto Rico has achieved today a very high level of social and economic development. Industrialization was recognized to be the inevitable path to development. Industries were guided to various parts of the island in a systematic way to bring employment to all the people, to diversify the economy, and to provide a balanced economic structure. The island now enjoys relative social and economic stability.

Israel encountered the intense pressures of rapid immigration after its establishment in 1948. Displaced European Jews as well as other immigrants from Europe, Africa, and Asia poured into the country in vast converging numbers. The state was faced with the immediate problems of settling in these immigrants. Temporary provisions were first devised for expediency after which a regional planning and development approach redistributed immigrants to all areas of the country to make full use of the resources and to ensure that a balanced occupational structure of the country is achieved.

Both countries aimed at the maximum utilization of human and natural resources. This, of course, involved the distribution of economic activities throughout the countries so as to encourage active participation from all people and all resources. The technique is found to be very successful and worthy of recommendation to other developing countries.
CHAPTER IV

URBANIZATION AND MIGRATION IN JAMAICA

Internal Migration

Internal migration in the case of Jamaica means, largely, urbanization. The main recipient of this migratory movement is Kingston. Evidence of the movement has been discovered as far back as 1881 - a committee set up to examine the conditions of the juvenile population of the island in 1880 stated: "We find that there is a tendency amongst portions of the rural population to gravitate towards the towns and Kingston. The class to which we refer are moved by a desire to obtain their livelihood by other means than agricultural labour, and by the hope of that casual employment at high rates which is often to be obtained in the towns."¹ The movement was observed to gather momentum in the early years of the twentieth century and St. Andrew being the parish adjacent to Kingston developed as the suburban area of the capital.

Movement Pre-1921

Internal migration in this period was relatively small as it was predominantly taken up with external migration.

There was a movement into Kingston as well as to St. Andrew, though to a smaller extent, from most parts of the island. This was relatively small but it indicated the growing pull of the areas mentioned. The only parish that did not lose population to Kingston was St. Andrew which signifies that at this early stage, the growth of St. Andrew as a suburban area of Kingston had begun. It was noted that there was a net in-migration into this parish from all of the other thirteen parishes except St. Thomas and Portland.

Apart from this main feature of in-migration, other interesting movements were present in this period. An example is the movement into the adjoining parishes of Portland, St. Mary, and St. Thomas involving over 3,000 people. What was thought to be responsible for this trend was the increased banana cultivation in these areas. Banana cultivation constituted a notable feature of the agriculture of the island in the last years of the nineteenth century and the beginning of the twentieth. Between 1891 and 1921 the proportion of cultivated land devoted to the production of bananas in Portland rose from 22% to 32%; while that of St. Mary rose from 40% to 55%; and that of St. Thomas from 11% to 26%.² It was thought that the expansion of banana

²Ibid., p. 151.
cultivation might have required additional labour. On the other hand, the in-migration into these parishes was thought to be associated with the external migration going on from the island at the time. The parishes from which large quantities of bananas were exported, reported strong emigration during this period because of good communications with foreign countries through ships which called at ports of these parishes. The in-migration to these parishes could be regarded as replacements of the labour lost to emigration.

Movement 1921 - 1943

"Approximately one-fifth of the island's native born population were involved in internal migration between 1921 and 1943." Movement in this period was noted to assume greater proportions than during preceding years. Inter-parish migration involved approximately 198,000 people.

Again it was evident that the most prominent feature of the migration trend during the period was the enhanced movement into Kingston and St. Andrew. However, Kingston which was largely the recipient in the past was noted to yield most in-migration attractions to its suburban parish St. Andrew. Even Kingston itself was observed to contribute

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3 Ibid., p. 152.
the greatest movement of population into St. Andrew, an indication of the shrinking importance of Kingston as the residential area of the metropolitan area. The contiguous parish of St. Mary provided an additional source of population to St. Andrew.

Kingston, however, continued to gain population from all other parishes except St. Andrew but its loss to the latter as mentioned earlier was observed to be considerable. It lost 5,400 males for example to St. Andrew which nearly equalled the gain of 6,000 from all other parishes.

Again, it was noticed that the migration into St. Andrew and Kingston were not the only internal movements taking place during this period. The interchange of population between contiguous parishes which was evident in the previous period, was observed to be likewise characteristic of this period and involved even larger numbers. The patterns of local movement were roughly the same though the dimensions were notably greater. Parishes showing appreciable gains from neighbouring parishes were St. James, St. Catherine, St. Thomas and Clarendon, while those losing population to contiguous areas were St. Elizabeth and St. Ann.

St. James was the only parish that did not lose heavily from out-migration. In common with all other parishes, this parish experienced a net loss of 3,900 to Kingston but its
gain from contiguous parishes over-shadowed this loss. The main town in this parish, Montego Bay, has been gaining importance as the chief tourist centre at this time and this accounts for its net gains. "A consideration of the distribution of the sources of net in-migration into St. James is instructive, as it illustrates the extent to which this secondary urban attraction masks the main pull into the Kingston - St. Andrew area. This constitutes an important exception to the general rule that, so far as population shifts between contiguous parishes are concerned, a parish tends to lose most to areas between itself and the main urban centre."  

The net in-migration into Clarendon and St. Catherine apparently differed from the movement into St. James. St. Ann and Manchester contributed the gains to Clarendon whereas there was a loss to St. Catherine. This was not regarded as indicative of a pull comparable to that exerted by St. James, but rather of an extension of the strong urban pull exerted by Kingston and St. Andrew, expressing itself in inter-parish movement.

There were two distinct modes of migration towards the urban centre which were observed. One took the migrant

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4 Ibid., p. 155.
directly from his parish of birth to the urban centre, and the other, probably a slow, long term movement involving a shift in stages, took the migrant nearer to this centre. The proportion that went directly is uncertain but an important factor to note is that, though migration to the Kingston - St. Andrew area dominated movement during the period, the secondary pull of St. James introduced an important phase. "And this break in the drift to the chief urban centre underlines the fact that any development in a given parish, such as the growth of the tourist trade in Montego Bay, which creates new demands for labour, will suffice to reduce in-migration into Kingston- St. Andrew and in general to modify the pattern of urbanization in the island."

Figure 2 on page 61 indicates the migratory trends towards Kingston - St. Andrew.

The Current Situation

No detailed analysis of population movements during the inter-censal period 1943 - 1960 has been derived but it is clearly evident that the urbanization trend has continued if not accelerated. For example, a comparison of Greater Kingston's population between 1943 and 1960 reveals an approximate doubling of the population during the

---

FIGURE 2
Main Currents of Internal Migration towards Kingston - St. Andrew
1921 - 1943

(Source - George Roberts - Population of Jamaica)
seventeen year period. Only in the cases of urban Kingston-St. Andrew, Clarendon, and St. James did the population increase in any parish exceed the average population increase of the island as a whole. This is indicative of the outward movement from most of the parishes to either the main urban centre Kingston - St. Andrew or externally to the United Kingdom. "On the whole, there has been an increasing tendency to move into the towns, or for the towns to spread out and include districts formerly outside their limits." A little more than one-third of the population currently lives in cities and towns with a population of more than 1,000.

The disparity between the population size of Greater Kingston and those of the other urban centres is adequate demonstration of the intense attraction of Kingston and the resultant high rate of urbanization. Table 1 page 63 shows the population of all urban centres with population exceeding 1,000.

---

TABLE - 1

Urban Populations in Excess of 1,000 in Jamaica
(Source: Report on Jamaica 1963)

<table>
<thead>
<tr>
<th>Place</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Kingston</td>
<td>379,599</td>
</tr>
<tr>
<td>Montego Bay</td>
<td>24,445</td>
</tr>
<tr>
<td>Spanish Town</td>
<td>16,547</td>
</tr>
<tr>
<td>May Pen.</td>
<td>14,071</td>
</tr>
<tr>
<td>Savanna-La-Mar.</td>
<td>9,807</td>
</tr>
<tr>
<td>Mandeville.</td>
<td>8,367</td>
</tr>
<tr>
<td>Port Antonio</td>
<td>7,889</td>
</tr>
<tr>
<td>Morant Bay</td>
<td>5,081</td>
</tr>
<tr>
<td>St. Ann's Bay</td>
<td>4,987</td>
</tr>
<tr>
<td>Chapelton</td>
<td>4,455</td>
</tr>
<tr>
<td>Old Harbour</td>
<td>4,095</td>
</tr>
<tr>
<td>Christiana</td>
<td>3,948</td>
</tr>
<tr>
<td>Port Maria</td>
<td>3,919</td>
</tr>
<tr>
<td>Linstead</td>
<td>3,808</td>
</tr>
<tr>
<td>Falmouth</td>
<td>3,772</td>
</tr>
<tr>
<td>Anotto Bay</td>
<td>3,607</td>
</tr>
<tr>
<td>Old Harbour Bay</td>
<td>3,409</td>
</tr>
<tr>
<td>Highgate</td>
<td>3,313</td>
</tr>
<tr>
<td>Ocho Rios</td>
<td>2,983</td>
</tr>
<tr>
<td>Buff Bay</td>
<td>2,877</td>
</tr>
<tr>
<td>Lucea</td>
<td>2,848</td>
</tr>
<tr>
<td>Bog Walk</td>
<td>2,807</td>
</tr>
<tr>
<td>Porus</td>
<td>2,723</td>
</tr>
<tr>
<td>Lionel Town</td>
<td>2,665</td>
</tr>
<tr>
<td>Port Morant</td>
<td>2,268</td>
</tr>
<tr>
<td>Black River</td>
<td>2,183</td>
</tr>
<tr>
<td>Spaldings</td>
<td>1,959</td>
</tr>
<tr>
<td>Bath</td>
<td>1,803</td>
</tr>
<tr>
<td>Clarks Town</td>
<td>1,543</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>1,426</td>
</tr>
<tr>
<td>Claremont</td>
<td>1,417</td>
</tr>
<tr>
<td>Oracabessa</td>
<td>1,313</td>
</tr>
<tr>
<td>Balaclava</td>
<td>1,153</td>
</tr>
<tr>
<td>Frankfield</td>
<td>1,068</td>
</tr>
</tbody>
</table>

Total                        538,155
Kingston as Population Recipient
Economic Base Study of Kingston

In John Alexander's economic base study of Madison, Wisconsin, he stated that his main objectives for undertaking the study were "to achieve a better understanding of Madison for the benefit of Madison residents and community leaders and to gain insight into the advantages and limitations of a particular method of community study."\(^7\)

Charles Tiebout states that "economic base studies identify the key economic activities of the community."\(^8\)

Tiebout went on to explain that business firms and government bodies can benefit immensely from such studies since they provide valuable information which can be useful in research into marketing, urban renewal, land use, transportation, water supply, etc.

Another vital role of the base study is that which it plays in the city planning process. General economic data are employed to verify the soundness of a specific physical plan or the community master plan. This procedure rests on the idea that the urban economic base has a direct long run


influence over the quantitative and qualitative make up of the community population.

In terms of the Kingston economic base study, which was done for the purpose of this thesis, it is deemed important for the assessment of the extent of viability of the urban area since such a vast proportion of Jamaica's population is concentrated there. To a large degree the viability of Kingston will reflect the viability of the nation as a whole since, again, a vast proportion of the economic activities of the island is located in this urban area.

The Kingston Study

The study has not only revealed surprising results but seems to be providing the answer to some of the questions that might be raised regarding the relatively weak economic conditions in Jamaica as a whole.

All the data were procured through the Department of Statistics in Jamaica at request and the categories reported are, with just a few exceptions, basically similar to those used by Ullman and Dacey in their Minimum Requirements approach to urban economic base studies. These differences are (1) the designation of two categories, Commerce and Business seemed a little vague, and it is assumed for the

---

purposes of this excercise that commerce is intended to mean retail trade while business is intended to mean fi-

nance. The terms are not altered in the study. (2) A category for Professional Services has not been reported and it is assumed that this is incorporated in the cate-
gory Personal Services. (3) Since tourism plays such an important role in the economy as a basic industry, it is surprising that it is not reflected in the data as a separate category.

There also seems to be errors in the figures and this may also contribute to distorting the overall picture.

The Minimum Requirements approach has been employed in this study since it has been accepted as a fairly accu-
rate measure of the economic base.

However, the accepted minima used in studies in North America were discarded since it was not believed that they would have been applicable in a study of a developing coun-
try where the labour pattern is somewhat different. The main reasons here are (1) there is a lesser degree of auto-
mation in Jamaica which means more employment in an industry as compared to the same industry in North America. (2) Because of the high degree of unemployment there might be a tendency to over employ, particularly in government ser-

vices.

On the basis of these, minimum employment requirements
have been established for Jamaica from figures reported for cities ranging from 10,000 to 124,000.

The accuracy may be off since the cities vary to such an extent in size and since the sample used in computations is so small compared to that recommended by Ullman and Dacey. Attempts were made to procure data from cities of other West Indian islands which share similar economic conditions to be used in the calculations. These were however, unsuccessful.

Tables 2,3, and 4 on pages 68, 69, and 70 respectively show Urban Employment in Jamaica - 1963, Jamaica Minimum Requirements, Comparative Minimum Requirements, and Percentages of Excess in the Kingston Study respectively.

**Analysis of the Study**

As might have been expected, the results of this study are very revealing. Even with a 5% allowance for inaccurate data and slight departures from the standard application of Minimum Requirements method, it has revealed some of the basic deficiencies in economic activities in Jamaica. This is strongly substantiated by the recent adverse balance of payments statements which the country receives.

The most remarkable result is that provided by the category "Personal Services". This has risen from 20% of the total minimum requirement to 38% of total excesses and reflects the most significant change. As a non-basic component of urban functions, this category engages too many
**TABLE - 2**

Urban Employment in Jamaica - 1963
(Source: Department of Statistics, Jamaica)

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>Kingston</th>
<th>Montego Bay</th>
<th>Spanish Town</th>
<th>May Pen</th>
<th>Fort Antonio</th>
<th>Savannah La-Mar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pop. 123,404</td>
<td>pop. 22,610</td>
<td>pop. 14,706</td>
<td>pop. 14,085</td>
<td>pop. 7,830</td>
<td>pop. 9,789</td>
</tr>
<tr>
<td>Agriculture</td>
<td>421  .75</td>
<td>617  5.55</td>
<td>1,051 19.</td>
<td>1,420 30.</td>
<td>294  12.9</td>
<td>577 20.</td>
</tr>
<tr>
<td>Mining</td>
<td>551  1.00</td>
<td>100  .9</td>
<td>137  2.9</td>
<td>73  1.5</td>
<td>137  6.1</td>
<td>159 5.49</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14,550 26.5</td>
<td>1,793 16.1</td>
<td>1,580 28.5</td>
<td>1,520 32.1</td>
<td>432 19.</td>
<td>677 24.</td>
</tr>
<tr>
<td>Construction</td>
<td>5,277 9.5</td>
<td>1,383 12.4</td>
<td>670 12.1</td>
<td>526 11.1</td>
<td>333 14.7</td>
<td>432 14.8</td>
</tr>
<tr>
<td>Transportation &amp; Communication</td>
<td>3,767 6.77</td>
<td>786 7.1</td>
<td>200 3.6</td>
<td>250 5.3</td>
<td>395 17.3</td>
<td>227 7.8</td>
</tr>
<tr>
<td>Commerce</td>
<td>8,173 14.7</td>
<td>1,528 15.2</td>
<td>851 15.3</td>
<td>551 11.6</td>
<td>383 16.8</td>
<td>520 17.9</td>
</tr>
<tr>
<td>Public Admin</td>
<td>7,899 14.2</td>
<td>805 7.25</td>
<td>793 14.3</td>
<td>214 4.5</td>
<td>383 16.8</td>
<td>217 7.45</td>
</tr>
<tr>
<td>Trade</td>
<td>2,566 4.62</td>
<td>444 3.9</td>
<td>144 2.6</td>
<td>102 2.2</td>
<td>58 2.5</td>
<td>23 .8</td>
</tr>
<tr>
<td>Business</td>
<td>706 1.27</td>
<td>115 1.03</td>
<td>39 .7</td>
<td>14 .3</td>
<td>20 .9</td>
<td>29 .10</td>
</tr>
<tr>
<td>Personal Services</td>
<td>11,162 20.</td>
<td>4,243 38.</td>
<td>45 .8</td>
<td>36 .8</td>
<td>23 1.</td>
<td>49 1.7</td>
</tr>
<tr>
<td>Recreational</td>
<td>238 .4</td>
<td>37 .3</td>
<td>14 .2</td>
<td>15 .3</td>
<td>13 .57</td>
<td>4 .13</td>
</tr>
<tr>
<td>Total</td>
<td>55,640</td>
<td>11,113</td>
<td>5,524</td>
<td>4,725</td>
<td>2,271</td>
<td>2,914</td>
</tr>
</tbody>
</table>
TABLE - 3

Jamaica Minimum Requirements

<table>
<thead>
<tr>
<th>Activity</th>
<th>Jamaica Minimum Requirements</th>
<th>North America Minimum Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>0.75%</td>
<td>Commerce 11.6</td>
</tr>
<tr>
<td>Mining</td>
<td>0.9</td>
<td>Public Administration 4.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>16.0</td>
<td>Trade 0.8</td>
</tr>
<tr>
<td>Construction</td>
<td>9.5</td>
<td>Business 0.29</td>
</tr>
<tr>
<td>Transportation &amp; Communication</td>
<td>3.6</td>
<td>Personal Services 0.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recreational 0.13</td>
</tr>
</tbody>
</table>

Compared with the established minima by Ullman and Dacey for cities in the same categories for North America, the result is as follows:

TABLE - 4

Comparative Minimum Requirements

<table>
<thead>
<tr>
<th>Activity</th>
<th>Jamaica Minimum Requirements</th>
<th>North America Minimum Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>0.75</td>
<td>1.7</td>
</tr>
<tr>
<td>Mining</td>
<td>0.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>16.0</td>
<td>4.9</td>
</tr>
<tr>
<td>Construction</td>
<td>9.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Transportation &amp; Communication</td>
<td>3.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Commerce</td>
<td>11.6</td>
<td>10.8</td>
</tr>
<tr>
<td>Public Administration</td>
<td>4.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Trade</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Business (Finance)</td>
<td>0.29</td>
<td></td>
</tr>
<tr>
<td>Personal Services</td>
<td>0.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Recreational</td>
<td>0.13</td>
<td>0.6</td>
</tr>
<tr>
<td>Professional Services</td>
<td></td>
<td>5.5</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td></td>
<td>1.2</td>
</tr>
</tbody>
</table>
The following Table provides a breakdown of the figures to arrive at the percentages of excess in the Kingston study:

**TABLE - 5**

**KINGSTON - 1960**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>POPULATION</th>
<th>JAMAICA</th>
<th>EXCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>Min. Requi.</td>
</tr>
<tr>
<td>Agriculture</td>
<td>421</td>
<td>.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Mining</td>
<td>551</td>
<td>1.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14,550</td>
<td>26.5</td>
<td>16.</td>
</tr>
<tr>
<td>Construction</td>
<td>5,277</td>
<td>9.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Transportation &amp; Communication</td>
<td>3,767</td>
<td>6.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Commerce</td>
<td>8,173</td>
<td>14.7</td>
<td>11.6</td>
</tr>
<tr>
<td>Public Admin</td>
<td>7,899</td>
<td>14.2</td>
<td>4.5</td>
</tr>
<tr>
<td>Trade</td>
<td>2,566</td>
<td>4.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Business</td>
<td>706</td>
<td>1.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Personal Services</td>
<td>11,162</td>
<td>20.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Recreational</td>
<td>238</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>55,640</td>
<td>100</td>
<td>39.0</td>
</tr>
</tbody>
</table>
of the employed population and the findings here could be indicative of a starting point for a closer look into the economy.

Information received from the Jamaica Department of Statistics shows a net deficit balance of £10,631,000 for 1960 which, however, is an improvement over the 1959 figure of £16,298,000. This indicates that there is ample room for the establishment of more extractive industry and this should be undertaken in an attempt to improve this undesirable situation.

On the contrary, the picture might be slightly obscured because as mentioned before the figures for employment in the tourist industry might have been included in this category. This would change the result to a certain extent but it is doubtful that it would have a substantial effect on the overall picture.

Agriculture and mining reports insignificant participation in the urban economy. This is not at all surprising since comparison with other urban areas reveal similar situations. Just as a matter of interest it may be pointed out that they play a significant role in the national economy.

Manufacturing has dropped from 26.5% of the total minimum requirement to 20% of the total excess. This is quite reasonable if one considers the exorbitant increase in the figures for Personal Services which was discussed earlier. It is quite reasonable to conclude that this category is
shouldering a tremendous burden in an attempt to bring about some kind of equilibrium between basic and non-basic functions. Although an equilibrium is not the desired goal it would be temporary relief until positive steps are made towards achieving a dominant basic to non-basic ratio.

Public Administration has taken its normal place in the economy. An increase from 14.2% total minimum to 18.9% total excess is not surprising. It indicates Kingston's importance as a capital city in which the bulk of administrative, financial and professional functions are concentrated. Like other capital cities it is safe to classify this function as one of the propelling forces.

Another very surprising result is that connected with trade. Today, trade only accounts for 4.6% of total employment and this decline could also provide part of the explanation for the unfavourable economic situation, however, in terms of a propellant force, it must not be overlooked that it has increased from 4.6% total employment to 7.9% total excess employment. This confirms its role as a contributor to the basic functions.

In terms of ratios, the total minimum employment of 39% produces a non-basic; basic ratio of 1:1.6. In comparison to Ullman and Dacey's ratio of 1:1 for cities in this range in North America, it is again demonstrated that Kingston falls short of the desired minimum.
Housing in Kingston

According to figures procured through the Ministry of Housing in Jamaica, the number of private dwellings available in Kingston (excluding its suburban St. Andrew) up to the first quarter of 1960 was 36,649. "On the basis of this figure, and an estimated 600 dwellings constructed annually, the estimated number of units available to date is approximately 13,000." The Jamaica Ministry of Housing also stated that "the estimated number of units needed to adequately house the population is somewhere within the region of 49,000 units, both for the replacement of sub-standard houses and to provide for the estimated absolute shortage, at the present time".

Overcrowdedness is the inevitable outcome of this shortage. The Ministry states that the average family size in Kingston is 4.7 persons, and that the minimum amount of floor space accepted by the Department of Housing as adequate for each person is 50 square feet. However, in most of the areas within Kingston where pre-housing social surveys have been carried out the 50 square feet minimum does not obtain. In many areas the average floor space per person was found to be 35 square feet. The Ministry states

10 Excerpt from a letter received from the Permanent Secretary, Ministry of Housing, Jamaica, 12th December, 1964.
11 Ibid.
that this is the pattern in Kingston except for those areas which are occupied by middle income groups.

In an extreme case, an area in which a pre-housing survey was carried out, 439 families were enumerated of which 249 were found to live in one-room dwellings. In another area, 212 families were enumerated of which 180 were living in one-room dwellings. Although the average family size is 4.7, a number of families were found to have as many as ten persons.

The Ministry of Housing regards the social implications of these conditions to be:

(a) poor sanitation, and consequently
(b) a variety of health problems,
(c) illegal squatting

Two others which they mention are, first, the growth of subcultures which have different social values from those of the larger society. Specifically they mentioned "Rastafarianism", a navistic cult, which social surveys prove to flourish most among the twin problems of poor housing and lack of employment. Secondly, it was observed that overcrowdedness in Kingston also play a large part in bringing about "consensual" family units.

The Ministry also noted critical physical limitations in the provision of houses by reason of the geographical location of Kingston. With the rapid industrial and
commercial growth of Kingston over the past couple of decades, the city boundaries have had to be extended in order to provide new space. Despite this, however, land space is becoming so scarce that the building of single-unit dwellings will become impossible in another decade or so.

Squatting

As pointed out earlier, the phenomenon of squatting is the result of overcrowdedness in Kingston. Because of its alarming proportions and social implications it was thought necessary to bring it into perspective.

Charles Abrams who conducted a study of the situation for the United Nations states: "Squatter areas dot Jamaica's cities and rural areas, but the two most prominent colonies are in Trenchtown, with some eight thousand squatters in 1961 and Kingston Penn with some two thousand. Both are in Kingston, Jamaica's capital, which had a population of 123,000 in 1960." Abrams observed that the Kingston and St. Andrew area with 400,000 people is annually increased by some twenty thousand, half of whom pour into it from the island's hinterlands, while the other half represent the natural increase.

Although the squatters are summarily evicted by police,

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they bide their time and move right back and it is believed that if there is defiance of law and order, the environment in which the people live is to blame. "Conditions in the squatter areas beggar description. Hordes of small children roam the filthy roads bare-foot, some of them completely naked."13

The squatter shelters were discovered to be make shifts of wood findings, tin scrap, or cardboard, set up in crowded clusters of single-room hovels. "I visited one where eight persons lived in a room 7 x 10 feet. The occupant was a cobbler, one of many jobless craftsmen, whose only customers were his squatter neighbours."14

It was observed that some of the squatters are eccentric, though most are normal people who lack a chance to emerge from their depressed position. They complain about being refused jobs when they reveal their addresses. Abrams also noted that in this atmosphere, discontent and violence have been intensified by the rise of the Ras Tafari movement, a militant "Back to Africa" cult, some of whose members openly advocate violence. This movement was observed to have grown into one of the most volatile aspects of Jamaica's political life. It flourishes despite a lack of concerted leadership.

13 Ibid.
14 Ibid.
and has been able to draw more and more followers because of economic depression, ignorance, and hopelessness.

The conditions in the squatter colonies were regarded to be hardly conducive to social stability and respect for law. Unemployment, overcrowding, and desolation have increased resentments, therefore, manipulation by trouble makers is made easy. The danger of explosion is always present and it is thought that if a single strong leader were to emerge, violence would be more frequent. Eight people were killed in cold blood by Ras Tafari in Montego Bay, in 1963.

"Squatter areas breed many things in many parts of the world: sullenness, hatred of authority, and violation of law are only a few. The Ras Tafari movement and the many sympathizers it has garnered happen to be the particular manifestation in Jamaica."\(^{15}\) It was felt that the creation of a decent environment with the provision of better housing, as well as work and hope, could do much to stem the tide of discontent that surges in the squatter colonies of Kingston and elsewhere.

**Implications of External Migration**

"People do not usually migrate to a new country without powerful and compelling reasons, especially when great distances have to be covered at considerable cost."\(^{16}\)

\(^{15}\)Ibid., p.21.

As discussed previously, external migration from Jamaica in significant proportions commenced as early as the 1880's. This early period saw large scale emigration particularly to the Panama Canal area when the French started their attempt to construct this water-way. Workers were recorded to have left the island at the rate of 1,000 per month in the year 1881 for such areas as Panama, Mexico, and Yucatan. The completion of the Panama Canal in 1914 closed the era of large scale emigration to the Central America and the United States became the major recipient.

Another trend was the considerable movement to Cuba in the early years of the twentieth century in response to a great demand for workers in this country's sugar estates. Twenty thousand Jamaican workers were reported to have responded to this demand by 1919 but the Depression of the thirties brought about massive repatriation to the island.

From then on steady migration continued particularly to the United States. However, the 1952 McCarran-Walter Act reduced the flow of Jamaicans and West Indians as a whole to this country, to a mere trickle. Entries to other countries on the American continent previously open to the West Indians also became difficult, therefore, attention then focussed on Britain as a major outlet. Britain's post-war economic development provided the grand attraction.

It is with this aspect of Jamaica's external migration
that this discussion is mostly concerned since it is most re-
cent and since studies have been conducted in this connection.
One study contends that "no other recently arrived minority
group has aroused emotions and controversies of the same in-
tensity and scale". Further reference to the West Indian mi-
grants in Britain will be applicable to the Jamaican migrants
since Jamaicans constitute a preponderance of West Indian mi-
igration to Britain and since most studies were concerned with
West Indians as a whole.

The number of West Indian migrants to Britain was small
until 1953. There was then a sudden increase to a peak of
26,441 in 1956 after which there was a decline in 1958 and
early 1959 followed again by an increase in late 1959. Table
6 on page 80 indicates this trend:

It will be observed that the migrants constitute a select
group. "They are predominantly young; more men than women mi-
grate, and also more people of the higher than of the lower
occupational grades." This selective migration of the young
and the skilled is of great significance. The occupational
backgrounds of the migrants were regarded to be very encourag-
ing and with a period of normal economic activity in London
these could conceivably be absorbed in the labour market with
its range of opportunities. They have brought with them a suf-
ficient diversity of experience, a sufficient share of skill,
and certainly a considerable share of youth and vigour. Table
7 on page 80 will attest:

17Ruth Glass, London's Newcomers, Harvard University
TABLE - 6

Annual West Indian Migration to Britain
(Source: Ruth Glass, London's Newcomers)

<table>
<thead>
<tr>
<th>Year</th>
<th>All Migrants</th>
<th>Jamaicans Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>-</td>
<td>547</td>
</tr>
<tr>
<td>1949</td>
<td>-</td>
<td>307</td>
</tr>
<tr>
<td>1950</td>
<td>-</td>
<td>357</td>
</tr>
<tr>
<td>1951</td>
<td>1,000</td>
<td>898</td>
</tr>
<tr>
<td>1952</td>
<td>2,000</td>
<td>1,293</td>
</tr>
<tr>
<td>1953</td>
<td>2,000</td>
<td>1,270</td>
</tr>
<tr>
<td>1954</td>
<td>10,000</td>
<td>8,000</td>
</tr>
<tr>
<td>1955</td>
<td>24,473</td>
<td>18,561</td>
</tr>
<tr>
<td>1956</td>
<td>26,441</td>
<td>17,302</td>
</tr>
<tr>
<td>1957</td>
<td>22,473</td>
<td>12,354</td>
</tr>
<tr>
<td>1958</td>
<td>16,511</td>
<td>9,992</td>
</tr>
<tr>
<td>1959</td>
<td>20,397</td>
<td>12,573</td>
</tr>
</tbody>
</table>

TABLE - 7

Previous Occupations of Migrants in the West Indies
(Source: Ruth Glass, London Newcomers)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional workers</td>
<td>1 %</td>
<td>-</td>
</tr>
<tr>
<td>Quasi Professional workers</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Shopkeepers, Assistants and Salesmen</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Clerks, Typists</td>
<td>12</td>
<td>18</td>
</tr>
</tbody>
</table>

Total Non-Manual Workers                       | 24 %| 50 % |

Manual Workers: Skilled                        | 46  | 27    |
| Semi skilled                                  | 5   | 18    |
| Unskilled                                     | 13  | 5     |

Total Manual Workers                           | 64 %| 50 % |

Farmers                                        | 9   | -     |
| Farm Labourers and Fishermen                  | 3   | -     |

Total Agricultural Workers                     | 12 %| -     |

Grand Total (all with known occupations)       | 100 %| 100 %|

Number                                         | 608 | 77    |

Despite the occupational backgrounds of the migrants in Britain there is unfortunately much evidence of difficulty experienced in procuring suitable jobs. Men and women who
had hoped for jobs in the middle class status to which they were accustomed have failed miserably to find such jobs. "It seems that many of them have been disappointed, at least in the early period of their stay in London, and that quite a number are likely to remain disappointed unless they forget their previous aspirations." 19

Many have been employed in public transport, in the post office, and in the service of local authorities; some procure jobs in the construction industry, others in factories, restaurants, cafes, etc; and nurses have been employed popularly in London hospitals. Despite these, however, Britain's new minority group has been observed to be far from free of employment problems. Their jobs are regarded to be within a fairly narrow range of status, contained particularly in the low status types. "In London 60% of the men and 66% of the women had semi-skilled and unskilled manual jobs. In the West Indies, in their previous occupations, only 21% of the men and 23% of the women in the sample had been in these rather low categories." 20

Prior to leaving the West Indies, the study shows, 24% of the men and 50% of the women occupied non-manual jobs whereas in London only 6% of the men and 23% of the women

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19 Ibid., p. 27.

20 Ibid., p. 29.
procured comparable jobs.

This represents a downgrading in the occupational status of the migrants. The Ruth Glass study recognized that "they have moved downwards - not just one or two steps but steeply to the lowest rank of unskilled labourers. They are bound to be bitterly disappointed; their period of re-adjustment is inevitably a rather long and difficult one." 21

Many explanations have been advanced for this situation. From the employers' side there is the argument that certain types of skill are not readily transferable, and again that it takes time for the migrants to get acclimatised to British employment conditions. In other quarters, and among the migrants themselves there is the charge of colour prejudice and discrimination. The latter, as argued by Ruth Glass, is not easily subject to documentary proof or quantitative assessment because "though there are colour bars, and more often colour quotas, these restrictions are not publicised." 22

Another complaint of the migrants is that they are not accepted for promotion.

Areas of Settlement for the Migrants

The migrants' choice of location for housing in London is limited. Traditional reception centres for newly arrived

21 Ibid., p. 72.

22 Ibid., p. 74.
minority groups - the Huguenots, the Irish, and the Jews - provide limited space. They cannot find lodgings in the solid working class districts which have rooted population and stable tenancies and in whose cottages and latter-day "model" tenements there is no space for further subdivision. They are not, in current circumstances, eligible for tenancy in new municipal flats, houses built by the London County Council and the metropolitan boroughs. The growing tendencies for upper and middle classes to "return to town" has created increased competition for central London sites and for the previous tradesmen's and servants residences, consequently causing a sharp increase in their price. It has also been the policy of the planners to reduce the population of the County of London; and patterns of development have been designed accordingly.

These limiting factors and others militate against adequate and desirable areas of settlement for the West Indian migrants. They are forced to go to parts of inner London which have been neglected, and which have been in the process of decline and social down-grading for some time. "West Indians find rooms in streets where the tall houses, covered with grime and peeling plaster, display their decay. The streets have been by-passed because their location - near a railway, a noisy market, on a main traffic route, in areas of mixed land use - has become an unfavourable
Many of these houses, built in the late nineteenth century were found to have been left to deteriorate because of their clumsiness and ugliness, and because it was not thought worth while to convert them to flats.

These areas become more and more dense, their housing conditions deteriorate, and their rents go up. The West Indians pay high rents for the poor lodgings, both in relation to the kind of accommodation and in relation to their income. They were found to be able to afford the rent only when they crowd together.

Summary

Internal migration, which in the Jamaican contest is basically urbanization, has converged population on the major urban centre of Kingston from as early as 1880, a process which continues to the present day. The result of this process is a sharp disparity between the population of this major urban centre, Kingston, and all others in the island. Kingston's population currently stands at approximately 400,000 while the urban area with closest population figures to that of Kingston's only record approximately 25,000.

The city seems hardly capable of coping with this exodus of population. In terms of economic viability, an economic

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23 Ibid., p. 49.
base study shows that there is much to be desired. It falls in the basic - non basic category of Ullman and Dacey's economic base classification. Since, by and large, this area represents the economic climate of the nation, the results of the economic base study are substantiated by the country's adverse balance of payments accounts.

Unemployment is still rampant and in terms of housing, there is not only inadequate and undesirable housing but this inadequacy has been allegedly responsible for another awkward phenomenon - squatting. Squatting has many adverse implications with respect to Jamaica, a very acute one is the breeding of a subculture, the Ras Tafari movement which has frequently been termed a violent movement.

Kingston's physical area, although the boundaries have been expanded, is limited and may not be able to cope with the overwhelming demand for space.

External migration started almost as early as internal migration. Movements to Panama, Cuba, and the United States were prevalent in the earlier periods but with subsequent restrictions on entry to most of these countries the trend was diverted to Britain. Attempts to procure suitable employment and housing in Britain have proven to be a most unrewarding experience to most of the migrants. This characteristic mobility of the Jamaican population is identified with a desperate quest for employment and economic security on the part of the people.
CHAPTER V

REDISTRIBUTION - ALTERNATIVE REGIONAL SYSTEMS OF DEVELOPMENT AND THEIR EVALUATION RELATIVE TO JAMAICA

It was established in Chapter IV that Jamaica's population consistently orients itself towards areas of economic prospects, though very often falling short of its expectations. The Prime Minister of Jamaica, in his message on the publication of the Five Year Development Plan 1963 - 1968 stated "Jamaica's most precious asset is the energy and vitality of its people; but this same energy imbues the community with a restless, questing spirit, steadily seeking higher standards of living, better amenities, and a fuller life for the individual, for the family, and for the community." The revolution of rising expectancy is the major stimulant to this restless, questing spirit and it will apparently continue until full utilization of these human resources is realized.

A new process of urbanization, that is, not the misfortune of the earlier phenomenon, but an ordered, guided, and constructive process must be introduced to consciously promote the advancement of Jamaica and its people. It is impossible to provide the full range of amenities and services

for the fuller life at the rural level because of the prohibitive costs involved. The congested urban area with overcrowdedness, inadequate employment and housing, and social deterioration is no better. Also, a haphazard pattern of urbanization does not seem to lend itself to maximum utilization of natural and human resources. It would therefore appear that urban growth must be purposeful.

Professor A. John Dakin argues that "in thinking of desirable patterns of population distribution we are increasingly forced to make the urban centre a focus of attention." He thinks that it requires conscious action to direct and control urban growth so that it actively supports our policies of advancement by ensuring optimum population distribution in terms of economic efficiency. He also argues that policies for nation-wide social and economic advancement formulated at central government level will be inadequate unless they are carried out where urban expansion and new growth actually take place. "The relationship between national economic development and urban development is therefore, reciprocal."3

The urban areas must be coordinated and integrated into

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3 Ibid.
a functional and viable unit. A regional system of cities is thought to be more desirable and efficient.

The Concept of Regional Planning

The phenomenon of regional planning is becoming more and more widely accepted and utilised in development programmes throughout the world. Some countries, for example, the United States, employ this method with the recognition that poverty is often localized and calls for regional solutions; Western Europe has given it new emphasis because of a movement towards economic unity, and because of the persistence of large, poverty-stricken regions imperfectly integrated with the national economy; and in some transitional societies the location shifts in economic activities caused by rapid industrialization have brought about the interest in regional planning. Again, it is recognized that the problems of earlier urbanization such as crowded central slums, traffic congestion, unemployment, and sub-standard squatter settlements are generated more often than not outside the limits of the city and called for solutions based on regional considerations.

The concept of regional planning itself is very elusive in terms of a definition but most planners agree that its primary objective in nearly all countries, is economic development, concerning itself with long-term per-capita gains in productivity and with the welfare implications of given income distribution among areas. Many regional problems are within the
scope of national policy and planning, thus the importance of national as well as local policy determination for regional economic growth.

Walter Isard and Thomas Reiner recognize four dimensions that planning should take if a sound economic development programme for a region must be realized. The first relates to the administrative level recognizing that planning takes place at the local, regional, and national levels. The second relates to the economy, concerning itself with the outputs of industries, resources for production, goods available to the people; income earned by the people, and investments made. The third is the set of laws and political structure under which a region lives. This dimension attempts to understand the way people make known their wants and desires, how conflicts between the goals of different groups are reconciled, and how specific policies and programmes take form. The fourth is the physical environment. This relates to land use, journey to work patterns, housing, and the spatial arrangements within urban areas of cultural, recreational and other facilities. An emphasis was laid on the importance of integrating (1) regional, urban, and national planning. Such aspects as

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allocating scarce capital and resources among regions and projects would benefit from this integration.

In terms of spatial relations in an economy John Friedman observes two new types, (1) between a central city and its surrounding region and (2) between one city region and another. He argues that the old "regional criteria of 'need' are no longer as determining to policy as criteria derived from purely national 'needs'".\(^5\) The old regional differences in the United States he finds to be not only disappearing, but most of the more densely settled parts of the country may eventually come within the influence of city regions. "The landscape will be overlaid with a network of such regions, one joined to the other."\(^6\) Many other regional planners have come to the same conclusions.

Following is an investigation of three regional concepts relative to the idea of the system of cities in the light of their relevance in the Jamaican context.

**The Primate City**

The concept of the primate city was introduced by Mark Jefferson some twenty years ago when he observed that some countries have disproportionately large first cities. In coining the term 'primate' to describe such urban areas he declared: "All over the world it is the law of the capitals that the largest city shall be super- eminent, and not merely


\(^6\)Ibid.
in size, but in national influence."^7

Primate cities, defined, are large urban agglomerations. Although they are present in most societies to a certain extent, they are found to be particularly characteristic of the developing countries. They are far larger than any other urban centre in the countries concerned and are observed to dominate the economic, social, and political life of the country to an overwhelming degree. It is also observed by many that the primate city provides a dampening effect on economic growth as is substantiated by the observation that primacy tends to decline as a country ascends the developmental scale. In order to clarify the concept, one author uses Mexico City as a typical example of primacy.

Clyde Browning, who is particularly interested in the subject, argues that Mexico City is one of the best examples of primate cities. "Here is the seat of the national government, the largest manufacturing centre, the transportation focus, the mecca of the tourist, the financial nerve centre, the corporate and managerial headquarters, and the educational and entertainment heart of the country."^8 Mexico City metropolitan area in 1950 contained 27% of the urban

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population, 40% of the industrial production, and 30% of all Mexican Automobiles. This dominance of activities in Browning's view represents a disadvantage. "Mexico City's attraction is powerful not only quantitatively but qualitatively as well, for it attracts the best brains and talent in the country."\(^9\) A result of this is the extreme difficulty for an individual to make a name for himself in virtually any field without journeying to Mexico City.

It was also discovered that many of the other provincial capitals are unable to provide necessary services and facilities. The professionals, for example, prefer the glamorous life and the range of facilities available in the big city and as a consequence this city has an abundance of professionals while there is a scarcity in other provincial capitals. This is regarded as a draining away of much of the strength and vitality of the provincial capitals.

All these are related to the adverse effects of the early processes of urbanization outlined in Chapter II.

The primate city, however, should not in all cases be regarded as one that exerts unfavourable influence upon economic growth. Bert Hozelitz, who conducted further investigation into the subject has discovered a dichotomy of

\(^9\)Ibid.
primate cities into "generative" and "parasitic". Cities, he contends, are generative of many things including economic growth and cultural change as well as social disorganization and other undesirable forms of social behaviour, but he believes that there can be this dichotomy in terms of economic development. He designates a city as generative if its impact on economic growth is favourable, i.e. "if its formation and continued existence and growth is one of the factors accountable for the economic development of the region or country in which it is located." 10 The city whose impact on economic growth is unfavourable, he designates "parasitic".

The generative or parasitic quality must not be judged with reference to economic growth within the city and its immediate environs, but only with reference to the wider region which the city dominates.

If the primate city fits in an over-all process of development of a system of cities corresponding more or less to a functional and size distribution model that is, an organization of economising units, this is considered a desirable pattern of economic development in which urbanization plays a predominantly generative role. Under these

circumstances, the primate city as the leading city in a system of cities would be of considerable significance and importance. "To the extent to which this development of a system of cities is impeded, or to the extent to which a top-heavy system exhibiting the characteristics of primate city domination cannot be overcome (and especially in those cases where the dominance of a primate city is reinforced in the process of urbanization) we may find a series of at least temporary parasitic influences exerted by the primate city." 11

John Friedman conceives of a hierarchical approach to the system of cities consisting for example, of primate, regional, provincial, and local service cities. The position in the hierarchy is dependent on the size - group of urban population taking into consideration such elements as (1) the total population over which the hierarchy extends its influence, (2) the level of economic development in the area, and (3) the state of transportation technology. The primate city, in his view, could be the great centre of manufacturing and of specialized services such as finance, publishing, science, arts, communications, government etc., as well as the area which has the greatest relative market potential; the regional city, within the sphere of influence

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11 Ibid., p. 214.
of the primate city could be a regional and trade centre particularly for wholesale trade and may be for regional administration; provincial cities are generally sub-regional trade centres or manufacturing centres but could serve as capital of a political subdivision; and the local service city could provide limited services to the rural hinterland with light manufacturing mainly food processing.

The Central Place System

The concept of the central place system evolved from the realization that man has a number of social and economic needs that can be satisfied only by the clustering together of people. This clustering together is accommodated by villages and towns which cater to the social and economic needs of man. Some of these settlements develop as retail centres, some as industrial cities, some as administrative centres, and others as resort towns. Some of the social and economic needs to be satisfied are education, medical care, recreation, economic activities, religious activities, news dissemination and a host of others.

For each type of service performed by the settlement there must be a minimum number of people to patronize the service in order for it to be profitable. This minimum population is known as the threshold for that service. Some services require larger thresholds than others to the extent that they are not justifiable in some centres. Therefore,
a functional hierarchy among centres has been developed - a village for example will provide only rudimentary services, while a city will provide the whole range of services.

The central place system was introduced by a regional geographer, Walter Christaller, who observed these relationships between settlements. In essence Christaller argues that, from the regional point of view, a certain amount of productive land supports an urban centre and that the centre exists because essential services must be performed for the surrounding land. Thus the inter-relationship may be observed. The city or other urban area performs services for the people within it and at the same time capitalizes on the productivity of the surrounding land for sustenance. These individual cities performing their particular roles are then brought together as a system of cities each interacting with one another. They range from the small village "performing a few simple functions, such as providing a limited shopping and market centre for a small contiguous area, up to a large city with a large tributary area composed of the service areas of many smaller towns and providing more complex services such as wholesaling, large scale banking,

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specialized retailing, and the like". Services performed purely for a surrounding area is called 'central' functions, and ideally, each central place should have a circular tributary area but the hexagonal shape of the tributary area was introduced since tangential circles leave spaces between them. A rigid network of such central places and their hexagonal trade areas could be applied regionally. Christaller observed the sizes, population, and distance apart of central places that follow a norm from largest to smallest in an order: 1: 2: 6: 18: 54 etc. "The settlements are classified on the basis of spacing each larger unit in a hexagon of next order size, so that the distance between similar centres in the order stated increases by the $\sqrt{3}$ over the preceding smaller category." Most of these regularities have been found to apply in Germany when Christaller developed his theory in 1938. They apply on a uniform plain.

The theory has since been modified. August Lösch, for example, added to it by developing an explicit statement on the demand cores over areas for goods and verified the

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13 Ibid., p. 204.
14 Ibid., p. 205.
hexagonal shaped complementary region as the best shape when purchasing power is uniformly distributed. He also provided a clear relationship between the arrangement of transportation routes among cities and central place ideas. He assumed a flat plain with no geographical or political irregularities and with an equal distribution of resources.

The central place system has been adapted and used for planning purposes. In the Ghana Regional Programme and Plan, for example, produced by planning consultants Doxiadis Associates, the planners formed their community pattern on the basis of the central place theory. Their idea was that a certain pattern of inter-relation among various communities should be determined by the physical and economic conditions of the particular region. Different classes of communities were identified. These were (1) villages serving only their own inhabitants which constitute fundamental communities or Class "A" (2) other villages which serve the needs of other communities neighbouring them which were designated as Class "B" (3) bigger communities which serve larger areas covering major needs. These are the market towns, administrative centres etc., which were designated Classes C, D, etc. They were all regarded as related to one another, "each one depends on others, each one is served for certain functions by another and covers certain needs of
Each Class "A" community consists of a village and the agricultural area around it, the size being determined by the permissible maximum distance a farmer walks to his farm. A homogeneous area was conceived to have six fundamental hexagonal communities i.e. Class "A" on a periphery, with one hexagonal Class "B" community in the centre. Seven such groups of communities laid in the same way, would determine the area and the number of villages served by a still higher order community Class "C" which would be the market town. Classes "D" and "E" are determined in the same manner.

The consultants regarded the model as being theoretical and would have to be adapted to certain regional and local physical considerations like mountains, rivers, lakes, technical works etc. The theoretical pattern was considered to be significantly important in that through it they may properly perceive the problems, determine the number and size of villages, and after its adaptation to local conditions proceed to correct regional programming and planning. It helped not only to plan existing and locate new communities but to determine the class of each community and its role in the region. After this step detailed programming and policy definition regarding other fields of development like communications, schools, markets, etc., were possible.

The Multi-Nucleated System

The multi-nucleated system of cities is another concept worthy of examination. This concept evolved partially from observation of the relationship of some urban centres particularly in the United States, a relationship which portrayed little dominance of any one centre.

In a specific theoretical statement Ian Burton states: "The ideal-typical dispersed city consists of a number of discrete or physically (but not necessarily politically) separate urban centres in close proximity to each other and functionally inter-related, although usually separated by tracts of non-urban land." He argues that the size of the urban places is larger than might normally be expected for centres so closely spaced and pre-supposes an economic base other than the provision of services for a surrounding area in which, field or row crop agriculture is the dominant activity. Any type of mining area may be expected to exhibit such characteristics, as well as certain areas of intensive agricultural production such as truck or fruit farming. The emergence of such type of centres depends partially upon the level of transportation technology operating in the formative stage of the settlement pattern. The size of the population of the centres could give an idea of the existence of

dispersed cities. Rather than having predominant cities with population twice that of their nearest rivals, several cities in the same size class of population would be more desirable.

The retail trade patterns among the urban centres of the dispersed city usually reflects the inter-dependence of the centres. For example, one place may have a high order store (e.g. furniture) patronized by customers from the whole of the dispersed city, yet another excels in footwear, or radio and television sales and service, or automobiles. Specialized services, such as a jet airport, may be located in one of the centres to serve the whole of the dispersed city. Functional specialization patterns may be reflected in retail sales returns, traffic flow, or other readily available data.

External trade patterns is another criterion for detecting the existence of a dispersed city. For example, an unusually large proportion of the retail purchases may be outside a particular area. In such a case, local specialization as described earlier only partly compensates for the lack of other facilities. If the centre concerned embarked on planned development of the missing facilities, the necessary threshold of purchasing power at which such a facility might seem attractive, may not be present and could disrupt the concept.
As pointed out earlier, a specialized city or cluster of cities performing a specialized function for a large area may develop at a highly localized resource. The resource may not necessarily be a mineral. Equally important with physical resources are the advantages of mass production and ancillary services. The specialized city, once started, acts as a nucleus for similar or related activities. Concentration of industry in a centre means that there will be a concentration of satellite services and industries, such as supply houses, expert consultants, other industries using local industrial by-products or waste, marketing channels, specialized transportation facilities, skilled labour and others. Either directly or indirectly these elements benefit industry and cause it to expand in size in a concentrated place. Local personnel with the know how in a given industry may also decide to start a new plant producing similar or like products in the same city. This is a prime example of specialization. Other unrelated activities may start in centres in close proximity to this example with the same degree of specialization. Thus are the beginnings of the dispersed city because specialization and inter-dependence are inter-related.

**Evaluation Relative to Jamaica**

Having decided, then, that an ordered, guided, and constructive process of urbanization is important to
development and that a system of cities would more efficien
tly accomplish this task, an evaluation of the three
systems reviewed would be more meaningful if viewed in the
context of Jamaica's goals.

The Jamaica Five-Year Development Plan (1963-1968) sets
as its fundamental goals, economic viability and social and
cultural development and integration. More specifically
these could be broken down into: full employment, eradica-
tion of illiteracy, education for the masses, and social
stability. Higher government spending and rapid industria-
ization were both regarded to be vital in achieving these
aims. In terms of industrialization two of the approaches
were conceived to be "to accelerate the process of indus-
trialization, and to encourage the location of industries
in different sections of the island".

This method of improving standards of living is widely
acclaimed by most of the developing countries, but extreme
care should be applied in the process, for it could bring
dangerous results. The outcome of the industrial revolution
in England in the 19th century is a prime example.

Industrial location should be planned. It should be
controlled so that it conforms with both the economic plans
and the spatial distribution desired for towns and people.

18 Government of Jamaica, op. cit., p. 51.
"Industries should not be located with reference only to their scientific, technological and strictly economic short-run requirements, but also in accordance with the long-term urban and regional needs of the national whole." \(^{19}\)

Some industries inevitably have to be directed to locations where their economic efficiency would be potentially less than in some freely chosen area. Ways have to be found to resolve this. Other elements have to be carefully considered such as sources of raw materials, transportation systems, markets for goods and services, labour supply, and land use. (Some of these will be examined in Chapter VI)

They are in reciprocal relation to industry and to each other. The parts help the whole to grow into an entity of greater or less efficiency. Individual efficiencies should not be allowed to add up to aggregate inefficiencies for lack of vision.

Regarding the concept of the primate city, Kingston is observed to be one which currently falls into the "parasitic" category of Hoselitz dichotomy (because its present influence on general economic development is not favourable). However, there is no reason why this could not be adjusted to the "generative" category and be made to fit into a system of economising units. This could be accomplished through

\(^{19}\) A. John Dakin, *op. cit.*, p. 52.
regional planning and by strengthening the regional capitals' competitive position relative to that of the national capital. Friedman's hierarchy of the primate city, the regional capital, the parish capital, and the local service city could then be applicable. A major problem here though, is that with the currently strong magnetic sphere of influence that the Kingston metropolitan area wields it might not be easy to overcome the inertia and to encourage habitation of new or expanded centres. Perhaps nothing short of drastic action, for example, shifting the capitalship and the administrative functions from this area to another designated area would create an incentive for movement. This would destroy the primate city hierarchy but it is only an assumption and further investigation is necessary before any decision can be taken relative to the acceptance or rejection of the concept. Again, Friedman's view is purely hypothetical thus care should be taken if any adoption be proposed.

The central place system has been developed and further tested in developed economies. It seeks to ascertain what is the most efficient division of space, given an array of functions. In contrast to this, industrial location concepts deal with the spatial distribution of activities which serve regional and national markets and which depend on a complex of resources, transportation and communication networks, as
well as supplies of labour. Although the latter is more pertinent in the Jamaican context, it may be unwise to ignore the former for the spatial process of the development of rural land uses particularly in agricultural and forest locations provides a link between the natural environment and human settlement. On the contrary the relatively small size of Jamaica might rule this out. Also, the non-central place activities, typified by the manufacturing sector and by transport routes do not depend upon carving out local hinterlands. A great number of locations, whether central place or not, may compete for such activities. It must be realized that the probability of an area obtaining investments and employment varies with population, i.e. the pool of labour and other characteristics; size of the community; the nature and extent of existing activities; transport possibilities; and the natural resource complex. The topography of the country also does not permit full use of the concept.

Two important considerations could militate against the exclusive use of the dispersed city in Jamaica. First, the geography of the country consisting of a mountainous terrain may not lend itself readily to easy interaction between specialized urban areas which is so vital to this concept. Secondly, specialization may not be easily adapted to a developing economy as it would be to a developed one. For
example, there might not be the immediate need for a wholesaling urban centre until industrialization is well established and markets well organized.

Thus it is doubtful whether any one of the three systems of cities outlined could be applied to Jamaica in its present form. Either a combination of the three or a modification of any one might, however, be justifiable if such variables as natural and human resources, topography, and transportation and communication patterns be thoroughly investigated and integrated into any scheme of proposals.

Richard Morrill has derived a simulation model for the distribution of towns in any region recognizing that location is the result of a long and complex inter-play of forces. Morrill argues that any approach to this matter should take into account "(1) the economic and social conditions which permit and/or encourage concentration of economic activities in towns and cities; (2) the spatial or geographic conditions which influence the spacing and size of towns; (3) the fact that such development takes place gradually over time; and (4) recognition that there is an element of uncertainty or indeterminancy in all behaviour." The model, he admits, is a probability one.

which identifies the process of urbanization and migration, and generates patterns which are similar to actual ones. He takes as a starting point the population pattern at a particular time. Then for a designated later time period, he assigns by means of random numbers, locations for new transport links; assigns locations for manufacturing or other non-central place activities; each stage being dependent on the previous one. Such assignments of activities change the attractiveness of areas - the anticipated urban population creates new opportunities. Paths for the migrants between all areas are then assigned in reflection of the altered opportunities. He contends that a new population structure would result and the process is to be repeated in another time period.

The Model is also aimed at the redistribution of population. It seems less rigid than the previously discussed arrangements for towns and could rank high on the list of priorities for Jamaica if, of course, it is rigorously examined.

Summary

The urban area is becoming inevitable as the focus of human habitation if the tide of rising expectancy is to be satisfied. Only through efficient concentration can the range of facilities and services be economically provided. Economic gains have to be foregone in many instances in
preference to economic feasibility i.e. where the benefits (both economic and social) outweigh the costs. Individual cities without proper coordination could result in a disjointed economy and a social loss. It is therefore, necessary to secure strong national, regional and local coordination and an efficient system of cities located at their most advantageous positions to do the most good for people and country.

Three regional systems of cities have been examined: the hierarchy of the primate city; the central place system; and the multi-nucleated concept. No individual one was found to be directly compatible with the Jamaican situation. Modification of either one, or a combination of the more desirable features of each is thought to be possible if all the variables are considered. Richard Morrill's new simulation model for the distribution of towns is thought to have much value.

Some of the conditions which will affect any decision on a system of cities for Jamaica are examined in the next Chapter.
CHAPTER VI

SOME DETERMINANTS OF LOCATION DECISIONS

Chapter V pointed to the need for an orderly, guided, and purposeful process of urbanization if Jamaica is to realize its social and economic goals. Implicit in such a process is the need for rapid industrialization and the appropriate location of industries to yield the most benefits since industrialization, as demonstrated by the developed countries is the fastest means to development. It was concluded that apparently no rigid theoretical system of cities could be applied to Jamaica if certain repercussions are to be avoided. Certain modifications to such systems (if not total abandonment) are deemed necessary to achieve desired developmental structure. Since industrialization is considered the medium for development, these modifications might be best accomplished if related to the requirements of industrial location. Certain areas of the country may not readily lend themselves to the performance of some industrial activities but for the purpose of "balanced growth", the government inevitably must assume the initiative of providing in such places an environment in which industry, as a functioning entity, can live and grow and provide employment. Some of the criteria which will aid in guiding the combined process of industrialization
and urbanization in Jamaica are investigated in the following portion of this Chapter.

Theories of Industrial Location - Brief Reviews

Losch's Net Profit Approach

In his general theory of location, August Losch stated that it is meaningless to pick out a location and examine its relations to its neighbours in isolation. "We are faced with the inter-dependence of all locations". He argues that this functioning of the whole system is more important than the special location theory which offers unrelated details. Between these two opposing views he realizes the theory of economic regions. This theory recognizes the universal inter-dependence of locations and considers the relations between all producers and consumers of the same goods, and between the producers of different goods in so far as they are significant for the establishment of major cities and main transport arteries.

In a rational choice of location, "definite and characteristic combinations emerge between the places where a commodity is produced and where it is consumed depending on their numbers and location". He argues that there will

1 August Losch, The Economics of Location, Yale University Press, New Haven, 1959, p. 8.

2 Ibid., p. 9.
be many such combinations in the market as a whole which will usually split into smaller groups called submarkets. It is rare that a single producing centre deals with a single consuming centre - several producers are usually grouped about one consumer or vice versa referred to as regions of supply or of demand, both included under the term "market areas". He regards these two basic types of positional relationships as the core of every determination of a location.

In terms of specific industrial location, Lösch disagreed with some former theories, for example with Alfred Weber's theory which considers only cost factors such as costs of transportation and production, completely disregarding supply orientation; and another diametrically opposed scheme which considers only the demand side and which is concerned with Gross Receipts and disregards costs of production. The latter looks towards the number of buyers in an area and to their purchasing power. He regards both these as one-sided orientations which in his estimation are incorrect. "The right location depends neither upon expenses nor upon gross receipts alone, to say nothing of any individual cost or receipt component. The determining factor is their balance: the net profit."3 He argues

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that the location in which net profit is greatest is the correct place for an individual enterprise in a free economy. He could designate no particular procedure for an industry finding this area because he knows no scientific and equivocal solution for the location of an individual firm. Empirical testing would have to be employed by the entrepreneur in his view.

Isard's Comparative Cost Approach

In Walter Isard's approach to industrial location analysis he endeavours to investigate the types of industries and amount of each that can be expected to exist or develop in a region. He uses his 'comparative cost' method, "an approach that casts considerable light on the 'why' of systems of industrial locations." The objective of such studies is to determine the region or regions in which industry can achieve the lowest total cost of producing and delivering its product to the market based on an anticipated pattern of markets and a given geographic distribution of raw materials or other productive factors.

Briefly stated, a comparative cost study involves securing enough information to calculate the total production costs the industry would incur in each of the regions to be

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compared. Such region or regions with the lowest production costs (including transport costs) would be the most desirable location from an economic point of view. The difference in total cost from region to region is the important magnitude, thus the regional comparative cost study need consider only the production and transportation cost elements which differs from region to region. Such components that do not vary may be ignored since they give rise to no regional advantage or disadvantage.

In addition to finding industries which can best use an abundance of resources, Isard realized that it might be equally important to find industries to diversify the economic base of a community, or to change the spatial pattern of population or to change over time the degree to which one or more industries are material or market oriented. To these ends he refers to the derivation of a useful coefficient, the coefficient of localization. "This is a measure of relative regional concentration of a given industry compared to some total national magnitude such as population, land area, manufacturing employment or income."\(^5\) Essentially, it compares the percentage distribution of employment in the given industry by region with the regional percentage distribution of the base magnitude, for example, total national employment.

\(^5\) Ibid., p. 251.
The computation involves: (1) subtracting each region's percentage share of total system employment in the given industry from its percentage share of total manufacturing employment in the system; (2) adding all positive or all negative differences; and (3) dividing the sum of the differences by 100. If an industry is distributed exactly the same as the base magnitude, the value will be 0 and will vary accordingly dependent on the degree of concentration.

The Concept of Predetermined Industrial Location

Kojo Twumasi, in his master's thesis on industrial location in the developing countries concluded that in order for such countries to achieve their industrialization goals the location of industry must be predetermined within a regional framework. This is in response to the tendency for some countries to select only a few large cities as points of industrial concentration with complete disregard for the smaller towns and rural areas. In the latter case, national development goals, such as full employment, increase in per capita income, and the other elements would be difficult to achieve. Predetermined industrial location is the approach followed by Puerto Rico in accomplishing its development policies. In this context it was based on the premise that the country is so varied in topography, soils, and socio-

economic pattern to permit its division into sub-areas to facilitate industrial planning purposes.

A division of a country in such a manner permits detailed examination of the needs and potentialities of its various regions. Not only does it present the geographical framework within which the economy operates but it assists in planning for facilities that support industrial location e.g. transportation, water, electricity, and other utilities, housing, and other community facilities. The main criteria for selecting areas are: proximity to raw materials, transportation network, existing labour source i.e. large centres of population, existing labour source i.e. large centres of population, existing industrial and residential services and facilities, and accessibility to surrounding towns as trade centre.

Evaluation

Basically, there is a marked similarity between Lösch's "net profit" approach and Isard's "comparative cost" approach to industrial location in that they both aim at finding locations which will ensure maximum returns from industries. Both theories are primarily concerned with aiding the private entrepreneurs whose main motives are oriented towards securing locations for their industries such that money profit will be maximized. Such a dimension is important to a developing country since it would be folly for it to attempt to produce
at a loss indefinitely. However, the developing country needs an approach which considers more than the profit motive. Overall consideration for the population's needs, that is, the social welfare motive, should take high priority in the nation's programme and be incorporated in any location decision. A regional approach to industrial location which will assist national policy makers on development to examine closely the resources of both urban and rural areas, and to organize these resources to create employment and income for the population is needed. Isard's coefficient of localization procedure could be of immense value in this respect.

The apparently successful use of the predetermined location method in Puerto Rico should not be overlooked. It recognizes that special purpose regions not only overlap, but seldom coincide with political boundaries on which most statistical data are based. Nevertheless, major regions were derived, each an approximation from the multipurpose point of view; each delimited by existing political boundaries; each dominated by a major urban centre providing such city functions as commercial exchange, manufacturing, and ocean shipping; but each also different from the others in its problems and its resulting demands on integrated regional planning.

Although this system has not been widely tested it is believed that Jamaica could benefit from its use. Jamaica,
like Puerto Rico, has the same development goals, namely to enable all areas of the country to benefit from industrialization; the geographic features of both islands are similar; and they are both characterized by a relative lack of natural resources. Also, the process affords easy application in that it takes full advantage of existing elements such as settlements and transportation thus introducing the aspect of economy which is so vital to the developing country. The ease of application of this method is its main advantage over Isard’s coefficient of localization system. The following section is devoted to identifying a physical framework of Jamaica which could aid in location decisions.

Other Determinants

Transportation

Of the principal determinants for the location of economic activity, and hence, urban location, namely: markets, raw materials, fuel or power, labour and transportation, the latter has been widely acclaimed as the most important. Transportation as defined by Mossman and Morton in their Principles of Transportation, is "a service or facility which creates time and place utility through the physical transfer of persons and goods from one location to another, while production creates form utility through changes in the physical characteristics of goods." The authors contend that

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transportation precedes production by bringing in raw materials and supplies, as well as it follows production through the distribution of the finished or semi-finished articles. It has a direct relationship with the economy in terms of satisfying the needs of society. People produce goods and services to satisfy wants. What they produce depends on the kinds, numbers, and intensities of their wants; what they want depends to a considerable extent on the availability of goods; and availability is effected by the transportation service. As transportation costs decrease, goods can be secured from more distant points and will cost less time and effort, since a reduction in transportation costs in turn realizes a reduction of total costs at the destination.

Relative to location, the importance of transportation arises from the fact that location is a matter of spatial consideration, and transportation is a means of overcoming space time. Thus Dudley Pegrum argues that "the influence of transportation on local and regional development stems from the function of transport to lessen the costs of the barriers of time and space which arise in connection with the processes of production." He thinks that the differences of regions and areas which lead to interchange must

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be such as to make the incurrence of the transport costs worth while. At the same time the prices which are charged for the transport services are of vital significance to the development of areas.

Thus if all costs to an industry are constant for any location, that is, ignoring transportation costs, the ultimate location decision will be determined by ascertaining the site which provides lowest transportation costs. The movement of both raw material and finished product have to be considered, hence processing will take place near the market if it costs less to transport the raw material, and near the material source if product transportation is less costly. However, where considerable weight loss during fabrication is realized, the locational pull towards the raw material source is realized; and likewise when weight giving process is involved, the orientation will be towards the market invariably.

Transportation costs also vary with the medium used i.e., whether water, road, rail, or air. Water transportation is usually the cheapest, though a slower mode, while air transportation is usually the most expensive. The choice of a medium depends largely upon the time required for the raw material to reach the plant or for the finished product to reach the market with reference to the relative cost of transportation. The various media may be used to supplement
or complement each other. Apart from the cost aspect of transportation there is the fundamental consideration of local access. The facilities required by transportation include harbours, railways, highways and airports.

Harbours - Where raw materials required for processing, or where finished products are intended for foreign markets harbours are particularly necessary. An earlier statement pointed to the cheapness of water transportation. Not only would harbours be required for the processes of importation and exportation but also on internal waterways, where navigable.

Railways - These play an important role in transporting heavy materials both raw and processed. They also provide important links between communities by providing relatively low fares to people.

Highways - Highways provide the fundamental means of internal movement. With the increasing usage of the automobile for domestic purposes and of the truck for industrial transfers, highways have become an important priority item on many national budgets. Good roads, properly maintained are of immense value to the location of centres.

Airports - Air transportation handles both intra and international movement of people and high-value commodities as well as expedited shipments. The presence of air transport in an economy cannot be over emphasized if gross
efficiency and speedy links to areas are to be accomplished. Strategically located airports are invaluable to proper interaction of communities.

An analysis of Jamaica's present transportation system has not been too disappointing. The greater portion of the island is provided with road access. Although many of these roads are in a state of disrepair and others have not been provided with proper surfacing, the government is embarking on a road construction program (as indicated in the Five-Year Development Plan) "to bring secondary roads up to proper standards and so to provide better conditions for agricultural and industrial traffic". This will very soon provide a desirable highway network. The island at the moment is served by two international airports and several minor air strips. Considering its size these may be regarded as reasonably adequate for the present but with further development air linkages between all major centres will become necessary for domestic traffic.

In terms of harbours nearly all coastal towns are provided with marine access. For the convenience of the others or for any proposed coastal community it is not believed that any difficulty will be encountered in providing this facility. For example, there is a current proposal for a deep water port at Montego Bay. An inland river, the Black River, is also navigable and could easily be incorporated in the marine

circulation. Two spines of rail lines connect the major cities of Kingston, Montego Bay, and Port Antonio as well as all intervening towns. Because of the mountainous terrain provision of extra rail facilities might prove to be prohibitive on a large scale, however, connecting the southern communities might be a possibility. Figure 3 page 124 illustrates existing transportation network and the major towns in the island.

Natural Resources

Economic activities may again be influenced by the incidence of raw materials and other natural resources. Yet, the tremendous impact which raw material exerted in this direction earlier has been modified greatly with the advancement of transportation technology as discussed in the above section. Also, with technological advance, there is extensive use of synthetic material in the manufacturing processes.

Some industries, on the contrary, because of their special characteristics, rely on the source of raw material in determining their location. This is particularly true of the food processing industry. Also, some industries depend on the products or by-products of other industries in which cases it would be advantageous to locate close to these sources. Industries using low-valued, heavy, bulky raw materials are another group to which proximity to source
FIGURE 3
TRANSPORTATION NETWORK, MAIN URBAN AREAS, AND TOPOGRAPHY OF JAMAICA

LEGEND

- 1-2000
- 2-5000
- 5-9000
- 9-25000

- 400,000

- PRINCIPAL ROADS
- OTHER ROADS
- RAILWAYS
- SEA PORTS (PRINCIPAL)
- AIR PORTS (PRINCIPAL)
- MOUNTAINS

URBAN POPULATIONS

SCALE IN MILES
0 10 20 30
is helpful. Examples of some which fall in the latter category are lumber production, cotton ginning, and brick manufacturing from clay. When other location factors, such as transportation, labour, or market are considered together with raw material, it is the cost of the latter that demands a major consideration.

Minerals

The mineral resource complex of Jamaica consists mainly of bauxite, a relatively easy to mine ore with an estimated reserve of roughly 315 million tons. The deposits are said to have no overburden and are of considerable sizes generally. The parishes of St. Elizabeth, St. Ann, and Manchester are the chief areas in which this mineral exists. Suitable processing methods have been developed for the economic treatment of this ore and large scale mining and processing (to alumina) operations are currently in motion. Communities around such operations could benefit immensely from such strong economic bases.

Large deposits of high quality gypsum have also been under development since 1949. "The deposits are not bedded but consist of massive and pure gypsum rock, occurring under rather complex structural conditions along and on the eastern side of the Wagwater fault, as well as other parts of St. Andrew. The gypsum rock encountered in all these areas is considered to be of high quality (over 85% pure gypsum)
"grading in many instances into alabaster". The bulk of this mineral is exported for processing.

The Geological Survey Department of Jamaica is currently prospecting for ferrous and base metals. Iron, copper, and other metalliferous ores are believed to exist which, if verified, would permit the development of further mining operations. The parishes of Portland, St. Andrew, and Upper Clarendon are the favourable locations for these minerals. Prospecting for oil in the central and western end of the island is also in process.

The location of all existing and probable mineral deposits are shown on figure 4, page 127.

Agriculture

Despite its declining importance generally, agriculture should not be overlooked as a necessary element in the Jamaican economy. The continued exportation of rum, sugar, bananas and citrus fruits plays a significant role in the economy. "Favourable projections for the world sugar market over the next few years have generated plans for a crash programme for expansion of production of sugar cane, which are now being worked out". This is supported by the Land


Reform programme which is designed to "achieve a rapid and continuous increase in agricultural production and productivity by organizing, proper distribution, servicing, and usage of large proportion of currently unused or underutilised lands which are capable of intensive economic utilization in agriculture."  

Agriculture is therefore regarded as a main feature of Jamaica development. The land is regarded as a national asset to be developed intensively by private endeavour aided and coordinated by the government. It is the policy of the Five-Year Independence Plan to "streamline agricultural production as a fully productive arm of the new economy. It sets out to feed the rapidly growing population, to stimulate and develop food processing industries, provide a higher standard of rural life, reduce dependence on imports protect and rehabilitate the land, increase the skill, self-respect and status of the farming community."  

The reliance on this activity as a significant contributor to the economy is thus evident.

In view of the significance attached to this aspect of the economy by the government it is obvious that agriculture will have a profound effect on location decisions. First of

12 Ibid., p. 73.
all, it would be undesirable to locate urban activities on prime agricultural land. Secondly, as discussed before, food processing industries tend to locate close to raw material source because of the perishable nature of such raw materials. Figure 5, page 130 indicates the current agricultural land use of the island. According to the map there are obvious conflicts with other resources in which case the ones with the greater economic potential should be given precedence. The arrows on the illustration indicate major parts through which agricultural products are exported.

Places of Interest

Tourism in Jamaica is regarded as the third largest export industry. Still a new policy aims at boosting the industry to larger proportions by attempting to increase the number of middle income tourists as well as by improving standards in the luxury clientele section. The endowment of a varied topography and serene beauty has continued to attract visitors to the island in large numbers which has provided a steady income to the economy. It should be evident then that any planning should take cognizance of this and preserve such areas of distinctive interest that provide the main attractions. Almost the entire north shore of the

14 Ibid., p. 10.
FIGURE 5
AGRICULTURAL LAND USE - JAMAICA

LEGEND

- Sugar Cane
- Bananas
- Coffee
- Citrus
- Cocoa
- Coconuts
- Forest
- Pasture, Subsistence and Ruinate

SOURCE:
island has been dotted with resort towns. Other potential areas exist which could be incorporated into this sphere of activity.

**Topography**

In determining the pattern of economic relationships, topography should be given due consideration. This element presents a limiting factor to the extent of interaction between towns. The Puerto Rico study established that towns on the coastal plains were not heavily affected "but the relationship of towns in the high lands to their centres is basically determined by topography and the ease of access between them." This of course presupposes that major centres should not be located in the highlands. In the case of Jamaica a few important towns are located in the highlands, many of which perform important functions to, for example, bauxite mining operations (bauxite deposits are largely located in the mountains). Mandeville and Claremont are typical examples of this. These are currently connected with main road access and enjoy fairly good relationship with other towns, however, the provision of other means of access might be difficult thus limiting the extent of participation by these towns in the overall economy.

Jamaica's surface configuration reveals a preponderance

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of mountains with ranges above 5,000 feet, the highest peak being the Blue Mountain Peak which is over 7,400 feet high. These mountains occupy the central portion of the island allowing only an average of ten miles of coastal plains.

Existing Urban Centres

Probably the most critical determinant of location for Jamaica is the occurrence of existing urban centres. The coastal plains of the island are dotted with urban areas at fairly regular intervals, particularly along the main transport routes. Some of these are important administrative centres, being in many instances the seat of parish administration while others are resort towns, agricultural centres, or minor industrial centres. They all invariably possess some of the basic urban facilities such as water, electricity, telephone, housing, commercial facilities, and some provision for health, recreation, education and welfare opportunities. Although, if analysed, it is believed that the amounts of these urban amenities are inadequate in many instances, there will be no doubt that these places represent good foundations for urban expansion. Industries are very sensitive to the availability of utilities necessary to their operation.\(^\text{16}\) Also the inhabitants of all areas should be provided with all necessary facilities

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and services. In attempting to optimise the amounts of these elements both for industrial and community purposes, the extent to which they are available in some areas would be a good indication of the scale of expansion as well as the proportion industrial concentration to be expected in such areas. These of course would have to be weighted against the other criteria listed earlier.

Existing urban centres as a criterion, affect location decisions both from the social and economic points of view. In terms of a developing economy, the amount of capital investment is sufficient to discourage abandonment of any built up area except in cases where there are obvious advantages to relocation. From the purely social point of view, abandonment of areas could result in unexpected repercussions through the dislocation of family and friendship groups. This has been proven only too often in urban renewal schemes in the United States and Britain.

It would be apparent, then, that all urban areas should be analysed with reference to their various abilities to permit industrial development. Those that display unfavourable potentials should be incorporated into the trade areas of the industrial centres to perform service functions and to provide a desirable habitat for their inhabitants. All areas, however, should be provided with all necessary urban facilities and services. The network of existing urban areas is shown in
Summary

Factors contributing to location decisions include industrial location theories, transportation, natural resources, topography, and existing urban centres.

The location theories of Lösch and Isard are mainly profit oriented, a fact which, though important to a developing country, has to be subordinated to other social goals because of the nature of the problems. However, Isard's coefficient of localization method of industrial analysis appears to be very valuable. The concept of predetermined industrial location, such as was applied in Puerto Rico, seems to be more adaptable to Jamaica and appears to have a better potential. The relative ease of application is the main advantage of this approach over Isard's coefficient of localization method.

Of the other supporting criteria, transportation and the occurrence of existing urban areas are considered to exert profound influences on location decisions. Transportation, however, provides more flexibility. Analysis showed that most of the island is currently accessible by most modes though it is believed that improvements to many of the modes would be necessary. Urban centres are relatively evenly dispersed on the coastal plains with quite a number on the highlands. The extent to which industries can be concentrated in these will
be influenced by the amounts of existing facilities together with the area's scope for expansion. Agriculture and tourism are quite critical to location considerations because of their value and because of the government's policy towards economic participation from these sectors.

In conclusion it may be said that the concept of predetermined industrial location could be applied to Jamaica in the initial stages of development for expediency. Since the concept has not been rigorously tested it might be unwise to rely wholly on it for complete industrialization. Thus in the secondary stages of development, Isard's coefficient of localization process could be utilized as a check for efficiency and to achieve necessary adjustments.

An attempt to present some devices for implementation and administration of development is made in Chapter VII.
CHAPTER VII

DEVELOPMENT IMPLEMENTATION: LEGISLATIVE AND ADMINISTRATIVE CONSIDERATIONS

Some theoretical regional systems of cities relative to development in Jamaica were reviewed but it was concluded that neither one in its present form is suitable.

The processes of urbanization and industrialization are regarded to be simultaneous and on this basis it was concluded that in the context of Jamaica at least the initial stages of development should be approached through the process of predetermined industrial location. It was considered that the centres chosen for industrial concentration should exhibit certain characteristics, while the other urban centres would be within their trade areas performing other important services.

The critical question now arises: How can these individual centres, now presumed to be economically efficient, be brought together to form a viable unit and not add up to aggregate inefficiency? The answer will lie in the implementation techniques provided for development.

**Fundamental Requirements for Implementation**

One of the first requirements for a developing country aiming at complete development is political independence.

The United Nations seminar on Science and Technology for
development stated that "only the state through its government is able to mobilize the country's human and natural resources, to integrate the social and economic factors, and to initiate policies that aim at lessening economic dependence." Another fundamental necessity is the elimination of traditional feudal or tribal structures which are considered to be responsible for general stagnation. A third and most vital consideration is the attainment of political stability.

The Dominion of Jamaica is fortunate to be endowed with these fundamental requirements. It experienced an orderly evolutionary process from colonial status to political independence. This gradual and pragmatic approach to full political independence over the years has been accompanied by some advances on the social and economic fronts though there remains a lot to be done. "Indeed the political tradition of stability inherited from Britain is a major asset in the fight to provide urgently needed attention to chronic problems, whose solution require programmes which would normally entail generations of efforts."2

Thus the major background for development implementation


is present. It now remains to ensure a proper decision making framework within which the process can be accomplished effectively and efficiently.

Division of Power

"The division of power is the basis of civilized government. It is what is meant by constitutionalism."³ This is the view of C.J. Friedrich in his discussion of the division of governmental power among areas. Arthur Maass contends that to divide governmental power is "to help realize the basic objectives or values of a political community."⁴ Such divisions, like government institutions generally, he argues, are instrumental of community values; and the form of the division at any time should reflect the values of that time. Some of the basic values of a modern democratic society which should govern the division of powers in his view are liberty, equality, and welfare: To promote liberty, he thinks that governmental powers can be divided as to protect the individual and groups against arbitrary governmental action and other restraining effects. To promote equality power can be divided as to provide broad opportunities for citizen participation in public policy, and to promote welfare the division can be such as to assure


that governmental action will be effective in meeting the needs of society. It is with the latter aspect this chapter is mainly concerned.

Maass contends that the total capacity to govern can be divided among (1) governmental officials and bodies of officials at the capital city of a defined political community which he labels "capital division of powers"; and (2) among areas which exist or can be created within the political community this he calls "areal division of powers".

The areal division of powers is regarded by most political thinkers as the most effective means of realizing the basic values of liberty, equality, and welfare. It is to be seen not as a legal exercise but as a dynamic mechanism. "It involves the recognition of separate legitimate interests, and, if it takes the form of federalism, the recognition of the existence of separate autonomous communities within the inclusive one; in all cases it entails the grant to the territorial bodies of sufficient powers to deal with their interests." 5 Thus this form of governmental division of power has been adopted in most democratic societies.

Paul Ylvisaker 6 has derived five basic criteria for a

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proper" areal division of governmental powers. These are summarised as follows:

(1) The areal division of powers should be concerned basically with what is meant by the phrase "the power to govern".

(2) The optimum number of levels among which to share the power to govern seem to be three. Here, he thinks that two is an invitation to abiding conflict and stymie or at the other extreme to subordination and quiescence.

(3) The component areas should be constituted of a sufficient diversity of interests to ensure effective debate within each component and transcending communities of interest among the several components.

(4) The components as such should not be represented in the legislatures of the higher levels.

(5) Good intergovernmental relations should be provided by (a) a process of last resort to settle disputes and question of jurisdictions; (b) a process of intergovernmental cooperation; (c) a process for separate and independent action; and (d) a process of organic change which cannot be dictated or stopped by a minority of components.

Level of Planning for Development

There are three levels at which planning for development may be carried out namely: the national, the regional, and the local levels.

Policies for nation wide social and economic advancement formulated at central government level will be inadequate unless they can be carried out where urban expansion and new growth actually takes place. In considering planning at the national level a major disadvantage is that there is always the tendency for the smaller town and rural areas to be overlooked in the process of industrialization.
Increase in income and employment then takes place in the larger urban areas which encourages migration to these areas for jobs and other apparent benefits. As pointed out before, this is undesirable for general development since it inevitably results in over-population of some areas as well as a general imbalance of the economic structure. This would then not permit the full realization of development goals.

Planning for development at the local level is another alternative. This type of planning means that each city, town, or village is regarded as a separate entity in the development policies of the country. To begin with, the administrative problems likely to arise from this approach would be almost insurmountable and would make development a difficult task. Rivalry among the various local units for their potential share of national income could result in gross aggregate inefficiency. Again, there would be the tendency for private entrepreneur to locate in the larger towns to the detriment of the smaller centres because of the locational advantages of large supply of labour, large markets, more available utilities, and the urge for big city life. These would also serve only to retard overall development progress.

Regional planning is more acceptable for development. This approach is regarded by many to be the best prescription
for development. "We need to plan for areas where man himself is the major factor, rather than the claims of resource development alone; that is for the great cities and their hinterlands." This author contends that only regional planning can produce a marriage between cities and unspoiled hinterlands in which the partners, while complementing each other, maintain their own integrity and personality. He argues that the regional plan should show (1) areas for industry, general urban development, and agricultural and other resource developments including watersheds; (2) areas for specific key needs such as parks, beaches, airports, and hospitals; and (3) the communication system, principal highways and bridges which guide development and tie the parts together. "It would thus be a long range general plan, requiring constant revision, which would act as a framework both for community planning in the region and for a number of provincial or federal department activities."  

In regional planning for development all levels of government should be involved. The relationship between national economic development and urban development should


8 Ibid., p. 81.
be reciprocal. The carrying out of economic policy stimulates urban growth and urban growth is used to accelerate economic and social advance. "Because towns are intimately connected with their regions, the idea of following national policy through to the urban centres implies the need to understand the national territory as a whole, and as a system of independent regions." John Dakin thinks that the regions must be understood in their present characteristics and in their future potential because such an understanding will be valuable in determining and revising national policies with regard to the application of science and technology. "Knowledge of the existing, possible and desirable urban development of the regions is of vital strategic importance in achieving the highest standard of living for the largest number of people." 

Having established that the level at which planning for development is more efficiently achieved is the regional level, the question might be asked - Where does the regional planning function belong? It is believed that in order for planning to be most effective, it should be closely tied to the sources of real power. Regional planning functions best

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10 Ibid.
when part of a broad national development programme. Thus the cooperation of the national government is indispensible in committing itself to the regional plans. Charles Abrams lists some of the agencies usually responsible for implementing national and regional coordination of development schemes as follows:

1. A central organization of experts concerned with the economic planning who would evaluate the nation's human and natural resources and the best means for utilizing them in the national welfare. It would be concerned with the proper allocation of public expenditure for the development of agriculture; industry; water and power development; transport and communications; housing; training and education; health; social welfare; labour and employment.

2. Provincial or regional agencies operating within clearly defined areas of competence for the purpose of discharging central responsibility under the plan on a less centralised basis.

3. Statutory authorities or public corporations responsible for executing specifically designated programmes of development.

(4) Lesser district administrative agencies which may be needed to help speed up some developments at the local levels in accordance with the national plan.

(5) Local self government or village agencies working in cooperation with the national development units.

(6) Such financing agencies and mechanisms as may be needed to help finance the development.

Implementation and Administration

The Regions

Cities have been regarded as the ultimate habitat for Jamaicans; regional planning is regarded as a means of coordinating the development of cities and their hinterlands; and regional planning is thought to function best near the real source of power. It remains now to be seen just how a system of regional development can be mobilised into service for the nation as a whole.

A first problem involves the determination of development regions within which to function. In delimiting such regional areas, Jamaica could use such criteria or combinations of criteria as: (1) the identification of major urban areas and their hinterlands of either resource areas or other minor urban centres; (2) special purpose areas e.g. water-sheds, hydro-electric development, or agricultural areas for farming programmes; political boundaries, or physiographic or topographic features. For example, the island is divided
into three counties and fourteen parishes. The counties as political subdivisions would play a very minor role if any since there is no governmental functions at the county level. Thus the fourteen parishes and their arrangements around the central mountain spine could be identified with the various problems and be grouped accordingly into regions. Within each region there should be formulated specific programmes for (1) Land use, including population distribution, land improvements etc.; (2) Water use including drainage, irrigation, and navigation; (3) a rationalised pattern of transport; forest management and preservation and development of wild life and fisheries; (4) use and conservation of power resources; (5) industrial development and the proper utilization of minerals; and (6) general social and economic improvement.

Administration for Development

Two levels of government currently exist in Jamaica: central government and local government. Since regional planning for development is deemed to be more effective if connected to the source of power, the central government level is the inevitable authority to which regional planning in Jamaica should be attached. "Power is the rock to which sound planning may be safely moored or upon which it may founder."\(^{12}\) Therefore, for maximum efficiency it is necessary

\(^{12}\text{Ibid.}\)
to provide a proper administration device to ensure effective planning for development as well as to execute actual development. In an effort to derive such a framework certain criteria were devised and are listed as follows:

(1) Planning completely divorced from development is apt to prove as frustrating as development unrelated to proper planning. Merely producing a plan may have inspirational value but it may be meaningless if it cannot be implemented. Combining these two elements is desirable.

(2) Efficiency and effectiveness are very important. Effectiveness is regarded as "producing the desired result with a minimum of effort, expense, or waste". Efficiency is effective operation as compared with alternative means of accomplishing the task, or efficiency gives maximum return on the investment. These should be built in to any administrative device.

(3) Autonomy is very important. It allows freedom from restraints and red tape usually connected to government departments. These serve only to inactivate the agency. "A realistic minimum of consents should be prescribed." At the same time any administrative device should be accountable to an executive arm of the government preferably the cabinet or to the prime minister directly.

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(4) There should be adequate fiscal provisions. Power without funds is another means of inactivating an agency. Thus the administrative device should be fitted into the financial structure of the government's budget. The agency might have to incur heavy expenditures for example to acquire land for development.

(5) The use of the existing bureaucracy is significant and helpful to a large degree. To begin with, an administrative framework already exists provided with technicians and other personnel and equipment capable of executing many of the development projects. These technicians and other personnel might have valuable information which would be vital to planning. Secondly greater interdepartmental cooperation and coordination would be possible if the government departments were brought in and be made to feel that they participated in development implementation.

(6) The transfer of functions from the administrative agency back to the central or local government on the completion of development should be provided. This is the concept of devolution/evolution. For example, roads would go to whatever authority deals with the maintenance of roads; parks to its relative authority; until all aspects of the development have been accounted for. Thus provision should be made for dissolution of the body on the accomplishment of its functions as long as proper measures have been taken.
to ensure adequate maintenance of projects.

In accordance with the above guidelines it might be appropriate to propose a "Jamaica Development Corporation". There exists at the moment a Jamaica Industrial Development Corporation which is provided with a government grant and charged with the function of promoting and facilitating industrial development. As will be noted this function is very limited. A major shortcoming with this type of organization is that it operates without a planning framework which could result in dangerous repercussions. Also it concentrates on industrial development alone with little concern for other social, physical, or economic phenomena which may be crucial to overall national development.

There also exists a Government Town Planning Department of Jamaica. This department operates under the Ministry of Development purely in an advisory capacity. Withdrawal of this planning department from the Ministry of Development and merging it with the Jamaica Industrial Development Corporation to form the Jamaica Development Corporation such that after development both could revert to the regular roles of planning and industrial promotion respectively, is the recommendation for the administrative device sought.

The Jamaica Development Corporation would be charged with the function of identifying and of planning for all regional requirements of the island, and to arrange for the
execution of development projects and the location of industry. The activities should include plans for all communities.

The Corporation could be composed of a board of directors appointed by the Prime Minister and accountable to him. Enough autonomy should be afforded it to increase efficiency by reducing red tape. Yet autonomy without complete loss of control by the government and at the same time according flexibility could be ensured by resting certain functions with the government. These could include (1) the appointment of key officers and directors; (2) prescribing general directions on matters of national interest; (3) granting approval on capital programmes; (4) auditing accounts; (5) demanding regular reports; (6) ordering enquiries and intervening in cases where corruption or inefficiency appears; and (7) dissolving the corporation when it has completed its prescribed functions.

Industrial Settlement

Planning and development are not ends in themselves - they are merely means to the end of a balanced distribution of Jamaica's population. The tremendous inertia of the big city, Kingston, has to be overcome, not from the workers point of view (for it has already been demonstrated that the

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14 Many of these are taken from Charles Abrams article, p. 98.
workers will orient themselves to areas of economic prospects), but from the standpoint of the industrial and other commercial enterprisers and their families. "All the planner's grim forecasts of the forthcoming demise of the big, sprawling, chaotic city have not stayed its ever-growing bulge or the mysterious magnetism which continuously distends it."\(^{15}\) Public policy has to be manipulated to attain industrial and commercial settlement. Some strategy\(^{16}\) for doing this could include:

1. **Persuasion** - Influencing enterprises to settle in a locality through reasoning, altruism, or by an appeal to public spirit and its gratifications.
2. **Inducement** - Offering loans, subsidies, housing, land, and other public aid or indulgences.
3. **Compulsion** - Prescribing through zoning or directive orders the places where settlement is permitted or where forbidden.
4. **Direct operations** - Purchasing of sites with public funds, building factories or other installations by the corporation for public and private operations.
5. **Public-private joint ventures** - Government

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\(^{15}\) Ibid., p. 99.

\(^{16}\) Ibid.
investment is made in private operations, in return for which the public partner insists upon prescribing the conditions for industrial or commercial settlement as part of the bargain.

(6) Planned inevitability - Placing public, transportational, or other facilities and investments in so tempting a manner that it inevitably steers the industrial settlement toward the desired locality.

The choice of approach will call for balancing the alternatives. When funds are limited, such as is the case in Jamaica, subsidized expansion in one direction may sacrifice expansion in another and the choice between diversion of power from the local to the central levels may put at stake the pattern of democratic decentralization, local efficiency, and better citizen participation. The ultimate choice might include a combination of many with an attempt to evade as much as possible, expenditure-involved cases.

The proposed administrative modifications might require legislative changes to make them possible. The detailed structure of Jamaica's legislature is not at hand in order that recommendations can be made for such changes. Further studies have to be conducted in this respect.

Summary

The fundamental essentials for effective planning and development namely: political independence, relative absence
of frictional groupings, and political stability are considered to be present in Jamaica. An areal division of governmental function with an optimum of three levels of government is thought to be desirable.

Planning for development is preferable at the regional level since it was found that (1) policies for nation-wide social and economic advancement formulated at central government level are inadequate unless they can be carried through where urban expansion takes place and that there is the tendency for the smaller urban areas to be left out; (2) planning at the local level could result in uncoordinated growth and a disjointed economy.

Regional planning is considered to function more effectively near the source of real power, that is, the central government. Certain criteria were listed which would aid in delineating regional areas for planning.

In terms of implementation, planning and development are deemed more effective if closely linked. Some criteria were listed for accomplishing this upon which the Jamaica Development Corporation consisting of a merger of the present Jamaica Industrial Development Corporation and the Jamaica Government Town Planning Department was proposed. The purpose of this Corporation would be to plan and promote development. Industrial and commercial settlements of new or expanded areas were regarded as potential problems, methods of probable solutions to which were proposed.
CHAPTER VIII

GENERAL REVIEW AND CONCLUSIONS

General Review

The problems related to population growth and particularly to population movements in Jamaica have been identified as being among the most crucial problems facing the country, solutions to which must be sought if the country is to attain full social and economic stability. Intense concentration of a great portion of the island's population (indicated by an 88% increase between 1943 and 1963) in the major urban centre, Kingston, has been equated with the phenomenon of urbanization as it is being experienced in the developing countries. This process of urbanization is regarded by the United Nations as well as by eminent urbanists, economists and sociologists to be one of the more severe problems affecting mankind particularly in areas of lower economic development.

Out migration from the island in search of economic opportunities to locations such as the United States of America and the United Kingdom has also been deemed relatively futile, thus constituting another facet of the population problem.

Jamaica's population problems, particularly as they relate to urbanization are considered very significant since
their general nature as they affect developing countries in general has been recognized as high as the international level commanding priority attention at the United Nations. The world organization has sponsored several seminars dealing with this important matter in attempting to derive methods of approach towards solution. The "rush to the cities", as it is popularly referred to, is considered a striking feature of modern times characterised by a rural exodus precipitated by the stagnant economic and cultural life of the villages and the magnet of the city. It brings in its wake a host of social, political, economic, and administrative problems and if unchecked could lead to unhealthy and problem oriented urban development and self-retarding rural development.

In reviewing the implications of urbanization in the developing countries the reasons for migration were first examined. It was found that the inequitable pattern of land distribution was the most important cause. A number of very large estates are in the hands of a few owners (in many instances foreign) which are not always used to sufficient advantage, and a large number of small holdings exist which are often too small to warrant the expense of development by modern techniques. Primitive methods of farming and stock-raising characterised by lack of mechanization, lack of adequate use of fertilizers, low levels of
labour skill, and general deterioration of the soil result in low production yields and consequently low purchasing power of the rural dwellers. Since the land cannot support its rural population they are forced from the country-side into the urban areas in search of work. The towns were also found to exert a "pull" condition in that they appear to provide for better community and welfare services, a much stronger feeling of security, and many modern conveniences which are lacking at the rural level. Migrants from the rural areas often find life in the city much more attractive than life in the country-side despite the sub-standard level of living conditions which the city offers.

In terms of substandard living conditions it was found that the monstrous and uncoordinated growth of many towns in the developing countries make them ill fit to accommodate human beings as they are invariably dominated by slums, squalor, ill health, and poverty. "Living conditions are becoming inhuman and people are losing more and more of their basic qualities, turning more and more into displaced persons who are required to live like machines"¹ was the view of one participant in the seminar on science and technology for development. It was found that approximately

half the total population of Asia, Africa, and Latin America is either homeless or living in accommodation that constitutes health hazards. The major cities of these areas consist of large hovel settlements in which as much as 20% to 30% of the city's population live in rudimentary shelters, and inadequate social services, sanitary facilities, roads, and street lighting are observed to be also characteristic of these towns. The general social structure of the countries concerned are also adversely affected by the present process of urbanization. Family structures, personal standards of conduct, and group mores are subjected to severe strains. The family, for example, is tending to disintegrate. The man usually leaves first, attempting to find work in the city, leaving his family in the village with the hope of sending for them when he is settled. The result is a preponderance of men in the towns which produce special social and moral problems that being about the formation of irregular alliances and the growth of prostitution.

Thus urbanization without economic development is regarded to be a very unhealthy combination because to the lack of urban facilities is added the want of employment opportunities. The need for planning, both economic and physical, and particularly the integration of both aspects is considered to be indispensable to the developing countries. In order to control migratory movements it was thought important to consider (1) a gradual improvement in rural living standards;
(2) the equalization of the condition of life between sections of the population; and (3) balanced distribution of population over the whole country.

In order to demonstrate that the probability of solving urbanization and population problems in the developing countries is not remote, two case studies of positive action were reviewed. These were the programmes of Puerto Rico and Israel. Puerto Rico was selected because its urbanization and population problems up to about twenty years ago were so acute that many people were pessimistic about a solution, yet today because of careful planning and development it represents a relatively viable unit caring for its population needs. Israel was thought to represent a good case study because of the firm action taken when the country was faced with an unprecedented mass immigration from the countries of Asia, Africa and Europe which concentrated tremendous amounts of immigrants in its towns, thus creating severe shortages of basic facilities.

Puerto Rico recognized that it was necessary to effect a redistribution of the population so that they are in the right place to do the most good and also that it was necessary to ensure that people are engaged in increasingly productive employment. Confronted with an abundance of people and few other resources, industrialization was deemed the obvious avenue to development. The concept of predetermined
industrial location was applied on a regional bases thus bringing employment opportunities to all areas of the island and ultimately the provision of other services and facilities. Israel was confronted with the immediate problems of providing new areas of settlement and of coaxing new immigrants away from the towns. Regional planning and development were regarded to be indispensable in achieving these tasks. The physical conditions of the country and its economic structure, deemed unfit for the support of a dense population made it mandatory to plan in advance the way in which the new immigration was to be absorbed. Development by colonization, that is, directing population to areas rich in natural resources; and development by consolidation, that is, concentrating dense populations in stable regions developed to their optimum absorptive capacity, were the development approaches followed. A master plan was prepared designating all areas of settlement as well as areas of other economic activities.

With reference to Jamaica's specific urbanization problems, it was established that the island's population is characterised by high mobility, a mobility which tends to orient the population towards places of economic prospects. The movement, both internally and to foreign countries, started as early as the 1880's and continues to the present day. The internal movement is basically an urbanization
trend with the major recipient of population being the urban centre, Kingston. This results in the formation of a primate city. Further investigation indicated that in the dichotomy of primate cities into generative and parasitic classes, Kingston falls into the parasitic class because of its present unfavourable influence on economic growth. Kingston's population currently stands at approximately 400,000 while the urban area with closest population figures to this number only has 25,000 people.

The city is incapable of coping with the exodus of population. An economic base study indicates that it is not economically viable. This is a poor reflection of the entire country since Kingston by and large, represents the economic nerve centre of the island. This is substantiated by the consistently adverse balance of payments statements. Housing in the city is not only inadequate and substandard in quality in many cases, but these deficiencies have been responsible for the presence of squatting in many areas. Squatting has many adverse implications in Jamaica, a very important one being the alleged breeding of a sub-culture, the Ras Tafari movement which is regarded by many as being a violent movement.

Migration to foreign countries in search of employment has been in progress since the commencement of construction of the Panama Canal. On completion of this project external
migration focussed on such countries as Cuba, the United States of America and the United Kingdom. A study shows that the Jamaican migrant in the United Kingdom does not nearly enjoy the full social and economic status as other residents or as he would at home. Also, housing for these migrants is generally of a substandard nature and concentrated in the neglected portions of cities which are in the process of decline and social down-grading.

Since it was established that the Jamaican population consistently adjusts itself to areas that show prospects of economic opportunities, and since these adjustments proved to be invariably futile it was concluded that a full development program for the island should be imminent. A reflection on the revolution of rising expectancies indicated that the full range of services and facilities could be more feasably provided at the urban level. It was then deduced that a new process of urbanization, that is, an ordered, guided, and constructive process must be introduced to consciously promote the advancement of Jamaica and its people. Individual cities without proper coordination were regarded to be undesirable since they could lead to a disjointed economy and social loss. National, regional, and local coordination of an efficient system of cities located at the most advantageous locations and provided with all necessary urban facilities and services was considered to
be the key to development.

Based on these conclusions, three regional systems of cities were examined to determine their relevance to Jamaica: the hierarchy of the primate city; the central place system; and the multi-nucleated system. It was contended that none of these in its present form was appropriate. Regarding the hierarchy of the primate city, it was thought possible to adjust the primacy of Kingston to fit into a system of economising units but the major difficulty could conceivably be encountered in overcoming the inertia of Kingston. The central place system is not considered very compatible with industrialization on which Jamaica must rely for development. It seeks to ascertain the most efficient division of space given an array of functions while industrial location concepts deal with spatial distribution of activities which serve regional and national markets and which depend on a complex of resources, transportation and communication networks, and supplies of labour. The topography of the country also militates against its use. The multi-nucleated system relies on extensive interaction between nuclei. It is not believed that the geography of Jamaica would permit easy access to all points at all times.

On the basis of the failure to ascertain a theoretical system of cities that would satisfy the objectives
required, it was thought necessary to examine the requirements for industrialization since that is the process through which Jamaica intends to realize its social and economic goals and since industrialization and urbanization should be simultaneous.

These include the theories of industrial location and the supporting determinants such as transportation, natural resources, topography, and existing urban centres. Lösch's theory of location aimed at the realization of maximum "net profit"; and Isard's theory based on the "comparative cost" approach are mostly suited to assist private entrepreneurs in guiding investments. They are profit oriented. Although these are important, a developing country like Jamaica must consider more than profit motive - overall consideration for the population's needs, that is, the social welfare motive, should take high priority in the nation's development programme and be incorporated in any location decision. The concept of predetermined industrial location, such as was applied in Puerto Rico, was observed to be more adaptable to Jamaica and appears to have a better potential for use. It was recommended for use.

The supporting determinants of transportation and the occurrence of existing urban centres were considered to exert a profound influence on location decisions though the availability of transportation provides more flexibility.
Analyses showed that most of the island is currently accessible by road, and that rail, water, and air transportation facilities could be easily provided to allow such linkages to many areas. Urban centres are relatively evenly dispersed on the coastal plains with quite a number on the highlands. The extent to which industries can be concentrated in these centres will be influenced by the amounts of existing facilities together with the centres' scope for expansion. Agriculture and tourism are quite critical to location decisions because of their economic value and because of the government's policy towards economic participation from these sectors. However, although tourism makes significant contribution to the economy, areas of the island should not be carved out for tourist purposes and be excluded from full local usage.

Having decided on the technique for development, administrative measures for implementation were considered. The fundamental essentials for effective planning and development: namely political independence, relative absence of feuding and frictional groupings, and political stability are present in Jamaica. Regional planning for development is more desirable since (1) planning at the local level could result in uncoordinated growth and a disjointed economy; and (2) policies for national level are inadequate unless they can be carried through where urban expansion takes place; (3) there is the tendency for smaller urban centres to be neglected if planning
is executed at the national level. Regional planning functions more effectively near the source of real power, that is, the central government level, thus it should be linked with this level.

In order to achieve more effective results planning and development should be combined under one authority. Certain criteria for accomplishing this lead to a proposal for the establishment of a Jamaica Development Corporation comprised of a merger of the present Jamaica Industrial Development Corporation and the Jamaica Town Planning Department. The function of this new corporation would be to plan and promote development. Independently, the Jamaica Industrial Development Corporation's purpose is to promote industrial development. This it does without a planning framework which could produce dangerous results requiring expensive remedial measures. The Town Planning Department assumes a planning role without any power to implement which could be a frustrating task.

The Jamaica Development Corporation would be accountable to the Prime Minister and upon completion of initial development should be dissolved, reverting to the two original departments to continue the promotion of industrialization and the constant review of functional operations.

Conclusion

The restless, questing spirit of Jamaicans, in constant
search for higher standards of living, better amenities, and the fuller life as a whole, can be appeased through a systematic approach to development in the island. At present the population structure of the island is in a state of imbalance and inefficiency being mostly concentrated in one centre and resulting in great pressures. Development of other urban centres and the provision in these centres of the basic facilities and services which people pursue will relieve these conditions and allow for greater social and economic stability in the country. Although industrial and commercial establishments probably would have to be coaxed to these new areas there would be no conceivable barriers in the redistribution of the general populace.

A redistribution of the population is also necessary in order to achieve an equitable distribution of wealth. Development at the urban level is indispensable in achieving these objectives.

Recommendations

The following recommendations are proposed as an aid in accomplishing general goals for Jamaica.

1) The government has adopted a clear policy for economic development but no corresponding policy has been encountered for social or physical advancement. The first recommendation is that the government recognize the simultaneous inter-relationships of social, economic, and physical
advancement and adopt appropriate policies accordingly.

(2) That the overall needs and wants of the Jamaican populace be assessed as a basis for planning and development.

(3) That a Jamaica Development Corporation be formed incorporating the most efficient administrative techniques for the purpose of planning and implementing development proposals.

(4) That the Jamaica Development Corporation be responsible directly to the Prime Minister.

(5) That the Jamaica Development Corporation first prepare a national plan for the island respecting regional requirements and aiming at providing equal opportunities for comfortable living in all areas of the island.

(6) That the Jamaica Development Corporation be dissolved after development completion, after which the function of planning be accorded cabinet status preferably linked with the Ministry of Development.

(7) That the government adopt a clear policy relative to emigration in which the welfare of all Jamaican migrants in other countries be protected possibly by negotiations with the relevant foreign countries.

(8) That there be established a bureau for migrant affairs in countries with concentrations of Jamaican migrants whose duty it would be to organize proper housing and job opportunities for the migrants. This could be attached to
the relevant embassies or high commissions.

Alternative Approaches at Resolving the Problem

As opposed to redistributing Jamaica's population, two other approaches might be considered. These include (1) maximum development of the urban centre of focus, and (2) encouragement of mass emigration to areas of developed economies.

Development of Centre of Focus

If it is assumed that migrants converge on Kingston because this is the area in which they prefer to be, then maximum development of this area to accommodate all foreseeable in-migration would be the ultimate solution. This could be accomplished by expanding the boundaries in accordance with projected population and land use needs based on desired densities and concentrating economic and social activities in this area sufficient to satisfy the general needs of the people.

This would of course involve the necessary urban renewal considerations and the general rendering of the urban area efficient during the expansion programme. It would also require a master plan of the entire area to direct activities to their appropriate locations to ensure compatibility.

Two distinct disadvantages can be foreseen in this approach. First an expansion of Kingston's boundaries would involve the encroachment on valuable lands which currently
realizes tremendous revenue to the island. For example, the western end of the city abuts a major sugar estate. Sugar is currently one of the major exports of the island and should be jealously guarded. However, a cost benefit analysis could probably justify utilization of such lands. Secondly, neglecting the balance of the island would be unfortunate. Several natural and other resources which are not transportable to contribute to Kingston's development exist which are potentially very valuable to overall development. It would, therefore, not be possible to attain optimum overall development without ordering these into service through direct participation.

Mass Emigration

Mass emigration could be accomplished through direct government intervention. It would require the adoption of government policy to this end and the preparedness of the government to solicit areas of high economic and social potential for migrants and to negotiate terms of migration. Such negotiations would include commitments on employment guarantees, provision for desirable social absorption and housing, and proper liaison between the Jamaican and other relevant governments relative to the general welfare of the migrants. Compulsory emigration should, however, be avoided.

Assuming that this could be satisfactorily organized the island of Jamaica would be at a considerable disadvantage
as a consequence. To begin with, there would be a tremendous loss of human resources which could be put to work to serve the island. Again, although it may appear to be less of a financial burden to organize such a venture, the amount of administrative organization to ensure proper coordination and general effectiveness should not be underestimated. In the long run such efforts, time, and financial resources would probably be better spent preparing the country's own environment as the ultimate habitat for its people. There is also the danger of vulnerability to other social and moral problems caused by mass dislocations of family and friendship groups.

In conclusion, neither of the two alternatives proposed would seem to be a suitable substitute for a redistribution of Jamaica's population since neither could be expected to realize maximum social or economic benefits to the people of the island.

**Evaluation of Hypothesis**

In its present form the working hypothesis of this study is not considered to be valid. However, the discussions in Chapter VI suggest that certain modifications could easily validate it. Restated in its present form the hypothesis reads:

A properly organized regional system of communities provided with all necessary urban facilities and services would aid in a balanced distribution of Jamaica's population and would also aid
in the maximum utilization of human and natural resources of the island and ultimately in its social and economic development.

It was concluded that apparently no theoretical regional system of cities would achieve the desired results for the country. It was also demonstrated that a different organization of cities, that is, a regionally organized system might be more desirable. If the hypothesis be re-organized accordingly to read:

A regionally organized system of communities provided with all necessary urban facilities and services would aid in a balanced distribution of Jamaica's population and would also aid in the maximum utilization of human and natural resources of the island and ultimately in its social and economic development.

it would then be a valid hypothesis. The word "communities" used in the hypothesis is preferred to the word "cities" since the emphasis is on the welfare of the people living in the city rather than the physical plant of the city. With respect to the provision of "all necessary urban facilities", these facilities are conceived to be - adequate housing, adequate employment within easy access, adequate commercial facilities, adequate recreational facilities, adequate schools, adequate open space, proper transportation and all other elements necessary for the promotion of health, welfare, safety, and amenity.

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2All employment does not necessarily have to be provided in every community as long as reasonable provision is made for commuting to the source.
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