POWER, FUNCTION AND REGION: A STUDY OF THREE FACTORS IN REGIONAL DEVELOPMENT

by

PERCY ADOLPHUS PERRY

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We accept this thesis as conforming to the required standard

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Department of Community and Regional Planning

The University of British Columbia
Vancouver 8, Canada

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Planning for regional development forms the major theme of this study. The purpose of the study is to demonstrate the hypothesis, that the effectiveness of regional planning as a tool of development is dependent upon the ability to make power, function and region or area coincide.

The approach taken in the study was, first, to discuss the problem in a general way. Growing urbanization and its manifested ills is used to illustrate the need for regional development in the less developed sector of the world's economy.

The growth of the regional concept in the major disciplines related to planning is traced, and the application of this concept in the United States and the newly independent countries is examined. Attention is drawn to the state of planning for regional development and the need for a closer relationship between power, function and region.

In order to test the hypothesis a case study of Puerto Rico is undertaken. The choice of the territory was prompted by two factors. In the first instance, Puerto Rico is claimed to be a model of development in the Western Hemisphere. Secondly, as Puerto Rico is an island it is a clearly delineated region.
The method employed was to try to evaluate the developmental achievement of Puerto Rico and at the same time assess the factors involved. The procedure was as follows. Noting that 1940 marked the beginning of the developmental programme, and 1898 the end of Spanish rule on the island, the intervening period was assessed from an economic and social point of view. Starting from 1940 the main features contributing to development from a planning standpoint were considered. Prior to embarking on a discussion of the developmental achievements, the factors unique to the island that would have contributed to development are outlined. The case study concludes with specific indices of development.

The conclusions drawn from the analysis are: That the development process in Puerto Rico is a success, and that this success resulted from a series of incidents which seemed to occur fortuitously. These were: The coming to power of the Popular Democratic Party led by Munoz Marin; the appointment of Rexford G. Tugwell as Governor; and the constitutional changes which took place when Puerto Rico gained Commonwealth Status.

Munoz Marin was a leader dedicated to the development of the Island and Rexford Tugwell was a planner seeking to create a planning administration with jurisdiction over the area or region in which the functions to be planned existed; and endowed with the power to implement the plans designed. Al-
though Tugwell was not totally successful in creating his ideal administrative framework, he was able to bring power, function and region into a close relationship.

The study also brought to light certain subsidiary criteria that are essential for the triad - power, function and region - to work effectively for regional development. These are: Size of population, services rendered, legal authorization, fiscal adequacy, accountability and flexibility. These, together with power, region and function form the components of a suggested model useful in assessing the effectiveness of organization for regional development.
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It is with great pleasure that I express my appreciation to those people who helped me throughout this study. I must particularly thank Dr. H. P. Oberlander, Head of the Department of Community and Regional Planning, for his advice on this study and throughout the course of my planning studies. Special acknowledgement is paid to Professor R. Collier of the Department of Community and Regional Planning, University of British Columbia, whose valuable advice and criticism, freely given during the writing of this thesis, assisted the writer in completing the study.

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CHAPTER I

INTRODUCTION

Rapid Urbanization: A Cause for Concern.

Although man's presence on the earth dates back over a million years, the development of urban agglomerations is of relatively recent origin. More recent and urgent however, is man's concern with the impact of urban growth in the less industrialized sector of the world. During the past three or four decades man has become increasingly occupied with this phenomenon and as a result, a considerable body of studies has been undertaken on the effect of urbanization on development. These undertakings have shed some light on the problem, but to date complete understanding eludes the researchers.

In the meantime, however, the pace of urbanization is increasing throughout the world bringing with it, along with its blessing the ills of social maladjustment, urban slums and inadequate utilities. One approach to alleviate these difficulties is through regional planning.

Thomas Malthus in his Essay on Population of 1798 estimated that population would double naturally, given sufficient food and space, every twenty-five years.¹ Applying Turgot's principle of diminishing return to land to his

forecast, Malthus conjured up a vision of population pressure which could be checked only by war, disease, vice and starvation. Population growth, albeit moving more slowly, increased in the order foreseen by Malthus. Dating from 1650, when the world's population began to show a marked upward climb, it took 200 years to add 500 million to the population. The next 500 million increase took 50 years, followed by a 30 year time span for the following 500 million to be added, from 1900 to 1930. The period from 1930 to 1950, 20 years, added another 500 million, and at the current rate of growth it will take only 8 years to add another 500 million.\(^2\)

In retrospect it is clear, however, that both Malthus's reasoning and the principles he enunciated were sound. His extrapolations into the future suffered not from a lack of proper reasoning, but from lack of sufficient knowledge of the potential of technological development.

The application of technology to industry, and the tendency for these industries to concentrate within urban areas triggered an unprecedented migration of rural dwellers to urban centres of industrial production.

About 200 years ago the big cities of the world were spread fairly evenly all over the globe, but there were only

a small number of cities of any significant size: London, Paris, Rome, Peking, Calcutta and Bombay. The early 1800's witnessed the dawn of rapid urbanization, mainly in the industrializing countries. Today about eighty percent of the British population lives in cities of over 100,000 and approximately seventy percent in the United States.\(^3\) At the same time, there are many countries with only a small percentage of their population concentrated in large cities. One author estimates that there are 57 countries with less than ten percent of their population urbanized.\(^4\)

Kingsley Davis in an interesting discussion of world urbanization makes the point that during the early years of industrialization in the Western European countries rural to urban migration constituted one of the prime causes of rapid urban population growth. However, contrary to popular opinion, he maintains that urban population growth today is more a result of natural increase within urban centres than from an influx of people from the countryside.\(^5\) Speaking of the underdeveloped countries he writes:

In spite of the enormous growth of their cities, their rural population and their more narrowly defined agricultural populations - are growing at a rate that in many cases exceed the rise of even the urban population during the evolution of the now advanced countries. The


\(^4\)Ibid., p. 46.

\(^5\)Ibid., p. 50.
poor countries thus confront a grave dilemma. If they do not substantially step up the exodus from rural areas, these areas will be swamped with underemployed farmers. If they do step up the exodus the cities will grow at a disastrous rate.  

In the developing countries where population presses heavily on resources, the hope of achieving a better quality of life has been based on industrialization, which to date has produced some unfortunate consequences. In India, where the process of industrialization is taking place the results are not encouraging.

Even in its early stage of incomplete industrialization, India has not escaped some of the evils of the haphazard growth of industry, of slums in the more and more overcrowded cities, the economic depression of some groups and classes of the society who lost their integrated part in the old village communities.

Some authorities observing the consequences of rapid urbanization advocate a policy of decentralization as the only way to deter the tide of migration and alleviate some of the ill-effects.

It is possible that some underdeveloped areas would progress further, in the long run, if they invested and reinvested their meagre resources in agriculture and rural industry.

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Not only would they help accumulate more capital for the future, but would lessen the tendency for urban development to get out of step with the rest of the economy.

It appears that if the underdeveloped countries are to achieve any marked development it cannot be done by wholesale migration of the rural populations to the few existing cities. The momentous problems that would be created in the cities would be a useless sacrifice because only the fringe problems of rural over-population and underemployment would be touched.

Most ex-colonial and newly independent countries, like India, suffer from a scarcity of growing points and an exaggerated primacy of their big cities. Colin Clarke, building on the work of Neutz, came to the conclusion that towns of 100,000 to 300,000 generally are able to satisfy most of the needs of a region, and that few advantages stem from city sizes greater than 500,000. Ideally there should be a network of cities of 100,000 to 300,000 with some centres of larger order. Such a network would distribute development to a greater degree than the present fortuitous concentration of growth in a very few regions of the world.

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Definitions.

In what follows, the terms "development," "developing countries" and "regional planning" are used repeatedly and in a precise sense. Explicit definitions of these terms are therefore provided.

In Webster's New Twentieth Century Dictionary, one definition of the term "to develop" is "to cause to grow generally in some way." And "development" is defined as "a step or stage in growth, advancement." A combination of the above definitions would seem sufficient to provide an understanding of the term. However, in this study "development" is used to refer to a process of mutually inter-related social, political, economic and physical changes in which human and natural resources are directed towards creating a wider range of choice in life styles for individuals and groups.

When applied to a country the term "developing" is best defined as "a stage in growth or advancement." This definition implies movement by stages from one state to another, the latter state being considered an improvement over the former. Hence, using the world as our universe, countries can be arranged in a sequential order based on economic and social criteria. The vertical continuum thus created provides a graphic representation of the developmental relationship between nation states.

Along this continuum the countries of Western Europe and
North America would gravitate towards the top. A number of countries would be scattered unevenly throughout the central portion of the continuum, with a fairly large concentration towards the bottom. The term "developing countries" in this study therefore refers to those countries concentrated around and in proximity to the bottom.

The quest for an acceptable definition of regional planning culminated in the formation of the opinion that there is no general agreement on a single concept. However, Leonard O. Gertler put the idea tersely when he wrote:

Regional planning is a process, based on law and undertaken by a form of responsible government, directed towards influencing development, private or public in a manner that results, in the areas where people settle and establish regional communities, in the best environment and the soundest use of resources that our civilization is capable of effecting.\(^{11}\)

The concept as expressed above is adopted for use in this study.

The Regional Approach: Variations on a Theme.

To meet the enormous pressure of urbanization resulting from natural increases in urban areas and from mass migration from depressed rural areas, while at the same time considering the need to attain the over-all economic growth of the country,

most nations in the developing sector of the world's economy have resorted to the regional approach. This approach is primarily dictated by economic considerations. It involves three principal patterns of allocation of public investments: dispersal, concentration on growing areas, and promotion of the development of backward areas.¹²

Hirschman and Myrdal believe that in the long-run the most effective strategy is to concentrate on the growth points. They base their argument in terms of an analytical framework where the "trickling-down" or "spread" effects could be attained where this strategy would be adopted.¹³ A more current approach is through the combination of central planning, government guidance and regional and local initiative. Assuming that either of these approaches is correct, there still remains the problem of designing a responsible and responsive governmental machinery for regional development. The study shall deal with this problem.

Assumptions.

Since World War II, the formulation of broad development concepts and a varying degree of developmental planning have become functions of government in practically all countries.


The establishment of a Decade of Development by the United Nations is the coalescence of this scattered approach.\textsuperscript{14}

In developing countries, the majority of which are newly independent, the responsibility for planning policies and programmes lies at the national level. Such centralization, growing out of historical tradition, has resulted in the establishment of national planning agencies, which have tended to concentrate on the physical improvements to capital cities whereas the planning problems of smaller municipalities, in which the majority of the population lives, tend to be neglected.

The Decade of Development (1960-1970), an idea launched and sustained by the United Nations, has as its objective a closing of the gap between the "have" and "have-not" nations. It is a combined effort where the developed and developing member states mobilize their resources to support the measures required to attain the necessary acceleration of economic growth.\textsuperscript{15} This action indicates the recognition of the importance of rapid development in the less industrialized countries.

Although the application of regional planning as a probable solution to developmental problems is of recent origin


\textsuperscript{15} Ibid.
it has caught the imagination of many of the leaders in developing countries. Speaking of Asia, Koenigsberger writes:

The idea of development through group effort and according to comprehensive regional plans is not unfamiliar to Asian thinking. It may become a truly Asian way of handling development, industrialization and social change.  

Francis Violich laments the fact that regional planning, in its broadest sense, is practised to a limited extent in Latin America, but hastens to point out that "much regional developmental planning is being done on a partial single-function basis." Seminars on regional planning held under the auspices of the United Nations have done much to disseminate knowledge of the subject. Each country, however, must evolve its own approach in the light of its historical situation and traditions.

From the above, two assumptions have been deduced on which the hypothesis of this research is based. Firstly, most governments in developing countries have adopted national planning. Secondly, there is a growing awareness and acceptance of the regional approach as a useful tool to achieve the goal of national development.

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Hypothesis.

Regional planning as a tool of development has been employed in various forms by national governments. However, the purpose of this study is to demonstrate that: When the power to govern; the services provided and administered; and the area of jurisdiction are brought into a close relationship they provide a milieu conducive to effective social and economic development.

It is the hypothesis of this study that the effectiveness of the regional approach to development is dependent upon the ability to make power, function and region coincide.

Overview.

The hypothesis will be examined by a review of the pertinent literature on the main features of development through regional planning. Chapter II is devoted to this review. It traces the historical development of the regional planning concept in the disciplines of geography, economics, political science and public administration, and the application of these concepts in the United States and the developing countries. In this process a case is made for regional development based on a coincidence of region, power and function.

Chapter III is devoted to a case study of Puerto Rico, in which it is shown that the rate of development achieved on the Island since 1940 resulted from the fact that the three parameters - region, power and function - had achieved a large measure of coalescence.
The final chapter is devoted to a summary of the main findings arrived at in the above discussions. Conclusions are drawn and formulated into a theoretical model. The chapter concludes by indicating areas for further research.
Regional planning as a concept has deep roots in geography, economics, political science and public administration. However, while both developed and underdeveloped countries have adopted the regional planning approach, they have done so from quite different perspectives and for different purposes.

The Regional Concept in Geography.

The concept of regions dates back to the ancient Greeks. Herodotus, contrary to his contemporaries who divided the then known world into three continents, preferred to divide it into regions. Ptolemy used the term "corography" for regional or small area studies and considered geography as dealing with the world as a whole. Furthermore, in Aristotle's De Mundo one reads:

Men who have laboriously described to us either the nature of a single region or the plan of a single city - as some now ere have done - such men one should pity for their smallmindedness ---. They are affected, because they have never contemplated what is nobler - the universe.¹

Starting at such an early period the regional concept in geography has proceeded through a number of distinct stages. These stages can be roughly correlated with the expansion of knowledge as man sought to describe and explain the phenomena existing on the earth's surface.

Prior to the twentieth century political entities generally served as regions. Regions thus based offered the advantage of political and sometimes cultural homogeneity. During the late nineteenth century and early twentieth century when geographic thought was dominated by the school of environmental determinism, the concept of the "natural region" came into being. This phase of the regional concept is marked by works of such men as Hettner, Hebertson and Towers. These studies which were on a systematic scheme "were struggling towards the geographic region through the medium of the natural environment."^2

Running paralell to the development of the natural region concept was that of the human or cultural region. J. F. Unstead, caught between the two schools of regional thought wrote "we must consider natural and cultural factors equally."^3

In the natural region it is necessary to consider only those outstanding differences relief, climate and natural resources which have the most marked influence upon the develop- and activities of man - but still merely the environment of man is considered.4

^2 Ibid.


^4 Ibid.
But although environmental determinism and the teleological approach had been in the main discarded, there remained however, throughout this stage, the hope that the natural region and cultural patterns would prove to coincide. This hope persisted for a long time in spite of the fact that evidence proved otherwise.

The geographic philosophy of Possibilism, instituted by Vidale de la Blanc, shifted the emphasis of environmentalism from the influence of the environment on man to include the adaptation by man "of", as well as "to" his natural environment. This seems to be the underlying idea which led to the ensuing developmental stage of the regional concept.

The next discernible school of regional thought was composed of two core ideas that were not distinctly separate. Over the fast declining natural region concept was placed a theory of the region as a synthesis of the cultural and natural features of the earth's surface - the cultural landscape - and the idea that regions were genuine entities perceived as organisms. Today most of the early concepts of regions are relegated to the halls of history. Regions are now conceptualized on the basis of hierarchical systems, with varying degrees of interconnections, each defined by a distinct criterion or set of criteria.

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The Regional Concept in Economics.

The development economists, entering the field of regional thought subsequent to the location geographers, took up at the point where the geographers had arrived. This new dimension added by the field of economics has led to certain theories which have broadened the understanding of regional development.

Meier and Baldwin, working on a global scale, have drawn attention to the existence of a core-periphery structure. They claim to have discovered in this structure an important clue for understanding some of the key developmental processes during the nineteenth century.\(^6\) The authors identify the centre initially with England whence, spreading laterally to parts of Western Europe and the United States, it came to form what an American historian, writing for an earlier generation, had called the World Metropolis.\(^7\)

Moving from a global to a continental scale, a study carried out by the United Nations Economic Commission for Europe finds that "in all countries of Europe the levels of economic development tend to be lowest in the regions furtherest removed from the relatively small areas which developed as the main European

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centres of industrial activity, embracing England and the valley and outlet of the Rhine.\(^8\)

According to T. W. Schultz, economic development occurs in a specific locational matrix which is primarily urban and industrial in composition. It is at or near this matrix that economic organization, especially commodity and factor markets, work most efficiently.\(^9\) Dissenting arguments have stressed the possible primacy of economic development on the agricultural sector emerging independently of the urban focus.\(^10\)

Recently, some attempts have been made by G. Myrdal and A. Hirschman, to incorporate this thesis into a general theory of economic growth. Gunnar Myrdal shows how the centre-periphery structure leads to greater disparities through the operation of unrestrained market forces.\(^11\) Hirschman, primarily concerned with development strategies, takes it "for granted that economic progress does not appear everywhere at the same time and that once it has appeared powerful forces make for a spatial concentration of economic growth around the initial starting points."\(^12\) From this assumption, he then builds up


his concept of the process of unbalanced growth. Under this concept, if economic forces were to be left to follow their own natural course, the richer regions of the country will continue to grow richer while the poorer regions will become poorer. Thus he recommends:

A nation attempting to develop its own backward region should therefore provide certain "equivalents of sovereignty" for these regions. The most important of such equivalents is a reaction against the feelings of despondency and self-denigration so often encountered in the South and the mobilization of its energies through regional institutions and programmes.\(^{13}\)

The Regional Concept in Political Science and Public Administration

The crucial issue in the areal division of government powers lies in the achievement of a responsible and responsive government in a democratic society. Paul Ylvisaker attempts to portray this problem in the chart which is reproduced on the next page. As may be noted, the problem is to devise the means whereby the basic values of liberty, equality and welfare could be realized on an optimum basis through an areal division of powers. Ylvisaker states that: "The optimum number of levels among which to share the power to govern would seem to be three.\(^{14}\)

He then goes on to say:

If I have any doubt, it is about the "middle Tier" which chronically seem to suffer in comparison with local and central

\(^{13}\)Ibid., p. 199.

### The Rationale for an Areal Division of Governmental Powers within the Modern Democratic State

#### Instrumental Values of the Areal Division of Powers

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<td>LIBERTY</td>
<td>- by providing additional and more readily available points of access, pressure, and control; - by making it possible for minorities to avail themselves of governmental position and power; - by serving to keep governmental power close to its origins, and governmental officials within reach of their masters.</td>
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<tr>
<td>(Constitutionalism, with a goodly admixture of laissez-faire)</td>
<td>Gives further assurance of protection against arbitrary or hasty governmental action</td>
</tr>
<tr>
<td>EQUALITY</td>
<td>On the negative side, provides a further barrier to the concentration of social, economic, and political power. On the positive side, provides additional and more readily available opportunities for participation as a means of contributing to the development both of the individual (in the Aristotelian tradition of citizenship) and of public policy.</td>
</tr>
<tr>
<td>(Especially as embodied in its corollary of democracy and the axiom of wide-scale participation)</td>
<td>Gives further assurance of: - responsiveness and flexibility; - energy and &quot;collective wisdom&quot;; - consent and loyalty.</td>
</tr>
<tr>
<td>WELFARE</td>
<td>Additional assurance that demands will be heard and that needs will be served.</td>
</tr>
<tr>
<td>(service)</td>
<td>Gives further assurance that governmental action will be effective (granted the claims listed immediately above), and that performance will be more efficient, in accord with the administrative principles of: - scale; - delegation; - decentralization; - specialization; - the availability and yardstick effect of comparative costs.</td>
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governments, having neither the attachment of the one nor the prepossessing qualities of the other.\textsuperscript{15}

Elsewhere, Ylvisaker discusses four administrative considerations in regional planning.\textsuperscript{16} His main thesis is that it is essential to gear the development of administrative machinery for regional planning to meet the individual needs of each country and region. But then he points out that in its ultimate form, "planning as a matter of negotiated coordination becomes the legislative process, and, as such an integral part of politics."\textsuperscript{17}

As will be discussed in greater detail below, the regional concept in political science and public administration appears to have been inspired by a greater awareness of the inability of traditional division of powers between the three levels of government to deal effectively with persistent and complex problems in metropolitan areas as in the United States.\textsuperscript{18}

\textsuperscript{15}Ylvisaker, loc. cit.


\textsuperscript{17}Ylvisaker, loc. cit.

in the case of the newly independent countries, a recognition of the limits of the Central Government to do everything for the country with little help from weak local governments.\textsuperscript{19} In short, the attractiveness of a new level of government — the regional level — is dictated more by the needs of responsiveness of governments to demands of more or newer governmental services.

**Regional Planning in the United States.**

In this section, the application of regional planning as an approach to realize developmental goals or objectives will be examined.

It is the consensus of opinion among writers that the Great Depression of the 1930's produced the atmosphere which gave rise to the region as a planning tool in North America. Prior to this time, however, there had been isolated voices crying in the wilderness, the best known being Benton MacKaye.\textsuperscript{20} The concept of a region as developed in geography provided a guideline for the early proponents of the respective schools of

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thought on regional planning in America.

In the southern United States regional planning was seen "as an opportunity to halt the decline of its resources and achieve what came to be vaguely referred to as regional balance, while yet maintaining its unique agrarian culture and tradition."\(^{21}\)

The exponents of this concept based their arguments on the geographic/concept of the natural region. They claimed that there existed a pervasive folk culture within the region. They also visualized the area as being distinctive because it possessed "the largest possible degree of homogeneity measured by the largest possible number of economic, cultural, administrative and functional indices for the largest possible number of objectives."\(^{22}\) Discussions of this nature with minor variations continued up to the commencement of World War II. Contribution by the National Resource Committee, Lewis Mumford, and the authors of the Yale Report contributed to the dialogue on this philosophical approach to regional planning.

The post war period heralded a new group of disciples in the field of regional planning thought. Donald Bogue, building on Christaller's model, presented the theory of the metropolitan

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\(^{22}\) Friedmann, \textit{loc. cit.}
Rutledge Vinning, continuing along this line of thought and once more drawing heavily on Christaller's theory, proposed the view of the human landscape as an "interconnected system of central places." This approach resulted in a novel conceptualization of the traditional regional concept. It pictured a system of interrelated cities having an overall sense of stability while individual units within the system might shift continually.

The city-centered region as propounded above created a bifurcation in regional planning concern. The emphasis on natural resource development, on a broad territorial base, conceded some ground to the consideration of the development of metropolitan resources. However, once concern was focused on the metropolitan region it was discovered that metropolitan planning consisted of two distinct aspects. Firstly, the concern for resource development, the traditional regional outlook, and secondly, the need for controls, as practised in city planning.

The history of regional planning in the United States shows that it varies over time with reference to activity and area.

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23 Donald Bogue, The Structure of the Metropolitan Community (Ann Arbor, Michigan: Horace H. Rachman School of Graduate Studies, University of Michigan, 1950).


Prior to World War II, regional planning referred primarily to water resource development and related projects within a river basin. The area was the water-shed; the objective, the fullest possible use of physical resources for the improvement of living standards of the people within the area. The Tennessee River Valley Authority is the best known example of this type of regional planning. However, a number of other river basin development projects have been undertaken: The Columbia, the Central Valley of California, the Missouri, and Arkansas and the Red Rivers.

The post-war period witnessed the shift from river basin development to the metropolitan region as a dominant planning area. This concern came about in response to the problem created by the sudden influx of population to the urban centres, which caused city limits to lose their significance as population inundated the cities' peripheral regions. The many metropolitan planning agencies found throughout the nation are physical testimonies of the effort through planning to relieve the stresses created.

The rural to urban movement assisted in focusing attention on the uneven distribution of the growth of economic activity within states. It was recognized that those states that were attracting modern industrial advances and accelerated economic growth were at the same time experiencing severe social and physical problems. While, on the other hand, the older industrial
sections wished to share in the new economic expansion of the post war boom. This gave rise to a type of regional planning known as area development. Many states established development agencies whose responsibility was to undertake research into the resource possibilities of the area.

The concept of regional planning as it grew up in the United States, although it is of relatively recent origin, has made some contribution in its own right in rationalizing human activities. It has assisted in bringing to an end the idea that a region as a natural unit could be defined unambiguously. This concept has given way to the concept of 'space' and fostered extensive work on spatial theory. Although the work done in the last decade or so on spatial theory has not been compiled into a solid body of theory some broad generalizations can be deduced. John Friedmann summarizes these as follows:

1. The structure of human settlement can be defined as a system of functional linkages.

2. Nodes are arranged in a loose hierarchical structure which is internally differentiated by function.

3. Surrounding each node is a "density field" of functional interaction, the densities declining with increasing distance from the centre.

4. The cost of overcoming distance exerts a pervasive influence on the distribution of activities in space as well as on the level of activity at any given location.²⁶

²⁶J. Friedmann, "Regional Planning as a Field of Study", in Friedmann and Alonso, op.cit., p. 64.
The above propositions lend themselves to quantification, but it should be noted that they are functions of both time and space. They also vary with technological changes, economic and social development, cultural values and geography.

Another contribution resulting as a by-product of the American experience is the adaptation of concepts, methods and administrative processes to meet the changes and challenges in the best possible way. The usefulness of this approach requires the view that planning is not an end in itself but a means towards solving specific problems. Such an approach was predicated upon the necessity for explicit definitions to problems and a search for acceptable solutions. The recognition that the problems encountered were not of a static but dynamic nature necessitated identifying objectives that could be achieved over time.

The process approach has helped to lend import to the need for flexibility in planning. Development occurs in different geographic and spatial arrangements. At every stage of development, different regional delimitations will be most convenient and efficient for the purpose of planning. In like manner efficient administrative structures will vary from region to region. Consequently, it becomes evident that no one set of regions is ever completely satisfactory, but that selection must be based on the objectives to be achieved.

A statement that expresses one of the ideas evolved above was made thirty-seven years ago by the late Wellington Jones.
When asked about the optimum planning region he replied:

I have no reasoned or ever tentatively final opinion on this matter. In discussing the subject with others during the last few years, I have heard several ideas expressed with which for the moment I agree: (1) Subdivision into regions for the purpose of planning might well be made in one way (or in several ways) for investigation and in another way (or ways) for putting into effect the results of such investigation. (2) Regions and their subdivisions are recognized by geographers, while not to be ignored, may not be appropriate divisions ... for the purpose at hand. (3) State (i.e., administrative) boundaries are not to be ignored. (4) It may be that no one set of regions can be divised which will serve either for investigation or for subsequent effectuation of plans.27

Developmental Planning in Other Countries.

In the Soviet Union, developmental planning emanated from the ruling party's policy and was strengthened by the nation's isolation from the world community of nations. During the late 1920's and 1930's resource development was geared to create an industrial establishment capable of allowing the nation to defend itself against its many enemies. The hope was, however, that this would provide the Communist ideal - the provision of goods to each person's needs. The result was the creation of a large planned and publicly owned sector

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of the economy with only a minor free market. In the process an immense and complex administrative system was created for management purposes.  

After World War II the countries which came under Russian influence - Poland, Rumania, Czechoslovakia and Hungary - established a similar system. Developmental planning was strongly biased towards heavy industrial complexes and self-sufficiency. Yugoslavia started with the Soviet model but deviated. Much of the planning, rather than being centralized, was transferred to the regional and provincial levels.  

In Great Britain and the Scandinavian countries where planning was being simultaneously developed, the main concern was with eradicating the evils of the Great Depression. The aim, here, was social justice, and planning was gradual, moving from reform to reform, and in a less totalitarian manner than in the previously considered countries. In this manner a body of laws and procedures for implementation was developed. The British system of planning has been adopted by many of the colonial territories after independence. The welfare orientation of this system was attractive since many of the territories were inflicted with problems of unemployment and underemployment.  

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29 Ibid., p. 33.

30 Ibid.
Planning for Development in the Developing Countries.

Since 1945, approximately forty nations have gained independence. In many instances, the cohesive force which bonded the populace together in their struggle for independence was the promise of rapid development. However, in many of these new nations the man-power requirement for guiding the transformation process along the road of development was lacking, and advisors from the more advanced nations of the world had to be brought in to fill the breach. This situation brought to light two interesting characteristics of the developmental process of newly independent territories; first, the character of their economies and second, the inapplicability of westernized models, per se, to underdeveloped areas.31

The governments of newly independent territories inherited economies of a dualistic nature. Generally, one sector of the economy was organized and oriented towards meeting the needs of the mother country, while the other followed along traditional lines. This had its counterpart in a dualistic physical pattern, which manifested itself in a small developed urban sector with vast rural areas with little development.

The commitment to development and the desire to join the 'have' nations resulted in policies heavily weighted in favour of rapid economic development. The result of this point of

31Loc. cit., pp. 39-44.
view was to consider economic development as the panacea for all problems.

This approach to the development process seems to have originated from two sources. First, from the theories of economists who have concerned themselves with problems of developing countries; and second, from the pattern of development evolved in the more economically advanced societies of the western world, and transferred to the developing countries. The contributions of the economists were aptly presented by Hoselitz when he wrote:

Some of the most meritorious contributions to this literature deal with such typical economic problems, as capital formation, the development of an industrial labour force, monetary and fiscal aspects of economic development, the impact of economic growth on living standards and consumption levels, and the problems of balance of payments difficulties, as well as the need for and the difficulties of development planning.32

Lloyd Rodwin states further:

The leading policy-making professionals whose activities bear on development policy have been the economic planners and the physical planners.... The economic planners have concentrated on the process of national economic planning, the key features of which are the formulation of economic objectives, the preparation of the budget for the public investment sector and the development of appropriate monetary credit, fiscal and exchange policies and controls.33

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Richard Meier in his prefact to Developmental Planning states that "economists have arrived at quite explicit ideas about what constitutes economic growth and are able to propose procedures for its estimation." 34

In an attempt to construct operational models for their development, the developing countries looked at the experiences gained by the more advanced countries of the west. Here, it was observed, that development was closely linked to technological change and industrialization and that continued material well-being depended on sustained technological progress. Therefore, the models proposed by early western advisors to the developing countries found a fertile field for propagation.

The application of these models, needless to say, met with limited success. Kendelberger and Spengler in their review of a number of reports of missions by the International Bank for Reconstruction and Development have been critical of the approach taken by these experts to the problem of development. 35

Practical experience in the planning and implementation of development programmes in the less developed countries has led to a more complete understanding of the nature of this

34 Meier, op. cit., p. 5.
process. It has become quite evident that there are many non-economic factors which bear upon the development process and which, if the process is to be successful, must receive adequate attention. Social and cultural conditions as well as administrative institutions of a community were recognized as important constituents of any development programme. One author even goes farther while speaking of developmental planning and suggests that:

The planning function, however, must diffuse far beyond the specialized agencies to which planning is entrusted. Planning must spill over into non-governmental organizations, firms and households, where it introduces goals and constraints regarding production, consumption and programme choice.  

The recognition that development is a many faceted problem has led to the derivation and adoption of new strategies. However, these approaches still retained strong emphasis on economic factors. Three types of strategies have evolved in developing countries which portray this bias. These strategies are:

1. Emphasis on the need to increase capital or savings, and therefore on a strategy that increases savings;

2. emphasis on the importance of particular human skills and attitudes, and therefore, a strategy that produces, trains or encourages such groups as entreprenuers, investors, decision-makers, technicians;

3. emphasis on political structure or psychological motivation of the society as a whole, and therefore, a strategy that

\[36\]Meier, op. cit., p. 104.
influences values, political attitudes or particular political groups.  

It is evident that in 1960 the emphasis in the development process was still heavily placed on economic factors. On the other hand the social, cultural and physical factors were relegated to a minor position or seldom considered as being of equal importance.

Summary:

The proponents of the regional concept have discarded the hope of delimiting a region that may be used for all times and all purposes. Planning in the United States has proved this to be so by realizing that the region to be selected depends upon the purpose to be served.

In the countries with centralized economies, planning was dominated by a force not altogether existent in the developing countries. The process as evolved in Scandinavian countries and Great Britain was in response to social pressures and industrialization. The systems employed in these countries were attractive to the developing countries because they evolved in response to problems similar to those of the which plagued them.

Once independence was gained in the underdeveloped sector of the world, these nation states adopted planning as a means of propelling them rapidly along the path to

economic development already traversed by the industrial countries. In this endeavour they accepted westernized models and advisors only to discover that they possessed unique problems requiring adaptation of the existing models or the working out of new ones.

The emphasis on economic development framed along western lines and executed from the national level made evident the weaknesses of this approach. It illuminated the need for an integrated approach to the problems of development - an integrated approach that covers the total spectrum of man's activities. Comprehensive planning seems to be the solution, but comprehensive planning executed from the national level presupposes a homogeneity of problems and solutions. All countries, however, evince regional differences, with different problems to be solved, each requiring a different strategy. The region, therefore, seems a logical unit to use for developmental planning. As argued, the regional unit should not necessarily be static. Its delimitations should depend on policy requirements carefully worked out at the national level.

However, if the region in the unit to be employed in planning for development provision must be made within the governmental heirarchy to provide the regional authority with power to fulfil its duties adequately. The idea is given sharply and with a rare economy of words by Charles
Abram - "Power is the rock on which sound planning may be safely moored or upon which it may flounder." \[35\]

\[38\] Abrams, "Regional Planning Legislation in Underdeveloped Areas", in Regional Planning, op. cit., p. 96.
CHAPTER III

DEVELOPMENTAL PLANNING IN PUERTO RICO

Of the many attempts at developmental planning by developing countries, it is accepted by most observers that Puerto Rico stands at the apex of achievement among them. Such statements as: "The success of the Puerto Rican developmental venture is impressive no matter what data is used to measure it,"¹ and "Puerto Rico twenty years ago was one of the most poverty stricken, disease-ridden, underdeveloped 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,"² substantiates the claim.

This measure of success has fostered the belief that in Puerto Rico area, power and function have achieved, to a large extent the merging necessary to make the planning process successful. For this reason, Puerto Rico is selected for careful study.

In order to appreciate the part played by planning in the development of the territory under consideration and, at the


same time, to provide a frame of reference for assessing the reasons for the success of the endeavour, it is necessary to describe the background conditions which existed in Puerto Rico prior to the inauguration of the developmental programme.

**Physical Facts.**

Puerto Rico lies about 1,000 miles southeast of Miami, about 1,400 miles southwest of New York and 500 miles south of Caracas, Venezuela. Roughly rectangular in shape, the island is about 100 miles long and 35 miles wide. It is bounded on the north by the Atlantic Ocean and on the south by the Caribbean Sea.

The island is extremely beautiful, sub-tropical and with a climate which comes close to being perpetual spring. But even its beauty presents certain paradoxical elements, for much of it stems from the rugged green decked mountain ranges which cover the interior and extends over almost three quarters of the island. While the ranges are broken in formation, with intervening valleys of relatively high fertility, the largest part of the terrain is too rough for agriculture while providing no great compensating mineral wealth. From the mountains to the sea there is only a narrow coastal plain which varies from 8 to 13 miles in width in the north and from 2 to 8 miles in the south. The island's total land area is
about 2,191,000 acres and over 70 percent of this area is hilly and mountainous.\(^3\)

Puerto Rico lies in the path of the trade winds which blow almost constantly from the northeast. Its prevailing winds, its moderate size and its oceanic influence gives it a warm equitable and comfortable climate. The average temperature of the coldest month is 73 degrees with an increase of only 6 degrees for the warmest month.

With the exception of the dry northern portion of the island, rainfall is heavy throughout the year. The average annual rainfall for the entire island is about 71 inches, with a range, depending on season, year, and geographic distribution, of about 21 inches to 170 inches.\(^4\) Although the rains are sometimes heavy, they are normally of short duration, and there are few days when the sun does not shine. In general, the climate affords an ideal year round growing season for tropical crops.

**Historical Background.**

The development problems of Puerto Rico are intricately bound up with the island's history. From the discovery of the island in 1493 by Columbus, Puerto Rico remained under

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\(^4\) Ibid., p. 9.
Spanish rule with the exception of a short interlude when the port city, Sán Juan, was captured and held for five months by the Earl of Cumberland, until it was wrested from Spain in 1898 by the United States.

Throughout the four centuries of Spanish conquest to the American occupation, Puerto Rico experienced little development. The main activity of Hispanic colonization in the New World tended to bypass Puerto Rico for the wealthier countries of Central and South America. It was not until the middle of the eighteenth century with the growth of commerce and the expanding slave trade that some attention was paid to the island. This came in the form of fortification. The Crown thus considered the island as a link in the chain of ports defending the passage of treasure fleets between the New World and Spain. In the interim, however, the island received more than its share of misfortune:

In 1515, a succession of hurricanes of devastating character visited the colony and left but few houses standing. In 1520, the inhabitants were attacked by an epidemic of smallpox and 1536 by a plague of ants.⁵

1898-1940: The Economy.

As a result of the Spanish-American War of 1898, Puerto Rico lost whatever little commerce it had developed. The situation worsened when the island was struck in 1899 by one of the worst

hurricanes recorded to that date. However, since the island was then within the monetary and tariff structure of the United States, the Federal Government, in response to the situation, voted 200,000 dollars for relief. This together with the inflow of capital from the mainland, served to mold the island's economy that was at a low ebb.

Under the protection of the tariff, the sugar industry, which had played a secondary role during the Spanish regime, grew rapidly until it dominated the entire economy. "During the first three decades of American rule 120 million dollars of American private capital had entered the island raising sugar production from 60,000 tons a year to 780,000 tons and building a railroad to transport it." Not only did it provide the main outlet for employment and investment, but it gave the impetus for the development of a network of servicing industries - transportation, communication, power, banking and others.

A number of other agricultural industries, especially tobacco and tropical fruit, also experienced some growth through the stimulation of mainland capital, but these never achieved more than a minor place in the economy. Coffee, which had been the primary crop during the nineteenth century did not enjoy the

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6 Ibid.
protection of the United States tariff, and after a series of hurricanes and the loss of the European markets, it became a bankrupt industry. Manufacturing did not attract a large volume of either external or internal capital and its development was limited to the processing of sugar and the production of a small number of items chiefly for the home market. Home needlework, however, experienced some increase.

**TABLE I**

<table>
<thead>
<tr>
<th>EXPORTS IN THOUSANDS OF DOLLARS&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
</tr>
<tr>
<td>Sugar</td>
</tr>
<tr>
<td>Molasses</td>
</tr>
<tr>
<td>Coffee</td>
</tr>
<tr>
<td>Tobacco</td>
</tr>
<tr>
<td>Fruit</td>
</tr>
<tr>
<td>Needlework</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>


In spite of the fact that the limitation of the natural resource base, together with the directing force of the United States tariff, had turned Puerto Rico into a one-crop, one industry economy, total income grew at a fairly rapid rate
during the first three decades of American rule. Unfortunately, the economic expansion was out-paced by the growth of population (953,243 in 1899 and 1,869,255 in 1940) and the gain in total income was largely absorbed by the increase in the number of consumers. Consequently, the per capita income at that date was one hundred and twenty one dollars per year or forty cents per day.  

The Human Element.

The human element is undoubtedly the most important single factor in the development process, outweighing in the long run even the availability of natural resources. Underdeveloped areas like Puerto Rico entered the twentieth century with a heavy burden of cultural tradition and family patterns that are not well suited to industrial living and production. Furthermore, population pressure, illiteracy and poor health conditions together presented a gloomy future for the island at the turn of the century.

Looking at Puerto Rico's population in a historical perspective it cannot be denied that the island has been crowded for sometime. In 1952 there were approximately 2,258,000 inhabitants on the island or, put in more meaningful terms, 668 persons per square mile. This population density at the time exceeded that of Japan or the United Kingdom. Puerto Rico's crowded condition is the result of extremely rapid growth.

8 Cited by Hancock, op. cit., p. 53.
Under the Spanish regime there was a fast increase, but it had begun to taper off towards the end of the nineteenth century. After the United States took over in 1898, the rate of increase again went up as indicated by the following table.

TABLE 2

POPULATION OF PUERTO RICO AND RATE OF INCREASE\textsuperscript{b}

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Population</th>
<th>Rate of Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800</td>
<td>155,426</td>
<td>3.20</td>
</tr>
<tr>
<td>1846</td>
<td>447,914</td>
<td>2.17</td>
</tr>
<tr>
<td>1899</td>
<td>953,243</td>
<td>1.50</td>
</tr>
<tr>
<td>1910</td>
<td>1,118,012</td>
<td>1.54</td>
</tr>
<tr>
<td>1920</td>
<td>1,299,809</td>
<td>1.56</td>
</tr>
<tr>
<td>1930</td>
<td>1,543,913</td>
<td>1.69</td>
</tr>
<tr>
<td>1935</td>
<td>1,723,534</td>
<td>1.96</td>
</tr>
<tr>
<td>1940</td>
<td>1,869,255</td>
<td>1.89</td>
</tr>
</tbody>
</table>


It is clear that the Puerto Rican growth was so fast that it was doubling itself every forty years. This rate of growth is all the more remarkable when it is realized that Puerto Rico has generally been a country of emigration.
The development of any society depends to a very large extent on the health and education of its people. In many respects, Puerto Rico had made impressive progress between 1898 and 1940. This had been especially true in education:

For example, literacy of the population ten years of age and over has increased from 20.4 percent in 1899 to 45 percent in 1920 and to 68.8 percent in 1940.\(^9\)

However, there was still some 30 percent of the population illiterate as compared to 6 percent in the whole of the United States at that time.

During the period 1900 to 1940, Puerto Rico had expanded its education facilities many times, yet:

... half of the children of school age were not attending school; a third of the children leave school between the first and third grades; only 36 percent of the population (ten years of age and over) has an education equivalent to four grades or better.\(^10\)

Since 1900 great efforts have been made to reduce the death rate, and these efforts have been remarkably successful:

The crude rate of 9.9 per thousand in 1950 and 1951 was only one-third of what it was prior to 1900 and less than half the average rate for the decade of 1910-20.\(^11\)

The leading causes of death - diarrhea, enteritis, tuberculosis, tuberculosis,


\(^10\) Ibid.

pneumonia and malaria were causing significant loss of life although health programmes were instituted. In 1940, diarrhea and enteritis were causing 405 deaths per 100,000 population; tuberculosis accounted for over 260 deaths per 100,000; pneumonia killed 96.8 per 100,000 and malaria destroyed 96.8 persons per 100,000.12

However, in spite of the sizeable development which took place, underdevelopment, poverty and disease continued to be the lot of the average Puerto Rican during the entire period. John Gunther, a prominent American historian, viewing the situation on the island wrote thus:

"I plodded through the streets of San Juan, and I took a brief trip or two into the countryside. What I found appalled me."

"I saw rickety squatter houses perched in garbage-drenched mud within a few miles of the new United States naval base."

"I saw native villages steaming with filth - villages dirtier than any I ever saw in the most squalid parts of China."

"I saw children bitten by disease and on the verge of starvation, in slum dwellings - if you can call them dwellings - that make the hovels of Calcutta look healthy by comparison."

"I saw, in short, misery, disease, squaller, filth. It would be lamentable enough to see this anywhere. It would be shocking enough in the remote uplands

12 Hancock, op. cit., p. 158.
of Peru or the stinking valleys of the Ganges. But to see it on American territory, among people whom the United States had governed since 1898, in a region for which our federal responsibility had been complete for 43 years is a paralyzing jolt to anyone who believes in American standards of progress and civilization.13

Other Factors.

The Puerto Rican economic plight during the first forty years of American rule did not come about as a result of the mainland's apathy towards the island, for during the period 1931-41 the Federal Government had spent and lent some 230 million dollars.14 However, the island had its misfortune. Hurricanes in 1928 and 1932, a drought in 1930-31 and the world depression all coincided to contribute to weakening an already shaky economy.

By the end of 1940 when most other areas had already achieved substantial recovery from the depth of the depression, the island's economy was still in a seriously depressed state. More seriously it suffered from a dangerous imbalance and structural difficulties. The sugar industry had stopped growing. Most of the best land was under sugar cultivation and whatever potential for growth remained was restricted by the imposition of the sugar quota system.

13 Ibid., p. 52.
14 Strassman, op. cit., p. 64.
Other agricultural industries were also past their peak for a number of reasons; the tobacco industry was suffering from a long-term shift to cigarette smoking and was in a disorganized state; and fruit had lost out to mainland and offshore competition.  

The import sector of agriculture, sugarcane, was subject to land monopoly and absentee ownership. According to the 1940 census, about one-half of one percent of the farms contained one-third of the total arable farm land. There was little effort at diversification and when sugar production was limited, much of the land remained idle. With the end of the period of growth of the major agricultural industries, employment in agriculture had levelled off, so that not many more persons were employed in farming in 1940 than were in 1920 as the table on the next page illustrates.

In the meantime the population increased at a yearly rate of 1.6 percent from 950,000 in 1899 to 1,540,000 in 1930. The growth of manufacturing employment, other than home needlework, from 32,000 in 1910 to 53,000 in 1930, was not enough to relieve the pressure for employment.  

As a result of the divergent


population and employment trends, some 11 percent of the labour force was unemployed in 1940.17

**TABLE 3**

**EMPLOYMENT BY INDUSTRIES 1920-1940**

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>1920</th>
<th>1940 (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing and handicraft</td>
<td>62</td>
<td>101</td>
</tr>
<tr>
<td>Sugar cane</td>
<td>85</td>
<td>124</td>
</tr>
<tr>
<td>Tobacco</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>Coffee</td>
<td>48</td>
<td>26</td>
</tr>
<tr>
<td>Other farms</td>
<td>81</td>
<td>61</td>
</tr>
<tr>
<td>Agriculture</td>
<td>244</td>
<td>229</td>
</tr>
</tbody>
</table>


**Post 1940.**

The turning point in the social and economic development of Puerto Rico may be thought to occur in 1940 for a variety of reasons. There appear to be converging of political, economic, social and administrative forces during the decade of the 40's which made it possible to make the sharp break with the stagnation of the past.18


The Popular Democratic Party headed by Munoz Marin came to power in 1940 with "a new goal in mind, mainly to better the economic and social conditions of Puerto Rico." This was virtually the starting point of the development process. The imaginative leadership which the Popular Party brought to the island and its development effort is clear in the subsequent comment:

It is clear that one of the sources of strength has been the appearance on the scene of a dynamic leadership, with a political party organization dedicated to the achievement of certain social and economic goals through the democratic process. In addition, leadership was not strapped to a rigid formula which tended to generate an excess of nationalism. The leadership was sufficiently flexible so that when a particular method failed, others were tried until the right combination was found.

The coming to power of the Popular Democratic Party under Munoz Marin in 1940, and the appointment of Rexford Tugwell as governor of the island in 1941 provided a combination of administrators favourable for effective planning of the development process.

Rexford G. Tugwell.

Rexford G. Tugwell was a planner. His first association with planning was theoretical and in the realm of economics.


As Professor of Economics at Columbia, he argued that the conditions of modern technology and industrial organization required a renunciation of laissez faire in favour of a planned economy. In his opinion the "scientific management" concepts of F. W. Taylor had to be extended beyond the factory to the economy as a whole. In a book published in 1933, *The Industrial Discipline and the Governmental Arts*, Tugwell proposed that joint government-industry "integrated associations" be formed to regulate investment, prices, wages and working conditions, with a "United States Industrial Integration Board" to be placed at the apex of this structure.  

In 1933, he left his academic setting to become a full time member of Roosevelt's administrative staff. He held the posts of Assistant Secretary and later Under Secretary of Agriculture where he promoted such policies as scientific soil conservation and forest management. In 1936, he left Washington to become in 1938, the first permanent chairman of the planning commission of New York City. The New York Planning Commission has been described as follows:

The unique feature of the commission was its comprehensiveness of jurisdiction. It was, in the first place, empowered to guide both private and public development.

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Its zoning authority and ability to control the creation of new subdivisions gave it jurisdiction in the private sector, and its custody of the "official map" which designated present and future street locations, concerned public growth as well as private.\textsuperscript{22}

The commission operated in more than one dimension. It not only handled the spatial, i.e., zoning, and street layout, but also the temporal and financial as well.

Munoz Marin, a man dedicated to social and economic development and not afraid to experiment, when joined by Rexford Tugwell, a man of wide experience in government affairs and new concepts and convictions in economic and physical development, provided a strong base from which to launch an attack on the momentous problems of Puerto Rico.

Tugwell was largely responsible for the introduction and drafting of the first Planning Act in 1942 (to the extent of drafting substantial portions of the Act himself), and was instrumental in getting the Act passed by the Legislature. In this he was actively supported by Munoz Marin. The general purpose of planning in Puerto Rico is given in the Planning Act as follows:

The power granted in this Act should be exercised for the general purpose of guiding a coordinated, adjusted and economic development of Puerto Rico which in accordance with present and future needs and human, physical

and financial resources will best promote the health, safety, moral order and convenience, prosperity, defense and culture, economic soundness and general welfare of the present and future inhabitants, and such efficiency and economy in the process in the development and the distribution of population of the use of land and of public improvement as will tend to create conditions favourable thereto. 23

However, it was the organization of the institution and the powers given to it that partially brought to fruition Tugwell's theoretical concepts. He had come to the conclusion after years of experience that "the planning function of society should be entrusted to an institution that is separate from the legislative, executive, and judicial branches of government." 24 He referred to this power as the "directive" power or "fourth" power. In putting forward this concept he was careful not to deny the fundamental democratic principle by pointing out that the fourth power should ultimately be subordinate to the political branches of government. 25

In this endeavour, Tugwell was striving to bring two of the major parameters under discussion in this study, i.e., power and


24 Goodsell, op. cit., p. 142.

area into harmony, with functions falling into place naturally. His appointment as governor of Puerto Rico provided him with the opportunity to experiment with these ideas.

I had just come from being Chairman of the Planning Commission in New York City; and I thought I knew just what kind of a device would meet the upcoming need. That was a planning agency of the kind I had said to myself, as a result of the New York experience, I would try some day to see set up somewhere. This was my opportunity.26

The bill drafted by Tugwell and Bartlett, out of which came the 1942 Planning Act, "called for the creation of one central planning agency with island-wide jurisdiction."27 This institution was to have authority to plan for and regulate the use of all land, both in cities and rural areas. It was to have a fiscal role also, that is, to budget for six years ahead. However, "instead of covering capital expenditure only it included current expenses; and the first year's budget, instead of being compulsory was made advisory."28 This was done in the name of constitutionality, for the Jones Act required that the governor submit the budget. The bill also called for the creation of, in addition to the planning organization, a Bureau of the Budget which was placed in the Office of the Governor.

27 Goodsell, op. cit., p. 145.
28 Ibid., p. 145.
They, the drafters of the bill, wanted above all that the planning organization be as autonomous as possible and consequently they did not place the planning agency anywhere organizationally. "They simply created a three man board without mention of the branches of government." Care was taken, however, to protect the Board from the chief executive by providing that the Board members serve staggered six year terms. For independence from the legislative control, the draft provided that a fixed percentage of the budget would automatically be appropriated to the planning organization.

The bill drafted by Tugwell and Bartlett and submitted to the legislature as S.181 strove to lock into the planning process the three most critical variables - power, area and function - necessary within any planning organization in order to achieve some measure of success, particularly in developing countries where the problems to be solved seem insurmountable and had to be handled with expedition.

When S.181 was enacted into Act 213, its original form had changed considerably. The three man "Puerto Rico Planning, Urbanizing and Zoning Board" was provided for, with substantially the same regulatory powers, but the Board's jurisdiction, however, was sharply reduced. All rural and agricultural areas were expressly exempted from compulsory functions such as zoning and subdivision control.

\[29\] Ibid., p. 146.
The legislature also authorized the creation of individual municipal planning commissions to supplement the Central Board, although their actions were subject to the Board's review.

The third area of change had to do with the Board's independence. They struck out the provision for a budget percentage appropriation, although it was allowed a permanent appropriation of 100,000 dollars. The legislative veto concept was removed entirely, and the Board's regulations and maps, instead of automatically becoming valid unless disapproved by the legislature, was made to depend upon positive majority vote approval, not only by the legislature but by the Executive Council as well. Moreover, either body could amend the Board's proposals.

Although the Board's jurisdiction and independence were curtailed drastically it was recognized as an advancement in planning law at the time. Brandon Howell, Lecturer in Civic Design at the University of Liverpool, in a brief analysis of the planning system of Puerto Rico had this to say:

Three essential features distinguish the planning system of Puerto Rico from England and Wales on the one hand and those of the States and local governments in the United States on the other. The first of

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30 Ibid., p. 148.
31 Ibid.
these features is that both physical and economic planning have been accepted from the start as an inseparable part of the same activity for which responsibility is given to a single central authority, the Puerto Rico Planning Board. The second is that this Planning Board has the power to act as a central planning authority for each city and town. Effective regional and metropolitan planning has thus been made possible to a degree seldom achieved elsewhere. Finally the Planning Board occupies a strong position within the administrative structure of the Insular Government. It acts as staff advisor to the Governor and the Legislature on matters of economic and social development and fiscal policy and it co-ordinates the development activities of the government departments and public corporations within the framework of policy set by the Governor and Legislature.  

The history of the organization and functioning of the Planning Board is mottled with difficulties. However, these did not prevent the organization from forging ahead and its successes are best indicated by pointing out some of its achievements. In 1945 the Board's appropriation was increased from 100,000 dollars to 170,000 dollars and again in 1946, it received a further increase of 227,000 dollars. By the end of Tugwell's administration in June 1946, four plans had been officially adopted by the Board: A San Juan thoroughfare plan, a rural road plan, a district hospital plan, and an insular airport plan. Several other segments of the master plan had

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33 Goodsell, op. cit., p. 159.
34 Ibid., p. 154.
been drafted but not formally adopted.\textsuperscript{35}

The Development Agencies.

Over and above the Planning Board and the Bureau of the Budget which were created in 1942 and discussed previously, a series of development agencies were also formed. They consisted of the Government Development Bank, the Puerto Rican Industrial Development Company, the Land Authority and the Agricultural Development Company. With the exception of the Agricultural Development Company, the others have remained in operation with additions after the war. These were made up of companies which took over and operated utilities. Electrical power, water and sewerage systems were brought under government control.

In 1950 the Economic Development Administration was created with the task of programming and promoting industrial development.

In order to make sure that the policies and programming of industrial development were integrated with the rest of the governmental activities, the Administration became a regular department of the government subject directly to the Governor and the Legislature for all budgetary appropriations.\textsuperscript{36}

The Puerto Rico Industrial Development Company is a public

\textsuperscript{35}The Master Plan took the form of a series of plans on different subjects.

\textsuperscript{36}Alvin Mayne, \textit{Loc. cit.}, p. 174.
corporation engaged in the purchase, lease and sale of land. It also constructs, sells or leases factories, hotels, commercial establishments and other facilities.\textsuperscript{37} It makes loans to new industries and if necessary it can operate factories or other establishments or own them.

The Government Development Bank has three principal functions related to the economic development programme. It serves as fiscal agent for the government. It makes long-term loans to private industries and business establishments. And it engages in negotiating direct financing of industry by private banks and financial institutions. The basis on which it provides loans does not necessarily depend on the institution's credit rating but on the judgement of anticipated success of the undertaking and its contribution to the development programme.\textsuperscript{38}

The Land Authority as a subsidiary of the Department of Agriculture is engaged in taking over lands "under the Federal 500 acre limitation law."\textsuperscript{39} In this respect it has created 71 proportional profit farms, operated on a co-operative basis. It has a land reclamation programme, reclaiming some 4,000 acres each year; a pineapple development programme; a programme to

\textsuperscript{37}Ibid., p. 175.
\textsuperscript{38}Ibid., pp. 176-77.
\textsuperscript{39}Ibid., p. 179.
improve the quality of dairy cattle. Because of conflicts between the Agricultural Department and the Land Authority, the policy is for government to withdraw from the operation of agricultural facilities by selling or leasing the land now held by the Authority.\(^{40}\)

It can be seen from the above discussion of the various agencies (and not all were covered) involved in administering the development of Puerto Rico that no precise method for development has been worked out, instead, the development of Puerto Rico is taking place through a combination of planning and administration. The Planning Board provides the framework for the development process through the various studies and projections which it undertakes. However, the various agencies are also involved in making specialized analyses and projections. There are, fortunately, a series of co-ordinating devices. The first is the budgetary operations. From the physical point of view projects must go to the Planning Board for review. There is the Cabinet where major programmes are discussed and finally, there is the Chief Executive himself.

The Constitution.

It is impossible to abstract the planning endeavour in Puerto Rico from the machinery of government, therefore the changes which takes place in the governmental structure is of

\(^{40}\)Ibid.
vital importance to this study.

For more than fifty years prior to becoming a Commonwealth, Puerto Rico had been an unincorporated territory of the United States. As such, it had no constitution of its own, but had instead received its fundamental law from Congress in the form of Organic Acts. Since 1950, however, these vestiges of colonialism have disappeared. "Under the terms of Public Law 600 of the Eighty-first Congress, adopted July 3, 1950, Puerto Rico's status has changed from that of involuntary dependency to that of voluntary association."^41 Consequently, the people of Puerto Rico had established a "compact" with the United States.

The Constitution derived from this compact embodied most of the basic democratic principles of the American Constitution but with certain changes suited to the Puerto Rican tradition and needs.

The broad outline of the governmental structure is based on the familiar tripartite system of checks and balances found in the Constitution of the United States. Within this traditional framework, however, the Constitution of the Commonwealth introduces some new features that deserve mention. To provide continuity the legislative body was declared a continuous body for its four year term and was required to hold regular sessions

annually and to determine for itself the duration of its regular session. This is an improvement over the State legislatures of the United States where regular sessions are held biannually and have a predetermined duration. The difficulty of having to rush bills through the legislature when the date for closing up the session is approaching in the latter case was avoided by providing in the Constitution that the legislature determines for itself the length of each session.

In the executive branch of the government the changes embodied the appointment of the heads of departments by the chief executive, in this case the Governor. This innovation differed from the State Constitution where these are elected. This has the advantage of making possible the co-ordination of executive departments and the concentration of administrative responsibility in one official, the Governor. Another important departure from the American tradition is that an appointed rather than an elected official succeeds to the governorship in the event of a vacancy in that office before the expiration of the four year term. "In such a circumstance the Secretary of State, a ranking member of the Governor's cabinet, becomes Governor."42

The appointive method has the effect of allowing the Governor to select as his possible successor a person in sympathy with the programme which he was elected to carry out.

42Ibid., p. 39.
That person as a department head would have duties in the executive branch and would be familiar with the over-all policies of administration. This adaptation also allowed for the carrying on of government with the maximum of continuity and efficiency if a vacancy in the office of the Governor should occur.

These basic changes from the American Constitution which were introduced into the Puerto Rican Constitution have aided immeasurably in the development of the island. The many powers granted to the Governor under the Constitution have been described thus by one observer:

In line with all this the executive articles of the local Constitution places a plentitude of executive powers into the hands of the governor ... The Governor is granted the power - not available to the American chief executive - to veto items of appropriation bills. He possesses (since 1949) a wide discretionary power, such as that granted to the President in 1939 and 1945, to propose reorganization plans and thereby has a free hand within limits to arrange the division of work throughout the executive branch as he sees fit, and thus altogether to make himself master in his own house.43

These powers have allowed him to appoint as his chief executives, technical and professional specialists. "There has been a tendency to appoint (as is currently the case) an economist to head the

Department of Commerce, a doctor, the Department of Health, an engineer, the Department of Public Works.  

Many changes have been made and the reasons for these are twofold. In the first place, economic transformation requires administrative transformation. In government as in nature the form follows function, not the function the form. It is hardly conceivable that Puerto Rico's economic development could have gone forward so rapidly if government structure was not reorganized. As one author puts it "the temptation of the professional public administration analyst (whose reports on the island are legion) has been to view the island as one large municipality."  

Reaction to planning activity in Puerto Rico by the professional planning fraternity was favourable. W. H. Blucher of the American Society of Planning Officials had this to say:  

I would be hard put to name any planning agency in the United States which is doing a more effective job than the Puerto Rico Planning Board ... I know of no other planning board which plays as important a part as does the Puerto Rico Planning Board in the everyday and long term governmental and developmental activities of your area.  

The planning activity in Puerto Rico although highly praised by many, suffered a grave setback in the eyes of the originators  

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44 Ibid., p. 323  
45 Ibid., p. 328  
when in 1950 the Planning Board was transferred to the Office of the Governor. This transfer represented the final blow to the Planning Boards' autonomy.

Through Tugwell's influence, planning in Puerto Rico from 1942 to 1950, had operated with a measure of autonomy unknown to other planning agencies before, and although this power came to an end in 1950, its influence carried on.

Figures 2 to 4 present a graphic picture of the organization of the Planning Board in Puerto Rico and the changes which have taken place over time to meet changing demand. These changes indicate the flexibility and the responsiveness of the Board in the development situation.

Liabilities or Assets.

The success of the developmental programme in Puerto Rico cannot be credited solely to planning measures employed. Fortuitously, the development programme coincided with World War II which "raised net island income originating from Federal activities from twenty-one million dollars in 1939-40 to a yearly average of one hundred and fifteen million dollars during 1942-46 or from 9 to 24 percent of the total net income."\(^47\)

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OFICINA DEL GOBERNADOR
JUNTA DE PLANIFICACION DE PUERTO RICO
GRAFICA FUNCIONAL

JUNTA

OPCION DEL PRESIDENTE

OPCION DE
NEGOCIALES Y SERVICIOS

OPCION DE
NUEVOS PROYECTOS Y DIS.Lang.

DIVISION LEAL

NEGOCIADOS DE NACIONALIZACIÓN REGIONAL

DIVISION PLANEACION
NEGOCIADOS REGIONAL

DIVISION PLANIFICACIÓN
NEGOCIADOS REGIONAL

DIVISION PROYECTOS
NEGOCIADOS REGIONAL

NEGOCIADOS DE ECONOMIA Y
NEGOCIADOS DE ECONOMIA Y

SOURCE: PUERTO RICO
PLANNING BOARD 1960
Richard Meier identifies the following as assets on the development balance sheet which existed in Puerto Rico prior to 1948.

1. Accumulated government revenues which could be spent during the war (roughly $300 million) of which an important part had to be committed to specific improvements delayed by wartime shortages.

2. A sugar cane quota for the American market which was only a fourth the size of Cuba's but was still a source of dollars that were not tied to any specific programme of expenditure.

3. Access to New York so favourable that the trip could be easily negotiated by direct air transport, more reasonable in cost than any alternative mode of transport.

4. A balmy and comfortable climate, excellent for tourist at least eight months a year in the lowlands and twelve months a year in the mountains.

5. A high standard of public health to the extent that the familiar tropical diseases, such as malaria, typhoid and dysentry, had virtually disappeared over most parts of the island.

6. Being part of the United States, inside its tariff barrier, yet retaining independence of action, this meant that the largest market in the world was open to Puerto Rican manufacturers (though the output would have to be produced more cheaply than was being done at the time by the most efficient production system in the world).

7. Immediate and unimpeded access to private individuals to the United States, so that if a demand for labour existed there, Puerto Ricans could move in unrestricted numbers to take advantage of employment opportunities and vice versa, skilled persons of one type or another (e.g., managers, engineers, consultants, and specialists) could come to Puerto Rico without passports.
8. An apparently limitless pool of unemployed and underemployed workers available for industrial work.

9. Existence of a small group of dedicated young men willing to commit their careers to public service and to the improvement of welfare in their homeland.

10. No evident social and political unrest - despite the impoverishment which existed, the political situation indicated little or no danger of abrupt changes in policy, destruction from rioting or politically inspired strikes.48

It can be debated whether most of these points are advantages at all. With the exception of the first, all the points enumerated could be restated, together with some of their implications, to make them appear as deterrents to development.

The Puerto Rican planners, however, recognized that they had to make do with what they had. They saw that what they had, should be interpreted as assets rather than liabilities and proceeded.

The transformation of Puerto Rico's economy, which The Report of the National Resource Planning Board (1942) concluded would have to continue to rely upon an agricultural economy since it was deficient in mineral resources, into a burgeoning neo-industrial society is now a well-known story frequently retold.49

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49 Lewis, op. cit., p. 169.
Achievements.

A brief recapitulation at this juncture of the achievements is nevertheless pertinent. After an almost futile attempt to increase the local sources of income through the encouragement of private capital in industrial development in the early 1940's, and realizing the reluctance of private enterprises to take risks in untried fields, the island's government created the Industrial Development Company in 1942 for the purpose of opening up new manufacturing opportunities and pointing the way for private enterprise.

The earlier phase of promoting industrial development through the activities of government-built and operated plants gave way after World War II. Another approach, which centered on the attempt to attract mainland industries and capital to the island through tax exemption, industrial services, the provision of factory buildings, loans and special assistance in various forms were undertaken.

There is no doubt that this policy was effective. Since the beginning of the programme, popularly known as Operation Bootstrap, the following has been achieved:

By 1953 the governmental programme of aids and incentives ... had brought over 300 manufacturing plants to the island, more than 25,000 new jobs had been added to the island's payroll, and the annual net income per capita had risen $122 in 1940 to some $426 thirteen years later. By 1957 industry had supplanted agriculture as the major income-earning ingredient of the economy; by 1958 the total of new factories
established had reached 500, and over 660 two years later, providing altogether 45,900 new jobs; while by 1959 the establishment of two oil refineries, along with the Union Carbide Company decision to manufacture ethylene glycol in the island had laid the basis for an industrial petro-chemical complex which promised to relieve the economy of a dangerous reliance upon tantalizing mobile light industry. The latest statistics indicate that per capita income has risen to the level (in 1960) of $677 in comparison with $341 in 1950 and $122 in 1940.50

In no area has more dramatic progress been registered than in the field of health. Since 1940 the crude death rate has dropped from a level of 18.4 per thousand to 7.0 in 1958.51 A number of the most important causes of death has been brought under control or virtually eliminated. In 1960 death from diarrhea and enteritis was reduced to less than 60 deaths per 100,000 persons; while those caused by tuberculosis was reduced to less than 33 per 100,000. Pneumonia averaged less than 45 per 100,000 in 1960, and malaria, the traditional tropical scourge, was completely wiped out.52

The educational achievement is clearly indicated in the table on the following page.

50 Ibid., pp. 169-70.
51 Mayne, op. cit., p. 192.
52 Hancock, op. cit., p. 154.
### TABLE 4

**EDUCATION LEVEL OF THE POPULATION 1950-1965**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>1950</th>
<th>1955</th>
<th>1960</th>
<th>1965</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (15 &amp; over)</td>
<td>1,249</td>
<td>1,294</td>
<td>1,374</td>
<td>1,438</td>
</tr>
<tr>
<td>College</td>
<td>17</td>
<td>21</td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td>Senior High School</td>
<td>68</td>
<td>101</td>
<td>161</td>
<td>212</td>
</tr>
<tr>
<td>Junior High School</td>
<td>103</td>
<td>105</td>
<td>145</td>
<td>150</td>
</tr>
<tr>
<td>Elementary School</td>
<td>282</td>
<td>290</td>
<td>300</td>
<td>335</td>
</tr>
<tr>
<td>Five years or less</td>
<td>779</td>
<td>777</td>
<td>743</td>
<td>707</td>
</tr>
</tbody>
</table>

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The total budget for the fiscal years 1940 and 1960, with typical allotments, tell the story.

### TABLE 5

**BUDGET ALLOCATIONS 1940-1960**

<table>
<thead>
<tr>
<th></th>
<th>1940</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Budget</td>
<td>27,948,805</td>
<td>276,942,238</td>
</tr>
<tr>
<td>Department of Education</td>
<td>6,196,332</td>
<td>63,880,828</td>
</tr>
<tr>
<td>University of Puerto Rico</td>
<td>1,438,514</td>
<td>18,134,000</td>
</tr>
<tr>
<td>Public Recreation &amp; Parks</td>
<td>10,270</td>
<td>1,635,640</td>
</tr>
<tr>
<td>Department of Labour</td>
<td>290,978</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Economic Development Administration</td>
<td>27,200</td>
<td>5,749,800</td>
</tr>
<tr>
<td>Puerto Rico Planning Board</td>
<td>-</td>
<td>2,207,800</td>
</tr>
<tr>
<td>Department of Health</td>
<td>3,682,586</td>
<td>47,101,915</td>
</tr>
<tr>
<td>Payments on Public Debt</td>
<td>1,600,415</td>
<td>13,205,537</td>
</tr>
</tbody>
</table>

CHAPTER IV

SUMMARY AND CONCLUSIONS

In Chapter I, it has been pointed out that the greatest challenge facing both developed and developing countries is rapid urbanization. Dating from 1650, when the world's population began to show a marked upward climb, it took 200 years to add 500 million to the population. But the next 500 million increase took just 50 years, then 30 years, then 20 years and at the current rate of growth it will take only eight years to add another 500 million.

The rapid urbanization, Kingsley Davis points out, is not just the old pattern of an influx of people from the countryside to the urban centres. Rather, Davis maintains, that urban population growth today is more a result of natural increase. In the highly industrialized countries, like the United States, the largest growth in the period 1950 to 1960, for instance, took place in the metropolitan areas. And growth in suburban areas registered an increase of 49 percent compared to 11 percent in central cities.¹

With respect to the developing countries, Davis observes

In spite of the enormous growth of their cities, their rural population and their more narrowly defined agricultural populations - are growing at a rate that in many cases exceed the

rise of even the urban population during the evolution of the now advanced countries. The poor countries thus confront a grave dilemma. If they do not substantially step up the exodus from rural areas, these areas will be swamped with underemployed farmers. If they do step up the exodus, the cities will grow at a disastrous rate.

The response of most countries to this world-wide phenomenon seems to focus on planning for regional development. In the developed countries, this is expressed in terms of the development of metropolitan governments. In the less developed sector of the world's economy, largely through the influence of development economists, the regional approach involves three principal patterns of allocation of public investments: dispersal, concentration on growing areas, and promotion of the development of backward areas.

It has been shown in Chapter II, that the regional concept has been under study for a considerable length of time by various branches of the social sciences. Geographers have been discussing it intermittently in diverse forms from the time of Aristotle. They have sought, unsuccessfully, to define and substantiate regions as natural units using as criteria the environment and cultural determinants. These ideas have been abandoned generally, and geographers now conceptualize regions as hierarchical systems with varying degrees of interconnections.


3 Supra, p. 5.
each defined by a distinct criterion or set of criteria.

Economists, viewing the region from a different perspective - as the matrix within which development occurs - presented certain theories amongst which the centre-periphery structure was claimed to be an important clue to the understanding of the developmental process during the nineteenth century.

Hirschman and Myrdal, both economists, have put forward the idea that given regional economic imbalances, if the free market forces are allowed to operate unhindered, greater disparities would occur, or put in other terms, the richer regions would grow richer and the poorer would grow poorer.

In the fields of political science and public administration the crucial issue has been the areal division of power, while maintaining a responsive and responsible government. However, it has been emphasised that it is essential to gear the development of administrative machinery for regional planning to meet the individual needs of each country and region.

This study is focused on the needs of developing countries. In this context two assumptions are made. Firstly, most governments in developing countries have adopted national planning. And secondly, there is a growing awareness and acceptance of the regional approach in developing countries as a useful tool to achieve the goals of national planning. However, the developing countries are making plans at the national level
based on westernized models. The implementation of these have met with limited success.

Based on the above assumptions; the limited success of developmental planning in the developing countries; and the lack of a carefully worked-out body of theory by all the disciplines involved, the following hypothesis was deduced: That the effectiveness of the regional planning approach to development is dependent upon the ability to make power, function and region or area coincide.

In order to test this hypothesis a case study of Puerto Rico was undertaken. The choice of the territory was encouraged by two factors. In the first instance, Puerto Rico has been acclaimed as a model of development in the Western Hemisphere. Secondly, Puerto Rico is an island and as such is a region. It also has the size that it can be considered as a region when seen in continental terms.

In order to evaluate the developmental achievement of Puerto Rico and at the same time to assess the factors involved the following method was employed.

Noting that 1940 marked the beginning of the developmental programme and 1898 the end of Spanish rule on the island, the intervening years were assessed from an economic and social viewpoint. Then, starting from 1940 the main features contributing to development from a planning standpoint were considered. Before indicating the achievements, the factors unique to the island's development were outlined. The study concludes with specific indices of development.
It must be conceded that the story of the development of Puerto Rico is a success story. Some may argue that its unique relationship with the United States and the concessions it received therefrom have contributed greatly. It is not to be denied that this relationship has played a part. But it must also be pointed out that Puerto Rico was under American rule for almost half a century prior to 1940. What then are the factors that contributed to this rapid development since 1940?

Some factors are evident. The coming to power of Munoz Marin and the Popular Democratic Party followed by the appointment of Rexford Tugwell as governor seemed to be a fortunate coincidence. The former was dedicated to development; the latter to designing a planning administration that had jurisdiction over the region in which the functions it planned for existed and the power to implement the plans it devised. Although this was not achieved in its totality it set in motion a train of thought which has aided in fortifying development.

The gaining of Commonwealth status and the changes in the island's constitution which accompanied it provided the chief executive, in this case Governor Marin, with the power to carry out the developmental programme. What has emerged since then, is a well integrated planning system based on a comprehensive approach with regard to all aspects of development as necessary and interrelated factors, that must be combined into a whole if
the desired goals are to be achieved. Above all, in Puerto Rico the power and the will to carry out planning for the development of the entire island exists.

In the course of the study a number of criteria became evident that could be employed when seeking to determine the effectiveness of a regional planning endeavour.

If it is accepted that the planning process embodies the steps as outlined in the chart on the next page, and that from an administrative point of view the coincidence of power, functions and region provides an ideal climate for regional development to be effective then the following criteria are applicable.

The first criterion has to do with the compatibility of the function or functions to be performed and the region within which it takes place. If there is no geographical congruity between the task to be performed and the region, then it may be suggested that the region is inadequate to the task assigned to it.

The second criterion, one closely related to the first, is a consideration of the factor of adequacy in population. Size of population is important with regard to such matters as consumer demand and need for services, capacity to support services, vigor and variety in citizen participation and the provision of entrepreneurship and civic leadership.

A companion criterion is the nature of the services to be rendered. For any region to find justification in terms of action there must be a significant programme, one that makes
DECISION MAKING PROCESS

1. PROBLEM RECOGNITION
2. GOAL FORMULATION
3. SURVEY AND ANALYSIS
4. REVISION OF GOALS
5. GOAL SELECTION
6. DEVELOPMENT OF ALTERNATIVE STRATEGIES
7. SELECTION OF STRATEGIES

8. POLICY FORMULATION
9. TRENDS ANALYSIS
10. SPECIFIC OBJECTIVES
11. PROGRAM PLANNING

12. ACTION PROPOSAL
13. IMPLEMENTATION
a substantial difference to the inhabitants of that region, to be accomplished. It must be such that it can compel popular interest and participation. Furthermore, the functions undertaken must be of sufficient scope and depth to attract technically competent personnel required for the satisfactory discharge of the duties involved.

The fourth criterion is inherent in the legal authorization or base for a particular regional administration to discharge the functions for which it came into being. In short, the regional authority should have legal authority commensurate with the task assigned. Concomitant with the legal authority goes the standard of fiscal adequacy. The one is as important as the other, for there cannot be vigorous action in the absence of a sound legal base, and neither can there be an energetic programme without adequate financial resources.

Still another criterion for evaluating the adequacy of regional planning may be stated in terms of accountability. this aspect can be considered from two points of view. The first can be called administrative accountability; it takes into consideration such things as internal control, financial management and personnel administration. It can also be considered in terms of political accountability. Here the issue is primarily that of policy formulation, direction and control. The principal questions are, how well does the programme pursued reflect the will of the people and how effective is the external control exercised over the entire development programme?
An additional criterion by which to appraise the regional developmental process is found in its adaptability in the face of changing needs. A region which is tied exclusively to a single programme is hindered from consideration of needs growing out of related development. Therefore, flexibility in organization is of the utmost importance.

For developmental purposes, the reconciliation of area, power and function seems to be one of the major issues confronting policy makers. The issue is vastly complicated by the fact that the three principal components are in constant flux. Nevertheless, what is important is that government has the flexibility which allows it to make the necessary adaptations.

The chart on the following page brings together some criteria identified during the course of this study into a working model, useful for aiding in assessing the effectiveness of a regional planning organization whose main concern is comprehensive development. However, further research is necessary to ascertain its validity and applicability or to introduce refinements.

Research in this area should proceed by first making further case studies of countries in the developing sector of the world's economy where planning for regional development has been in force for two or three decades. If in this undertaking there seem to be sufficient evidence to bear out the fact that the
PARAMETERS

REGION

FUNCTIONS

POWER

CRITERIA

POPULATION BASE

PROGRAM SCOPE AND DEPTH

LEGAL AUTHORIZATION ACCOUNTABILITY
FINANCIAL RESOURCES AREAL JURISDICTION

CAPACITY TO SUPPORT SERVICES

SIGNIFICANCE TO PEOPLE

POWER TO DISCHARGE FUNCTIONS
POLITICAL RESPONSIBILITY
METHOD OF FINANCING
JURISDICTION ADEQUATE TO TASK

SIGNIFICANCE TO PEOPLE

POWER TO DISCHARGE FUNCTIONS
POLITICAL RESPONSIBILITY
METHOD OF FINANCING
JURISDICTION ADEQUATE TO TASK
closer the relationship between power, function and area, the more effective is the developmental process, then a systematic search for the contributing elements in each of the categories can be undertaken.

The next step should be the formulation of a programme based on these findings. The final step should be the application of the programme to a selected region, allowing sufficient time to elapse after inauguration of the programme, before attempting to assess its effectiveness.
BIBLIOGRAPHY

BOOKS


ARTICLES AND PERIODICALS


REPORTS


UNPUBLISHED MATERIAL
