

**DIFFERENTIAL URBANISATION
AND REGIONAL POLICY:
THE CASE OF THE GAUTENG
FUNCTIONAL METROPOLITAN REGION**

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CHAPTER ONE

1. INTRODUCTION

1.1 Research orientation

Regional policy is concerned with the behaviour of regional economies in relation to each other. It is generally accepted that regional economic disparities are undesirable if they persist over long periods of time (Hoover & Giarratani, 1985:363; Armstrong & Taylor, 2000:203). The presence of regional disparities in the economic welfare of regions is, however, not sufficient to justify the formulation of regional policy. It is because these regional disparities prevent the attainment of national policy objectives such as more employment opportunities, economic growth and higher levels of *per capita* income. Thus, it is the objective of regional policy to ensure the attainment of societal goals on national level (Richardson, 1984:267; Hansen *et al*, 1990:282).

Various approaches have been followed in formulating and implementing regional policy throughout the developed and developing world. It is especially since the last World War that regional policy has come to the foreground and achieved both positive and negative results (Needleman, 1968:8; Hall, 1999:137-172). The contents of regional policy have also differed quite significantly within and between countries and regions, over the last five decades. Of late, issues related to the conservation of the environment and community participation have also been added to mostly economically oriented goals in the post-war context (Williams, 1996:257; Armstrong & Taylor, 2000:256).

Although socio-economic and environmental goals for a country or region are important, the process pursued to attain these goals also needs close scrutiny. In some countries, this process is even more significant than the eventual attainment of the identified goals (Hansen *et al*, 1990:287), for example, where there is an intensive public participation programme in the formulation process. It is this process which forms an integral part of this

study, i.e. the manner in which the goals set by government and society can be achieved in a practical way.

This study departs somewhat from the normative approach to policy formulation. Although social issues and community participation in the policy formulation process cannot be neglected, it is argued that policy must also be guided by realistic quantitative methods and projections. In other words, there must be refrained from using regional policy as a platform to lodge a 'wish list' for all communities concerned. This study also departs from the principle that an intrinsic network exists between all urban centres and that certain centres go through a positive growth phase while others go through a negative growth phase during the same period (Friedmann, 1966:30; Bourne, 1975:15; Geyer & Kontuly, 1993:165; Arndt *et al*, 2000:1904).

As a result, the study emphasises the use of urban systems and migration patterns as instruments to achieve specific national and regional goals. In the technological era we live in, it is also clear that policy formulation cannot be done in a national vacuum – international forces and influences are stronger than ever and tend to increase over time (Beauregard, 1998:221; Castells, 2000:360; Hall & Pfeiffer, 2000:52).

It is argued that the effective implementation of regional policy is dependent on the development phase of a country or region's urban system (Friedmann, 1966:45). The state of maturation of the urban system in this particular case is measured in terms of the differential urbanisation model, as postulated by Geyer and Kontuly (1993:172). According to this model, various understream migration patterns are evident at the same time, and in different directions in terms of the urban system. The growth and decline of specific economic activities in different levels of the urban hierarchy is also evident during the urban maturation cycle (Richardson, 1980:68).

The Gauteng functional metropolitan region is used as an example for an empirical study for the proposed integration of regional policy with differential urbanisation over time. The identified region consists of a

metropolitan and non-metropolitan area and has all the elements of an urban system, i.e. metropolitan centres, intermediate sized cities and small towns (Bourne, 1975:19; Pred, 1977:18). The study area has shown early signs of urban maturation during the 1991 census (Drewes, 1994:198), which is again confirmed in the most recent (1996) census results (see Chapter Six).

Lastly, it is proposed that the three main themes of this study, namely regional policy, the urban system, and differential urbanisation be functionally integrated to form a foundation for attaining national and regional goals. Accordingly, using different types of urban settlements in conjunction with different migration patterns, during specific time periods in the urban maturation process, proposals are made with regard to the type and locational focus of regional policy during the evolution of an urban system.

1.2 Problem statement and objectives

The term 'regional policy' has been used and abused to facilitate various objectives and has been met with varying degrees of success (Hansen *et al*, 1990:282-284). Internationally, regional policy and issues relating to regional policy have been implemented on various levels of government with wide-ranging levels of detail and intensity. Definitions and descriptions of the term and its application differ quite significantly in the literature (see Friedmann, 1966:5; Needleman, 1968:8; EC, 1997:156; Williams, 1996:69), and with the exception of Richardson (1981; 1987*a*; 1987*c*) and Friedmann (1966), little has been written about the theoretical foundations of regional policy. An attempt is made in this study to identify and describe the character and objectives of regional policy, as well as its role in socio-economic development initiatives.

In South Africa, the formulation and implementation of regional policy were based on political objectives of the minority government until the 1990s. Regional policy was seen as the instrument to facilitate the objective of separate development on a regional scale (Urban Foundation,

1993b:10; Turok, 1995:190). Enormous financial initiatives were provided for by the government in an effort to further the socio-economic objectives of the particular political dispensation. Since the early 1990s and the consequent election of the African National Congress to government in 1994, regional policy initiatives were changed from an unbalanced economic approach to a more balanced approach in terms of incentives (Drewes & Bos, 1995:250). Emphasis was also placed on a bottom-up approach to regional development, instead of the top-down planning paradigm of the previous government (DPC, 1999:34).

The former government focused on specific national goals and objectives, which were to be achieved by means of regional policy. The focus of the present government shows similarities in terms of their approach to regional development, and the spatial application of these initiatives do not differ much. Similarly, the focus of the present government, as its predecessor, is on non-metropolitan development, leaving the existing metropolitan areas to their own devices. Little success had been achieved by the former government through this policy and indications are that the present government will have similar results.

Regional policy has traditionally been formulated to uplift the poorest regions, the smaller towns and the rural areas (Friedmann, 1966:8; Knowles & Wareing, 1983:287; EC, 1997:156). In other words, it was usually as a response to certain socio-economic or political problems in the above areas that these policies were formulated to relieve these tensions (Foust & de Souza, 1978:300; Taylor & Armstrong, 2000:206). In this study, it is argued that regional policy should be proactive in the formulation process, i.e. existing socio-economic trends must be supported and future trends must be anticipated in formulating effective regional policy (see also Richardson, 1987c; Hoover & Giarratani, 1985). Urban maturation models, and specifically the differential urbanisation model, seem to be of use in the proposed formulation of regional policy to support existing and future trends.

Two central theoretical statements can consequently be formulated. Firstly, that the study area has followed a pre-determined development path in terms of each of the sub-systems, i.e. the metropolitan region, the secondary cities, and the small cities and settlements. Secondly, regional policy can be integrated with the concepts of an urban system and differential urbanisation as a more effective urban management tool.

Consequently, the urban systems approach to regional planning and policy formulation provides a management tool whereby the different urban settlement sizes can be managed more effectively. The primary objective of this study is, therefore, to integrate the formulation of regional policy with the urban systems approach and differential urbanisation. Accordingly, regional policy can be formulated for the effective management of different settlement sizes throughout the urban maturation cycle.

The detailed objectives are as follows:

- ◆ to determine the character and objectives of regional policy;
- ◆ to classify explicit regional policy and its levels of formulation and implementation;
- ◆ to provide an overview of the regional policy formulation process;
- ◆ to analyse South Africa's regional policy in the apartheid- and post-apartheid periods, in terms of the above-mentioned classification;
- ◆ to examine the theoretical and practical applications of the urban system concept, nationally and internationally;
- ◆ to evaluate the theoretical foundation and empirical application of the differential urbanisation model;
- ◆ to determine the validity of the differential urbanisation model with regard to migration and economic production characteristics in the Gauteng Functional Metropolitan Region;

- ◆ to determine the relationship between the implementation of regional policy over a period of time, and the manifestation of different migration and economic production patterns; and
- ◆ to integrate the implementation of regional policy with socio-economic trends within an urban system, with specific reference to the Gauteng Functional Metropolitan Region.

1.3 Methodology and arrangement of the study

1.3.1 Collection of data

The explanatory research method has been followed in this study. Accordingly, data has been collected in the following manner:

- ◆ the study of published literature (books, articles, acts, and government publications);
- ◆ the study of unpublished post-graduate studies (Masters and Doctorate) on the subject matter;
- ◆ other unpublished data and surveys (Census); and
- ◆ personal interviews with academics and experts in the various fields of investigation.

1.3.2 Arrangement of the study

Governments of particularly advanced developing countries realised that most socio-economic development policies had a significant spatial impact and had to be co-ordinated with explicit spatial development initiatives (Hansen *et al*, 1990:3; EC, 1997:221). This rationale for the formulation and implementation of a regional policy is described in Chapter Two. Governments and other regional authorities that formalised some form of regional policy, had specific goals in mind that had to be attained. These goals vary over time and are usually specific for a region, as will be indicated in the second chapter. Even though the goals of a regional policy may be similar for different regions, various approaches are followed in an effort to attain these goals. Some authorities may choose to implement

their policy initiatives in selected urban centres, whilst others, with similar goals, may choose to implement their policy initiatives in all the urban centres of the region. These authorities or policy-makers may also choose to integrate their regional policy with other relevant policies for the region. The latter is referred to as an implicit regional policy, while the other option is the formulation of a more independent, explicit regional policy.

Having decided on the fundamental issues of policy goals and the process to be followed, policy-makers have a choice of more specific policy options at their disposal. These fundamental options, which will be discussed in Chapter Three, are usually either aimed at slowing down the growth of primate cities, or at the development of specific smaller urban centres, or rural areas. Several policy instruments have been utilised in different countries at various levels of development, but probably the most utilised option has been the identification of existing, or new growth centres. This chapter will highlight these basic policy instruments, and conclude with a description of detailed regional policy elements, as implemented on a project level.

Chapter Four examines the history of regional policy in South Africa, and more specifically the Gauteng metropolitan and surrounding region. The Gauteng urban conurbation has reached an advanced level of urban development in South Africa, and has historically been instrumental in terms of the implementation of regional policy. This chapter provides an overview of the goals of regional policy since the 1960s, and the various policy processes, options and instruments that were implemented to attain these goals.

A central theme in this study is that urban agglomerations 'mature'. As urban agglomerations develop over time, however, different migration patterns are evident. Initially, most people migrate towards large urban agglomerations in anticipation of employment opportunities and improved services, i.e. urbanisation. At an advanced level of urban development, with agglomeration diseconomies in evidence, empirical evidence has shown that people in the higher income group tend to migrate away from

these core areas of a metropolitan region. Usually they move to more environmentally attractive areas at the fringes of the metropolitan region or to intermediate-sized cities adjacent to the metropolitan region. During the same time, people are still migrating to the core areas of the metropolitan region. Different migration patterns can, therefore, be found at the same time and in the same area, but each one occurs for different reasons and is orientated in different directions. In an effort to evaluate these migration patterns over time on different levels of the urban hierarchy, Geyer (1990) introduced the concept of differential urbanisation. These fundamental concepts and processes will be analysed in Chapter Five.

Given South Africa's relatively low level of urbanisation of especially the lower income groups, it can be accepted that urbanisation to the country's metropolitan areas and other large cities will continue. This low level of urbanisation is the result of legislation implemented by the previous government in an effort to stem the flow of especially blacks to urban areas at the higher rank of the urban hierarchy. After the abolition of these discriminatory laws, people are free to migrate, and in anticipation of employment opportunities and an improved level of services in large urban areas, this was expected to result in a large population increase in these areas. At the beginning of this decade, empirical evidence from Gauteng suggested that people from the higher income groups were moving to the metropolitan fringes and to the adjacent intermediate-sized cities. In Chapter Six, the more detailed aspects of these migration patterns will be analysed for the Gauteng Functional Metropolitan Region, based on detailed parameters of the differential urbanisation model and results from the most recent national survey.

It can be, and is argued in this study, that the movement of people and economic activities should be planned, i.e., guided by regional policy rather than be left to the outcome of market forces or to occur as a result of reactive policies. Based on the study area, proposals are made in Chapter Seven for the implementation of various regional policies during the different stages of the differential urbanisation model, on different levels of

the urban hierarchy. It highlights principles and processes for the formulation of effective and sustainable regional policy for the study area. Chapter Eight provides a synopsis of the views and deductions that emerged from the study. It also presents final conclusions as to the essence of the research process and the achievement of the objectives set in Section 1.2.

1.4 Demarcation of field of investigation

The main objective of this study is to integrate the implementation of regional policy with the urban systems approach and differential urbanisation model. To evaluate the integration empirically in South Africa, a study area that consists of a metropolitan region, secondary cities, and small cities and settlements, is of essence. A further criterion was to identify an area that is advanced in terms of the urban evolution process. As South Africa's primary metropolitan region, Gauteng province meets this criterion successfully. However, a non-metropolitan area is also of essence in utilising the urban systems and differential urbanisation concepts. A larger area was consequently identified to include adjacent secondary cities and small towns of a non-metropolitan character.

It is essential to note that the objective of this study is not to formulate regional policy for the Gauteng province. Gauteng only serves as the metropolitan component of an urban systems approach to policy formulation, i.e. to test the statement that the study area has followed an identifiable development path. If it indeed has, proposals can then be made with regard to formulating regional policy in terms of each of the components of the urban system in the study area. The main benefit of utilising this approach to regional policy formulation, is the principle that the urban maturation phase of an urban system can effectively be determined. Even relatively small changes in migrational patterns and sectoral growth can provide us with sufficient proof to adapt regional policy in such a way that it enforces the new patterns of development, while still managing other parts of the urban system which may be on a negative growth trend.

This approach is especially of significance to developing countries and regions such as South Africa, as the developed countries and regions have already proven the differential urbanisation model to be acceptable. Thus, at the first signs of change within the urban system, regions can now adapt their policies before, for example, too many negative externalities develop in their metropolitan areas.

1.5 Definition or meaning of words

In order to eliminate any confusion regarding key concepts, some explanations are deemed necessary at this time, from the period of urbanisation to counterurbanisation.

Urban maturation

In this context, this concept provides for different stages through which an urban area or urban system passes over a period of time.

Functional metropolitan region

The study area utilised for empirical purposes in this research document refers to the Gauteng Functional Metropolitan Region. The concept includes all urban areas within the area of influence of the metropolitan region.

Urban system

An urban system refers to all the types and categories of urban places within a country or region. Typically, a developing country will have a few primate cities and a large number of small settlements. In developed regions, the percentage of secondary or intermediate-sized cities will, on the other hand, be high. An urban system must, theoretically, consist of all the elements of the relevant system, i.e. small settlements or towns, secondary cities, and primate or metropolitan cities.

Deconcentration

In South Africa, academics have made a distinction between the concepts of deconcentration and decentralisation. The latter refers to the movement of people or economic activities from a metropolitan region to another location outside its sphere of influence. Deconcentration refers to the movement of these activities to locations within the metropolitan region's sphere of influence. Internationally, however, the opposite is usually true, whereby the concept of deconcentration refers to movement outside the metropole's area of influence. The latter explanation will hold in this study.

Balanced and unbalanced growth

Although described in detail in the following chapter, in short, balanced growth refers to development approach where all the economic sectors at all locations are developed at the same time. The opposite is true with regard to unbalanced growth in the context of this study. It refers to a development approach whereby only certain economic sectors are boosted at certain locations within the region.

CHAPTER TWO

2. THEORETICAL PRINCIPLES OF REGIONAL POLICY

2.1 Introduction

This chapter focuses on the fundamental or theoretical principles of regional policy. The term regional policy (or regional development policy, as used by certain authors) has been used to describe a wide variety of themes, on various levels of implementation. The objective of this chapter is to provide an acceptable definition as well as a theoretical foundation for this type of policy. It analyses its original economic foundation and main objectives, whether it be as a process or a goal in itself.

Economic, social, political, and environmental issues, on different hierarchical levels, are the interlinking building blocks for any regional policy in any given study area and will be dealt with separately as well as indirectly throughout this study. The first section analyses the concept of regional policy, as well as the need for formulating regional policy. The following sections differentiate between the implementation of regional policy in attaining specific goals, and the implementation of regional policy for the sake of following a specific process¹. The effective implementation of regional policy is also dependent on correct timing, and will be dealt with in the last section.

2.2 A rationale for regional policy

It is only since the Great Depression that central governments have displayed an interest in influencing the regional distribution of prosperity. Regional policy as conceived by central and regional government has, however, not always been a purely economic question. Political, social and lately, environmental considerations, have usually played their parts. Regional policy, per definition, is directed at problems related to spatially

¹ This distinction is especially of relevance given the emphasis shift that occurred in South Africa's regional policies in the nineties (see Turok, 1994, 1995).

irregular development, especially in less developed countries. This kind of policy, according to Johnston *et al* (1986:398), distinguishes it from other policies that may also have pronounced regional effects, for example educational policy. The aforementioned 'regional problem' derives from geographical irregularity, either in distribution or in the conditions of production; from a regional consciousness of regionally irregular processes of change; or from a wider awareness on the part of the government of the potential political effects of change upon particular regions (Friedmann, 1966:45, Bourne, 1975:76; Frost & Spence, 1982:97; Secomski, 1981:123; Martin, 1993:797; Williams, 1996:69; Armstrong & Taylor, 2000:203).

Hansen *et al* (1990:282) suggest a broader view on regional policy. Recognising that regional policies vary from place to place and over time, they would typically involve the pursuit of one or more of the following goals: reduction of regional disparities, whether for reasons of economic efficiency, political stability, or social justice; redistribution or change in growth patterns of population and economic activity in space; and improvement in resource allocation by reducing unemployment and promoting relatively rapidly growing sectors. As will be seen in the following sections, it is of primary importance to distinguish between the results to be achieved by implementing some form of regional policy, and the process followed in attaining these results. In some countries, following a specific process seems to be the main objective of the relevant regional policy, while the final result of regional policy is the main objective in other countries. The process that is followed in the latter approach to attain the proposed outcome, can be of lesser significance.

According to Friedmann & Weaver (1979:152), regional policy can be divided into two main levels against the background of the national development process. The lower level refers to the provision and co-ordination of regional infrastructure, the promotion of certain regional development priorities, and the spatial guidance of regional development - all of which are conducted within regions. The second or higher level is

the national co-ordination and management of the spatial expression of growth and development at the regional scale within the country as a whole (Urban Foundation, 1993d:5). This view is also held by Glasson (1985:195,249), who distinguishes between inter and intra-regional policies - the former referring to the centrally-directed allocation of resources between aggregate regions, the latter referring to a lower level of planning policy within individual regions. In an effort to remain consistent throughout this study, the higher level of policy formulation will be referred to as regional policy *per se*, while the lower level will be referred to as regional policy instruments, (Richardson, 1973b:226; Bourne, 1975:204; Richardson, 1984:272; Dewar *et al*, 1986:32; Richardson, 1987c:240; EC, 1997:155; Armstrong & Taylor, 2000:233), and will be discussed in Chapter Three.

In the past decades since the Second World War, both developed and developing countries have adopted different spatial policies to alter the national development pattern. Although the ultimate goals of such policies are usually the general goals of society, such as promoting efficiency, reducing interregional and interpersonal income inequalities, a recurrent set of spatial policy objectives are also involved (Richardson, 1987a:208; Armstrong & Taylor, 2000:225). These spatial policies include slowing down primacy, improving the socio-economic aspects of lagging regions, and promoting specific sectoral developments at specific growth centres (Richardson, 1987a:208; EC, 1997:52). Regional policy objectives may include improvements in the regional conditions of production through investment in civil and social infrastructure (Italy and France) or, as in the case of new towns built in England, through the spatial redistribution of the labour force in relatively unexploited geographical concentrations (Hall, 1984:84; Martin, 1993:797; Minshull, 1987:172; Williams, 1996:69). It may be seen as an attempt to influence the locational decisions of firms by offering inducements to invest in particular regions in the forms of tax incentives, grants, subsidies, purpose-built factories, regional employment premiums and so on. The formulation and implementation of regional

policy could, therefore, be seen as an attempt to modernise and restructure the productive base of the economy by inducing a locational shift which corresponds to a more effective pattern for efficient production, while still being consistent with dominant national aspirations (Friedmann, 1966:46).

Regional policy has been much abused for previous poor economic performances, yet, according to Riddel (1987:209-211) it still remains the best available mode for propelling broadly beneficial development. The economic case for regional policy has traditionally been that market forces cannot be relied upon to operate satisfactorily in locational decisions, and that regional policy would enable a country to make better use of its resources, particularly labour (Friedmann, 1966:45; Urban Foundation, 1993*d*:5). The political argument has been that serious regional disparities may threaten national cohesion, especially when aggravated by linguistic or racial differences (Dewar *et al*, 1986:14). These arguments give rise to the concept of social justice, which in this context, refers to the promotion of greater quality of opportunity. This objective usually requires regional action as a result of regional differences in the way of life, culture, language, sociological and the environmental consequences of concentrated economic activity.

Regional policy is different from, for example, industrial development policy, transportation policy, or energy policy, as it cannot be promoted effectively within the framework of being treated as any other traditional vertical sector within the national system. Instead, regional policy should be conceptualised as a horizontal slice cutting across almost all other sectors (Richardson, 1987*c*:243). This is mainly because so many sector-specific investments take place in urban areas, but it also reflects the fact that planning and policies outside the urban areas have indirect feedback on urban and regional development. Therefore, when choosing a policy or a certain policy mix for a designated region, it should essentially respond to the argument that affordability is the key to cost recovery, and cost recovery is the key to replicability. It is the goal of most regional development policies to either slow down the further growth of negative

externalities experienced in the metropolitan regions, or alternatively to make an effort to balance the economic development of rural or peripheral areas with metropolitan regions. Some policies combine these two goals in one way or another, as will be shown in the following sections.

2.3 Regional policy formulation process

Although it is not the aim of this study to derive a process through which government can formulate regional policy, it is deemed necessary to provide a general overview with regard to the general or traditional policy formulation process. The type and level of government determines the process through which regional policy is formulated for a specific area, as a result of certain imbalances or problems (Lindblom, 1968:14; Williams, 1996:70; EC, 1997:156; Armstrong & Taylor, 2000:256). According to Hansen (1990:291), regional policy, more than any other policy, must be flexible and able to accommodate changing circumstances. This flexibility, however, requires a governmental or organisational structure capable of introducing and applying changes quickly.

The first issue the policy-formulating body (usually government) must address, is to decide on the importance of explicit regional policy. Such a government body should, firstly, decide whether it wants to formulate regional policy, or to let a free-market system prevail (see Section 3.2.1). If there is decided on formulating explicit regional policy, the first step traditionally to be taken is the formulation of goals and objectives (Christensen *et al*, 1986:17). If possible, these objectives should be quantifiable. For example, one of the major goals of regional policy is usually to decrease the unemployment rate in problem-areas. Accordingly, it would be possible to evaluate the success rate of the newly introduced policy after a specified period of time in terms of these numbers. The factors that are likely to influence the achievement of these goals, should also be identified during this stage.

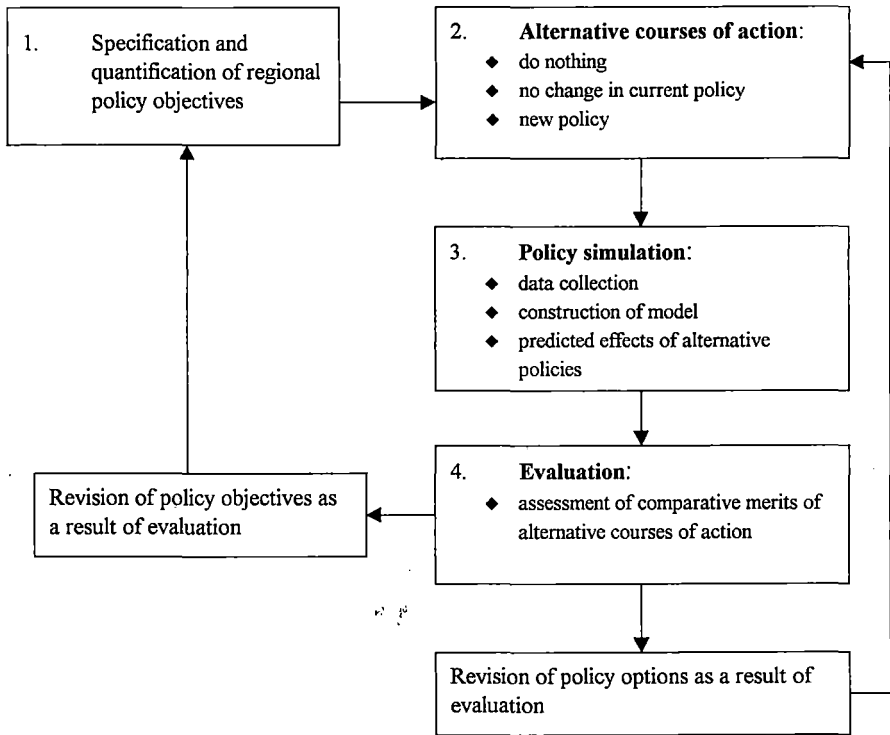
In addition to specifying regional policy goals as precisely as possible, the policy-making body needs to identify the range of policy options available,

in order to meet these goals. It should be determined whether there are alternative ways to achieve these goals, and if so, to determine the costs and risks associated with each (see Figure 2.1). During this second stage of formulation, the proposed new policy must first be compared to the existing policy (if any), as well as a do-nothing or free-market approach (Armstrong & Taylor, 2000:365).

During the third phase of policy formulation, a regional policy concept or model must be constructed to facilitate the implementation process. It is especially during this phase that the proposed regional policy model (see sections 7.3 and 8.2) will become relevant. In the fourth, or evaluation phase, several models or options must be appraised using predicted outcomes for each (Armstrong & Taylor, 2000:364). Only when the various policy options have been thoroughly evaluated, the most appropriate option can be selected.

The evaluation of the implemented policy follows. This is, however, not a once-and-for-all event undertaken after the projects have been completed. It is an ongoing process that occurs before, during, and after the projects' completion (Lungu & Bwalya, 1994:37). Armstrong and Taylor (2000:365), distinguishes between *ex ante* appraisal, ongoing monitoring, and *ex post* evaluation. *Ex ante* appraisal is performed during the third phase of policy formulation (see Figure 2.1), before a final decision is taken on the likely outcome and performance of the proposed policy option. Issues such as the financial viability and success rate are essential at this time. Ongoing monitoring is performed to measure the success or failure rate of an implemented policy, as they occur. This allows the policy-making body to adjust in the case of negative feedback or insufficient progress. It involves the collection and analysis of relevant information (as identified in the first phase) which is essential the effect of the policy as it occurs. This process is also essential in an effort to determine whether public money is spent appropriately (Armstrong & Taylor, 2000:365).

Figure 2.1 The traditional policy formulation process.



Source: Armstrong & Taylor (2000:365)

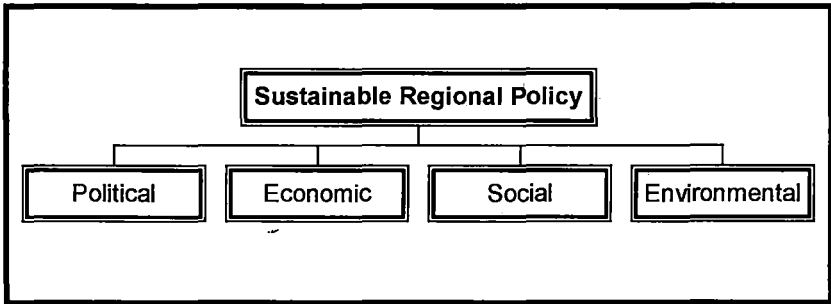
After the completion of the relevant projects or the accomplishment of the policy goals, it is necessary to make an assessment with regard to the final socio-economic viability. This final evaluation process is deemed necessary to evaluate the final outcomes and to determine what lessons can be learned for future reference. *Ex post* evaluation usually takes the form of a cost-benefit analysis in order to evaluate the net social worth of the policy (Armstrong & Taylor, 2000:364). Policy formulation and evaluation is, therefore, a continuous process. If the original goals are not achieved, it is not necessarily the policy model or framework which needs

revision, but can also be facilitated through a change in policy options instruments (see section 3.2 and 3.3).

2.4 The goals of regional policy

Policy forms the highest level of the decision-making process. It is primarily a ‘way of thinking’, thereby providing direction by giving specific guidelines to lower levels of the planning and decision-making process. This approach is emphasised by Friedmann (1966:45-47), who distinguished between policy goals and objectives. The former principle refers to “... desirable end states” on a national level, while the latter describes a “... course of action [that] can be tested for its ... contribution toward this goal” (see Chapter Three). Richardson (1987c:240) stressed the fact that the goals of regional policy are not really spatial goals, but are instead, general societal goals such as economic efficiency, improving interpersonal equity, maintaining political stability and promoting national unity, and avoiding environmental deterioration. Consequently, four main components of regional policy can be assumed (Drakakis-Smith, 1995:660; Armstrong & Taylor, 2000:262), as indicated in Figure 2.2, i.e. social, economic, and political characteristics, as well as existing and future environmental concerns.

Figure 2.2 Sustainable regional policy



Source: Drakakis-Smith (1995)

These issues are closely related on all levels of regional planning and need as far as possible to be pursued in a comprehensive manner - for example, encouraging enterprises or households to behave more responsibly in regard to the environment will have little impact if the underlying poverty that affects the attitudes of residents to the environment are not dealt with foremostly.

In addition to these main ingredients of regional policy, the formulation of regional policy goals needs to be evaluated against the background of the urban system (see also Section 5.2) as an integral part of the national space economy, i.e. an economy that is dynamic over space and time. This spatial system has three basic dimensions: structural, spatial, and temporal. Structural refers to the hierarchical or vertical organisation of the national and regional economies that constitute a modern nation. This organisation also has a spatial expression that is, in turn, contained within the geometry of time² (Bourne, 1975:14). The need for regional policy formulation, as indicated by Bourne (1975:15), derives from three primary sources, which

2 This view confirms Weber's (1929) theory on the hierarchy of spatial organisation over time. Accordingly, the lowest, and first level of spatial organisation referred to a primary agricultural layer, followed by the mining and manufacturing layers, business, services, government organisation and society, respectively.

will be discussed individually in the next section. The first aspect refers to increased government involvement in social and economic life, and the recognition that this involvement has substantial spread effects vertically through sectors of society as well as geographically across regions and cities. Another factor is the interest in government and political organisation - part of which is the redefinition of spatial administrative units and the reallocation of government responsibilities. A third factor, according to Bourne (1975:15), is the question of environmental quality and the growing conviction that private mechanisms are insufficient to compensate for negative externalities among urban activities and between users of urban space and environmental resources.

Consequently, the argumentation above can be translated into two main goals for regional policy, i.e. sustainability and regional balance. Sustainability or vitality refers to three main themes as described above, namely the preservation of environmental quality, political acceptability and social justice. Although these issues are interrelated in the formulation process of regional policy, they require specific mentioning given the wide use of similar concepts in the relevant literature. The second aim of the regional policy - as a process - refers to regional balance, or as indicated in most economically-oriented literature, the trade-off between efficiency and equity.

2.4.1 Efficiency and equity

The potential conflict between aggregate efficiency and interregional equity is perhaps the most crucial dilemma in regional economics and a major obstacle in the way of effective implementation of regional policies (Richardson, 1973b:120). The aim of this section is to define these principles, identify the cases where conflict exists and examine the cases where compatibility between efficiency and spatial equity exists.

The concepts of efficiency and equity are introduced as a means of implicating theoretical economic concepts with regard to relevant aspects of regional policy. The concept of equity itself seems vague, but in socio-

economic terms would probably refer to an equitable state which is unanimously preferred to any of its permutations, i.e. a state of society where no individual would prefer to exchange his personal situation with that of anybody else (Richardson, 1978b:161). This works well if all individuals have compatible preferences, but if these preferences conflict, it will be difficult to find a solution in which welfare levels that satisfy some individuals are not envied by others. It is argued by Richardson (1978b:162) that there are three facets of equity: equality of income, equal reward for effort, and the distributional impact of the supply of public services. Accordingly, the first is the aim of an egalitarian society, the second provides a rationale for the market economy, while the third is an important but disguised influence on equity in mixed economies.

Efficiency is usually regarded as a simpler concept, although there is a parallel argument for a broader view of 'efficiency' than output maximisation subject to given resource constraints. Criticism regarding the inadequacy of maximising Gross National Product as an efficiency criterion has been fierce in recent decades, especially from those concerned with the importance of environmental quality (Alonso, 1968:1; Friedmann & Alonso, 1975:16; Richardson, 1979:165). The relocation of polluting industries, for example, from a densely populated core region to an under-developed periphery, may lower the rate of return on capital if the new location is a high-cost site, but it may promote interregional income convergence and may be efficient in a broader sense because relocation may create substantial net social benefits. The implication being that cost-benefit analysis may be superior to output maximisation as an efficiency criterion.

A choice, from a regional policy point of view, could consequently be illustrated by means of the classic trade-off between efficiency and equity. Richardson (1979b:161) and Alonso & Medrich (1972:229) stressed that the potential conflict between aggregate efficiency and interregional equity is perhaps the most crucial dilemma in regional economics, and a major obstacle in the way of the effective implementation of regional policies.

There are also various theories and contradicting explanations regarding the application of these concepts and their socio-economic consequences: Hirschman (1958) and Myrdal (1957), for example, argue that the net effect of an unhampered market economy is detrimental to the development of an under-developed region, especially in developed countries. Accordingly, core regions are viewed as self-reinforcing magnets of progress. Rather than deviation-counteracting forces³, deviation-amplifying forces exist to increase the differences between the centre and periphery (Foust & deSouza, 197:291). Salvatore & Dowling (1977:118) on the other hand, indicated that the normal operation of the market economy functioned in a way that was beneficial to the development of the underdeveloped region. In terms of population redistribution measures, Fuchs & Demko (1981:83) claim that they are usually directed towards equity rather than efficiency goals, and may therefore be overridden by economic development measures designed to foster aggregate economic growth and efficiency.

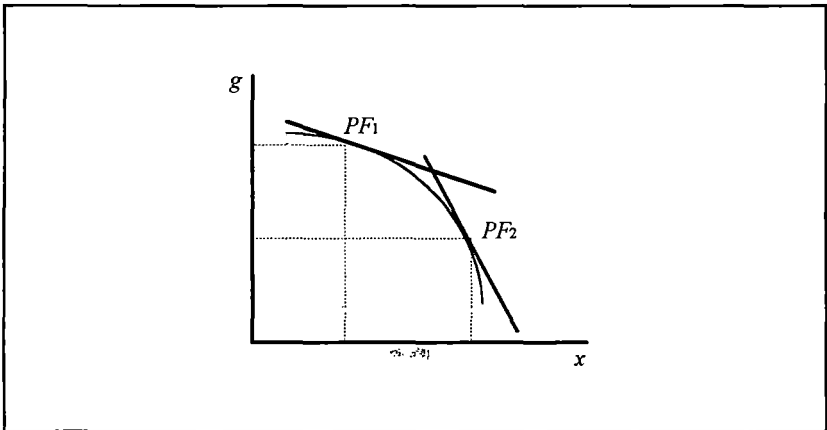
There is, for instance, always much interest in co-ordinated regional schemes in developing countries, but the actual motivation being the trickling-down effects which do not work fast enough to reach poor regions and, particularly, poor people (Gruchman, 1979: 24; Renaud, 1987:66; Hall & Pfeiffer, 2000:227). It is argued, on the grounds of equity alone, that it is necessary to increase the level of investment in peripheral areas, or at least in non-metropolitan regions. However, both equity and efficiency objectives can be met jointly by investing in peripheral regions as such investment opens up new resources in the national economy.

In terms of practical regional policy and in the context of this study, however, giving priority to the development of some cities could be interpreted as promoting aggregate efficiency, whereas giving priority to others might be more consistent with interurban equity if the selected cities

3 The term 'deviation-counteraction' refers to any process that operates to reduce inhomogenities or indifferences within a system. Conversely, 'deviation-amplification' refers to any process that amplifies an initial "trigger" to growth, and increases deviation and divergence from an initial condition.

stand below the national urban average in indices of income, welfare, and growth. It is generally assumed that the set of cities favoured by the efficiency goal will not overlap very much with the set indicated by the equity goal (Richardson, 1987b:281). Policy-makers, therefore, have to trade off efficiency against equity, as illustrated in Figure 2.3.

Figure 2.3 *Trade-off between efficiency and equity*



Source: Richardson (1987b:281)

Conceptually, this can be illustrated in terms of a trade-off function (see Figure 2.3). An efficiency measure (GNP growth rate = g) is labelled on the vertical axis and an equity index (a measure of urban disparities = x) is measured on the horizontal axis, with movement to the right representing more equity (Richardson, 1987b:281). This trade-off function represents the technical possibilities for substituting equity for efficiency in the economy. Policy-makers can therefore choose a north-west point (rapid growth and interurban inequities) on the function, or a south-east point (slow growth and more interurban equity), or a more intermediate point, representing a balance between efficiency and equity. In terms of a specific regional development plan or objective, this 'balance' between

efficiency and equity could arguably refer to an intermediate-sized city strategy in a large country.

Richardson (1987b:282) suggested that this trade-off problem could be resolved by specifying a set of preferential functions of policy-makers' which also slope downward to the right, where the slope represents the policy-makers' preferences on how efficiency should be traded off for greater equity. A relatively flat preference function (*PF1*) implies a growth-oriented society, whereas a steeper function (*PF2*) implies greater emphasis on interurban equity. The optimal trade-off is where the highest preference function is tangential to the trade-off function, representing an optimal mix between aggregate efficiency and interurban equity. This can be converted into spatial priorities if the policy-makers have developed a transformational function that converts each GNP growth rate-interurban equity index combination into a particular set of priority cities within the national urban system. This transformation model would most likely imply some attention to all cities, but with the relative amounts of infrastructure investments and other resources allocated to each city changing with each point on the trade-off function.

Richardson (1987b:285) illustrated, by means of the Brazilian example, that efficiency-equity compatibility does exist. An interregional development strategy promoting the north-east region is difficult to justify on the grounds of efficiency. However, a national urban policy giving priority to selected intermediate-sized cities in every region (including the north-east) may be consistent with efficiency and may promote both interurban and interpersonal equity, certainly more so than a strategy emphasising the metropolitan areas - which would be both inefficient and inequitable in Brazil. In the USA, however, equity is not a principle pursued in the complex American planning process - especially during the past decade - as they are primarily concerned in attaining a high level of efficiency regarding the implementation of various regional development programmes (Markusen, 1994:9).

2.4.2 Vitality

2.4.2.1 Environmental sustainability

For decades, regional policy formulation and implementation has been conducted as if only two normative principles, equity and efficiency, existed (Miller, 1996:671; Williams, 1996:65; Armstrong & Taylor, 2000:225). In practice, however, especially with the explosion of innovations at regional and local levels in the 1980s, the number of normative criteria needs to be expanded to include the concern for long-term vitality and particularly environmental sustainability. According to Markusen (1994:3), vitality refers to the nurturing of a region's longer-term economic and cultural prowess with the goal of launching it into sustained development. The idea of long-term pay-offs that are not necessarily being achieved by following short-term market dictates, is familiar from economic development theory. In recent years, this idea has won adherents in the debate over industrial policy in advanced industrialised countries.

Vitality encompasses investing in human as well as physical and infrastructural resources, targeting certain sectors as recipients of subsidies to enable them to move up their learning curves, and engaging in strategic trade policy to shelter these sectors from the immediate buffeting of market forces (Markusen, 1994:4). Regional policies aimed at sustainability may, however, violate short-term efficiency criteria and, less often, be in conflict with equity goals.

Our linear economic systems as we know it - especially in developing countries - are based on a goal of ever-increasing growth. It involves a short-run philosophy of resource use: a temporary life-style of abundant food, two or more cars per family, and a plenitude of energy-consuming appliances (Glasson, 1994:713; Miller, 1996:670). There is, however, an increasing awareness that regional policy is the appropriate instrument for integrating (socio-economic) development and the (bio-physical) environment (Klaassen, 1989:28; Williams, 1996:68). The concept of

sustainable development has been incorporated into policy statements at a variety of spatial scales in Europe, with a view towards ensuring compatibility between economic development and the environment (EC, 1995:14; Gibbs, 1998:365). Continuing with past policy modes such as infrastructure development, inward investment and competitiveness are likely to lead to the degradation and exploitation of the environment (Bennet, 1996:213). Consequently, a need exists to revisit the concept of sustainable development within regional policy, rather than seeing environmental issues as an 'add-on' extra mainly concerned with minor improvements to the physical environment.

According to environmentalists, a 'cowboy' economy must be transformed into a dynamic steady state or "spaceship" economy (Foust & deSouza, 1978:302). Spaceship economics recognises earth's finiteness. It assumes that resources are exhaustible, that they must be recycled, and that input rates must be reduced to levels that do not irreversibly damage the world's life support systems. Table 2.1 compares so-called cowboy and spaceship economics.

The debate is often presented in terms of a conflict between economic development and the environment, and whether it is possible to pursue one at the expense of the other. Economic development is sought by societies not only to satisfy basic material needs, but also to provide the resources to improve the quality of life in other directions, meeting the demand for health care, education and a good environment (Miller, 1996:667; Hall & Pfeiffer, 2000: 18). Many forms of economic development make demands upon the environment: they use natural resources that are sometimes in limited supply, and generate by-products of pollution and waste.

Table 2.1 Cowboy and spaceship economics

Cowboy economics	Spaceship economics
Essentially infinite resources	Finite resources and infinite energy (if fusion and/or solar energy can be developed)
Linear flow of matter and energy	Linear flow of energy but recycling of matter
Increase flow rates of matter, energy and output	Stabilise flow rates of matter and energy by deliberately reducing throughput
Goals of efficiency, quantity, simplification, and cultural and physical homogeneity to attain short-term stability	Goals of quality and deliberate preservation of cultural and physical diversity to attain long-term stability at the expense of some efficiency
Output control of pollution	Input and output control
Continued growth provides capital for output control and redistribution of wealth (trickle-down theory)	If growth continues, capital must be increasingly devoted to maintenance and repairs, thus decreasing the quality of life and preventing redistribution of wealth
Free enterprise, a competitive market system, or a centralised control economy that can respond to undesirable side-effects	Market responds only if we find ways to include quality of life indicators in the price of goods and services
Short-term view and planning	Long-term view and planning
Local and national outlook	Global outlook

Source: Miller (1996:331)

There are, however, many ways in which the right kind of economic activity can protect and enhance the environment. These include

efficiency measures, improved technology and techniques of management, better product design and marketing, minimisation of waste, environmentally-friendly farming practices, and improved transport efficiency. The challenge of sustainable development is to promote ways of encouraging this kind of environmentally-friendly economic activity, and of discouraging environmentally-damaging activities (Gihring, 1999:62; Hall & Pfeiffer, 2000:289). It is not the purpose of this study to provide details regarding environmental protection or environmental impact assessment strategies, but it suffices to indicate the importance of integrating the following principles in the making of regional policy.

Firstly, central government needs to base its actions on facts, using the best scientific information available; swift action on the basis of inadequate evidence is the wrong response. Ecological criteria also have a central role to play. This may mean considering the ability of a habitat or ecosystem to sustain a population of a certain species, i.e. its carrying capacity (Glasson, 1994:714; Department of Environment, 1994:32). In this study, with specific reference to migration patterns, it is of the utmost importance to realise that, in the formulation of regional policies, human wealth cannot only be measured by man-made capital, but must also allow for natural environmental capital and other aspects of the quality of life. The challenge of sustainable regional policy⁴ is to find ways of enhancing total wealth while using common natural resources prudently, so that renewable resources are conserved and non-renewables used at a rate that considers the need of future generations (Department of Environment, 1994:32; Hall & Pfeiffer, 2000:14).

Judgement also has to be made about the weight given to these factors against the background of policy formulation. Sometimes environmental costs have to be accepted as the price of economic development, but on other occasions a site or ecosystem has to be regarded as so valuable that it should be protected from exploitation. Such judgement should make

⁴ In the context of this study, stricter policy regarding environmental standards in Germany have paid off in a cleaner environment and the development of new green technologies that is sold at home and abroad (Miller, 1996:526).

proper allowance for the interests of future generations and the pressures that one society places upon the global environment (Department of Environment, 1994:32). In the context of this study, it is also important to realise that specific environments⁵ actually entice people to leave their existing locations in an effort to achieve a better quality of life, and is therefore actually the impetus behind many migrational patterns and consequential economic developments.

2.4.2.2 Political acceptance

Political factors are central in regional policy formulation, and regional policy decisions are political decisions about the spatial allocation of resources (Friedmann & Weaver, 1979:150; Glasson, 1985:204; Armstrong & Taylor, 2000:215). Political awareness that regional problems existed in the first place was instrumental in drawing the professional economist's attention to regional problems, although there have been only limited advances in integrating political factors into regional growth theory (Friedmann & Weaver, 1979:150; Glasson, 1985:120). Regional policy is closely linked to the macro-economic policy and economic intervention strategies pursued by each ruling government (Richardson, 1987c:240-241; Hansen, 1990:293).

On a constitutional level, the implementation character of regional policy also differs according to constitutional types, viz. a regional (federal) versus a central government. It is argued that the inclusion of spatial policy in national developmental strategies is likely to be influenced by the presence of spatial policy problems, as indicated in previous sections, as well as other political and economic conditions at the time of adoption (Glasson, 1985:204). There is a widespread perception amongst policy-makers that an irregular population distribution, such as the primate distribution found in most Third World countries, is a serious problem. If politicians and planners perceive increasing primacy as a problem, it could be expected that they will include measures, such as growth centre

5 Also see the section on 'environmentalism' (Chapter Five).

strategies (see section 3.3), to counter this problem (Doan, 1995:320). A strong positive relationship between primacy and spatial policy is consequently assumed.

Most spatial development policies involve the reallocation of resources from existing urban areas to other lesser-developed areas - as shown in the previous section. According to Doan (1995:328), the decision to shift resources is a highly political move, likely to be resisted by the more privileged groups, and one that requires a combination of political courage and innovative decision-making. In a turbulent political climate, key officials may be unwilling to take risks inherent in such actions. Therefore, in spite of a positive relation between primacy and the adoption of national spatial development policy, such policies are only likely to be adopted by a stable government (Doan, 1995, 328). The fact that political leaders with more legitimacy have been found to adopt spatial policies indicates the real political challenge of getting such policies adopted and implemented in the face of often determined opposition from entrenched groups in the larger city. Furthermore, the influence of this stability factor suggests that successful spatial policy will require a leader able to stay the course over the long run if such policies are to have the intended effects (Doan, 1995, 328; EC, 1997:47).

Examples of the influence of political and administrative powers on the development of economic activities, are the new national capitals of the 19th century (Athens, Berlin, Rome), while negative examples are the dismantled capitals of Vienna after World War I and Berlin after World War II (Illeris, 1993:127). In Europe, under the heading of political objectives, most regional policies support development in rural, peripheral regions or in old industrialised regions (Gibbs, 1998:365). Exceptions include Dutch policy that specifically promotes metropolitan development (Martin, 1993:797). These spatial development policies play a variety of roles, often serving both as the illustration of political decisions about national development goals within a given social and economic context, and as an input to future political discourse (Markusen, 1994:6). In effect

it is, therefore, a promissory note regarding the distribution of resources to key members of the ruling coalition (Doan, 1995:319). The former role is important because policies can be used to demonstrate the commitment of a government to certain priority areas to external donors. The latter role is important because plans can be used to repay important constituents with promises of better things to come.

In terms of specific political systems, a democratic system is perhaps one of the most virtuous with regard to regional policy because of its accessibility. Contests for election to seats on various governing bodies are often vigorous and, especially at local level, have more to do with policy than with party affiliation or loyalty. Large numbers of people vote and participate in the policy-making process. It is not unusual for dozens of people in a democratic society to attend a school board meeting when controversies arise or for hundreds to pack legislative galleries when bills which are important to them are under consideration (Keare, 1987:173; Rothblatt, 1994:514). The territorially-based structure of politics in democracies often mean that spatial (neighbourhood, city or region) concerns are paramount, and most successful political parties try, therefore, to be regionally sensitive. The implementation of democracy or community participation as part of the policy formulation process has decided effects on the efficient achievement of the said objectives, also including maintenance and cost-recovery objectives. Although popular support and consultation are indispensable for eliminating resistance to policy interventions, lengthy discussion of procedures or training of project promoters in organisational skills, for example, can delay implementation schedules substantially (Keare, 1987:173).

In some instances, however, the acceptability of a policy can be improved and costs reduced if community groups accept direct responsibility for the operation and maintenance of facilities, but devising new administrative structures and procedures for such purposes can be costly. Effective community participation can itself be a goal of certain policies and projects (Armstrong & Taylor, 2000:262). Hence, some policy units may be

willing to invest more resources to this effect than others that are more committed to attaining physical or economic goals. According to Vernon (1991:3) community organisations cannot be expected to be simply passive or neutral variables in policy formulation, as they can act as stimuli or as deterrents in reaching objectives, depending on the concordance of popular and policy goals. Despite some problems with community participation and corruption, democracy also creates a training ground for citizens and activists, especially on local level. Global social and economic forces impinging on the urban systems of advanced democracies during the past two decades have effected one clear overall change: decentralisation of people and economic activities. Most metropolitan areas in Canada, the United States, Western Europe, Japan, and even some developing countries exhibited substantial decentralisation of population, jobs, and political influence to outlying areas (Geyer 1996:45; Tolley, 1987:56). Even urban regions with most advanced metropolitan governance systems, such as the Toronto (Canada) and Minneapolis-St. Paul regions (USA), were unable to control this dispersal (Rothblatt, 1994:514). Not only are city councils and school boards close to the populace, but other arms of policy-making are accessible to the public. The US federal systems again serve as example, where decisions on land use, for instance, are made by public bodies appointed by elected officials. Their proceedings are generally highly publicised and often contested.

Consequently, a regional planning system with broad sharing powers, both horizontally (among legislative, executive, and judicial branches) and vertically (among national, regional, and local governments) is desirable for engendering democratic participation and efficiency in resource use (Markusen, 1994:10). To the extent that regional planning is done in a more decentralised system, it may improve democratic participation and efficiency, although there may be costs in equity and vitality. Those concerned with regional planning and policy formulation, and its multiple goals will have to participate actively in a political restructuring process to ensure that an emergent political structure has windows for the regions. A

major constraint in implementing efficient regional policy, however, is the need to establish an effective bureaucracy that is both virtuous and competent, by rooting out excessive corruption, disciplinary confusions and the jealousy of agents (Markusen, 1994:10). In many ways, this is a more demanding corrective task than the mere political declaration of a policy for positive development.

2.4.2.3 Social justice

A critical question in the formulation of regional policy is the regulation of whom, and for whom? What kind of system do the relevant people want? Any regional planning action involves the redistribution of income and opportunities, and, in many instances creates further inequities (Bourne, 1975:224). Social justice in this context, refers to achieving a greater level of equality. Although social justice has indirectly been dealt with in analysing the equity versus efficiency doctrine, as well as the above-mentioned section on political acceptance, it needs specific mentioning as an integrated component of sustainable regional policy.

There is agreement, that economic growth is not sufficient and that its increasingly uneven nature, internationally, nationally, and regionally, is profoundly problematic (Kutznets, 1955: 7; Kuklinksi, 1975:434; Dewar *et al*, 1986:118). The call, therefore, is both for increased economic growth and for greater social justice, in the sense of achieving a more equitable spread of the benefits of growth and of improving levels of welfare in developing nations and regions.

Regional policies have traditionally represented direct extensions of long-standing government interests in regional economic development. From a social justice perspective, most problems amount to questions of distribution, i.e. malfunctions of the processes which allocate society's resources to social groups and regions. This is usually reflected by urban and regional differences in growth rates, income, employment opportunities, housing, and public services (Bourne, 1975:2). It has been argued in the literature that such disparities represent a direct source of

social injustice and pose a direct threat to national unity (Hansen, 1972:270).

The concept of social justice, consequently, implies that proponents of regional policy think that inequalities among social groups can be reduced by reducing disparities among regions. According to Hansen *et al* (1990:282), few people would argue that social justice requires reducing gaps among regions, even if it takes the form of making the rich richer in the disadvantaged regions. Some regional policies may actually work that way, but they are seldom defended in such terms. It is, therefore, possible to oppose regional policy either on the grounds that it will not work to promote social justice, or that the objective of greater equality is not acceptable if it means a reduction in efficiency for the national economy as a whole.

Regional policy goals often involve the issue of people-versus-place prosperity. According to this hypothesis, it can be accepted that there is always an advantage in promoting the creation of employment where people live because the psychological and economic costs of migration are thus avoided and existing natural resources, capital equipment, and social infrastructure can then be utilised, instead of having to provide all these in another place (Hansen *et al*, 1990:4). Of course, there may be cases in where the disadvantages of location, the costs of upgrading capital and skills in a particular place to make enterprises competitive, or the poverty of natural resources more than offset the advantages of job-creation where people live. However, the advantages are highly visible, whereas the disadvantages are sometimes less so (Urban Foundation, 1993d:2).

Finally, according to Bourne (1975:3), regulating the urban system through regional policy and shaping the consequences of redistributive mechanisms operating through those systems, is an effective means of achieving greater equality in society as a whole. Even if further inequalities are created as a result of the implementation of regional policy, Bourne (1975:224) argues that the end-result is less severe than the situation created by the absence of planning.

2.5 Regional policy as a process

As indicated previously, much confusion exists in the literature concerning the goals of regional policy. Regional policy as a process, can also be a goal in itself, i.e. the principles underlying the formulation process is of primary significance, the end-result probably less so.

2.5.1 Development from above or below

Spatial inequalities regarding the quality of life in particularly the developing countries are significant, and in many instances, increasing. One of the key issues in regional policy formulation is whether these inequalities can be reduced via a more effective functional integration on national and international scale, or whether internal territorial integration and a greater degree of internal self-reliance would be more effective. The first approach is referred to as 'development from above', and the alternative approach, 'development from below' (Stöhr, 1981:41). Development from above has its roots in the neo-classical economic theory (Friedmann & Weaver, 1979:93), and its spatial manifestation in the growth centre concept (see Section 3.3.1).

In post-war planning, policies promoting development from above have dominated spatial planning theory and practice. This principle accepts as hypothesis that development is driven by external demand and innovation impulses, and that from a few dynamic sectoral or geographical clusters, development would in a spontaneous, or induced way, 'trickle down' to the rest of the system (Stöhr & Taylor, 1981:1). These policies have tended to be urban and industrial in nature, capital-intensive, and dominated by high technology and a 'large project' approach. Until recently, this centre-down development paradigm has dominated spatial planning theory and practise in the developing country context (Ingham, 1993:1805). Academics argued that from a sectoral and export theory point of view, a higher return on capital is possible through investment in the industrial sector and in the larger cities (Dewar *et al*, 1986:23).

The theory indicates that higher returns on investment in the larger cities would stimulate the growth of the national economic output - the benefits would spread and trickle down from the primate city to stimulate agricultural development and incorporate the rural poor into the national economic system (Mera, 1978:193; Rondinelli, 1985b:185; Keeton, 1988:140). Maximising the Gross National Product⁶ is seen as the main objective and large cities play a positive role in the generation of developmental impulses (Mera, 1978:193; Mouqué, 1999:2). The theory indirectly implies that if investments are diverted to other cities and towns within a country too early, the overall rate of national economic growth will be reduced and social opportunity costs incurred. Accordingly, the growth of large cities will be neutralised in the long-term with the development of a hierarchy of cities and towns, as there will be a move towards equilibrium in population distribution and reduced migration. In later stages of development, it may be necessary to introduce policies to assist this process and to reduce pressure on the larger cities (Dewar *et al*, 1986:128). Whatever version of the approach is examined, the essential position is that development in a few dynamic sectors and geographic clusters will spread over time to the rest of the spatial system.

Analysing the concept of development from above from another angle, Baldwin (1972:82) argued that one of the most fundamental issues that policy-makers must decide on, is whether to attempt a massive, 'big-push' development effort, or to concentrate upon raising growth rates in selective sectors. In spatial policy terms, these approaches were related to the balanced and the unbalanced growth controversies, respectively, of the 1950s. Accordingly, many economists maintained that successful development requires a large-scale investment programme involving many different lines of production, while others believe that a more modest, selective growth effort seems more feasible.

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According to this concept, it is held that a higher return on capital is possible through investment in the industrial sector and in the largest cities (Mera, 1973). Maximising the Gross National Product, i.e. growth, was seen as the most important objective, with development as a secondary issue - development in this context referring to an increased quality of life for the people in a region (Friedmann, 1966:48; Friedmann & Weaver, 1979:7; Filani, 1981:301).

The first prominent applications of the policy of balanced growth in an economy were done by Rosenstein-Rodan (1943:205), Scitovsky (1954:150), Nurkse (1961:241), and Lewis (1965:283)⁷. Rosenstein-Rodan maintained that successful development requires a large-scale investment programme involving many different lines of production: "There is a minimum level of resources that must be devoted to ... a development program if it is to have any chance of success ... Proceeding 'bit-by-bit' will not add up in its effects to the sum total of single bits. A minimum quantum of investment is a necessary condition of success" (Baldwin, 1972:82). Markets in underdeveloped or developing countries are so small for some products that the unit cost is above effective demand at all output levels. Consequently, these items are not produced domestically.

According to the 'big-push' proponents, it is firstly necessary to bring about a large increase in demand in order to establish these important industries. In particular, this school of thought advocates the importance of externalities that work on the demand side. The theory of balanced growth, thus, stresses the need for different parts of a developing economy to remain in step in order to avoid supply difficulties. Industry should not get too far ahead of agriculture, while basic facilities in transportation, power, and water supply (Social Overhead Capital) must be supplied in adequate quantities to support and stimulate the growth of industry (Hirschman, 1958:51). On the demand side, the balanced growth theory argues that a new venture which gets underway in an underdeveloped country, is likely to fail: the workers, employees, and owners will obviously not buy all of its output, while the other citizens of the country are caught in an 'underdevelopment equilibrium' where they are only able jointly to afford their own meagre output. Therefore, to make development possible it is necessary to simultaneously start a large number of new industries which will be each others' clients by means of the

purchases of their workers, employees, and owners. For this reason, the theory has been annexed to the "theory of the big push" (Hirschman, 1958:51). A big push could result from one or a few big projects, or from a large number of projects of varying size that support one another.

It is the latter alternative to the "big push" theory that is implied by the balanced theory. What the one factory could not accomplish, would become true in the case of a whole system of industries: it would create its own additional market. This form of balanced growth soon received the name of "balance in consumer demand" or alternatively "horizontal balance" (Hogendorn, 1987:326). The case for the 'big-push' therefore rests on two points. Firstly, the existence of significant scale-economies in many productive lines means that the demand for many items must be high even for a break-even point to exist. Secondly, in order to raise the demand for any one particular line it is usually necessary to raise income levels substantially over the entire economy. This can only be accomplished with a massive all-out investment programme (Baldwin, 1972:83-84).

It was argued that the poverty of the developing countries and of less developed sub-regions is a result of low productivity, which is in part a function of an inadequate supply of physical capital. But the shortage of capital is largely attributable to the persistently low level of savings; caused in turn by low income, thus completing the vicious circle of poverty (Baldwin, 1972:83-84; EC, 1997:111; Peters, 2000:5). Because low income and a consequent lack of effective demand generally spell failure for any heavily concentrated investment in a single consumer goods industry, balanced growth advocates that investment should be diversified over a broad range of such industries. Each industry would then generate, through its factor payments, a sufficient demand for the goods of the other industries to keep all of them viable. Investment projects that might be individually unprofitable would, together, be profitable.

In terms of regional planning, Hirschman carried the concept of balanced growth further in suggesting that the creation of deliberate imbalances

might be a superior way to achieve growth, i.e. unbalanced growth. According to Hirschman (1958:183-184), there can be little doubt that an economy must first develop one or several regional centres of economic strength within itself in order to acquire higher income levels. This need for the emergence of growth centres in the course of the developmental process means that international and interregional inequality of growth is an inevitable concomitant and condition of growth itself. Therefore, in a geographical sense, growth is necessarily unbalanced.

When looking at an economy that has experienced growth at two different points in time, many sectors will be found to have forged ahead. Industry, agriculture, capital and consumer goods industries and many other sectors each has its own rate of annual increase (Hirschman, 1958:62). Just as the demand side of the market can absorb 'unbalanced' advances in output because of cost-reducing innovations, new products, and import substitution, so it is possible to have isolated forward thrusts on the supply side as inputs are redistributed among users through price changes, and at the cost of some temporary shortages and disequilibria in the balance of payments or elsewhere. According to Hirschman (1958:62-63), development has "... proceeded in this way, with growth being communicated from the leading sectors of the economy to the followers, from one industry to another, from one firm to another. In other words, the balanced growth that is revealed by two still photographs taken at two different points in time is the end result of a series of uneven advances of one sector followed by the recovery of other sectors. If this recovery overreaches its goal, as it often does, then the stage is set for further advances elsewhere". Myrdal (1957:26) supports this view by maintaining that if "... things were left to market forces unhampered by any policy interferences, industrial production, commerce, banking, insurance, shipping and, indeed, almost all those economic activities which in a developing economy tend to give a bigger than average return - and, in addition, science, art, literature, education and higher culture generally - would cluster in certain localities and regions, leaving the rest of the

country more or less in a backwater". The play of forces in the market, therefore, tends to increase, rather than to decrease, the inequalities between regions.

The advantage of this viewpoint in relation to balanced growth, where every activity expands in step with each other, is that it leaves considerable scope for induced investment decisions, and therefore economises the principally scarce resource, namely genuine decision-making. Therefore, in the "all-out" approach every industry takes a giant step forward. This includes consumer goods industries in the manufacturing and agricultural sectors, capital goods industries, and even social-overhead investments. Under the selective approach, giant steps are taken only in a small number of productive lines at any one time (Baldwin, 1972:85).

Even though Hansen (1978:221) and Friedmann and Weaver (1979:152) indicated that the balanced growth theory generally implied more emphasis on rural development, this is not an exclusive domain, as development from below also concentrates some of its efforts on non-urban development. In spatial context, Glasson (1985:30) made a distinction between 'balanced growth' and 'regional balance'. Regional balance differed from balanced growth in that it does not imply equality, uniformity, or conformity. 'Regional balance' implies equality of opportunity for each region to redress economic, social and environmental weaknesses and to achieve its full potential, thus ensuring that the quality of life is not a function of the region in the country in which people happen to live and work. Regional balance is therefore a goal in regional planning, and could be attained, arguably, by means of balanced or unbalanced growth.

Thirlwall (1972:154) contended that the balanced growth doctrine has since been extended, to refer to the path of economic development and the pattern of investment, necessary to keep the different sectors of the economy in balance so that lack of development in one sector does not impede development in others. This does not necessarily mean that output

in all sectors should grow at the same rate, but according to the income there should be elasticity of demand for products, so that supply equals demand (Thirlwall, 1972:154; EC, 1997:111). The notion of equilibrium is, therefore, implied as an absence of shortages and bottlenecks. Thus, when an economy reaches a particular size, the inhibiting effects of small markets would tend to disappear.

In the past decades it has become fashionable to discredit the use of 'Western' theories and methods - based on an urban-industrial orientation - in dealing with problems of developing countries (Friedmann & Douglas, 1978:172; Filani, 1981:301; Stöhr, 1981:59). Increasingly, critical appraisals of the centre-down paradigm have been consistent with this tendency. It has been alleged that within developing countries this orientation has been contributed to:

- (i) the dependence on the developed countries and multi-national corporations based in these countries;
- (ii) the persistent dominance of one or a few large cities with critical problems of unemployment;
- (iii) increasing income inequalities;
- (iv) persistent and growing food shortages; and
- (v) deteriorating material conditions in the countryside (Friedmann & Douglas, 1978:)

Marxist and other critics who have emphasised the issue of economic dependency have done so largely on two grounds. First, the political dependency that tends to accompany economic dependency, and secondly, the failure of existing institutional mechanisms to alleviate mass poverty in especially rural areas (Friedmann & Weaver, 1979:207; Dewar *et al*, 1986:23). World-wide investment stagnation and pressures on multi-nationals to invest at home are clearly not helping the developing countries. Indeed, some critics of the centre-down paradigm maintain that bottom-up strategies are necessary in the developing countries precisely because world capitalism has entered a period of permanent crisis

(Friedmann & Douglas, 1978). It is consequently argued that centre-down development, in an international context, was not all bad but can no longer be sustained in any case (Hansen, 1981b:35). This view represents two major difficulties. First, the political structures of most developing countries are very inimical to the kind of autarchic development implied in an agropolitan or similar development strategy. This approach would seem to require the explicit inclusion of a theory and programme of political revolution - the kind of revolution that does not merely restructure the exploiter and the exploited. Second, this approach neglects the fact of international business cycles, i.e. it assumes that a recent turndown will result in permanent stagnation rather than eventual adaptation leading to a period of recovery. The trouble with this view is that while it may be correct, "... prophets of doom in the Western capitalist society have a long and undistinguished record as predictors of the future" (Hansen, 1981b:35).

Development from below is a more recent strategy and is a reflection of changing ideas on the nature and purposes of development itself. It considers development to be based primarily on maximum mobilisation of each area's natural, human, and institutional resources with the primary objective being the satisfaction of the basic needs of the inhabitants of that area. In order to serve the bulk of the population broadly categorised as 'poor', development policies must be oriented directly towards the problems of poverty, and must be motivated and initially controlled from the bottom (Perloff *et al*; 1960:12; Keeton, 1988:139). There is an inherent scepticism among certain scholars regarding the 'trickling down' or 'spread effect' of growth centre development policies⁸ (Conroy, 1973; Lo & Salih, 1978; Friedmann & Weaver, 1979; Filani, 1981; Keeton,

8 As a result of much confusion regarding related terms, the following definitions are deemed relevant. In regional planning, the 'centre-down' approach refers to the identification of growth centres in a geographical context. The development of these centres is supposed to create spread effects in order to initiate economic development in underdeveloped areas, and thereby promote national growth. The 'basic needs' approach was introduced to improve the standard of living of the poor in developing countries by means of increased participation in the planning and decision-making process. This approach, with its emphasis on regional equilibrium, is in strong contrast with the 'top-down' approach which stresses physical, social, and economic disequilibrium as the main instruments for development (Geyer, 1989d:29-33). Scholars seem to be preoccupied with rural development in focusing on the bottom-up approach, while excessive urbanisation is being presented as an inevitable result of the top-down approach.

1988:140). Development 'from below' strategies are basic needs-oriented, labour intensive, small-scale, regional-resource based, often rural-centred, and argue for the use of 'appropriate' rather than 'highest technology' (Stöhr & Taylor, 1981:2). Development from below, however, is not simply related to the level at which decisions on development are taken. A change in the level of decision-making is a necessary, although not sufficient, condition for such a strategy. According to Stöhr (1981:39), development from below implies alternative criteria for factor allocation (going from the principle of maximising integral resource mobilisation); different criteria for commodity exchange (going from the presently dominating principle of comparative advantage to one of equalising benefits from trade); specific forms of social and economic organisation (emphasising territorial rather than mainly functional organisation) and a change in the basic concept of development (going from the present monolithic concept defined by economic criteria, competitive behaviour, external motivation, and large-scale redistributive mechanisms to diversified concepts defined by broader societal goals, collaborative behaviour and endogenous motivation).

Implementing the development from below-approach as part of a regional policy stresses the need for an improvement in the living conditions of the underdeveloped section of the community by means of its increased participation in the planning and decision-making processes. This policy seems to be especially useful for subregional areas with the following characteristics (Stöhr, 1981:64):

- contiguous less-developed (rural) areas with relatively large populations providing an internal market for basic services and commodities;
- a low per capita resource (natural or human) base for world-wide demand;
- low living levels compared with other regions and distant from developed core regions;

- few internal dynamic urban centres able to absorb large rural populations into their labour market, infrastructure or service system; and
- areas sufficiently different in socio-cultural aspects from their neighbours to have a regional identity of their own.

It is evident from the previous section that development from below is regarded as an integrated strategy of overall national development favouring rural incomes and employment - rural development is typically assumed whenever the development process from below is considered as development option (Coetzee & Ligthelm, 1988:180; Geyer, 1989*d*:32). This is a result of the perception that development from below is closely related to specific socio-cultural, historical and institutional conditions of the country and regions concerned (see Table 2.2). No uniform patent recipe for such strategies can be offered as is often done for strategies of development from above. The guiding principle is that development of territorial units should be primarily based on full mobilisation of their natural, human and institutional resources.

Table 2.2 Development from above and below

	Development from below	Development from above
Location	Rural / small towns	Urban milieu / large cities
Enterprise	Small firm	Large firm / project
Decision-making	Community	Enterprise / individual
Technology level	Appropriate (grass roots)	High

Source: Adapted from Stöhr & Taylor (1981)

Despite differences between those who espouse one form or another of the development from above paradigm and those who advocate development from below, some areas of agreement can be found concerning appropriate means for alleviating poverty. These would, according to Hansen (1981:36), include (i) more attention to human resource development, (ii) greater efforts to curb population growth, (iii) wider and more rapid diffusion of agricultural innovations, (iv) planning in terms of functional economic areas, and (v) the linking of functional economic areas by a transportation and communications policy that encourages not only more general spatial diffusion of innovations but also facilitates the movements of agricultural and light industrial outputs from rural areas to large urban markets.

2.5.2 Selectivity

Another basic concept that needs mentioning refers to the distinction between 'pre-selection' and 'self-selection' (Richardson, 1987c:239; Black & Roux, 1991:445).. Although these concepts refer to elements of the efficiency principle, specific mentioning is justified because of its wide use in development planning.

Under a national spatial policy approach, certain cities or regions are selected either by the national government or as a result of negotiations

between the national and regional governments. These locations then receive disproportionate shares of infrastructure investments and/or be major beneficiaries from local incentives (see Armstrong & Taylor, 2000:256). An alternative approach, is where cities select themselves for priority development and take appropriate measures to generate the resources for financing development projects locally (Richardson, 1987c:239). The instrument used to operationalise this idea refers to a 'development fund' from which funds may be borrowed to initiate projects that subsequently facilitate the generation of resources for repaying the loans. For example, cities may receive loans in the order of their date of application or the government may introduce eligibility criteria to climb the application list. If the government's fiscal resources are sufficient, a grant/loan combination may be offered with the grant proportion varying by type of project or by city. The reasoning behind this idea is that it requires only a modest amount of seed capital because once the scheme gets into full swing, periodic repayments finance new loans (Richardson, 1987c:239).

Richardson (1987c:239) says that when comparing the merits of these two approaches, several issues need to be considered. The first is that self-selection combines 'top-down' and 'bottom-up' decision-making in the sense that the government lays down the foundation for local participation - the extent of participation depending on the city's self-reliance and dynamism. The end result of this 'development fund' is improved central/local communication, co-operation, and co-ordination. On the other hand, pre-selection does not involve the individual cities at all except to pressurise the government for inclusion among priority cities. Under normal circumstances, the early beneficiaries from the self-selection scheme are likely to be cities with demonstrated municipal managerial capacity and at least an embryonic local revenue base (Richardson, 1987c:239). To the extent that there is a positive association between local government capacity and economic potential, these are likely to be the cities that are better off. From this point of view, the self-selection

approach is more appropriate if policy-makers are growth-oriented rather than equity-oriented.

The problem with pre-selection is that national government investment resource constraints severely limit the number of cities or regions that are able to participate in a priority investment programme. The self-selection strategy, on the other hand, helps to overcome resource limitations by fostering local resource generation (Richardson, 1987c:240; Glasson, 1985:317; Armstrong & Taylor, 2000:224; Hall & Pfeiffer, 2000:320). If the eligibility criteria for lending include the design of effective cost-recovery plans, these funds will help cities to improve their long-term viability. This permits replicability and the eventual inclusion of a large number of cities into the scope of this scheme. The self-selection approach, however, also has certain risks. The first is that complicated loan preconditions require detailed feasibility studies, cost recovery plans and other technical packaging may encourage the growth of a consultancy industry geared to help cities obtain loans. While this is not intrinsically negative, a danger exists that priority in disbursements may depend more on the quality of the consultants than on the merits of the development projects. A second risk is that, if the eligibility rules place considerable power in the hands of the funding bureaucrats, corruption may be serious (Richardson, 1987c:239-240).

Selectivity and its spatial application is of great significance, especially in developing countries, where comprehensives of developmental actions are essentially impracticable - even in the European Community, there has been a shift towards increased selectivity in the 1990s (Jung, 1982:83; Bachtler & Michie, 1993:719; Martin, 1998:535; EC, 1997:112). Selectivity may take an objective, subjective or incrementalist form. Objective selectivity refers to the spreading out of development expertise and resources evenly throughout the national space economy. Subjective selectivity suggests the operation of development in 'problem', 'non-problem' or 'high potential' areas, or selected sectors. It pays attention to the worst problems and strives to attain maximum returns from resources

under the highest potential - the major practical difficulty with subjective selectivity is the identification of fruitful projects with the potential to induce direct or complementary beneficial impact.

Incremental selectivity is geared at cutting down the number and range of policies and decisions to those that are the last outgrowth of existing decision-making and those that are significant: at worst it is remedial, evasive and self-emasculating (Riddell, 1987:20-21). However critical we may be of selectivity, it has credibility because of the implausibility of comprehensive development in the face of reality - the need to produce some projects and make some decisions, especially seen in the competitive nature of cities on an international level (see Section 5.2.2). Within the framework of trying to 'do everything, doing something, or doing nothing', selectivity presents an irresolution which, in all economic, social and environmental equity, is difficult to achieve equilibrium.

2.5.3 Implicit and explicit spatial policies

Whether to adopt and formulate regional policy *per se*, or to rely on implicit policies is of primary significance in the process of realising development goals. It has been indicated by academics that policies that do not have a specific spatial dimension are even more important in the development of especially economically marginal areas, than policies with specific spatial bounds (Tinbergen, 1964:43; Kuklinski, 1975:441; O'Loughlin, 1979:171). In this context, Frost and Spence (1982:105) argued that a reflation of the economy as a whole would probably do more for a reduction in the regional unemployment differentials in Great Britain, than all the incentives implemented to promote regional development. This illustrates the fact that the prosperity of specific areas does not only lie with the marginal redistribution that may result from regional policy, but also in the government's ability to manage the total economy in a way that provides the fullest opportunity for the use of its national resources - from there the special reference to economic theories in this context.

The process of development, in developing countries in particular, involves a reallocation of resources, both sectorally and spatially. The task of regional policy is to facilitate and promote this reallocation (Hamilton, 1982:122; Herbert, 1982:107; Williams, 1996:70; Arndt *et al*, 2000:1904). But the traditional pre-occupation with economic growth leads to a strong emphasis on macro and sectoral strategies while the spatial repercussions of development are either left aside or treated independently. This is a serious mistake, since almost all macro and economic policies have unintended side-effects on the spatial distribution of activities. In a sense, most national policies are spatial, but some are 'implicit' while others are 'explicit'. Explicit policies in this context could refer to efforts to combat intra-urban efficiency problems, to promote cities of different size classes or to mould the national settlement pattern (Richardson, 1977b:39). Other explicit measures include industrial protectionist measures that discriminate against existing industrial concentrations; spatially discriminatory tax policies favouring certain areas, and various sectoral support policies that favour rural peripheries (Richardson, 1977b:39; EC, 1997:52; Arndt *et al*, 2000:1904). These sectoral development strategies have a significant spatial consequence as industries and other economic activities are not distributed equally among the cities and locations vary in their comparative costs.

A common error in developing countries is to pursue difficult and possibly unattainable explicit development policies while failing to recognise that contradictory and stronger implicit development policies are already being unconsciously implemented as part of the national sectoral plan. The subjugation of explicit to implicit policies is merely a reflection of the subjugation of spatial planning to sectoral planning (Richardson, 1977a:3). Achieving reconciliation between the two, or reordering priorities would increase efficiency, and save scarce resources.

Although the quantitative impact of explicit spatial policies is difficult to measure, with the result that it is not possible to draw conclusions with confidence about the overall effectiveness of these policies, there is

considerable qualitative knowledge about what kinds of intervention have better prospects for success. For instance, and of significant relevance henceforth, the distribution of population is determined by three sets of forces of which the individual impact is difficult, and perhaps even impossible to unravel. These forces are market trends and the dynamics of the aggregate development process; the implicit spatial impacts of macro-economic and sectoral economic policies; and explicit spatial policies. According to Richardson (1987a:208-209) it is widely believed that explicit spatial policies are the weakest of the three sets of forces. Richardson observed that more often than not, implicit spatial policies are in conflict with explicit spatial policies, resulting in the redistribution of population being constantly undermined by primate city and core region biases inherent in many policies.

Implicit spatial policies include import substitution, subsidised urban services, and internal terms of trade distortions. These policies, therefore, have a definite impact on where people live and work, while there is also a growing awareness and specific evidence that the effects of implicit incentives on business location decisions are much stronger than explicit incentives that favour decentralised location (Tolley & Thomas, 1987:5). Where dispersion trends have been observed, usually in middle income countries with a reasonably diversified economic base, these reflect much more the onset of the polarisation reversal process than the effects of explicit spatial policies (Richardson, 1987a:210). It, therefore, seems very misleading to ascribe shifts in the settlement pattern and the distribution of economic activity consistent with spatial policy objectives only to the impact of one or another policy.

Richardson (1981:272-273) identified certain general considerations in the development of explicit spatial policies and strategies, the first being the size of a country. It is obvious that a regional development strategy in small countries with only one primate city surrounded by its hinterland, will differ drastically from a large country with a space economy best represented as a group of interrelated but semi-independent regions each

with their own urban hierarchies. In the latter countries, the design of urban and regional development strategies is much more complex as it needs to embrace a wider number of regions and many more cities reaching further down the national urban hierarchy. Topography and transport are two other relevant spatial considerations, and often interrelated; for example, mountains constrain the evolution of the inter-urban road system. Many countries lack the homogeneous flat plain assumed in the traditional spatial theories⁹, and high mountains limit spatial interaction between regions (EC, 1997:54).

Differences in political structure among countries also affect the implicit or explicit nature of spatial development strategies (EC, 1997:46; Arndt *et al*, 2000:1904). A centrally planned economy will implement a development strategy in a different way from a market-oriented economy, largely because the choice of regional policy instruments is different. The most important distinction, however, is between unitary and federal government structures (Richardson, 1981:273). A unitary system of government typically has a far freer manoeuvrability in allocating public investment among certain regions. Although a strong federal structure may make it more difficult to assign spatial priorities, it provides an existing institutional base on which to build further administrative decentralisation. Such decentralisation may result in more effective execution of projects, thereby improving the effectiveness of spatial development policies. Countries and regions also vary widely in their cultural heritage and modes of behaviour. It is a known fact that migration patterns are strongly influenced by cultural factors (Richardson, 1981:273; Mouqué, 1999:22). Whether migrants move as individuals or families, the incidence of circular return migration, the strength of links with areas of origin, and how fast migrants are assimilated in urban life - all these aspects of rural-urban migration are conditioned by cultural influences. Policies that ignore these

heterogeneous cultural factors are likely to be ineffective (Armstrong & Taylor, 2000:301).

Thus, regional policy may be directed at regional welfare; at improvements in the regional conditions of production through investment in infrastructure and social overhead capital; or through the spatial recomposition of the labour force in more easily exploited geographical concentrations. It may attempt to influence the locational decisions of firms by offering inducements to investment in particular regions in the form of tax incentives, grants, subsidies and so on. It can be seen as an attempt to modernise and restructure the productive base of the economy by inducing a locational shift which corresponds to a more effective pattern for efficient production (Meyer, 1968:10; Knowles & Wareing, 1983:290; Armstrong & Taylor, 2000:304). Alternatively, regional policy may be designed as a means of counterbalancing the regional effects of restructuring (Johnston *et al*, 1986:399). Given the multi-faceted nature of the regional problem, it is hardly surprising that regional policy has varied over time and space in terms of its determinants, formal content, relative significance and goals. Neither is it surprising that it is rarely definable in purely economic terms, e.g. as a means of facilitating growth, nor in purely political terms, e.g. as a means of curbing political discontent.

2.6 Summary

The first objective of this chapter was to define regional policy and to distinguish between regional policy and regional policy instruments. From this section, it is clear that some misconceptions exist with regard to its fundamental character, the level of implementation, as well as the level of detail. Based on the arguments of especially Friedmann (1966), Richardson (1984), and Hansen (1990), a clear distinction is made between regional policy and regional policy instruments. The former refers to broad guidelines and objectives, usually based on economic, social, environmental, and political intentions. Fundamentally, the latter is described in this section (and the next chapter) as being the 'plan' or

‘programme’ necessary to facilitate the broad objectives of regional policy, i.e. it is the development instrument or instruments utilised to accomplish this.

Ideally, during the course of regional policy formulation, the objectives would be multi-sectoral, based on several scenarios through which the objectives can be achieved. The simulation of several alternative courses of action has proven to be essential to this process, as is the regular evaluation and monitoring of the outcomes. When determining the goals of regional policy, several fundamental principles has to be decided upon, i.e. the economic trade-off between efficiency and equity, the environmental sustainability of the proposed policy, its political acceptance, and social justice and acceptance.

In practice, however, regional policy can also facilitate a dual purpose, i.e. to reach the objectives and/or to facilitate a process of policy formulation with the main aim of satisfying relevant parties (e.g. community pressure groups, environmental parties, politicians, etc.). The latter tactic usually refers to a bottom-up approach to implementation, and the former to a top-down approach. Cognisance need to be taken also of the spatial application of explicit regional policy, especially in a developing country like South Africa, which doesn’t have the resources to facilitate the implementation of a policy which aims to develop all urban and rural areas simultaneously (compare with the European Union’s policy).

It is also clear from this chapter, that even implicit regional and other policies usually has a significant effect spatially. If, however, explicit regional policy for a country or region is formulated, an implementation process has to be established according to which the proposed end results can be measured. Accordingly, specific regional policy instruments must be drafted and implemented at the correct phase of spatial development in the specific region or locations. The regional policy options, as well as instruments and relevant elements utilised in implementing the above-mentioned goals will be discussed in the next chapter, as well as the correct timing of implementation.

CHAPTER THREE

3. THE IMPLEMENTATION OF REGIONAL POLICY

3.1 Introduction

The Great Depression of 1929 and 1930, which affected the majority of capitalist countries, generally had a profound and lasting effect on the development of spatial planning. Prior to this, a relatively *laissez-faire* attitude to economic and spatial development prevailed. The primary lesson of the Depression was that capitalist economies were not necessarily self-correcting (Meyer, 1968:9). They required management and control. Consequently, a new demand for massive state investment and management to absorb unemployment and to reactivate investment was heard. This resulted in political action, particularly in Europe and North America. This reactive orientation of regional planning had become more oriented towards rational, longer-term management and was increasingly viewed as an appendage to macro-economic planning. Regional planning for depressed areas, in particular, became an important aspect of the Keynesian demand management techniques, which dominated national economic planning at the time (Dewar *et al*, 1986,11-12). Keynesian policies essentially viewed the control of national demand levels as the key to national economic management. In terms of this approach, low levels of demand due to unemployment and low incomes in the lagging regions, were regarded as serious distorting factors. Regional policies were thus implemented in order to promote greater regional convergence in employment and incomes, through direct state investment in lagging regions.

Policy approaches at the time sought to channel or influence the economic growth of their giant city region, either by steering this growth to neighbouring satellite towns, or by long-distance decentralisation to growth centres in other regions. These attempts were met with varying

degrees of success. An overview of regional policies and instruments implemented both in developed and developing countries could consequently prove invaluable for future formulation of sustainable regional policy in the South African region.

According to Richardson (1973b:227), the choice of policy is influenced by many considerations: the degree of government intervention in economic affairs; the quality of entrepreneurship and the structure of corporate organisations particularly in lagging regions; the value goals and socio-cultural traditions of the society; the nature and extent of economic planning, if any; and the country's constitution, political structure and scope for public consultation and participation. The very wide range of instruments used in various countries to express regional policy makes comparison difficult. No two types of instrument under different systems or hierarchies will be alike, and even within a system their form and content vary according to location timing of implementation (EC, 1997:51; EC, 1999:20).

As a result, a clear and direct link between the policy principles and goals analysed in Chapter Two and any particular regional policy implemented on lower levels of the planning hierarchy cannot be assumed. It is the objective of this chapter to identify the various intra-regional development policies according to four main categories (Richardson, 1984:276), i.e. a *laissez-faire* or do-nothing approach, slowing primacy policies, small town and intermediate city development policies, and rural development policies. These categories or policy options are identified on a lower level of application, i.e. an intermediate sized-city strategy may be implemented from a 'top-down' perspective or a 'bottom-up' approach (see section 2.4). Such a development strategy can also be part of explicit or implicit regional policy, or be selective or uniform in its spatial application. It is, therefore, firstly essential that regional policy be correctly defined in terms of its main goals and the relevant application process, before it is classified in terms of the above-mentioned four policy options.

As shown in the first chapter, regional policy can be described in terms of two main levels, namely the broad direction or process to be followed, and, secondly, in terms of policy instruments. This lower level refers to more specific mechanism through which regional policy's goals can be achieved. Several regional policy instruments will be identified in this chapter, which are available to the regional planner to facilitate these goals. The primary instruments refer to growth centres, development axes, and combinations of these (hybrid policies). The last objective of this chapter is to identify regional policy instruments on grass-roots level. These include strategies for infrastructure investment, loans or tax incentives, or even restrictions on certain types of development.

3.2 Regional policy options

3.2.1 *Laissez-faire*

The allocation of inter-urban investments by a central government is usually founded on a specific regional policy. According to the *laissez-faire* or do-nothing policy approach, the allocation of inter-urban infrastructure would be based on population size, thereby equalising investment per capita. According to Richardson (1981:273) the *laissez-faire* approach would then result in the continued polarisation of the primate city or metropolitan region, especially in a developing country. In adopting this approach, the government will miss a valuable opportunity to guide the pattern of urbanisation. This is especially important in countries where the level of urbanisation is currently low - such as South Africa - and the rate of population growth high. The eventual market outcome will probably be inferior to the planned intervention outcome¹⁰ that offers a

10 This so-called inferiority was recognised even in the eighteenth century by Adam Smith who indicated that unregulated private interests behave in ways that would suppress the progress of economic improvement. In the mid-1920s, John Maynard Keynes described *laissez-faire* as a fair weather system, capable of productive performance only when conditions were favourable. This policy was deemed, however, inherently unstable and inadequate given the increasingly complex problems of industrialised societies (Barber, 1991:230-250).

chance of influencing the distribution of population into a pattern more consistent with societal goals¹¹.

Richardson (1981:274) uses a simple economy consisting of a growing labour market and limited land serves as an example. In such a setting, with labour growing over time, all economic activity is initially concentrated in one city because of agglomeration economies. Such a city grows to its optimal size and beyond, until it becomes feasible for population perturbations under *laissez-faire* to establish a second city. This happens when the first city has become unstable in response to sufficiently small declines in its population. At such a time, it takes a small number of migrants to set up the second settlement that matches the utility of the first and large city. Social optimality, however, requires that the second city be set up earlier and at a larger initial size, requiring a much larger and planned migration out of the first. Individual agents (labourers) in an economy based on self-interest, cannot anticipate the optimal time when decentralisation should occur because the timing of such decentralisation requires co-ordinated action among agents. Under *laissez-faire* conditions, a second city is usually either born too late or may not emerge at all if agents in the economy do not experiment with suboptimal or unstable situations. This is so because the first city (primate city) remains a stable equilibrium for a long time after it exceeds its optimal size (Anas, 1992:246). When the second city ultimately emerges, it is always associated with a panic-migration of population out of the primate city. Under planned optimal growth policy, the second city must be spawned much earlier than the *laissez-faire* case, and must be 'nursed' through a period of instability until it reaches a critical size.

In spite of the criticism lodged against this approach, some schools in the developed world still believe that the operation of market forces offers the least cost and a reasonably acceptable solution for regional economic

11 According to Richardson (1987b:277), societal goals usually refer to economic efficiency, promoting economic development, improving equity (both interpersonal and interarea) and reducing poverty, maintaining political stability and national security, preserving the quality of the environment, and (in special cases) promoting national unity.

problems. This is based on the evidence of convergence of per capita incomes in a market-oriented economy like the USA. Richardson (1973*b*, 121), however, maintains that the market is an unacceptable indicator of regional allocation. The general equilibrium theory upon which it is based tends to be static, whereas the regional process is dynamic. The argument assumes perfect competition and marginalism, neither of which is relevant to the space economy.

3.2.2 Slowing down primacy

Slowing down the growth of the primate city remains a spatial policy implemented in most countries in spite of the long-established association between increasing primacy and higher Gross National Product (GNP) growth, as well as positive links between the growth of large metropolitan regions and social indicators (Mouqué, 1999:22). At first, agglomeration economies persist in many primate cities and contribute to their superior efficiency. This will eventually be offset by higher per capita absorption costs, and later severe congestion costs and communication diseconomies (e.g. Lagos, Mexico City, Cairo, and Caracas). Consequently, shelter and services backlogs may become severe at high primate city growth rates and per capita costs may soar because of implementation problems (Alonso, 1975*a*:104; Richardson, 1987*a*:211). Finally, a societal consensus that the primate city is becoming unacceptably large relative to the national urban system as a whole, may be sufficient justification for intervention.

In practise, most policies to slow down primacy have been ineffective, short of chronic under-investment in the metropolitan capital stock (Cuba) or the forced removal of population (Richardson, 1987*a*:211). Where primate city growth has slowed down as it has in many cases (Sao Paulo, Mexico City, Lima), it has usually been the result of spontaneous forces or the spillover of development beyond defined metropolitan boundaries (Vining, 1986:7-10; Tolley & Thomas, 1987:10). In most developing countries, policies designed to divert new industries away from primate cities have tended to concentrate investment in a few selected larger

centres on the periphery, rather than scattering it nation-wide, for efficiency reasons. Often a limited number of intermediate-sized cities are promoted on the basis of economic development potential. Since growth within a region tends to be spatially concentrated in this fashion, a concentrated spatial dispersion of economic development emerges (Lee, 1989:148). This concentrated spatial dispersion pattern of urban growth is consistent with Richardson's (1977a) polarisation reversal theory (see Section 5.4.1).

3.2.3 Small town and intermediate city development

The parallel policy for directing attempts to slow primate city growth is the promotion of small towns and intermediate cities, as well as the promotion of rural development, which will be dealt with specifically in the next section. Whereas an efficient rural development policy will raise rural incomes, it is not clear that they would have much effect on slowing down rural-urban migration (Richardson, 1987b:277). From this point of view, the small towns and intermediate city development option is most critical for reducing the flow of migrants into the primate city and other very large metropolitan regions. Small towns and intermediate cities are defined here very broadly, ranging from small urban centres located in rural regions to large regional metropolises and secondary cities. In countries emphasising rural development, most attention will be given to the small towns, while in countries with an ambitious national development strategy the large secondary cities will be given priority (Osborn, 1974:12).

The scope for implementing a policy of small town and intermediate city development is limited in most countries by the scarcity of public investment resources. Capital scarcity means that all small towns and intermediate cities cannot be promoted simultaneously. Hence, such a policy has to come to terms with the principle of selectivity, as analysed in the previous chapter. Probably, the most sensible approach is to begin with those urban centres that appear to have the highest economic potential. Beginning with a few centres may enable policy-makers to find out which measures work best and can be replicated elsewhere.

According to Richardson (1987b:278), a reasonable aim to be pursued by a small town and intermediate city development policy, is regional containment. This implies that migrants should be induced to remain in their home region by migrating to its urban centres rather than to the primate city or large cities in other regions. It also implies an emphasis upon circular migration and upon commuting from rural areas. Stressing policies to redistribute population within regions provides a viable alternative to the primate city versus rural areas dichotomy that too often dominates national development policies.

3.2.4 Rural development

A rural development strategy usually refers to the promotion of small service centres in the lower tiers of the urban hierarchy (Johnston *et al*, 1986:415). Such a strategy attempts in making rural conditions so attractive that the rural population has no incentive to migrate to the city. The role of these promoted urban centres is to provide urban services to a rural population, to serve as the location for off-farm employment (in small-scale industry, agro-based industry as well as the service and informal sectors) and to diffuse social change and technical knowledge into non-metropolitan regions (Wen, 1975:416). In terms of regional policy in Europe and the United States of America, rural communities drew little attention until the 1960s, with urban-based planners having little insight into the nature of rural development (Keeton, 1989:140). In fact, most planners were quite hostile to the idea of rural industries (Friedmann & Weaver, 1979:152-3). Rosenstein-Rodan (1963:537) went as far as indicating that "... any glorification of rural industrialisation or of handicrafts as a panacea of development of underdeveloped areas must be recognised as an utopian dream".

In the implementation of a rural development policy, however, there must be guarded against a lowering of productivity as found in several Asian countries where most of the population increase was accommodated in rural areas (Friedmann & Douglass, 1978:166). According to Richardson (1981:274), attempts to accommodate the population surplus in these small

service centres will be costly and probably only partially effective at best. Furthermore, infrastructure costs per capita could be higher than a more concentrated pattern of urbanisation. It is therefore imperative that a regional policy be drawn up for the core regions, the 'other urban' or intermediate regions as well as the peripheral or rural regions; not each policy as an entity but as complementary to each other. Richardson (1981:274) emphasises that rural development strategies alone cannot solve all major spatial planning problems. In most of the developed and more advanced developing countries, the easiest way to raise rural incomes and welfare remains in absorbing the surplus rural population in the larger towns.

More recently, it has been shown that rural priorities have been transformed. In agriculture, the imperative to expand production has been replaced by a move towards world prices and the integration of environmental protection into farm supports. Previously, rurality was equated with agriculture and the countryside was the 'national farm'. Eventually, however, surpluses, budgetary pressures and the recognition that an efficient agriculture may be environmentally damaging brought the above-mentioned approach into crisis during the 1980s (Lowe & Ward, 1998:469). This weakening of agriculture and the growth of environmental and leisure demands have encouraged interest in the notion of a more diversified countryside in farming, conservation and rural development circles.

3.3 Regional policy instruments

The policy options of rural development and slowing primacy remain the major focus areas in attaining spatial equilibrium. The means, however, or instruments utilised in attaining these primary goals, namely spatial balance or equilibrium, differ from country to country and region to region.

3.3.1 Growth centres

The concept of *pôles de croissance*¹² and its related theory were originally developed as a tool to describe and explain the anatomy of economic development in an abstract economic space (Hermansen, 1972:160; Lasuén, 1972:20). However, during the course of time the scope of the theory has been broadened and reoriented to include also the normative issues of policy intervention and planning. Based on the observation that development does not appear everywhere at once, but at different points or development poles with variable intensities; it spreads along diverse channels and has varying terminal effects for the whole of the economy. Perroux argued for the conception of development as essentially polarised in the sense that forces inherent in the development process worked toward clustering of economic activities and growth and toward imbalance between industries and geographical space. Although Perroux was not particularly concerned with the spatial aspects of development in its geographical sense, applications for the growth pole theory have been concentrated mainly on problems of inter- and intraregional planning (Hermansen, 1972:161).

Other than neo-classical theory, which essentially tends to justify a *laissez-faire* approach, no post-war regional policy has been more influential than growth centres. A growth centre¹³ policy usually involves the selection of a limited number of urban centres with potential for economic growth. The centres would function as sites for decentralising industries, i.e. the process of industrial decentralisation, or the foci of development of new propulsive industries and as regional holding centres for migrants (Parr, 1981:67). Prerequisites for this policy include a highly developed

12 The French economist Francois Perroux formulated the concept of growth poles or *pôles de croissance* in 1955. In his article ("Note sur la notion de 'pole de croissance'") he used the growth pole to indicate a dynamic sector in the economy (Lasuén, 1972:22-23). The growth pole therefore consisted of propulsive industries that exerts dominance through its interindustry linkages over other manufacturing sectors. These interrelationships between the propulsive industry and other sectors are considered exclusively in abstract, functional economic space.

13 Distinction must be made between 'growth poles' and 'growth centres'. The term 'growth pole' refers to a propulsive industry in economic or abstract space, while a 'growth centre' refers to a location (usually a city) in geographical space. Connecting these concepts, i.e. the 'industry' with its 'location' has received much attention in literature (Boudeville, 1966:113-114; Darvent, 1975:545)

infrastructure at the growth centre, the provision of centrally supplied public and social services, a demand for labour and other resources from the hinterland, and the diffusion of a growth mentality from the city over a wider region.

Regional policy, it was held, could induce growth centre development, which in turn would generate several interrelated benefits. Firstly, the centre's own growth would directly promote regional development. Secondly, the growth centre would attract migrants from lagging regions that might otherwise have gone to large, over-congested cities. Thirdly, the growth centre would eventually produce positive spread effects in its hinterland. Finally, the growth centre would fulfil a major relay function in the process of innovation diffusion through the hierarchical system of cities (Hansen *et al*, 1990:285). Urban growth is therefore assumed to be unbalanced (Blum, 1986:326).

In the 1960s and 1970s, many developing and developed countries applied the growth centre approach to their urban, regional, and national development planning. Most often, these applications were a reaction to the wave of frustration arising from the failure of the 'big-push' paradigm of the 1950s (Higgins, 1983:3). This was also very much the thinking behind the development of new towns. A new town refers to a freestanding urban centre located outside the commuting distance of an existing city, on a completely new site (Egan & Bendick, 1986:218). It was later broadened to include the expansion of existing towns (Richardson, 1984:283). The earliest examples of this planned decentralisation policy can be found in and around the London metropolitan area with the development of such new towns. The development of these towns was part of a wider policy for the distribution of population and employment as a response to the problems of urban congestion and represented a logical extension to the garden city concept (Goodall, 1987:323).

Perhaps the clearest application of growth poles could be found in France with the designation in the 1960s of eight *metropoles d'équilibre*. These growth poles were based on a major provincial city or group of cities, as a

means of combating the excessive concentration of national life in the Paris region (Friedmann & Weaver, 1979:144; Hall, 1984:246; Minshull, 1987:158). The designation of these growth poles in the inner (*proche banlieue*) and peripheral départements (*banlieue*), led to the four outer départements being the fastest-growing area in the whole of the Paris region between 1975 and 1982. Positive inducements to industry, in the form of grants from special funds, were allocated for decentralisation from Paris. These incentives were supplemented with negative restrictions on industry in Paris itself. The implementation of growth centre strategies also occurred in Italy (Minshull, 1987:173), the Netherlands and Sweden (Pred, 1977:191-196), as well as the former Soviet Union (Gokhman *et al*, 1981:261), with some showing positive results. Even in developing countries such as Venezuela and Korea, growth centre strategies were implemented to combat the negative externalities experienced in the primate cities (Simmons, 1981:95).

Since the 1970s, however, these policies have received some negative reaction mostly because of its failure to diffuse development intra-regionally (Richardson, 1971:39; Lo & Salih, 1978; Friedmann & Weaver, 1979; Rondinelli, 1985:20), their limited labour absorption, and the lack of courage and persistence of policy-makers who have frequently abandoned the strategy before it could be expected to show results (Richardson, 1981:275). Hansen *et al* (1990:285) also maintained that, in spite of the economic efficiencies that might be realised, it seems virtually impossible to carry out a growth centre strategy in a democratic society. By definition, the implementation would leave out more places and people than it would include. Other problems associated with this decentralisation policy include deterioration of the primate city, social imbalance, and investment insecurity (Bourne, 1975:49; Lo, 1978:37). In many countries, including South Africa, too many growth centres were also identified (see also Chapter Four), mostly as political concessions.

Although the academic merit of the growth centre concept has been the topic of much controversy in the face of empirical evidence indicating a

lack of desired results (Doan, 1995:329), the concept continues to surface in planning documents especially on the African continent. It is not yet clear whether this pattern is an example of a lagged effect in which outmoded Western concepts trickle down to African development plans and policy, or whether there is a broader attempt to refashion existing concepts into a set of more appropriate indigenous solutions. With the scope of this study focused on a section of the Southern African development area, it is essential to recognise that African development planners still continue to experiment with ways of implementing the growth centre concept long after some academics have attempted to retire the concept. Attempts to reinvent growth centre policies with a specific economic orientation can still be appropriate, provided that these ideas are allowed to develop within the constraints and context of a particular country (Hansen *et al*, 1990:285). Little has also been done to put the strategy into effect on economic grounds, rendering these growth centres as mere centres on paper.

However, much in line with the purpose of this study, Richardson (1978a:151) argued that growth centres which are directly linked with the primate city as well as with smaller urban centres within the region, form the critical nodes for diffusion of economic development, social change and for national spatial integration. Growth centre strategies are, therefore, more a way of thinking about implicit and explicit spatial planning than a precise methodology (Renaud, 1987:65).

In the same vein as the growth centre strategy, Stern (1985:7-9), suggested the development of a growth region as a policy option. The growth region differs from the growth centre mostly in terms of the allocation of resources, which in the former case is channelled only to several nodes in the urban periphery. According to Stern (1985:8), growth regions can be manifested as decentralised regions encouraging the expansion of the metropolitan field. A linear growth region can also be established with development along national axes penetration into the inter-metropolitan periphery.

The implementation of the growth centre approach in attaining spatial goals is usually manifested in terms of the following concepts.

3.3.1.1 Countermagnets

A countermagnet strategy requires the strengthening of one or two major cities at a considerable distance from the primate city, with the idea of building them as competitors to the primate city especially for industry and migrants. The specific location is not critical provided that the primate city and the countermagnet are at least "... several hundred miles apart" (Richardson, 1977a:54). Such a policy of decentralisation implicates the government interfering with the natural process of concentration or centralisation, i.e. a *laissez-faire* approach (Du Pisanie, 1980:39). The theory behind planned decentralisation is based on the presumption that there is an ultimate city size. If growth was further stimulated, the city would operate less efficiently (Lo & Salih, 1978:260-261, Gordon *et al*, 1998:1053). Unfortunately, no agreement can be found as to the size levels at which such diseconomies start to occur (Prescott & Lewis, 1975:203; Suarez-Villa, 1988:8), if they occur at all¹⁴.

The key element in countermagnet strategies is the idea of using a form of polarised development to combat polarisation forces of the primate city. It is therefore representative only of a certain type of decentralisation policy. A disadvantage of this approach is the danger of replicating elsewhere the negative aspects of polarisation observed in the primate city (Richardson, 1981:274; Richardson, 1984:283). Another disadvantage is that countermagnets are rarely found where they are needed. Countries with candidate countermagnets (such as Colombia, South Korea, and the Philippines) tend to have reasonably balanced national urban hierarchies, while countries with very primate city size distributions (such as Thailand and Peru) have no suitable cities large enough to become an effective

14 An opposite view has also evolved, indicating that productivity even increases with city size (Alonso, 1975b; Richardson, 1977a; Richardson, 1989). These scholars have argued that increasing primacy is associated with faster economic growth (Mera, 1973; Ingram, 1998), a theory that has found widespread support in especially developed countries like the United States (Shefer, 1973).

countermagnet (Richardson, 1987a:217). The development of Brasilia can be indicated as a successful example, while the development of Islamabad and Taxila in Pakistan similarly led to the creation of a third metropolitan region in the country (Richardson, 1977a:54).

Richardson (1977a:58) concluded that the countermagnet approach implies the relative neglect of much of the country, and therefore needs to be accompanied by complementary measures such as the improvement of the rural settlement pattern. Also, a countermagnet approach makes little sense unless it is regarded as being only an early phase in the construction of a spatially integrated national urban hierarchy.

3.3.1.2 Intermediate-sized cities

Intermediate-sized, or secondary cities can be defined as those cities in the hierarchy of towns and cities of a country that function as cores within territorially organised sub-national regions, but being subordinate to the core regions within the national spatial area (Bos, 1990:21). This approach involves the promotion of a limited number of intermediate-sized cities where economic development potential is a key criterion in determining which cities should be selected. It represents an efficiency-oriented policy that retains a decentralisation element (Richardson, 1981:275). Stöhr (1972:75) argued that a "... simultaneous spread of development over the entire country usually appears unfeasible, and so the creation of new growth centres outside the few developed areas is often looked at as the best strategy for reducing geographic duality. The underlying rationale is to make use of external and scale economies and to promote urbanisation and industrialisation in intermediate-sized cities".

It is important to distinguish intermediate-sized city strategies from countermagnet strategies. The former is not primarily concerned with the attraction of large-scale industry to generate regional development. Instead, they focus much more on indigenous development, which implies much more attention to measures that stimulate small-scale industry and the informal sector. Since these intermediate-sized cities are often service

centres of a high order to the surrounding rural hinterland, the strategy also implies attempts to strengthen urban-rural linkages via the development of agro-based industries and expansion of the production of agricultural inputs originally (Okafor, 1985:144). Because of their existing size, experience has also shown that these cities relieve some of the congestion found in metropolitan regions by attracting migrants who would have moved there (Hansen, 1981a:113).

In terms of infrastructure, an intermediate-sized city strategy gives equal attention to social infrastructure and industrial infrastructure, rather than being biased in favour of the latter (Egan & Bendick, 1986:217). Because the development of growth points or countermagnets are usually biased toward the manufacturing sector, these differences suggest a stronger orientation to welfare improvement and equity considerations in the case of intermediate-sized city strategies. According to Rondinelli (1983:197), each country must fashion its own unique strategies for generating a "... strong, widely dispersed, and spatially-integrated system of secondary cities. The objectives of promoting more balanced urbanisation and greater equity in the distribution of benefits do not imply that all secondary cities must be developed simultaneously or that national resources must be distributed equally among them".

Because financial constraints usually dictate only a few designations, this strategy alone is unlikely to influence a strongly primate economy. Although this approach would help to promote a modest degree of development outside the core regions, it is suggested that it needs to be combined with other strategies for maximum effectiveness (Richardson, 1981:275). Hansen (1972:279) concluded that the most efficient use of public funds is to encourage the growth of intermediate-sized cities, especially those that have already given some real evidence of possessing growth characteristics. Intermediate-sized city strategies have been implemented in countries such as Denmark, France, Japan, Sweden, United Kingdom and the United States. Incentives include relocation allowances paid to workers who moved from areas of high unemployment

to areas where jobs were available, housing and industrial location subsidies, as well as preferential state subsidies.

3.3.1.3 Provincial capital

The promotion of the subnational capitals in a province or state, usually results in a much more dispersed strategy because most countries have a large number of subnational political units. Such an approach is generally associated with measures to strengthen subnational planning and to promote administrative decentralisation. This development option could prove inefficient, since at least some of the provincial capitals usually lack development potential (Richardson, 1981:275). This approach usually requires the promotion of a large number of urban centres, resulting in infrastructure allocations more or less proportional to population size in the relevant centres. Its eventual outcome is not dissimilar to those of market forces, with the significant difference that it attempts to reduce the bias in favour of the primate city.

The development or relocation of a provincial capital has been tried in countries like Brazil, Pakistan, and South Korea, with limited success (Richardson, 1981:278). Most developing countries lack the administrative and planning personnel needed to promote so many cities. Additionally, political commitment, bureaucratic co-operation and technocratic assistance from the top-down are the *sine quo non* of effective decentralisation of administrative functions. Co-operation from traditional leaders in developing countries and district governments from the bottom-up is also of essence in this approach (Riddel, 1987:213). Thus, for the effective implementation of this decentralisation strategy, co-operative technical support and the material assistance of central government are as vital to success as local enthusiasm.

3.3.1.4 Local economic development

Over the last decade, local economic development has been central to political and developmental issues in most cities in the developed world - especially in the USA. Local economic development is essentially a

bottom-up, self-selection approach to economic and employment development. It complements top-down national and regional policies while creating opportunities for local initiative and enterprise. Local economic development assumes that people in the local community can take responsibility for the economic development of their own community, while playing a vital role in identifying future opportunities and shaping their own destinies (DPB, 1996:2; DPLG, 2000:1). Along with this new centre of gravity has gone a decisive shift in explanatory horizons - urban politics has become 'globalised' and stands in contrast to the city-centred analysis of previous community debates (Rothblatt, 1994:502; Cox, 1995:214). Now the fundamental condition is a political space-economy, at national and even international levels. The choice of location for business is seen as having become a major concern for municipalities. With the greater mobility of people and economic activities, cities are increasingly competing with one another for investment (Hamel & Lustiger-Thaler, 1997:365). The roles of cities are being defined in terms of other similar cities within the borderless global economy, rather than as local economies within a closed national economy. Cities are therefore new arenas for economic competition and have to position themselves in terms of the new spatial divisions of labour (Levy, 1998:368; Martin, 1998:233). Consequently, there is a heightened interest in the spatially discriminatory policies of local and regional governments.

On metropolitan level, local economic development initiatives have led to increased competition between local authorities for major shopping malls; the resuscitation of Central Business Districts through public investment in convention centres and enclosed shopping malls; increased competition for airline hubs as a stimulus to attracting corporate headquarters; and conflicts over the funding of these projects (Cox, 1995:214). This relation to a more global space economy is seen, from the standpoint of cities, as a competitive one. Cities compete with one another for investment. This competition is necessary since within cities there are a number of economic interests which are significantly place-bound and which

therefore depend on the health of not just any urban economy, but the health of their particular one. These interests, usually constituting 'communities', include not only workers but also businesses like the local newspaper and local governments, which depend on local tax bases.

Local economic development also provides considerable leverage to the potential investors. This leverage stems from their mobility and so their power to play one city off against another. Consequently, cities offer all manner of incentives to major, and not so major, corporations to bring their plants, offices, and warehousing facilities to their respective communities (Cox, 1995:215). These concessions may include tax abatements, the provision of physical infrastructure (Direct Productive Activities) like sewer-line extensions, new freeway interchanges, and more general facilities like convention centres and airport expansions aimed at making the city more attractive for certain types of investment.

A positive result of this process of attracting potential investors, is a reduction of internal political competition in an effort to achieve more focused planning and implementation strategies. It has, however, also resulted in public decision-makers bowing to economic development needs defined by real estate developers, while often neglecting community concerns (Birch, 1996:442). Thus, even if such cities have a central business district or industrial park requiring enhancement, the city is also founded on a system of neighbourhoods whose calls for attention are also part of the democratic planning process. The general picture, therefore, is one in which there is significant redistribution of mobile businesses to immobile communities.

3.3.2 Development axis

Although not a development policy in itself, the development axis is often found as an instrument in aid of regional policy. The development axis could predominantly be linked to the growth centre approach, compensating for the limited viability of individual growth centres by stressing their mutual reinforcement when two points are located at the end

points of a development axis (Richardson, 1987a:217). Friedmann (1966:xv) described the development axis as a type of upward-transitional area connecting two or more core regions. The intensity of corridor development tends to be directly proportional to the product of the core region economies and inversely proportional to the distance separating them.

Geyer (1986:120) indicated that a development axis must possess the following attributes to be regarded as such:

- (i) It must at least have a primary development centre at both ends with a communication axis linking the two centres - the term 'primary' referring to each centre's economic dominance as compared to that of secondary centres within a development axis system.
- (ii) The development centres on the axis must be mutually dependent in order to support communication on the axis.
- (iii) Interaction on the axis must create potential for further development.
- (iv) The axis must be growing physically and economically.

It could, therefore, be said that the purpose of a development axis is to reduce transport costs along a given route function in much the same way as agglomeration economies, i.e., stimulating economic activity through lower production costs (Richardson, 1987a:217). Several examples can be found where the development axis was implemented in the urban and regional development process, i.e. axes connecting Paris with certain new towns were identified in order to facilitate polycentric city growth (Hall, 1984:80); while in Copenhagen the development axis concept was used to decentralise development along "fingers" in all directions from the metropolis. These towns were also connected to the centre and each other by means of a rapid-transit line (Blumenfeld, 1972:76; Hall, 1987:245). According to Bos (1990:191), priority needs first be given to the development of development axes between the metropolitan region and adjacent intermediate-sized cities in order to develop a functional system of cities.

3.3.3 Hybrid policies

Some of the above-mentioned policies and instruments could surely complement each other, implying that there is a definite case for hybrid policies (Richardson, 1981:276; EC, 1997:54; Arndt *et al*, 2000:1918). Polycentric development of the primate city region in developing countries could easily be combined with one of the dispersion policies such as small town and intermediate city development. It may also be possible to combine two of the growth centre policies, for example, countermagnets and intermediate-sized city development. Its viability depends on specific features of the spatial structure of the relevant economy in question as well as resource availability. The effectiveness of such a hybrid policy depends on available investment resources and upon how these are distributed between the two components. The appeal for such a hybrid may be its feasibility, especially in developed countries with market-oriented economies where the private sector is dominant in location decisions (Richardson, 1981:276). Its drawback may be a modest role, especially in the short run, for the designated cities or growth centres located in the peripheral regions.

3.4 Key elements of regional policy

On a lower tier of regional policy, some basic elements, usually part of a specific policy instruments (e.g. growth centre), can be identified. Although numerous examples have been experimented with in the last decades in different parts of the world, they can basically be reduced to the provision of socio-economic infrastructure, incentives, and restrictions on development in specific locations. The following elements serve as bases due to their frequent use and wide application in both developed and developing countries (EC, 1997:54).

3.4.1 Physical and social infrastructure

The standard growth theory determines that economic growth is a consequence of increases in the inputs of either labour or capital, or both. Econometric estimates using production functions confirm for both

developing and developed countries, that the link between economic growth and infrastructure investment is positive and statistically significant (Cholanovich, 1961:213; Maggi & Nijkamp, 1992:29; Heymans, 1998:274). This assumes that the public sector lays down the basis of economic activity in accordance with agreed regional development objectives. Government usually expects that the private sector will subsequently respond to these stimuli by shifting investment and reorganising the spatial distribution of functions. Studies in 65 countries revealed that in developed countries, the rate of return to public infrastructure¹⁵ investment was 12 per cent in the period between 1970 and 1993. The rate of return in developing countries is significantly higher, ranging between 20 and 31 per cent.

The availability of a developed and diversified physical and social infrastructure is most often the key to new urban development (Chatterjee, 1983:17; Kwon & Lee, 1997:393). The existence or absence of the 'right' infrastructure often influences the decisions of producers and consumers about where to live or work, what to produce and also whether to produce. This in turn affects the ability of the economy as a whole to adjust to external shocks (Heymans, 1998:34). Urban areas, and especially major cities, invariably offer more and better facilities than their rural hinterlands, and afford superior education and training, for the migrant's children in particular. Piped water assures clean water and releases women from the work of fetching water over long distances. Electricity replaces the kerosene lamp and open fire, while some migrants even move into subsidised housing. Even though some migrants may be worse off than where they came from, most enjoy more amenities than those who stayed behind (Gilbert & Gugler, 1990:52; Behrens & Hawrenek, 1991:142). The financial burden of some population shifts on government thereby increases, especially in developing countries.

15 This includes social and economic infrastructure.

It has been shown by Richardson (1987a:229) that urban shelter and service costs per capita are approximately three times more costly than rural shelter and service costs. He indicated that in Pakistan, the combined total of shelter and service costs and job creation costs per capita are six times more expensive in urban areas than in rural areas. Although these results might suggest that maximising the rural population as a share of the national population, is an effective means of saving on public infrastructure like shelter and service costs, there are obvious constraints on how far such a strategy can be pushed. Savings from spatial decentralisation in terms of infrastructure costs, are significantly less than the potential savings from intrasectoral policy reforms, such as standards reduction. Policies that favour rural rather than urban absorption, on the other hand, can generate major savings on shelter and service costs. The policy implication is that spatial policies that influence the city size distribution cannot be justified in terms of shelter goals alone (Richardson, 1987a:230).

An emphasis shift occurred in the 1990s. According to Peck (1996:329), many new elements have challenged the simple linear model of the relationship between infrastructure and regional development. In particular, it overlooks the potential, in certain situations, for the end-user to influence the development of infrastructure. This produces a situation where infrastructure developments are not only designed to meet regional development criteria, but also where the outcomes are negotiated between the providers of infrastructure and certain types of end-users.

In some situations, public infrastructure is not only subject to criteria associated with regional policy goals, but it is also part of a political process occurring in a local area involving negotiations between firms, regional agencies, and local authorities involved in the production of customised space (Peck, 1996:336). The role of growth coalitions in local and regional developments is therefore relevant. It has been observed in the United States that local businesses have formed partnerships with local state institutions and private and public utilities to promote forms of local

economic decentralisation which serve their collective interests. Representatives from Congress are the major practitioners of economic development planning because they appropriate funds for public infrastructure and other public works. In Congress, these representatives work together for their respective states and regions regardless of party distinction (Markusen, 1994:9). The degree of government involvement in directly productive activities, therefore, varies among countries according to their political system and level of development and ideology (Richardson, 1984:273).

Therefore, according to Peck (1996:337), traditional views of the role of infrastructure in the attraction of investment need to be challenged. Public investment in infrastructure may create the initial basis for economic activity, but some forms of expenditure can become "... individualised and exclusive" to a very narrow range of users. On the other hand, large investors can exercise considerable control over the physical environment. Private investors may be interested, not only in the general upgrading of infrastructure of a region, but also in the degree to which they can exercise control over their present and future development. Their ability to achieve this depends, in turn, on the extent to which local authorities can use their influence in the region and their access to public funds, to produce and continue to produce an environment that is compatible to the requirements of the investor (Peck, 1996:329; Armstrong & Taylor, 2000:300; Hall & Pfeiffer, 2000:150). This implies that infrastructure is much more than just a physical surface constructed through public investment to meet regional objectives - it becomes an arena within which power and control can be exercised in defining the use of space. It is on these terms that infrastructure can play a significant role in determining the regional distribution of new investment.

3.4.2 Grants, loans and tax incentives

Grants, loans and tax incentives are often used to support sectoral development in the less developed areas (Levy, 1998:368; Mouqué, 1999:57; Hall & Pfeiffer, 2000:150). The use of financial incentive

schemes to induce the relocation of firms is a practise that has been used in both developed and developing countries for many years. Common defects of this approach include poor locational choices as areas of promotion; incentives that are either too weak to induce relocation or so expensive that they drain government treasuries; restrictions on eligible industries that impede growth in lagging areas; and heavy reliance on discretionary decisions that open the door to widespread corruption.

For this approach to be implemented successfully, taxes and subsidies should be used in conjunction with each other in a self-financing tax subsidy scheme which avoids any net fiscal cost to the government (Richardson, 1987c:242). These incentives are preferable to direct controls on industrial location, especially in developing countries where these controls are sometimes easily evaded. The impacts of direct controls are also difficult to measure since firms may be deterred from starting up rather than being forced to choose an inferior location (Richardson, 1984:273).

Subsidies could be used to overcome the initial disadvantages of high-potential urban locations, rather than attempting to attract firms to remote regions with limited prospects of success. Taxes on new development in the primate city, core region and other major metropolitan areas may be justified as compensation for the increased external diseconomies created in congested locations. The combination of employment subsidies and investment taxes is also most favourable from the point of view of job creation (Richardson, 1987c:243). Incentive schemes with very broad lists of eligible industries increase the number of participants and avoid kickbacks and other means of bribing officials. The Regional Industrial Development Programme of South Africa, for example, currently makes provision for a two year initial establishment allowance, and, for the following four years, an allowance based only on profits and capacity building (DTI, 1996b; Rogerson, 1994:181).

3.4.3 Direct restrictions on economic development

Disincentives, designed to limit economic growth in certain areas are, in general, less common than incentives. Disincentives that are directed towards employment organisations usually do not occur as outright legal bans on development in specified locales (Hall, 1974:126-132; Fuchs & Demko, 1981:74). They tend to limit the extent of such development by discouraging further development in areas perceived as 'congested'.

Disincentives directed towards individuals are few and even when promulgated, they may prove legally or administratively unenforceable (Fuchs & Demko, 1981:74). Included in these individual-directed disincentives is special utility or tax surcharges for residence in congested areas, zoning practices designed to limit population growth and discriminatory treatment of non-residents to discourage in-migration. The restriction on in-migrants to designated locations is designed to control the growth of certain centres and to stimulate growth in the designated locations.

3.5 Timing of implementation

Given the wide use of regional policy, the effective implementation of regional policies is crucial in terms of the timing of implementation. In the early stages of a country's economic development, spatial policies are likely to be ineffective. This is mainly as a result of the few alternatives to the dispersed rural population, and the high degree of urban concentration in certain primate cities (Richardson, 1984:263). Plans promoting industrial decentralisation or the growth of intermediate sized cities are likely to waste scarce investment resources.

Richardson (1987a:209) maintained that spatial policies are much more likely to be effective at intermediate stages of development. These phases commence when regional markets begin to cross scale economy thresholds, pecuniary diseconomies and congestion costs emerge in the primate city, and polarisation forces show signs of spontaneous weakening. Although in some cases this may be influenced by policy

measures, in general, these trends appear to be spontaneous. In certain developing countries, intermediate-sized cities are already growing faster than the primate city. The primary question at issue is whether policy-makers should give deconcentration a push, how big, and when (Richardson, 1977a:61). Hall (1987:242) indicated that empirical evidence seems to suggest that the decentralisation from the first order city may come somewhat earlier than the accelerated growth of second order cities.

According to Bos (1990:80), these two processes may even overlap in time. The first priority should, therefore, be to promote the orderly deconcentration of the metropolis, the second to promote the early development of selected second-order cities, and the third to promote spread effects into their rural and small-city hinterlands. The deconcentration process could further be divided into two processes in order to facilitate orderly metropolitan growth. The first phase in the deconcentration process could be aided by means of 'guide plans' that guide metropolitan sprawl along the development axes emanating from the metropolitan region. The second phase implicates guidance of the deconcentration process to intermediate sized cities, adjacent to, or within the daily urban system of the metropolitan region. A third phase of deconcentration, refers to the development of intermediate-sized cities in the periphery (Bos, 1990:80).

The deconcentration of firms to the periphery on its own accord, calls for an enabling environment from the government. The provision of industrial estates, infrastructure investments or relocation subsidies, figure among policy alternatives which could be considered at this stage of development. In short, the time of implementation of a chosen development policy must be in accordance with the development status of the region or country, and preferably of such a nature as to strengthen existing or predicted trends.

3.6 Conclusion

From the previous chapter it is clear that a confusing array of development policies and instruments exist through which governments have tried to restructure imbalances in their regional economies. In the previous chapter, an attempt has been made to identify explicit regional policy, firstly in terms of the policy's main goals, and secondly in terms of the application process (see Sections 2.3 and 2.4). Because of the confusion that exists in terms of this type of policy, it is further described in this chapter in terms of its implementation character. Accordingly, it was proposed that four main types or policy options can essentially be recognised. This includes a do-nothing or *laissez-faire* policy, a policy to slow down metropolitan or primate city growth, a small town or intermediate sized city development policy, and lastly, a rural development policy (see also Richardson, 1984). The policy options need not be implemented in isolation and in some instances serve to compliment each other.

When the need for explicit regional policy has been established, and the main goals, processes and policy options have been decided upon, it needs to be enforced at the appropriate level. During the implementation phase of regional policy, several regional planning instruments are available to the relevant government or institution. The primary instruments described in this chapter refer to growth centres

Growth centres are probably the instruments that have been used most actively since the last World War. It has been used in many disguises throughout the world, but the main manifestations include countermagnets, intermediate-sized cities, provincial capitals, and localised economic development initiatives. The second main instrument described in this chapter is the concept of development axes or corridors, which mainly connect the relevant urban centres in the regional space. As in the case of regional policy options, these instruments are usually also used in support of each other. This combination of instruments is referred to as hybrid policies (see Richardson, 1981), and usually includes so-called 'best-practices' for a specific region or economic sector.

At the grass-roots level, regional policy is implemented by means of certain key elements that also differ from region to region, as seen in section 3.4. The three main categories that usually manifest itself at this level refer to the provision of social and physical infrastructure¹⁶, or alternatively to provide for various financial support packages. The latter usually refers to tax holidays or incentives for specific sectoral or infrastructural developments, while the former usually provides for engineering services and social amenities. Even though these policy elements normally encourage new development or redevelopment projects, it can also include restrictions placed on specific sectoral or locational developments. South Africa is a good example. Metropolitan areas have been the focus of several regional policies that discouraged new industrial development, while simultaneously providing infrastructure and financial incentives for such development elsewhere (see Chapter Four).

The implementation of regional policy has to be phased in according to the evolution of the urban system (see also section 5.4). Regional policy, it seems, is most effective when certain agglomeration forces have developed and congestion costs appear. Therefore, it has to enforce existing or expected trends of migration and economic development. From the following chapter, it is clear that these prerequisites for policy implementation played little, if any role in South Africa and the Gauteng functional metropolitan area.

¹⁶

Refer to Hirschman's (1958) direct productive activities (DPA).

CHAPTER FOUR

4. REGIONAL POLICY IN SOUTH AFRICA

4.1 Introduction

It is the aim of this Chapter to look into the history of regional policy in South Africa, with specific reference to Gauteng and the surrounding area (functional metropolitan area). In the previous chapters an attempt was made to define regional policy in its basic theoretical context, while possible policy options were discussed in Chapter Three. This chapter concludes the section on regional policy by providing an overview of regional policy in South Africa and Gauteng since the Second World War.

The Chapter will emphasise the regional policies influencing the development of the urban system as implemented in South Africa since the Second World War. Regional planning has been central to the implementation of apartheid in South Africa since its inception in 1948. Industrial and social goals were engineered within a distinctive set of regional policies to achieve the political ends of apartheid. In the following section, the emphasis will be on the specific policies relating to the evolution of the South African urban system, i.e. the eventual slowing down of primacy and the deconcentration of economic and social activities. The growth centre concept formed the cornerstone of regional policy, especially with regard to the industrial development policy. Certain basic points of departure, however, rendered the South African situation unique among other countries. These will be highlighted throughout this chapter.

4.2 Regional policy in South Africa (1948-1994)

The main pillars of regional policy in South Africa have always been the development and deconcentration of the industrial sector. This remained the main focus of this type of policy until the early 1990s, when the

smaller industries and the tertiary sector were also added to national policy.

4.2.1 Industrial development

Although industrial development received some attention in terms of grants and establishment incentives, it was only after 1948 that a policy of decentralisation became official. The need to support industrial development was first identified with the establishment of the Industrial Development Corporation in terms of Act 22 of 1940 (IDC, 1974:7).

When the National Party came into power in 1948, it gave way to a new direction in development, i.e. development based on principles of racial segregation. The Tomlinson Commission (Union of South Africa, 1955) was appointed to conduct an enquiry into a possible framework for the socio-economic development of the homelands or 'black reserves', with the intention to maintain the social structure and culture of the blacks in these homelands. In an attempt to find a suitable method to stimulate economic development in the homelands, the Commission recommended that industrial development centres should be established both in the border areas as well as within the homelands, but preferably deep in the interior (Houghton, 1956:41; DFAI, 1982; Pretorius *et al*, 1986a:37). However, this recommendation was rejected by the government in favour of a minority report supporting the option of industrial development under white supremacy near the homeland borders, but on the white side. The government was convinced that the development of white industry near the homelands would provide necessary employment to a sufficient number of population living in the homelands to establish the tertiary activities which would allow the desired number of the population to remain there (Nieuwenhuysen, 1964:18; Pretorius *et al*, 1986b:238). It was also argued that if industrial development on a black-white partnership basis was allowed within the homelands, there would be no grounds to prevent similar partnerships within the white area - a policy believed to be counterproductive to the concept of Apartheid (Geyer, 1989c:380).

The government was convinced that industrial development of the border areas was the most promising solution to the problem as to how to bring about development in the backward homelands (Palmer, 1980:36; Bell, 1987:208; Pickles, 1988:233). It was argued that, taking the employment opportunities to the areas where labour was readily available, as well as housing, water, power and transport, was preferable to bringing labour to existing industrial agglomerations where all these facilities had to be created at very high cost (Kotzenberg, 1973:142). The diversion of industrial growth from the metropolitan areas was therefore justified by this policy in order to develop and encourage new development, in the homelands (Prins, 1975:31, Du Pisanie, 1980: 47). In 1959 the Natural Resources Development Council (NRDC) was instructed by the government to identify suitable areas for industrial development near the borders of the homelands.

4.2.2 Deconcentration policy

A decentralisation policy¹⁷ was made official in 1960 with the implementation of the border region programme (Kleu Report, 1983:17). Between 1960 and 1970 the Committee for Industrial Establishment was founded with the task to identify growth points adjacent to the homelands. In the then Prime Minister's blueprint on border area industrial development in South Africa, certain growth points were identified within these border areas. These industrial border areas were defined as "... those localities at regions near the Bantu areas, in which industrial development takes place, through European initiative and control, but which are so situated that the Bantu workers can maintain their residences and family lives in the Bantu areas, and move readily to their places of employment" (Verwoerd, 1960:6).

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The term deconcentration in international planning literature and the South African context is not necessarily similar. Locally, the term deconcentration mainly refers to movement from core areas to other areas within the daily urban system, while decentralisation refers to movement from the metropolitan region to the more rural-oriented regions, i.e. the intermediate and peripheral regions.

Incentives for industrial decentralisation compensated the entrepreneur who settled at one of these points. These incentives compensated for the lack of locational advantages, markets and agglomeration advantages in these border areas, compared to the four metropolitan regions of the country. The incentives included reduced income tax, the option to rent or buy fully furnished factory buildings, loans to buy buildings and land with no or low interest rates, the provision of basic services such as water and electricity as well as financial assistance for the provision of houses to white personnel (Kleu Report, 1983:17-18).

In 1969 this incentive programme was extended to areas which did not necessarily have a labour surplus, but were believed to generate more balanced growth in the country as a whole. In the same year for the first time, whites were allowed to operate industries in the homelands on an agency basis.

Apart from the above-mentioned decentralisation strategy, a distinction was also made between decentralisation to the far-off periphery and decentralisation to the metropolitan fringes (deconcentration). Being a spontaneous process, it was indicated that the latter type of decentralisation should be welcomed when it occurred, as the former strategy was more difficult to implement successfully (Union of South Africa, 1959:56). According to the report, deconcentration points could still utilise agglomeration economies of the metropolitan region without exerting more pressure on the metropolitan infrastructure. Although deconcentration points were identified, i.e. Brits, Babelegi, and Rosslyn in the Gauteng region (Kleu Report, 1983:270), and their development potential realised, the decentralisation strategy still favoured the 'border areas' (decentralisation points) in terms of financial incentives. Some of the deconcentration points (for example Rosslyn in the PWV-region) were even dropped from the list of places receiving concessions, as further financial assistance was deemed unnecessary (DOI, 1971:15-16).

Complementary to the incentives for the decentralisation of industry, the Physical Planning Act¹⁸ was established to regulate the construction and extension of factories (88/1967). In order to contain the inflow of blacks from the homelands into the main industrial centres and in order to speed up the process of industrial decentralisation and to ensure planned development, Section 3 of the Physical Planning Act provided that, without the prior approval of the Minister of Planning and the Environment, new factories might not employ any blacks, and existing factories might not employ any additional blacks in excess of the numbers employed on the 18th January 1968 (Fair, 1974:94; Prins, 1975:32-33).

In an official declaration in 1971 (DOI, 1971:6), the policy of decentralisation of industry to border areas was reaffirmed. It was still regarded by the government as being the most effective instrument to stimulate development inside the homelands, but in addition, it was then also regarded as a means to counterbalance industrial development in the major industrialised areas of the country (Tomlinson, 1988:2; Geyer, 1989a:255). In an effort to continue co-ordination of industrial decentralisation, the Committee for Industrial Establishment was restructured to form the Industrial Decentralisation Board.

The decentralisation policy in South Africa, in contrast to most other countries, was evidently not the result of external economies in the primate cities or an instrument for a more balanced spatial economy, but an instrument used primarily to facilitate socio-political objectives.

4.2.3 National Physical Development Plan

The politically motivated decentralisation policy which became official in 1960, was once again echoed in an official policy document in 1975 (DPE, 1975). In the first National Physical Development Plan of South Africa, numerous growth points were again identified, this time through the Decentralisation Board. This plan contained various planning instruments aimed at the arrangement of physical development in South Africa

18 Act 88 of 1967, which later became the Act on Environmental Planning (Act 73 of 1975).

according to specific development and political ideals (Geyer, 1989a:255-256). Fair (1975:130) divided the report into two parts. Firstly, a growth centre strategy was proposed in order to obtain more balanced spatial poles. Secondly, a proposal for a framework that divided the country into 38 planning regions. The National Physical Development Plan could therefore be regarded as the overall framework through which the decentralisation policy was implemented (Bos, 1987:257; Visagie, 1987:41).

For the purpose of this study, however, attention is focused on specific aspects in the spatial application of the growth centre strategy in the development plan. Distinction was made between 'main towns', 'growth points', 'growth poles' and 'planned metropolitan areas' (DPE, 1975:15). 'Main towns', 'growth poles' and 'planned metropolitan' areas were mainly regarded as nodal points focused on regional development in the 'white' areas, while 'growth points' were mainly aimed at the development of the homelands (see Figure 4.1). The 'main towns' would, according to the plan, serve as intraregional economic and administrative centres, while 'growth poles' and 'planned metropolitan areas' were aimed at development in the 'white' areas, but were of a higher order than the 'main towns' (Geyer, 1989a:256). These points provided a basis for the development of growth axes which was seen as an instrument with which economic development could be directed away from the metropolitan regions.

It is, however, the growth poles that are of special interest to this study. They were defined as towns or urban complexes with vested growth potential and could therefore be developed further without many incentives. These growth poles also had to be situated far enough from the metropolitan regions in order to develop independently (DPE, 1975:18). These growth poles were identified with the primary objective of extending the existing infrastructure in order to stimulate industrial development (Du Pisanie, 1989:2). The following towns/cities were identified as growth poles: Pietersburg, Rustenburg, Middelburg, Witbank, Potchefstroom, Klerksdorp, Utrecht, Ladysmith, Bloemfontein, Kimberley,

and George. Significant in this respect, however, is the fact that five of the eleven growth poles were situated adjacent to the Gauteng region (Rustenburg, Middelburg, Witbank, Potchefstroom, and Klerksdorp) (DPE, 1975:18).

In the designation of the growth points¹⁹, however, development indicators such as population distribution, labour requirements, market characteristics, and economic potential in the homelands were totally disregarded by the compilers of the plan, which to a great extent ridiculed the inclusion of growth points (Coetzee, 1986:381). Apart from the political injustice of this policy, it had distinct socio-economic disadvantages. Firstly, it disregarded industrial development potential and population distribution patterns within the homelands. Secondly, the competitive disadvantage of these black communities would make it extremely difficult for black entrepreneurs to start their own undertakings in these dormitory towns. Even if they did succeed, this would lead to an unnecessary duplication of urban areas, i.e. two urban centres juxtaposed, one on either side of the boundary serving an area which otherwise could have been served by one centre only (Geyer, 1989c:382).

It was also recognised that the black labour force in these rural areas did not suit the labour requirements of technically advanced industries that were often associated with the growth centre concept (Geyer, 1989c:382). Furthermore, the educational backlog seemed to be too great at that stage to expect it to advance to levels ideally suiting these labour requirements in the immediate future.

As seen in Figure 4.1, many of the officially proclaimed industrial points in South Africa are located in sparsely populated areas as well as in the peripheral economic space of the country. Many studies indicated that the

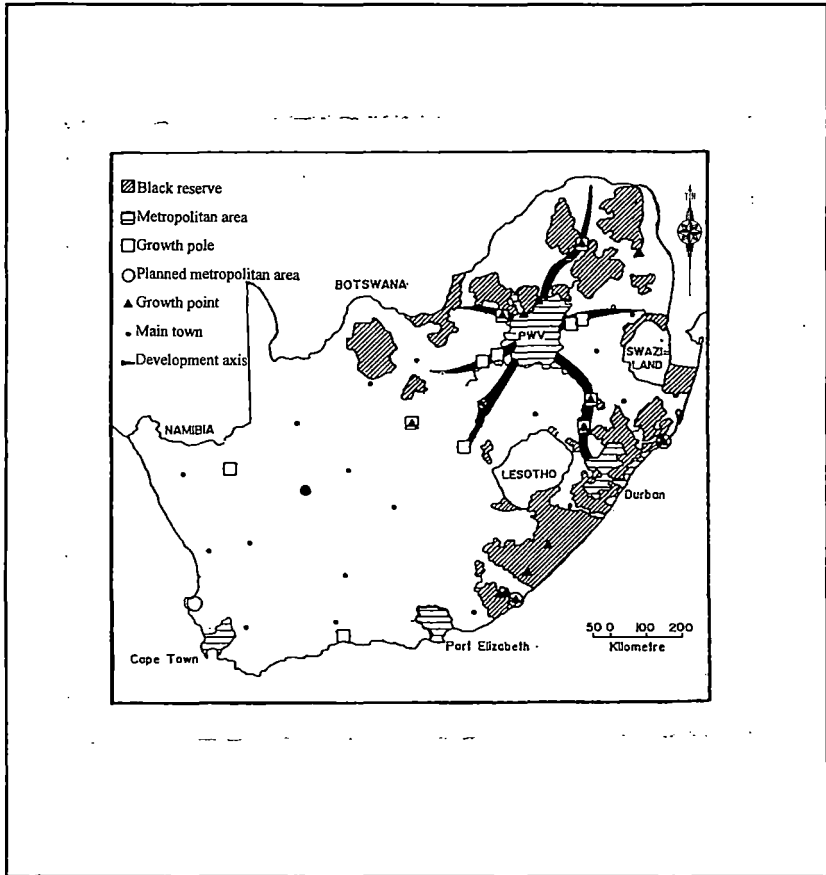
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The specific growth points and the respective Homelands they were situated in, or adjacent to, were King William's Town (Ciskei), Blaney (Ciskei), East London (Ciskei), Butterworth (Transkei), Umtata (Transkei), Mapumulo (Kwazulu), Empangeni (Kwazulu), Harrismith (Kwazulu), Newcastle (Kwazulu), Rustenburg (Bophuthatswana), Brits (Bophuthatswana), Bolele (Bophuthatswana), Potgietersrus (Lebowa), Pietersburg (Lebowa), and Phalaborwa (Gazankulu). Kimberly, which was identified as both a growth point and growth pole, is not situated close to any Homeland.

development of sparsely populated areas should take place in stages, emanating from a strong economic core. Efforts to 'plant' a growth point away from a national or regional economic core, unless it has unique unexploited locational advantages, often proved to be fruitless (Stern, 1985:5; Bloch, 1989:147). Rondinelli (1983:219) confirms this statement by concluding that the "... creation of isolated industrial 'growth poles' in rural regions of a developing country is not sufficient to stimulate widespread economic growth in rural areas or to spread the benefits of urbanization equitably throughout a developing country".

The proposed development initiatives in both instances (growth poles and growth points) have as a primary objective the provision of work opportunities. Industrial development, however, is stimulated in the growth points by means of financial incentives, while it is stimulated in the growth poles by means of extended infrastructural development (Bos, 1987:261).

Figure 4.1 *The National Physical Development Plan of South Africa, 1975*



Source: DPE (1975)

Geyer (1979:271a-271b) also indicated that no development axes could develop over such long distances without another major core at the end of each. Efforts, however, to develop growth centres closer to the metropolitan region, such as Rustenburg, Witbank-Middelburg and Klerksdorp-Potchefstroom would result in the overall strengthening of the

PWV-region and its environs (Fair, 1975:130). Geyer (1989c:382) concluded that the most important disadvantage of the South African growth centre policy was the "... fact that it is ideologically founded and not based on sound economic principles which are necessary for success".

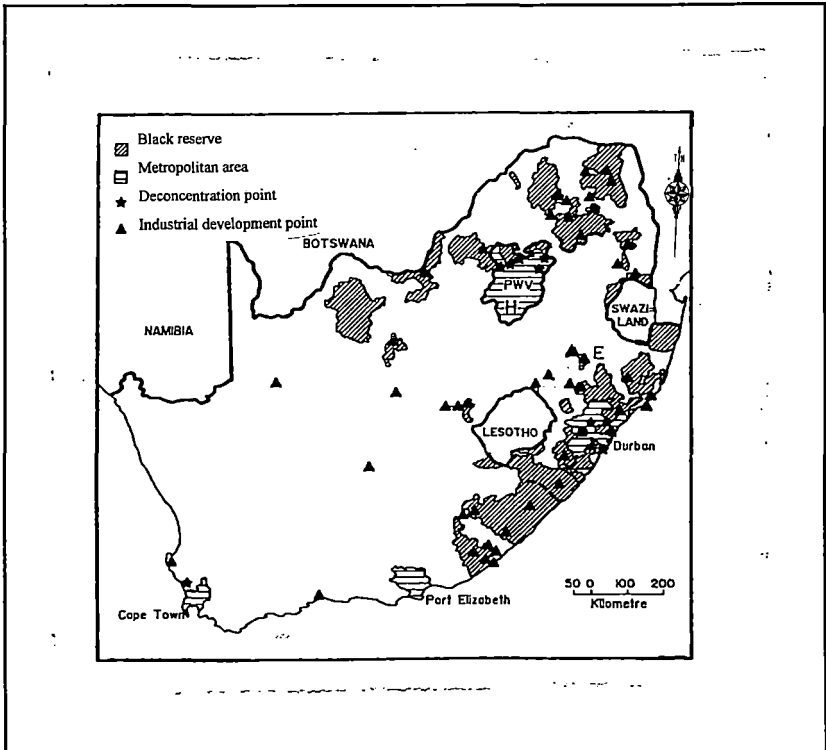
4.2.4 Good Hope Plan

The beginning of the eighties witnessed a marginal shift in emphasis in development thinking away from the extreme practises of white paternalism of the past (Geyer, 1989c:382). After deliberations between the government and private sector, the Good Hope Plan was announced in 1981 (see Figure 4.2). The plan contained a number of industrial development guidelines for the country as a whole, a framework intended to be used by the government to implement its industrial decentralisation policy. Altogether, a total number of 47 'industrial development points' and 11 'deconcentration points' were designated to be developed simultaneously. These 'industrial development points' were defined as "... points where alternative agglomeration advantages could be created to counterbalance the existing metropolis and thus create employment opportunities in the specific regions" (DFA, 1981:72).

The Kleu Report (1983:271) indicated that, for development points to act as nodes that could counterbalance development in the metropolitan regions, they had to fulfil the following requirements:

- They had to be situated far enough from the metropolis to escape its economic influence.
- They had to be situated on the development axes between important economic centres.
- Sufficient infrastructure had to exist.
- A developed core had to exist.
- They had to be located in areas that provide work for the inhabitants of the homelands.

Figure 4.2 The Good Hope Plan of South Africa



Source: DFA (1981)

'Deconcentration points' were identified adjacent to metropolitan regions in order to relieve the pressures of industrial concentration in these areas (DFA, 1981:72). Similar to the National Physical Development Plan, almost all of these 'deconcentration points', as well the overwhelming majority of the 'industrial development points', were located within border areas. Of the seven 'deconcentration points' identified, only Atlantis, which is situated adjacent to the Cape Town metropolitan region, was not located close to any homeland. The other 'deconcentration points' were

Pietermaritzburg (Kwazulu)²⁰, Tongaat (Kwazulu), two points near Durban (Kwazulu), Bronkhorstspuit (Kwandebele), Brits (Bophuthatswana), Babelegi, (Bophuthatswana), Garankuwa (Bophuthatswana), and Ekangala (Kwandebele) (DDP, 1985:15-16). Although these deconcentration points were officially identified as areas of "natural growth" (DFA, 1981A:3), they obviously had the same political connotation as the former border development strategies of the 1960s. The designation of Bronkhorstspuit and Brits as secondary development centres on the evolving development axes between Pretoria and Witbank-Middelburg and between Pretoria and Rustenburg respectively did, however, make sense in the long run (Geyer, 1989a:263).

Although these deconcentration points were situated adjacent to metropolitan regions, these were mostly undeveloped rural areas with little, if any agglomeration economies (Wellings & Black, 1986:37). In addition to the already mentioned 'industrial development points' and 'deconcentration points', *ad hoc* cases were also evaluated according to specific merits. 'Industrial development points' were to receive priority regarding the level of incentives, followed by the *ad hoc* locations, and lastly, the 'deconcentration points' (DFA, 1981:76). The incentive levels in locations nearby, or within metropolitan regions were therefore lower than areas deeper in the periphery.

Apart from their impractical locations from an economic point of view, too many of these points had been identified - a target which did not seem reasonably relative to the means of South Africa's present financial, entrepreneurial, and market capabilities at that stage (Wellings & Black, 1987:186; Geyer, 1989c:384). Incentives had been spread over too many geographical areas with the result that infrastructure development suffered - fewer development points should have been designated in order to provide a higher quality infrastructure development (Brand, 1982:95; Holden, 1990:231). The dispersed pattern of too many growth points also

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The names between brackets refer to the various homelands adjacent to which the deconcentration points are located.

raised doubts as to whether such a strategy could be implemented successfully, especially when taking into account the limited human resources and the ongoing urbanisation trend in this country (Stern, 1985:4; Holden, 1986:287)

In their evaluation of the growth centre strategy in South Africa, Black & Roux (1991:453), also concluded that too many industrial development points were identified and too few capable of achieving rapid industrial growth. The fact that more than 50 industrial development points were eligible for the full range of subsidies meant that the development effort was spread much too thinly to achieve meaningful agglomeration economies. Many industrial development points were chosen for political rather than economic reasons and did not constitute growth centres in the true sense of the word. "... In short, the failure of the decentralisation policy was attributed to an inordinately large number of inappropriately chosen industrial development points" (Urban Foundation, 1993c:57). This argument was repeated by several authors in the past (Brand, 1982:103; Oosthuizen, 1982:87; Kleu Report, 1983:270; Addleson *et al*, 1985:179-180; Maasdorp, 1985:224-225; Pretorius *et al*, 1986:244; Bos, 1989:58-59; Geyer, 1989c:384; Geyer, 1990:385; Holden, 1990:230), and was confirmed by a panel of experts in their final analysis on regional policy in South Africa, stating that there were no international cases of successful industrial decentralisation programmes on the scale²¹ attempted under the Regional Industrial Development Programme (POE, 1989a:139). The South African government has tried to swim against the economic tide with respect to the stimulation of its deconcentration points (as was the case with their decentralisation policy). A more rational approach would have been to relax controls on metropolitan growth and accommodate natural expansion in deconcentration points in or adjacent to the existing metropolitan areas (POE, 1989b:117). Such measures would

21 Until 1985, approximately 185 regional locations have been designated as 'growth points' in South Africa (Holden, 1990:230).

have been sufficient to overcome the short-term problems of the metropolitan areas.

4.2.5 The Regional Industrial Development Programme (1991)

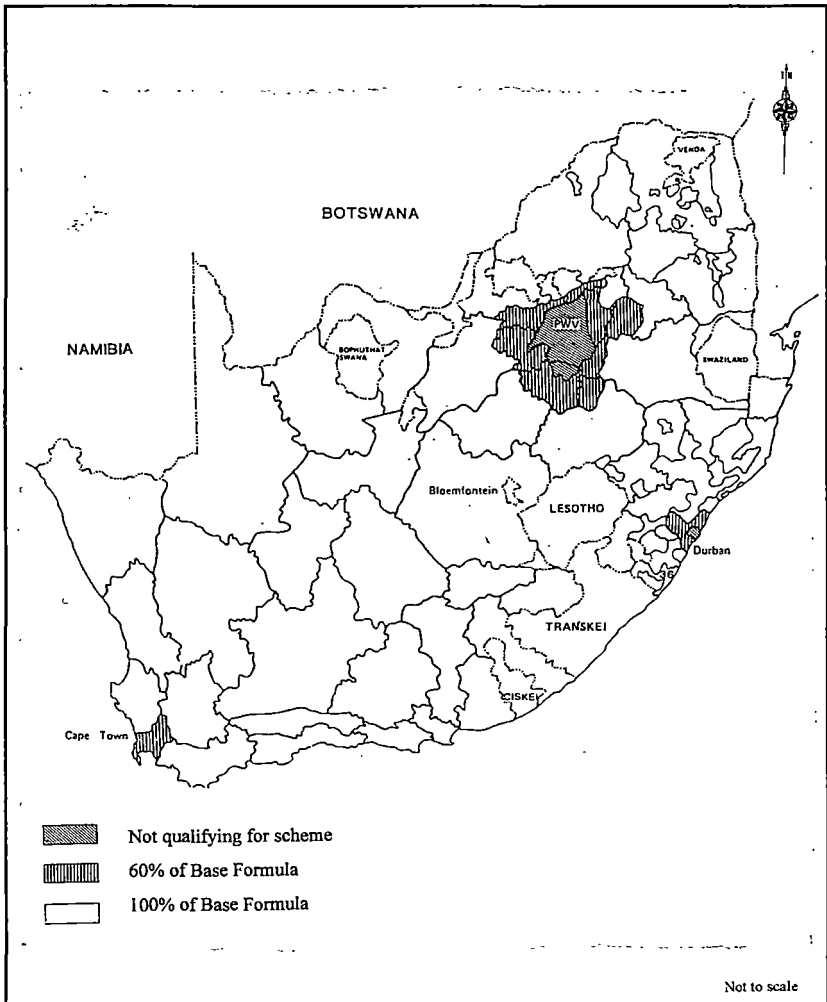
Following the 'negative experience' of the above-mentioned growth pole-oriented programme, proposals by the Development Bank of Southern Africa were made regarding the nature of a new profit/output-based incentive scheme, its level of incentives, and the specific spatial application of the incentive scheme. Because of the supposedly limited achievement of self-sustaining growth at industrial development points and the assumption of the inability of the growth centre to support the above-mentioned principles (ORD, 1991:71), a new regional industrial development programme was proposed and implemented in 1991 (BRID, 1992).

Incentives included a tax-free establishment allowance in cash, based on an investment of up to R15 million, subject to a minimum entrance requirement of 35 per cent of an owner's equity in order to qualify for concessions; a tax free cash allowance based on the profits of the enterprise payable for a further three years; and the reimbursement of the relocation cost of foreign industries up to a R1 million per project. The underlying principles for the nature and level of incentives were, firstly, that it was deemed that any incentives should be of a short-term nature. The amount of the incentive should also be based on capital, which means that the industrialist must take establishment risks into account (ORD, 1991:72). Transfers would be made available for only two years, after which the level of the incentive would be determined by performance.

In view of the alleged inability of the previous approach to give effect to the accepted principles and a declared policy of a greater democratisation of the economic processes, a spatially uniform approach was formulated based on the above-mentioned guidelines. Again, however, two implicit assumptions were repeated, i.e. that metropolitan areas are overconcentrated and that the promotion of secondary industry is the most

effective means of achieving development (Luiz & van der Waal, 1997:62). A distinction was made between three levels of incentives according to the development status of an area (see Figure 4.3).

Figure 4.3 The Regional Industrial Development Programme, 1991



Source: BRID (1992)

Accordingly, entrepreneurs settling in the Gauteng complex and the Durban core area received no incentive for industrial development, while new developers in the Cape Peninsula, Durban-Pinetown-Pietermaritzburg and the greater Durban functional region (excluding the Durban core area), and the area surrounding the Gauteng region received 60 per cent of the calculated establishment allowance (100 per cent after two years). The rest of the South African spatial area rendered the new industrial developer eligible for 100 per cent of the established allowance for the five year period (BRID, 1992:8).

The primary advantage of this Regional Industrial Development Programme, namely locational freedom, allowed the new industrial developer to pick a site of his choice anywhere in the country - save in metropolitan regions - and receive 100 per cent establishment incentives (Ligthelm & Wilsenach, 1991:7). The second primary advantage of the Regional Industrial Development Programme was its 'political correctness' (Black & Roux, 1991:454). This issue was emphasised by Luiz and van der Waal (1997:63), who indicated that the government tried to appease all interest groups by making the incentive nationally applicable and avoided making tough decisions. In fact, except for the 'restrictions on new development' in metropolitan regions, the government essentially implemented a laissez-faire approach (Drewes & Bos, 1996:267).

An evaluation of this Regional Industrial Development Programme indicated that a certain level of concentration of capital investment occurred especially in the metropolitan areas and some secondary cities (Ligthelm & Wilsenach, 1993:377). A breakdown of data regarding approved projects, suggests a higher capital intensity in metropolitan than other areas. These areas absorbed a third of all new investments, and generated some 18 per cent of all new jobs. In fact, metropolitan and intermediate cities accounted for nearly half of all approved projects (Rwigema, 1995:528). This coincides with the normal population growth and urbanisation rates to be expected in South Africa's metropolitan areas and intermediate-sized cities, which usually attract most new or expanding

economic activities as well as most migrants. However, other specific locations which benefited from this programme, were growth poles identified under the previous policy, especially those situated in or close to the former homelands (Rogerson, 1994: 181). What lies behind this finding is the active marketing of these locations to local and foreign industrialists by regional development corporations, especially those from the former Transkei, Ciskei, Bophuthatswana and Kwazulu regions.

4.3 Regional policy initiatives (1994-1998)

South Africa's regional policy has evolved from a policy dominated by political objectives in the 1960s, to a policy supposedly based only on economic principles of a free-market system; from one of strong government intervention to one of little intervention. It was, however, argued in the above section that political correctness seemed to be the main aim of the 1991 Regional Industrial Development Programme. Since 1996, the government has again taken the lead in identifying specific 'growth centres' where incentives for industrial entrepreneurs are available.

4.3.1 Industrial development initiatives

South Africa's Minister of Trade and Industry, Alec Irwin, announced a new set of supply side measures at the end of 1996, aimed at stimulating growth and investment in the manufacturing sector. This programme, which replaces the Regional Industrial Development Programme (1991), is expected to give new momentum to the Government's Growth, Employment and Redistribution plan (GEAR). The scheme gives manufacturers that face increased competition due to the lowering of import tariffs, access to subsidised loans for plant and equipment in an effort to make them more competitive on the international market (Volschenk, 1996:3). Supply side measures are central to GEAR and are aimed at making the local economy more internationally competitive in the global environment and responsive to market trends and opportunities.

4.3.1.1 Small/medium manufacturing development programme

Newly incorporated legal entities in the manufacturing sector qualify for the newly proclaimed incentives, provided that they demonstrate an investment of less than R3,0 million as a starting balance for their project. The incentives are also limited to secondary industrial operations engaged in manufacturing, processing or assembling²². The incentive package provides for an establishment grant payable for three years on qualifying assets, and a profit/output based incentive scheme payable for an additional one year. The industrialist may also qualify for an additional two years profit/output incentive provided he can meet or exceed a certain labour remuneration to value added ratio in the fourth financial year (DTI, 1996a). These incentives are also exempted from tax in terms of the Income Tax Act (58/1962).

Initial assistance is rendered in the form of a tax-free establishment grant for the first three years, calculated at 10,5 per cent per year on specific qualifying assets up to a maximum investment of R3,0 million per enterprise per project. The profit/output incentive refers to an amount of 25 per cent of profit before tax, but cannot exceed the annual establishment grant. It is, however, the spatial application of this scheme that is of special significance. Similar to the previous Regional Industrial Development Programme of 1991, this incentive scheme covers all areas of South Africa for a maximum period of six years. Therefore, all industrialists meeting the above-mentioned criteria will qualify for this incentive package.

4.3.1.2 Tax holiday regulations

For an industry to benefit from the main thrust of the new scheme, i.e. the tax holiday regulations, the legal entity must have been incorporated after October 1996, and must demonstrate an investment in qualifying assets in excess of R3,0 million in the projected start-up balance sheet. The maximum tax holiday period is six years, and consists of three

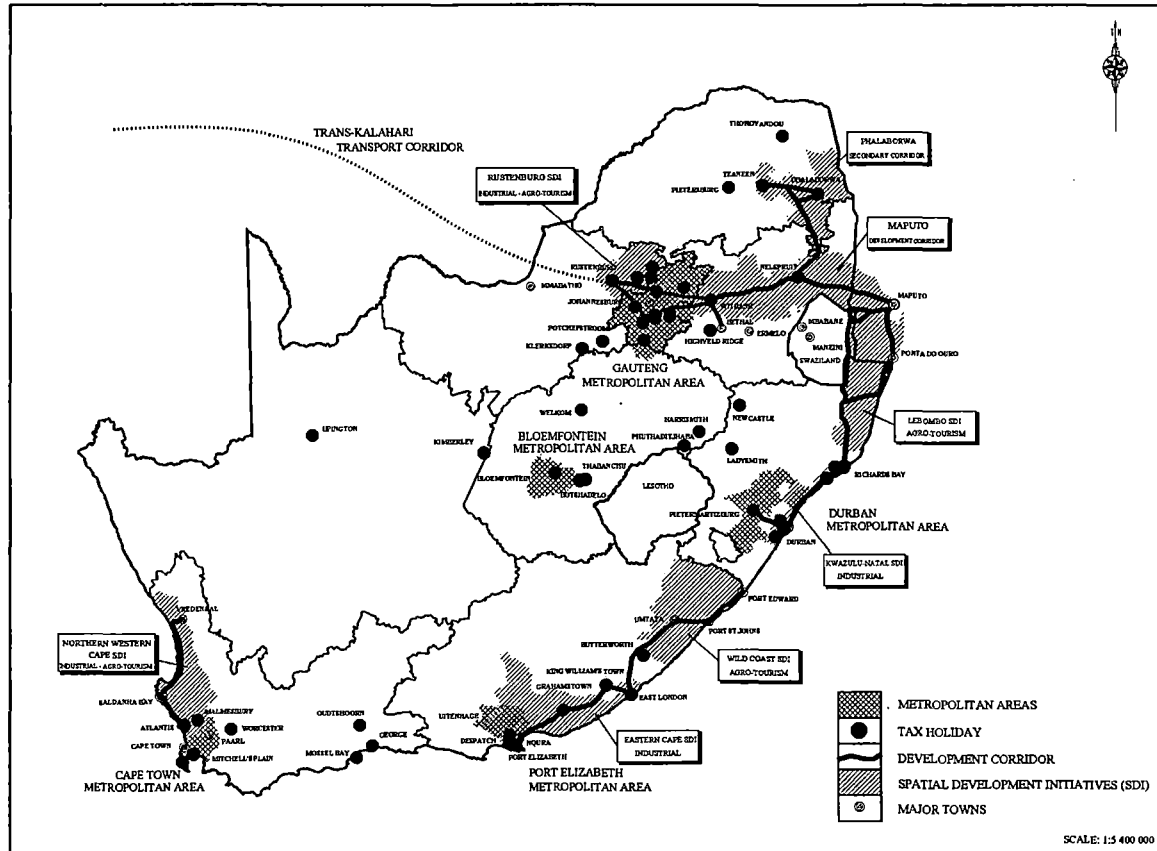
components. Firstly, to qualify for the industry component, the company must be engaged in the manufacturing, assembling or processing of an identifiable product as determined in the Income Tax Act (58/1962). This component translates into a two-year tax holiday. Secondly, the company can qualify for another two-year tax holiday if its human resource component is satisfactory. This equation refers mainly to the ratio of human resource remuneration to the value-added component (DTI, 1996b:3). This is clearly a move away from the traditional focus of regional policy of economic growth only.

Thirdly, in contrast to the above-mentioned incentive scheme for small/medium industries, a specific spatial component has been linked to another two year tax holiday (DTI, 1996b). To qualify for this two year tax holiday, they have to locate at one of the demarcated towns/cities. The Department of Trade and Industry identified fifty seven locations where the incentive package is applicable to promote large manufacturing investments. The locations for the spatial component involves forty six transitional local councils (TLCs), five transitional metropolitan substructures (TMSs), three transitional representative councils (TREPCs); one transitional metropolitan council (TMC) and two magisterial districts (see Figure 4.4). In most of the cases, the identified centres form part of metropolitan areas, are cities of intermediate size, or places with industrial potential (DTI, 1996a:2; DTI, 1996b:3).

This identification of 'growth points' in metropolitan areas, is in stark contrast to the previous Regional Industrial Development Programme which precluded any metropolitan areas from any incentives (Drewes & Bos, 1995), but strangely similar to the decentralisation schemes implemented in the 1970s and 1980s (see Figure 4.4). However, according to the Department of Trade and Industry, which supervises the scheme, the above-mentioned locations have been chosen with regard to the following criteria (Postma, 1997; Booyens, 1997:6):

- The location must, first of all, have a strong component of existing industries with an export component of at least 50 per cent. That is, export out of the province.
- Agglomeration economies must exist, with the possibility of extending forward and backward linkages.
- A sufficient labour force must be available at the location.
- The industrial sector must have shown positive growth over the past few years.
- These locations are all situated on proposed development corridors.

Figure 4.4 Tax holiday and Spatial Development Initiatives, 1996



Source: DTI (1998)

Based on the assumption that South Africa's largest cities are not excessively large by international standards, and that the rates of growth of the various urban levels in the hierarchy also appear to be normal (Urban Foundation, 1993b:35), the government believes there is little reason to favour policies which 'artificially' induce or restrain growth in a particular centre, region or level (DOH, 1995:17). It is, however, clear that the government again adopted a selective approach in 1996 with regard to investments larger than three million rands, arguing that there was a need to 'signal to the market' that certain locations had been identified as having national potential for manufacturing development (Ernst & Young, 1996:xi). Ironically, apartheid (which was one of the reasons for moving away from selectivity) and informational imperfections in the market, are given as reasons to substantiate this view (Bos & Drewes, 1998:9).

It is important to note that this incentive scheme is presumed to be in place for a ten year period (Booyens, 1997). Therefore, if a company only shows a profit in its fourth year of production, the tax holiday will still apply for the next six years, given the prerequisites mentioned above. Given the existing high tax rates for companies, such an incentive could contribute to a more positive cash flow in the inception years of a newly established industry.

In conjunction with these 'industrial growth centres', the Department of Trade and Industry also established a South African Industrial Development Zone (IDZ) model, based on the best international practices, yet consistent with existing constraints and national priorities. A draft concept model has been developed that aims to create an environment conducive to export-oriented production and services for international and local investors. By locating within these zones, new investments will benefit from a world-class infrastructure, local and cost advantages, as well as existing fiscal incentives, linkages with the local market, expedited customs procedures, a single stop regulatory authority and innovative human resource utilisation and labour relations partnerships. The

designation of a zone will be within a defined geographic area or enclosed and controlled duty-free area, close to a port or airport.

A concept document has been finalised for consultation with all stakeholders and a draft development zone enabling bill was presented to Cabinet in July 1998. A national development zone authority (NDZA) will be responsible for the regulation, facilitation and administration of the industrial development zones. It is also envisaged that each industrial development zone will have a local development zone office, staffed by core personnel to carry out the regulatory and approval process at local level in a 'one-stop shop' situation. The development and management of the zones will be done by the private sector. Where the zone development corporation has a public sector shareholding, it will develop concessions with private developers for the construction and operation of the zone. All labour legislation will apply to these zones and expedited dispute resolution mechanisms and human resource development facilities will be offered at a local level. The best international environmental standards will apply to maintain South Africa's natural environment and to facilitate the way for enterprises to meet the international standards necessary for easy access to world markets.

The fiscal and financial incentives that are proposed include duty-free imports of capital goods, inputs and specialised support equipment, capital and profit repatriation mechanisms, Value-Added Tax exemption when accessing local raw material inputs and services for export, incentive mechanisms that are in accordance with internationally-accepted World Trade Organisation guide-lines. Feasibility studies for industrial development zones are being conducted presently around the ports of Richards Bay, Saldanha and East London (DTI, 1998). Plans for an industrial development zone in the proposed new Coega port are advanced and technical preparations for land acquisition and port construction are being finalised.

4.3.2 Corridor development

The identification and promotion of corridor development or development axes dates back to the National Physical Development Plan (DPE, 1975). In co-operation with the Department of Transport, the Department of Trade and Industry initiated another programme, aiming to unlock the inherent and under-utilised economic development potential of certain specific spatial areas in South Africa. A key component of this programme, according to Jourdan *et al* (1996:2), is the move away from the protected and isolated approach to economic development, towards one in which international competitiveness, regional co-operation, and a more diversified ownership base is paramount. At present, this form of targeting is considered to be particularly appropriate, where the overall industrial strategy moves from a predominantly import substitution driven manufacturing sector, to an outwardly-orientated approach within the new urban politics of globalisation (Bos & Drewes, 1998:9).

The new spatial development initiatives announced in 1996, involve seven main development corridors and one secondary corridor between Nelspruit and Phalaborwa (see Figure 4.4). These corridors rarely coincide with the national physical development plan's axes, with the North Western Cape spatial development initiative as the only exception. There is, however, some similarity with perhaps the Rustenburg spatial development initiative as well as the Maputo and Lubombo spatial development initiatives (Jourdan *et al*, 1996:2). Other spatial development initiatives include industrial spatial development initiatives (Southern Kwazulu-Natal and Eastern Cape); agro-tourism spatial development initiatives (Wild Coast and the Lubombo initiative); mixed industrial development areas (industrial development zones, local industrial parks and development nodes); mixed industrial and agri-tourism (North Western Cape and Rustenburg); and metropolitan corridors (Cape Town Corridor from Phillipi to Wynberg) (Jourdan *et al*, 1996:2).

Although it is uncertain whether the manifestation of these axes and the existing phase of development were determined scientifically, it seems as

if most of the aforementioned criticism of the past is not valid in respect of the newly identified corridors (Bos & Drewes, 1998:15). However, it is not clear at this stage how these axes differ in rank size, and how prioritisation will be done for the development of these axes. Although not all of the corridors are industrial corridors, thirty of the fifty-seven identified industrial development points are situated on six of the seven main development corridors. The correlation of these initiatives is very important to ensure concentrated and sustainable development in the future (Bos & Drewes, 1998:9). Altogether nineteen of the identified locations are situated in coastal regions with their obvious locational advantages.

4.3.3 Local economic development

It is evident from the previous sections that the spatial development initiatives of the Government of National Unity are based on the complementary use of the selective, the uniform and the self-selecting development approaches. On local government level, it is believed that the enhancement of Local Economic Development (LED) (see also Chapter Three) is the way forward to create more efficient and productive cities and towns in South Africa (Rogerson, 1994:182; DOH, 1995:14; Heymans, 1998:95). Although local authorities in South Africa have been involved in economic production, boosterism and industrial development for many years, much of this activity has been of a fragmented character (Rogerson & Kenyon, 1994:10). Local economic development involves more effective local government which could enhance the productivity of cities and towns (Urban Foundation, 1993e:9; Heymans, 1994:6). Practices such as more efficient regulation is crucial in this regard, but the government hopes to encourage and develop an innovative culture which would unlock the potential of people and businesses within cities and towns (DOH, 1995:41). This is also seen as a precondition for South Africa's global competitiveness and should, according to the government, receive high priority (Bernstein, 1996:24; Cloete, 1998:10).

In 1995 the Government of National Unity committed itself to establish a policy framework for local economic development (the self-selecting

approach), to promote the concept of local economic development at national, provincial and most importantly, at local government level and to establish the necessary fiscal and regulatory mechanisms to support local economic development (Dauskardt, 1994:92; DPB, 1996:11). Consequently, this led to a new directorate which falls under the Department of Constitutional Development, namely the Directorate Municipal Economic Development and Public Private Partnerships. This directorate is responsible for the implementation of LED and the provision of municipal services. Key local economic development strategies in South Africa include: extensive place-marketing for inward investment; support for small, medium and micro enterprises (SMMEs); improvement in infrastructure and services; training; the provision of information and service; investment in targeted sectors; local purchasing and servicing arrangements; and the planning of dedicated, economic municipal units (DPB, 1996). Although the critical importance of developing local economic development strategies to assist post-apartheid reconstruction is stressed within several government documents (DPB, 1996; DLA, 1997), a coherent set of guidelines and a framework for local economic development has yet to emerge. The preparation of such a framework is essential in order to ensure inter-sectoral co-ordination of local economic development planning with other government programmes, both national and regional.

The danger of intense inter-urban competition becomes rife and cities monotonously reproduce the same kinds of urban development projects. Signs of this type of wasteful competition are already evident in South Africa in the flurry of construction of new retail centres, business convention outlets or waterfront redevelopments (Maharaj, 1996:597; Rogerson, 1998:195). What is occurring in these types of Local Economic Development interventions is a search only for a 'quick fix' solution to economic problems without the emergence of more long-term, sustainable and effective local economic development strategies. It must be acknowledged that the commonly applied model of industrial recruitment

through place-marketing and the search for inward investors amounts to only a limited approach to local economic development, neglecting the vital issue of attending to the needs of existing enterprise or of improving the existing industrial environment (Bos & Drewes, 1998:22). According to Bernstein (1996:31), this suggests a need for South African local authorities to follow the 'best practice' international local economic development experience and seek a niche for themselves by targeting particular types of industries, enterprises or activities in their promotional endeavours.

Thus, it seems that the government has chosen to use local economic development initiatives together with explicit spatial development initiatives²³ - which has, to a great extent, been abolished since May 1991 - in an effort to stimulate inherent economic development potential. Local economic development is seen as a vehicle available for all towns and cities to strengthen themselves and manage their own strategies in their areas rather than to rely on interventions from the national government.

4.4 Regional policy in Gauteng

The minor changes in the South African approach to the growth centre concept introduced by the Good Hope Plan in 1981, made way for a new and more flexible differentiated approach. Greater flexibility in incentive measures and development policy on a regional level due to possible differences in development circumstances regionally, were announced (DCDP, 1984:50; DDP, 1985:12). The new integrated approach to industrial development was spelled out in the White Paper on Future Industrial Development in South Africa (DEA, 1985:2). Recommendations included the following:

- Industrial development alone will not be sufficient to attain the goals of South Africa's regional policy. An integrated and comprehensive development programme offers the best chance of success.

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The formulation of explicit spatial development initiatives after their abolishment in 1991, was also advocated by Bos and Geyer (1992/3:47) and Drewes and Bos (1995:265-267).

Attention should particularly be focused on agriculture, commerce and services.

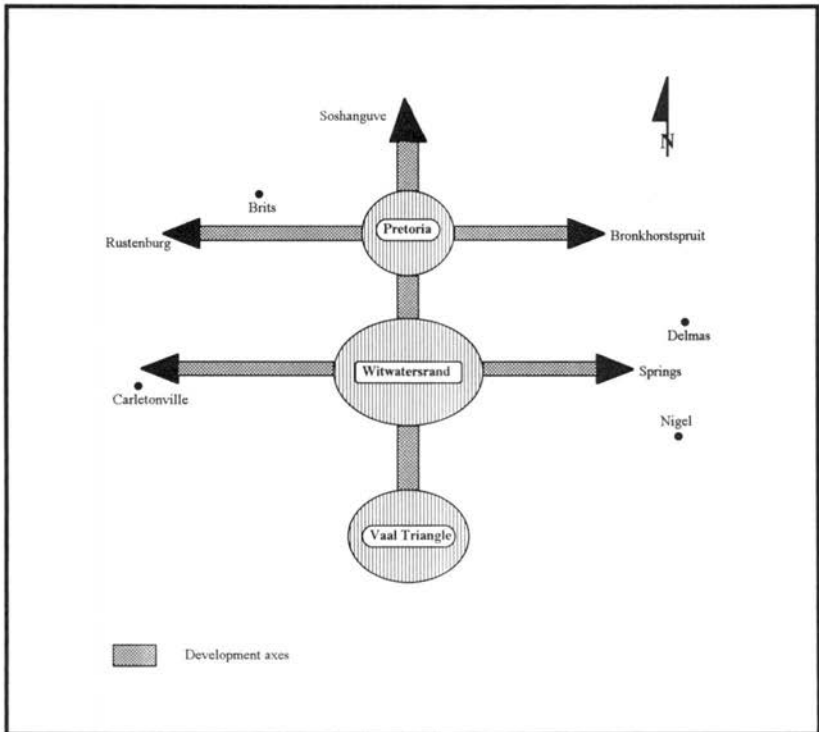
- A policy aimed at a more even geographic distribution of economic activities should not be taken to the point where it is so detrimental to the economic position of the metropolitan areas that the result for the economy as a whole is less growth and less employment.
- Indirect control of economic activities in the metropolitan regions such as the abolition of subsidies on services or the levying of a differentiated tax system is preferable to direct control measures (as specified in Section 3 of the Physical Planning Act of 1991).
- Industrial decentralisation should be productive. Where it cannot be productive in a purely economic sense, it should at least be effective in terms of the socio-political goals of the programme. This means that fragmentation of the decentralisation programme should be avoided and too many inefficient industrial development points should not be encouraged.

These 'new' points of departure in development planning were accompanied by the drafting of spatial strategies for the three primary metropolitan regions in the country, namely Pretoria-Witwatersrand-Vaal Triangle²⁴ (PWV), Durban-Pinetown-Pietermaritzburg (DPP), and Cape Town-Belville (CTB) metropolitan regions. The political undertones that were apparent in the national industrial decentralisation policies between the fifties and the seventies, were also detectable in these spatial development policies.

Being the largest, and most developed metropolitan region in South Africa, the Gauteng Metropolitan Area will be used to illustrate the 'thinking' behind metropolitan strategies implemented in South Africa. The first comprehensive development strategy for the Gauteng-region, comprised proposals for a guide plan which appeared in 1974 (DPE, 1974).

According to this study, important development axes emerged between Pretoria and Rustenburg, and between Pretoria and the Witbank-Middelburg complex. Rustenburg, Brits, Witbank-Middelburg, and Potchefstroom-Klerksdorp were identified as possible decentralisation points (see Figure 4.5).

Figure 4.5 *The 1992 Pretoria-Witwatersrand-Vaal Triangle spatial complex*



Source: DRLA (1992)

Following these proposals was the appearance of a spatial development strategy for the Gauteng Complex (OPM, 1981). The following were some of the important points made.

- The solution of metropolitan problems should not be sought in the categorical limitation of metropolitan growth, but rather in the deconcentration of economic activities to areas within or adjacent to the metropolitan region itself.
- It became clear that the decentralisation programme (border regions) had not achieved the desired results.
- Unimpeded urban sprawl was unacceptable.
- Future growth should be directed towards a multi-nodal urban region consisting of three metropolitan areas (Pretoria, Witwatersrand and the Vaal Triangle) in which provision was made for deconcentration points within the megalopolitan framework and the development of additional growth points adjacent to the PWV-region (OPM, 1981:19-22).

These metropolitan development strategies were, however, never officially approved. In the White Paper on Urbanisation (DCDP, 1986), the policy of restricting industrial growth in the core areas, and stimulating growth at deconcentration points in the metropolitan regions was confirmed (Palmer, 1986:40). The principle was accepted that regional planning should not be hindered by homeland borders, and that the relevant homelands form part of any functional metropolitan region. The White Paper also indicated that the number of decentralisation points must be restricted. Decentralisation must be concentrated and stimulated only in those areas with existing growth trends until further incentive measures were unnecessary (DCDP, 1986:25-32). The development potential of locations situated on existing development axes was also indicated - it was proposed that these locations be especially utilised for the purpose of the deconcentration or decentralisation of economic activities.

The Physical Planning Act of 1967 (88/1967), which prohibited normal industrial growth in the metropolitan region was replaced in 1991 with a revised Physical Planning Act (125/1991). The previous discriminatory legislation was abolished, and the Act further provided for the preparation

of regional development plans in which the public had a greater degree of input and participation (SA, 1991:9). This revised Act was soon followed in 1992 by a draft spatial development strategy for the Gauteng Complex. In conjunction with the Physical Planning Act of 1991, this strategy called for the abandonment of policies that had previously curbed the growth within the Gauteng region (DRLA, 1992:5). The strategy called for the creation of a more compact and efficient metropolitan structure as well as a move away from previous attempts to limit the supply of industrial land in the core areas of the Gauteng region.

This point of view moved away from the historical control-oriented approach in terms of which industrial land in the metropolitan core areas became scarce. In order to make industrial land more accessible to all entrepreneurs, a policy of deregulation and over-supply of industrial land was proposed (CEA, 1992:34-35). In conjunction with the Regional Industrial Development Programme implemented in 1991, this strategy moved away from the growth centre approach towards a *laissez-faire* approach, but still retained the development axis concept as a development instrument. The policy reaffirmed that the Gauteng region cannot be "... divorced from the development of its hinterland. Special attention will, therefore, have to be given to the interaction between the Potchefstroom-Klerksdorp area, the Witbank-Middelburg area, and the Trichardt-Evander-Kinross-Secunda area" (DRLA, 1992:10). Although this strategy differed much from previous development plans, it received much criticism from the private sector in not doing enough to move away from concepts of apartheid²⁵ (Urban Foundation, 1993b:3-5).

After the abolition of the Influx Control Act in 1986 (86/1986), South African planning policy entered into a new era of urbanisation and economic concentration. Urbanisation was not only accepted as a reality, but was now viewed as one of the pillars of future economic growth

25 'Apartheid' refers to the concept of separate development for ethnic groups and was promulgated in the Representation of Blacks Act, no 12 of 1936 (Geyer, 1989a:253).

(Urban Foundation, 1993c:37). Controls for curbing metropolitan growth were lifted, and replaced by positive pro-active planning in the form of new metropolitan structure and development plans (Bos & Drewes, 1998:10).

The principle that growth should not be limited in South Africa's metropolitan regions was again confirmed in the President's Council Report on urbanisation in order to capitalise on "... economies of scale" (CEA, 1992:64), and to avoid encouragement of satellite settlements at the expense of the densification of existing metropolitan regions (CEA, 1992:70). The Council further indicated that from a national urbanisation policy point of view, the emphasis of South African development efforts should gradually shift to intermediate-sized cities on the inner periphery, nearer to the core regions. The intermediate-sized cities included Bloemfontein/Botshabelo/ThabaNchu; Free State Goldfields; East London/ Mdantsane; Pietermaritzburg; Kimberly; Pietersburg/Seshego; Middelburg /Witbank; George/Mossel Bay and Potchefstroom/ Klerksdorp (CEA, 1992:64).

A shift in emphasis occurred in 1996 with the announcement of the new industrial development initiatives and spatial development initiatives (DTI, 1996a; DTI, 1996b), when, for the first time, incentives to encourage industrial development were also granted to selected transitional metropolitan councils, transitional local councils within transitional metropolitan councils, and transitional metropolitan substructures in the metropolitan areas of Gauteng and Durban.

This shift presents a major change in South Africa's perspective on especially metropolitan development, mainly as a result of the new emphasis given to the phenomenon of globalisation, which recognises the greater mobility of people, capital and economic activities both within and between countries (Rogerson, 1993:30). The new approach to growth and development of our metropolitan areas provides new opportunities for growth and prosperity. The metropolitan areas should continue to grow,

but in such a way that it reduces or limits the occurrence of agglomeration diseconomies. With globalisation in mind, the government acknowledged that successful urban management is not assured (Bos & Drewes, 1998:10). Renewed commitments and effort will be required from both urban inhabitants and planners (DOH, 1995:21). If the government does not succeed in managing expected accelerated growth so as to promote economic efficiency and reduce negative externalities of our metropolitan areas, they will soon lose an important part of their global competitive base (Hall, 1987:241; Rogerson, 1993:30). These efforts will take large investments to provide the necessary infrastructure in the metropolitan areas. This implies fewer investments for development in the rest of the country. This ought not to be the case, however, since public-private partnerships for providing infrastructure could help alleviating financial pressures on national and provincial level (Bos & Drewes, 1998:10).

Lastly, it is evident, therefore, that deconcentration policy has played a major part in development thinking in South Africa since its inception in border region development in the 1950s. It was seen as part of a larger plan to establish a more balanced development pattern in the country, i.e. to take the work to the worker in the homeland, thereby keeping him from migrating to the major cities. A major shift in decentralisation policy occurred in 1991 with the implementation of a new, apolitical, regional industrial development programme, based on the uniform development approach.

4.5 Conclusion

Three main perspectives are evident in South Africa's evolution of regional policy. Since the National Party took over in 1948, economic growth was seen as the all-encompassing goal in national development. Regional policy, although founded on a political ideology, was based primarily on industrial development in areas earmarked for deconcentration. An emphasis shift occurred in the early 1990s, whereby a participative or people-centred approach replaced the previous neo-classical or 'fordist'

approach to development in the economic space (see also Urban Foundation, 1993*b*:10; Turok, 1994:12, 1995:190; Lloyd & Wait, 1996:40). Third, in the middle 1990s, the principles of resource management or environmental sustainability were also accepted as being part of the spatial planning and policy formulation process. The latter two approaches to development are clearly process-driven, i.e. the integration of principles, community participation and environmental sustainability in spatial planning, are of utmost importance. In contrast, the end result of economic growth and separate development was the main goal in the National Party's approach to regional policy formulation up to the 1990s in South Africa.

The other main themes in this study (refer section 1.1) refer to the study of urban systems and the movement of people and economic activities throughout relevant urban systems. The evolutionary development of urban systems, with the focus on population movements, will be described in Chapter Five, forming the basis for an empirical study of Gauteng (Chapter Six).

CHAPTER FIVE

5. DIFFERENTIAL URBANISATION: AN URBAN SYSTEMS APPROACH

5.1 Introduction

The focus of this chapter is threefold. Firstly, to analyse the origin and principles of the urban system concept as it was originally envisaged, namely as a concept to aid regional analysis. It was used at first at regional and national levels, but with globalisation forces increasingly impending on the daily lives of the world's population, the international urban system is also analysed in this chapter. Secondly, with migration being a central theme throughout this study, the concepts of demographic and mobility transition are put into this context.

Thirdly, low levels of urbanisation and high urban-rural growth differentials suggest that continued urbanisation, especially in developing countries, is inevitable. In developed nations, this trend has been reversed with higher levels of deconcentration than urbanisation. This is where the concept of differential urbanisation turn out to be relevant, as it relates to a central statement in this study is that urban agglomerations tend to 'mature' (refer Section 1.3). At an advanced level of development, people and economic entities tend to move to increasingly distant metropolitan and non-metropolitan territory. It is, therefore, the aim of this chapter to show the relationship between these three concepts, within the theme of this study.

5.2 System of cities approach

To put the various principles of differential urbanisation into broader context requires elaboration of the process of national spatial development. In the 1960s, the concept of urban systems was formalised, referring to a network of interacting nodes, rather than focusing on individual cities

(Friedmann, 1964:509; Friedmann, 1966:30; Friedmann & Weaver, 1979:120). This concept was based on previous work by Boudeville (1966:10-17) who noted that "... towns form a hierarchic polarized system through which economic growth will materialize". Using the principles of central places in geographical space (Christaller, 1966) and growth poles in economic space (Perroux, 1950), Boudeville distinguished between nodal and polarised regions. A polarised region was defined as "... a set of neighbouring towns exchanging more with the regional metropolis than with other cities of the same order in the nation". A nodal region, on the other hand, does not necessarily refer to a number of nodal points.

According to Friedmann (1966:99), the delineation of an urban city network is done on a national or regional level for spatial planning purposes. However, with the ever-decreasing 'distances' between cities as a result of the spatial integration of national and global economies, the international urban system²⁶ will also be closely analysed.

5.2.1 National level

Urbanisation, and specifically differential urbanisation, is regarded as an integral part of the evolvement of urban systems. This implies that the demographic, economic, and geographical changes involved in the movement of people, is in fact a process of urban system growth and structural transformation of the economy (Berry & Smith, 1972:288). Consequently, cities and urban agglomerations of a modern industrial economy constitute a range of interrelated sub-systems nested in a complex hierarchy, from individual urban areas to national urban systems (Berry & Marble, 1968:476; Richardson, 1973b:75; Bourne, 1975:11; Friedmann, 1975a:795; Thompson, 1975:532). With the majority of people and economic activities in urban areas, it goes without saying that the social and economic life of most Western nations are vested in its cities

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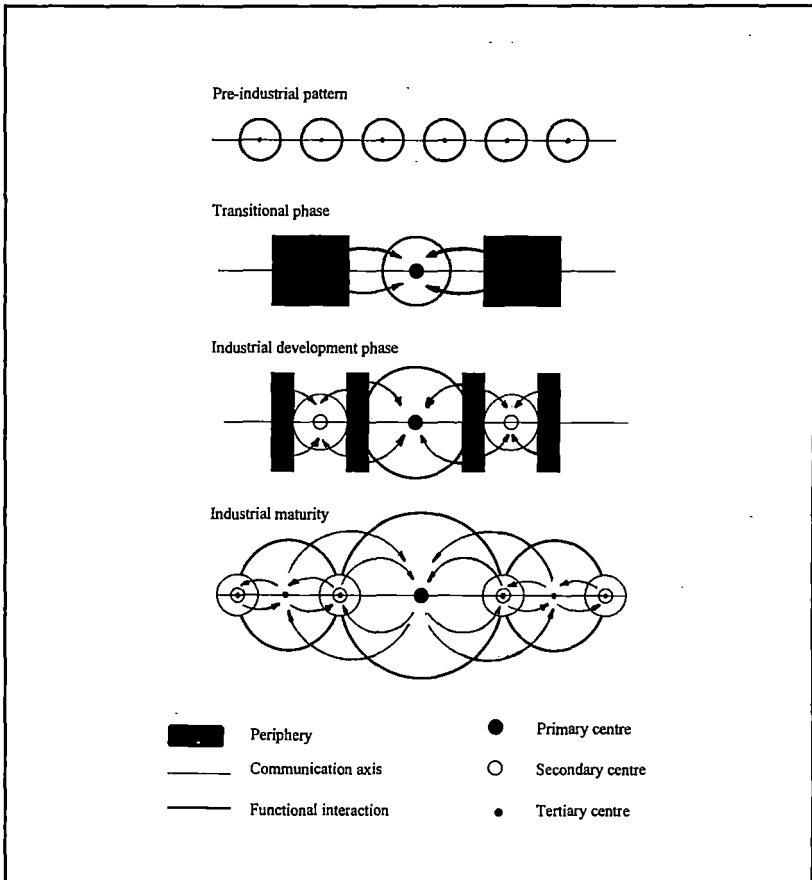
The systems view of planning is a widely held one (Richardson, 1969:150; McLoughlin, 1969:37; Berry & Horton, 1970:548; Roberts, 1985:20). According to the systems theory, any system is usually part of a larger system. The relevant system, its sub-systems, and larger system form a hierarchy of systems, where the top is important and exerts considerable influence on the systems below (Kerzner, 1992:69).

and in the way these cities operate as an integrated system. The following section will provide a brief discussion of some key principles on the operation of urban systems.

As a country develops, economic growth is increasingly channelled through a nation's set of cities (Gradmann, 1916; Friedmann, 1966:30; Berry, 1972b:136; Berry, 1975:128; Friedmann, 1975b:278; Berry *et al*, 1976:329; Rondinelli, 1985a:12; Renaud, 1987:64; Jussila, 1992:117). This process tends to follow in an orderly progression, culminating in a functionally integrated national spatial system (Friedmann & Weaver, 1979:96; Rondinelli, 1985a:21). The initial development of the spatial economy, according to Friedmann (1966:35), evolves slowly. The volume of interregional relations in preindustrial societies was generally small, consisting of a number of largely self-sufficient economies (Doxiades, 1970:61). The populations never exceeded 50 000 people, and usually remained below 20 000. They were also limited in space, surrounded by walls.

In contrast to the spatial equilibrium maintained by a pre-industrial order, the second pattern must be regarded as "... inherently unstable [and] usually externally induced" (Friedmann, 1966:35). The spatial pattern in this stage is that of primacy, i.e. the domination of the space economy by a single urban region (see Figure 5.1). This structure is typical for the period of incipient industrialisation and an emerging periphery. Local economies are undermined as a result of the mass movement of potential entrepreneurs and labour to the centre. The national economy is virtually reduced to a single metropolitan region, with limited growth possibilities in the periphery. The core-periphery situation is gradually transformed, as strong peripheral sub-centres emerge alongside the dominant centre in the third or industrial phase.

Figure 5.1 *Sequence of stages in spatial organisation*



Source *Friedmann (1966:36).*

The simple core-periphery structure is gradually transformed into a multi-nuclear structure as investments are focused upon a number of strategically placed sub-centres (Hirschman, 1958:195). The development of these sub-centres reduces the periphery on a national scale to smaller, more manageable inter-metropolitan peripheries. Important resources from the

periphery are brought into the productive cycle of the national economy, thus enhancing the growth potential for the nation.

If the momentum for economic development is maintained, further changes will be imposed upon the spatial system²⁷. The inter-metropolitan periphery will be gradually absorbed into nearby metropolitan economies (Suarez-Villa, 1988:6; Berry, 1991:45). In the final stage of organised complexity, the major goals of spatial organisation are fulfilled: national integration, efficiency in the location of individual firms, maximum potential for further growth, and minimum essential interregional balances.

According to Bourne (1975:12), this spatial organisation may be described as consisting of at least the following three levels:

- a) a national system dominated by metropolitan centres and characterised by a step-like hierarchy, with the number of centres in each level increasing with decreasing population size in a regular fashion;
- b) nested within the national system is a regional sub-system of cities displaying a similar but less clearly differentiated hierarchical arrangement, usually organised about a single metropolitan area centre, in which city sizes are overall smaller and decline quicker than in the national system as one moves down the hierarchy; and
- c) contained within these sub-systems are local or daily urban systems representing the living space of urban residents and which develop as the influence of each centre reaches out, absorbs, and reorganises the adjacent territory²⁸. It refers to an extended urban area defined

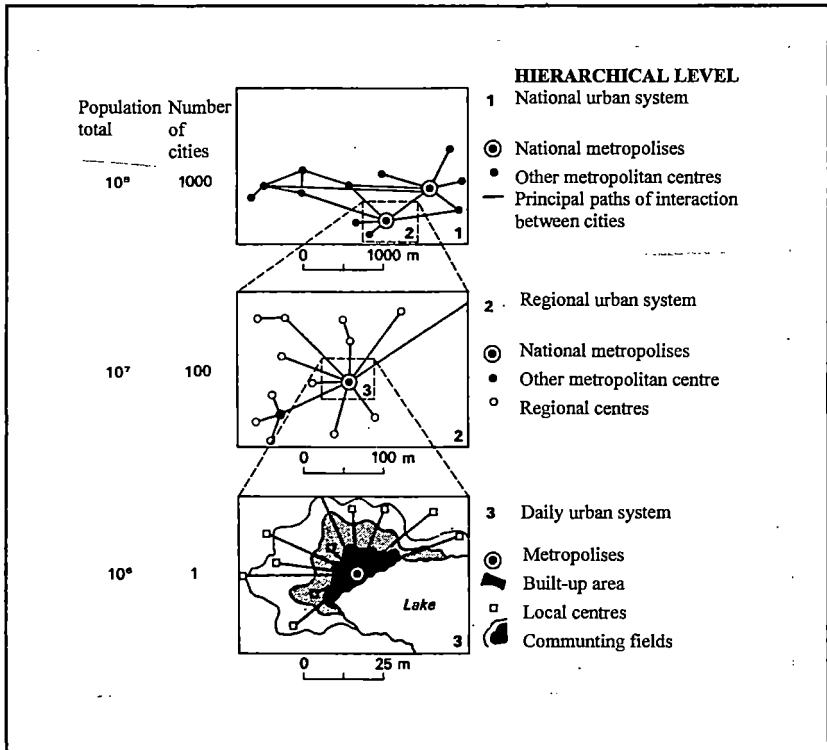
27 Doxiades (1970:66-72) explained the changing size of urban settlements as a function of man's kinetic field - a kinetic field being the area within which man can move in a certain given time to cover his normal daily needs. Accordingly, in the early cities man moved only by walking and facilities were positioned so that he could walk a maximum of ten minutes from any point to the centre of the city, resulting in a city of roughly two by two kilometres square. With the introduction of horse-driven carts, different types of roads were necessitated, resulting in cities with two levels of kinetic fields. Later underground railways were created (Paris, London, and New York) and interconnections between cities established. With the provision of automobiles, we have reached the city of many levels of kinetic fields (metropolis) as a result of changing speeds and the multi-level organisation of kinetic fields.

28 Geyer (1998a:6-8) described the daily urban system in more detail. It is, firstly, based on a person's physical space. This in turn describes the personal space surrounding him, and his living space on a particular site in a specific urban setting. These physical spaces are in turn dependent on the relevant social stratification.

on the basis of the ebb and flow of daily commuting and activity and representing, therefore, the daily-life environment of the area's residents (Hartshorn, 1992:81). In a small country, levels (a) and (b) may be difficult to differentiate whereas in larger countries both these levels may show further subdivision.

Figure 5.2 illustrates the above-mentioned levels graphically. They are hierarchical in terms of city size, functions performed, and the types of interaction which define the role of each urban centre within the larger system. They are also organised in spatial terms. Both the spatial and hierarchical dimensions are interrelated in numerous and complex ways, not all of which can be clearly illustrated.

Figure 5.2 Hierarchical and spatial levels of the urban system
(adapted from Bourne, 1975:13).



Source: Adapted from Bourne (1975:13)

The essence of this urban network refers to all the linkages or paths of interconnection that form the foundation of a modern economy. These levels will differ in composition and scale at different levels in the urban hierarchy. At national level, they may primarily involve economic linkages, exchanges of information and ideas rather than actual movements of goods or people. At regional level, social service connections may dominate, or road traffic or the generation of telephone calls or regional hospital administration (Berry & Horton, 1970:56). In each case the linkages between the metropolis and regional centres may be one-way or

reciprocal, and may be either direct or indirect (e.g. through an intermediate centre to and from a metropolis). At the local level, the daily movement of commuters or shoppers or the distribution of social contacts may define the system (Bourne, 1975:13; Johnston *et al*, 1986:515). Over time these systems reach out to encompass even consecutively larger proportions of the space economy and of the national territory²⁹. In so doing, they have changed the economy, life styles and political boundaries, as well as our images of national character.

While the national urban system may be easily recognised, the lower order levels within the same system may not always be equally recognisable. These levels are unlikely to remain fixed over time. Rapid growth, combined with settlement density and the spread of urban lifestyles, tend to blur traditional boundaries between urban and rural, and small and large cities (Bourne, 1975:14). Traditional attempts at boundary definitions for individual urban regions and urban hierarchies are consequently being brought into the equation. Clearly, no set of definitions will suffice for all purposes of urban classification under all circumstances. Instead, what is needed for the purpose of this study is a set of definitional constructs based on simple guidelines, each set nesting within a larger one, but capable of being extracted from the larger set. This would allow different definitions for different levels of the urban system to exist simultaneously (Bourne, 1975:14). As a focus for policy formulation, the essential ingredient in this flexible approach is an overall guiding construct that is easily understood, and with the ability to retrieve whatever units are desired from the larger set.

The interest in geographical space in policy analysis is primarily based on a growing awareness of the critical distribution of spatial and

29 This process relates to the diffusion of innovation from the metropolis to other centres in the urban hierarchy. According to Hägerstrand (1965:42), the leading cities within a country provide impulses first of all to towns next in rank. The further spread of innovation is then heavily regulated by distance friction (Friedmann & Weaver, 1979:127; Rondinelli, 1985a:20). Stöhr (1972:89), on the other hand, argued that innovation diffusion is closely related to distance in the early stages of a country's development, i.e. city size is less important than distance at this stage. However, as development proceeds, distance is replaced by city size as the major determinant of innovation diffusion. The distance-size association with innovation diffusion is generally accepted in the regional planning field (Geyer & Kontuly, 1993:159).

environmental resources to national growth and well-being (Bourne, 1975:15; Chu-Seng Lin, 1988:7). The urban system has a dominant role in the transmission of economic impulses and the diffusion of social and economic innovations over the national territory (Johnston et al, 1986:515; Renaud, 1987:64; Suarez-Villa, 1988:9). The operation of various spatial allocation mechanisms (e.g. free market system) is the underlying cause of spatial disparities, and is increasingly brought into the debate on policy alternatives. One reason is the recognition that this involvement has substantial spread effects vertically through sectors of society as well as geographically across regions and cities. This also relates to issues such as the reorganisation of government, the redefinition of spatial administrative units, and the reallocation of governmental responsibilities (Bourne, 1975:15). A third factor is the question of environmental quality and a growing conviction that, especially in developed countries, existing private mechanisms are insufficient to compensate for negative externalities among urban activities, and between users of urban space and environmental resources.

The specific elements of an urban system that are of particular interest to questions of policy, however, are seldom explicitly identified in the literature. Emery & Trist (1973:19) provide a most useful discussion on system properties in this regard. The basis of their approach refers to a complex social system. The properties of these systems, listed below, provide a useful framework for clarifying the concept of an urban system. Complex social systems may be characterised as:

- a) *adaptive* rather than mechanistic systems. That is, a given stimulus A does not automatically call forth a predetermined response B;
- b) *learning* systems, which are continually changing their centre of gravity, structure, and external linkages in a cumulative response to generative factors;
- c) systems which are *open* to influences derived from their external environment;

- d) systems marked by extreme *interrelatedness* among constituent parts, i.e. organised complexity; and
- e) systems in which there is considerable *substitution* or an interchange of parts and functions.

Each of these properties has important implications when applied to the principles of an urban system. The first two suggest that urban systems, like all social systems, are evolving in many and varied ways and that this evolution follows no simple mathematical or predictable pattern (Bourne, 1975:14). The openness of urban systems, with their internal interdependencies, indicates that such systems must be analysed holistically and future states of development must be anticipated in relation to changes in the contextual environment. This environment may, in the urban example, consist of the national economy in aggregate, social values, or the international urban economy. The fifth property illustrates why the detection of emerging trends in the structure of urban systems is so extremely difficult and so frequently open to misinterpretation. Such trends are often masked by widespread substitution among components of the system, even though the overall structure may appear to remain stable, which may continue until the trends are irreversibly advanced (Bourne, 1975:16). This is one of the main arguments for continuous monitoring of the urbanisation process and the formulation of relevant policy, especially in a developing country such as South Africa.

In summary, there is sufficient evidence that all nations, developed and developing, have tended to follow a similar path of urban evolution. Beyond a certain point in development, the degree of primacy tends to weaken, and urban areas, led by the leading urban/metropolitan region, begin to deconcentrate people and economic activities from core cities to surrounding suburban rings (Robert & Randolph, 1983:78; Hall, 1987:236-239; Dogan & Kasarda, 1988:12; Suarez-Villa, 1988:6; Fielding, 1989:69; Hartshorn, 1992:422). This deconcentration process eventually obliges great cities to solve the acute problems of congestion and overgrowth.

5.2.2 International level

The same spatial economic principles underlying the evolvement of urban systems at the national level, also apply to urban systems at higher levels of aggregation³⁰. As urban networks can be identified at the national, sub-national and local levels, so can they be identified at the global, continental, and sub-continental levels (Suarez-Villa, 1988:9; Geyer, 1998b:166). It is commonly accepted that cities and regions can more effectively be studied as part of a global, rather than national hierarchy (Short *et al*, 1996:698). As part of the world systems theory, an urban network of the highest order has already been identified at the global level³¹. Most scholars in urban and regional planning will acknowledge that transnational economic processes, or globalisation, are having an increasingly important influence on the evolution of urban areas. As a result, urban hierarchies are becoming more dispersed, new patterns of regional differentiation and inequality are being defined, and new networks of interaction and dominance are being established (Bourne, 1997:339).

An early observation was the recognition of an emerging system of dominant metropolises or world cities (Hall, 1984), a kind of urban élite which is shaped in part by the new international division of labour. This group of global cities, which includes New York, London, Paris, and Tokyo, are distinguished from the others on the basis of economic features. This is where political and business leaders have created surpassing economies dominated by banking and finance (Fielding, 1994:698; Birch, 1996:442; Bourne, 1997:341; Treanor, 1998). The view of global cities as the key nodes of the international urban system is a widely held one, underpinned in particular by the internationalisation of manufacturing activities by transnational corporations, time-space compression, the growth of producer services, the rise of global

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According to Richardson (1973:133), the units of measurement of costs of overcoming space (transport costs, travel time, etc.) remain the same regardless of whether the focus is interregional or intraregional.

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An urban system both serves and reflects the requirements of different operational functions and the various spatial and aspatial logics which underlie these functions. Conventional theories of the urban system (central place) assign prominence to production and distribution, while the rise of global cities as command centres clearly emphasise principles of circulation and control (Bourne, 1997:341).

telecommunications and the global financial system (Cheshire, 1989:13; Kipnis, 1996:14; Short *et al*, 1996:697). In this context, the three cities at the top of the global hierarchy, i.e. New York, London and Tokyo, have all experienced a loss in manufacturing jobs over the past decade (Fielding, 1994:698). In fact, producer services and the informational sector, quinary and quaternary sectors, respectively, lead today's post-industrial economy (Hugo, 1994:15; Kipnis, 1996:14; Beaverstock *et al*, 1999:1874). In addition, because of the more open and competitive world economy, the slightest diseconomies, such as congestion, pollution, and high housing costs, make certain centres less desirable and induce continued decentralisation of development (Malusardi & Muscarà, 1986:307).

In the past centuries, it was the large cities that fostered innovative propensity. Accordingly, world cities such as New York enjoyed unique advantages in the production of commodities for which continual innovation and a constant flow of new information played an integral role (Hoover & Vernon, 1959:28). In successive rounds of economic development, New York slowly secured its dominance over rival metropolises. Central to the explanation of New York's pre-eminence is the presence of agglomeration economies arising from inter-firm linkages. It is the presence of these linkages today which continues to fuel much of New York's growth as a financial service centre. Whilst the supportive evidence linking size and innovative capacity is impressive (Hägerstrand, 1965:42; Berry, 1972b:136), some recent observations suggest that part of the innovative growth potential which traditionally resided in larger American and European cities, may now be found in smaller urban concentrations (Batten, 1995:316; Garnsey, 1998:361; Jussila, 1992:117). The innovative activity of multinational companies can be seeded in various locations simultaneously, and is by no means restricted to the creative resources of big cities (Fielding, 1994:698; Arndt *et al*, 2000:1904). Such a trend reversal is consistent with the ongoing march towards a global network economy and the reversal of urbanisation patterns in developed countries

Given the emphasis of the world economy on a global urban system, Thrift (1994:366), identified five processes of economic globalisation: (i) the globalisation of finance and power of finance over production; (ii) the globalisation of production and the continuing rise of global oligopolies; (iii) the globalisation of knowledge and the growth in the importance of knowledge structures and expert systems; (iv) the growth of a transnational business class and; (v) the rise of transnational economic diplomacy and the globalisation of state power. Globalisation is both reflected and embodied in the global urban system according to which urban settlements reflect a selective integration of geographical territory into the circuitry of the global economic systems. According to this hypothesis, urban system development and policy-making are driven by world trends, and is largely beyond local or national control (Rothblatt, 1994:502; Martin, 1998:233; Sutherland, 1998:62; Bergen; 2000:23).

Greater internationalisation also implies a weakening in the relative importance of intra-regional accessibility in favour of stronger international contacts, especially in developed countries (Rodriquez-Pose, 1998:443). Increasing growth among firms who are sensitive to the availability of information processing, telecommunications and air transport capacity is greatly facilitating point-to-point contacts between many dispersed locations, thereby increasing the network character of the world economy. Empirical studies in European and Russian urban regions clearly show that a commitment to research-intensive activities and access to modern communications and international air transport, are expanding their employment and income base more quickly than others. They surpass most of the classical cities built around manufacturing activity (Hoover & Giarratani, 1985:342; Fielding, 1994:701; Rothblatt, 1994:515; Fainstein & Fainstein, 1995:630; Kipnis, 1996:14; Piterski, 1997:386; Clark, 1998:380). Similarly, findings from the North American urban system indicated that specialised urban places such as government, research and educational centres, and centres for high technology manufacturing were the fastest growing entities during the 1980s (Sjøholt, 1997:328).

Consequently, certain European and American border regions and transfrontier metropolises³² may eventually become new centres of production and urban life (Batten, 1995:313; Scott, 1999:613). Examples include the London-Cambridge and Stockholm-Uppsala axes where efficient infrastructure corridors link knowledge-intensive centres to larger metropolises. Each of these high-tech corridor developments incorporates an international airport. Since the airport-university combination turns out to be one of the most synergistic factors currently contributing to faster and more prosperous urban growth in the European context, such highly accessible places nurturing a higher level of knowledge-based activities may be expected to prosper in the next century (Garnsey, 1998:361; Rodriguez-Pose, 1998:444).

According to Batten (1995:316), the further proliferation of economic restructuring, the geographical contiguity of regions, and the relative size of places in a local context are becoming less important than they were in the past³³. It seems that the urban-to-rural gap of developed regions is widening because of the declining emphasis on natural resources, and the growing emphasis on creative activity and accessibility to innovative human resources. It must be realised, however, that the benefits of international economic restructuring are mostly limited to developed countries. After years of isolation, South Africa is rapidly being reintegrated into the world economy. Membership of a new global trade regime is putting pressure on South Africa's goods and service producers as foreign competitors re-enter what are now less protected local markets, and government subsidies to exporting firms are phased out (CDE, 1996:3). The economic prospects of cities, towns and regions in developing countries are affected by this new situation, making policies for economic development a priority for all urban settlements. According to Shatkin (1998:379), parts of Asia, Latin America, and much of Sub-

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The development of transfrontier metropolises, i.e. large urban settlements straddling international borders, and the interaction between them have increased in Europe since the end of the 'Cold War' and the growth of supra-state regions like the European Union (Anderson & O'Dowd, 1999:593).

33

Compare Christaller's (1966) central place theory as well as Friedmann's (1966) core-periphery model.

Saharan Africa, have seen their share of world trade decline over the last decade as a result of this process of international economic restructuring.

A number of criteria exist that can be used to identify the position of individual cities within the global urban system. The following seems to be the most appropriate (Kipnis, 1996:14), i.e. the number of financial centres, corporate headquarters, telecommunication nodes, transport nodes, and sites of global spectacles (e.g. Olympic Games or Rolling Stone concerts). Consequently, several changes in the global urban system over the past decades can be highlighted. First of all, it was found that the Tokyo and Paris metropolitan regions were increasing their global dominance, with the relative decline of New York and London. This study also highlighted the emergence of 'second tier' regions, such as Frankfurt and Seoul (Kipnis, 1996:14; Short *et al*, 1996:713; Chalkley & Essex, 1999:390). The effective development and future policy formulation of most developed cities and regions are consequently also dependent on international trends, and can only be objectively evaluated against the global urban hierarchy (Short *et al*, 1996:713; Arndt *et al*, 2000:1904).

The fast changing business environment also holds great risks for national governments and businesses that are ill-equipped to deal with issues rapidly. In Europe, and even South Africa, higher unemployment levels of especially unskilled workers has been blamed on increased international competition and associated high levels of technological change (Fielding, 1994:698; Nattrass, 1998; Smith, 1998). According to Treanor (1998), this "... fear of globalisation" is primarily used as an argument for more government aid to traditional "... national industries"³⁴. Globalisation, however, also means that capital and jobs; pollution, crime and terrorism; people, ideas and values, all move increasingly across national borders in response to changing patterns of incentives and disincentives (Gibson,

34 An example of the importance of globalisation in the urban context is emphasised in a survey conducted by Coopers & Lybrand (1996) which indicated that, even though European companies have global expansion in mind, they may not be thinking radically enough to succeed in the global marketplace. It would seem that they are less flexible, and are trading from a higher cost base than competitors in Asia and the Americas who are changing faster - which gives an indication of the already competitive character of globalisation and the demands placed on the urban system.

1994:59; Faist & Häußermann, 1996:83; Edwards, 1998). Yet, it holds tremendous opportunities to win international customers and upstage competing cities for companies that can exploit their business information and experience alongside an understanding of global trends and pressures.

To conclude, the new inter-regional division of labour introduced by the information society leads, on global scale, to three simultaneous processes: (i) the reinforcement of the metropolitan hierarchy throughout the world by the main existing nodal centres that use their technological potential and the new technologies to extend and deepen their global reach; (ii) the decline of the old dominant industrial regions; and (iii) the emergence of new regions or new countries (Castells, 1993:15; Sjøholt, 1997:328; Castells, 2000:91). Globalisation as an instrument of economic growth, therefore, poses a threat to “business as usual” policies for cities worldwide. Simultaneously, it provides new opportunities for growth and prosperity. If South African cities and regions do not find their economic niche or areas of comparative advantage in the regional and global economies, they will decline (CDE, 1996:24). Given the dominant role of urban systems in the transmission of social and economic innovations on national and international level, a discussion on the concepts of demographic and mobility transition is deemed relevant.

5.3 Mobility transition

The significance of the national and global urban system can only be fully understood if the concept of differential urbanisation is linked with Zelinsky’s (1971) concept of mobility transition. The theory of demographic transition, and its recent update, serves as introduction to the hypothesis of mobility transition.

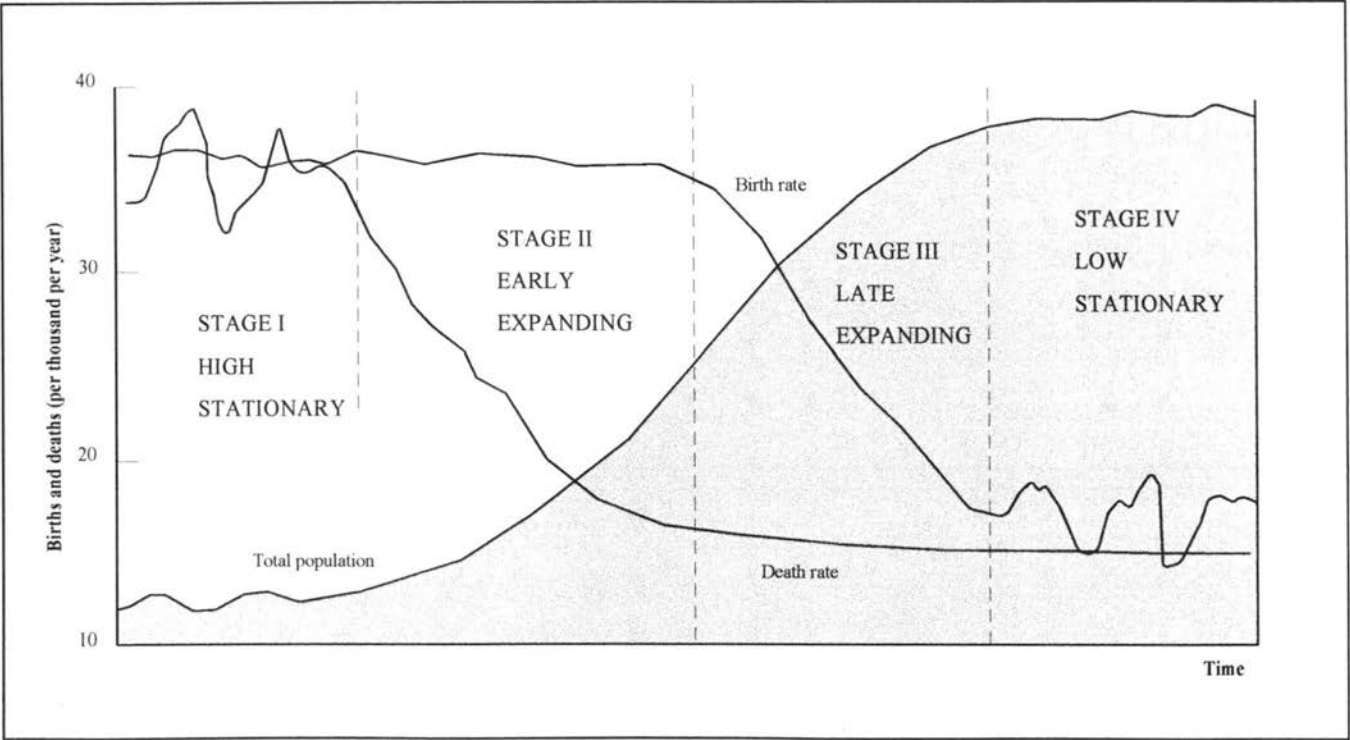
5.3.1 Demographic transition

There are a number of theories on the spatial patterns of social events. A distinction must be made in demography between the theory of demographic transition and the laws of migration. Demographic transition is based on the assertion that, on attaining certain thresholds of socio-

economic development, every community will pass through a pre-modern near-equilibrium phase, in which high levels of mortality tend to cancel out high levels of fertility. A modern near-equilibrium phase follows, in which low fertility almost matches low mortality. The decline in births are lagging far enough behind the decline in deaths to ensure a substantial growth in numbers during the transitional phase (Zelinsky, 1971:219; Todaro, 1982:178; Johnston *et al*, 1986:98; Hugo, 1994:15). This definition, as described further in Figure 5.3, can be referred to as the first demographic transition.

Countries and regions in more advanced phases of development display very different demographic characteristics than those found in less developed areas or socialist countries, with profound effects on the cities and regions (Kwon & Lee, 1997:389; Wei, 1997:213). It is these more advanced phases of development which are of significance given the policy-formulation nature of this study. Following on the above-mentioned theory of demographic transition, a new demographic regime has introduced new lifestyles associated with an altered set of values. This regime is particularly associated with the last two decades of change in social and sexual behaviour and in attitudes towards child-bearing and rearing, but it is also reflected in developments in migration behaviour.

Figure 5.3 Demographic transition



Source: Johnston *et al* (1986)

This 'second demographic transition' denotes a new stage in demographic history, the start of which was put at around 1965 (Champion, 1992:462). Its principal demographic feature is the decline in fertility from somewhat above the replacement level of about two births per woman to a level well below that. Even more fundamentally, this new demographic regime is associated with a dramatic shift in norms and attitudes, which can be denoted as a switch from altruism to individualism. Whereas the first transition to low fertility was dominated by concerns for family and offspring, the second emphasises the rights and self-fulfilment of individuals, the desire for people to realise more of their own potential, and an increasing emphasis on equality of opportunity and freedom of choice. Berger (1999) refers to this phenomenon as "...anticipatory socialisation", i.e. those who aspire to join the global élite.

Alongside basic considerations concerning the economic cost of children, social and cultural changes play a crucial role in the move away from marriage and parenthood (Van de Kaa, 1987:7). A key feature of these recent trends suggests that improvements in the societal position of women have led directly to the decline in fertility and the rise of non-traditional living arrangements and life-styles. A key feature of recent trends is the sheer diversity of life-styles, given the breakdown of institutional norms and greater toleration of 'new forms of family life'³⁵. In turn, this is leading to higher instability in household patterns and an increasing disassociation between formal and informal household structures.

Moreover, the idea of a new demographic regime based on changing life-styles is as relevant to migration as to fertility and household arrangements. At one level, the two are directly linked, since developments like increased childlessness and household instability will be associated with changes in the overall population's pattern of residential

35 In this context, Berger (1999) described what he calls the "...global yuppie". These people operate in certain multinational contexts, come from diverse backgrounds and irrespective of race, colour, creed, origin, gender or age seem to be exactly alike. They "...talk the same, have the same lifestyles, drink the same whiskey, have the same number of divorces and manage to communicate with each other beautifully no matter where they are from".

preferences³⁶ and propensity to move on a global scale. Numerous references refer to evidence of the growing importance of life-style and 'quality of life' factors in stimulating residential movement and influencing choice of destination (Doxiades, 1970:66; Berry, 1976:24; Brown & Lawson, 1989:183; Champion, 1992:462; Geyer & Kontuly, 1993:170; Walmsley *et al*, 1998:114).

5.3.2 Mobility transition theory

The notion that a social mobility process affects individuals during their lifetime is well known. Accordingly, cities are seen as centres of modernisation which acts as a catalyst for economic growth and social change (Friedmann & Wulf, 1976:40; Hoover & Giarratani, 1985:338; Chu-Seng Lin, 1994:7; Clark, 1998:372; Droogleever *et al*, 1998:368). The view of cities being instrumental in national economic development has been popular among development theorists for years, most notably Myrdal (1957), Hirschman (1958), and Friedmann (1966). Cities are, however, also seen as crucial for societal change (Friedmann, 1972). Cities, accordingly play a positive, constructive, and generative role in the process of societal change (Sjaastad, 1970:123). Berry (1972a:19) also contends that the urban hierarchy is essential for innovation to filter down so that development momentum can be generated. This view is also emphasised by Friedmann (1972:86-93), who indicated that cities could be perceived as centres of innovation, environments of opportunity, and seedbeds of democratic change. The progressive development of a system of cities would further lead from an imbalanced to a balanced spatial system, from urban enclaves to the complete modernisation of the national society, and from partial to total spatial integration.

36

A correlation can be found between the second demographic transition and the concept of environmentalism. After having had the opportunity to reap the benefits of productionism, people normally enter the environmentalism phase. This phase is entered when the need to improve one's actual living environment becomes as important as earning a living. During the environmentalism phase a person would even trade income for pleasant living conditions. In such cases, factors associated with productionism become less important. Many of the higher skilled formal migrants fall into this category (Geyer, 1998b:165)

With his theory on mobility transition, Zelinsky (1971) married these principles of the spatial development and diffusion of innovations (Hägerstrand, 1965; Berry, 1972*b*; Brown, 1981) to the laws of migration, i.e. that both volume and rate of migration tends to increase over time, provided no severe checks are imposed. Accordingly, his hypothesis was defined as follows: “There are definite, patterned regularities in the growth of personal mobility through space-time, and these regularities comprise an essential component of the modernization process” (Zelinsky, 1971:221-222). Being a central theme in this study, the spatial implication of migration over time should be dealt with in more detail. Some eight statements, taken together, more adequately elucidate the hypothesis (Zelinsky, 1971:222):

- a) a transition from a relatively sessile condition of severely limited physical and social mobility toward much higher rates of such movement always occurs as a community experiences the process of modernisation;
- b) for any specific community the course of the mobility transition closely parallels that of the demographic transition. A high degree of interaction may exist among all the processes in question;
- c) there are major, orderly changes in the form as well as in the intensity of spatial mobility at various stages of the transition - changes in function, frequency, duration, periodicity, distance, routing, categories of migrants, and classes of origin and destination;
- d) there are concurrent changes in both form and intensity of social mobility and in the movement of information, and under certain conditions the potential migrant may exercise the option of changing his locus in social space or exploiting a superior flow of information rather than engaging in a territorial shift;
- e) at a fairly high level of generalisation, which discourages minor spatial and temporal irregularities, coherent patterns in mobility

conditions can be recognised that propagate themselves onward through time as successive periods and outward through space as concentric zones emanating from successful growth points;

- f) the process in question tends to accelerate spatial and temporal pace with time, apparently as a result of a steady accumulation and intensification of causative factors within any given community and because information and effects are transferred from more advanced to less advanced regions;
- g) the basic spatio-temporal scenario of change may therefore be preserved, yet be noticeably modified when a region initiates its mobility transition at a late date, so that absolute dating is a significant consideration; and
- h) evidence available indicates an irreversible progression of stages.

According to Zelinsky (1971:222), the progress of a community can be measured by its control over energy, things, and knowledge, and also by the attainment of personal mobility, i.e. a widening range of options for locating and patterning one's life. These two transitional sequences, the demographic and mobility transitions, essentially illustrate the development from low to high values.

5.4 Differential urbanisation

The concept of differential urbanisation, as it was introduced (Geyer, 1989*b*, 1990, 1996; Geyer & Kontuly, 1993) deals with three issues. First, it conceptually links the processes of urbanisation, polarisation reversal, and counterurbanisation across the development spectrum of the First and Third Worlds. Second, it distinguishes between mainstream and substream migration patterns within countries and indicates how these streams differ over time within the urban system. Third, it identifies productionism and environmentalism as potentially powerful concepts explaining mainstream and substream migration.

5.4.1 Differential urbanisation within the national urban system

During the 1970s, a migration turnaround in the United States of America and several European countries saw proportionally more people move from metropolitan to non-metropolitan locations than vice versa, i.e. a dominant net migration movement down the urban hierarchy (Vining & Pallone, 1982:340; Robert & Randolph, 1983:76; Dean *et al*, 1984:177; Ogden, 1985:24; Champion, 1989b:84; Court, 1989:123; Frey, 1993:743). Apart from the occurrence of towns/cities next in rank showing more than usual growth, it was also recorded in various countries that these urban centres lie adjacent to, or around the metropolitan region (Beale, 1977:120; Cochrane & Vining, 1988:215; Court, 1989:123; Hugo, 1989:82; Tsuya & Kuroda, 1989:227; Winchester & Ogden, 1989:162). At the time it was proclaimed as being "... one of the major demographic puzzles" (Hall & Hay, 1980:12); since then, the enigma has only grown.

In an early attempt to theorise the 'puzzle' of migration turnaround, Beale (1977:169) argued that the United States of America had entered a new era of social and economic development. One characterised by the convergence of urban and rural space (Wardwell, 1977:176; Zelinsky, 1978:38). This process of counterurbanisation is defined by Berry (1976:17) as a "... process of population deconcentration; it implies a movement from a state of more concentration to a state of less concentration". This definition seems to suggest a similarity with Richardson's (1980:67) concept of polarisation reversal which is described as "...the turning point when spatial polarization trends in an economy, give way to a process of spatial dispersion out of the core region into other regions of the system". There are significant differences, however. Berry's analysis focused mostly on the slowing down in both population growth and economic growth and the expansion of population outside metropolitan areas in a developed country. Polarisation reversal, on the other hand, is associated with developing countries experiencing rapid growth (Richardson, 1980:67; Townroe & Keen, 1984:45; Brown & Lawson, 1989:165; Aguilar-Barajas, 1990:181). Also, polarisation

reversal in a developing country is not associated with a secular downward trend in economic growth, but is a consequence of economic growth. The key initiating factor in polarisation reversal is much more the interregional deconcentration of economic activity with population shifting in response, whereas counterurbanisation stresses the changes in people's preferences of living conditions (Richardson, 1980:81).

Counterurbanisation has also been documented in several other developed countries such as Germany (Kontuly & Vogelsang, 1988:51), Australia (Hugo, 1989:62), Great Britain (Champion, 1989b:100), Denmark (Court, 1989:123), France (Winchester & Ogden, 1989:162), Italy (Dematteis & Petsimeris, 1989:187), Japan (Tsuya & Kuroda, 1989:227), and Canada (Anderson & Papageorgiou, 1992:138). Relevant data indicated a clear desire for living in the smaller-sized places within the commuting radius of the metropolitan centre, and for smaller-sized places beyond that radius in preference to living within the centre itself (Vining & Strauss, 1977:757; Kontuly *et al.*, 1986: 170; Kontuly & Vogelsang, 1988:42; Champion, 1989b:58; Coombes *et al.*, 1989:68; Hugo, 1989:62).

Opinion differed about whether counterurbanisation started during this turnaround or not. The *clean break* school indicated that the higher growth rate of non-metropolitan areas compared to metropolitan areas is a "... clean and wholly unprecedented break with past trends" (Vining & Strauss, 1977:751). Another school of thought contended that as "... the wave of development spreads outward and spills over SMSA lines, a reversal is 'perceived' though none may have occurred" (Gordon, 1979:285). Several other opinions exist on the status of the counterurbanisation process, but Champion (1989b:241) concluded that the weight of evidence does not favour the idea that counterurbanisation is a "... temporary blip in an ongoing process of urbanization".

More recent explanations for the population deconcentration phenomenon in the 1970s emphasised long-term forces that seemed to imply a future with a higher proportion of the population living in smaller less dense settlements (Tucker, 1976:435; Richter, 1985:262; Stockdale, 1993:32).

Specific explanations include: (1) trends toward early retirement and retirees' preferences for living in less urban locations; (2) the development of year-round recreational facilities in mountainous locations, around lakes, and in other scenic rural areas; (3) growing disamenities in many urban areas arising from crime, pollution, and the like³⁷; (4) long-standing preferences of especially Americans, to live in smaller settlements and possibly a greater willingness to sacrifice income in order to realise residential preferences, (5) improved quality of life in many smaller communities as a result of government investments in infrastructure (e.g. better highways, extension of municipal services into surrounding rural territory, and creation of community colleges and other educational facilities in small communities); (6) a shift of the economy from manufacturing to services; (7) an increasing 'anti-urban' culture or ideology; and (8) new global forces that spurred manufacturers to relocate to low-cost areas of the country (Vining & Strauss, 1977:757; Vining & Kontuly, 1978:68; Lo & Salih, 1978:39; Brown and Wardwell, 1980:29; Fielding, 1982:16; Vining & Pallone, 1982:363; Malusardi & Muscara, 1986:309; Fuguitt *et al*, 1989:27-31; Champion, 1989a:235-237; Kontuly, 1991:315; Chu-Seng Li, 1994:11; Gordon & Molho, 1998:321; Walmsley *et al*, 1998:116). About the only short-term explanation was that the energy crisis renewed growth in rural areas with oil, gas, or coal (Plane, 1994:1559; Nucci & Long, 1995).

As theoretical explanations for this historic reversal began to emerge, evidence from the 1980s suggested a return to more traditional patterns of metropolitan concentration in several developed countries (United States, Japan, Norway, Finland, Spain, Italy, the Netherlands, and Denmark) (Kontuly & Schön, 1994:1540). Now it appears that even this trend may

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The principles of environmentalism and productionism (Hart, 1983:20) are relevant in this context. Productionism refers to the phase in people's lives when improved job opportunities, education, and income are more important in their decision where to stay, than the actual conditions in which they live (Geyer, 1998b:164). After having had the opportunity to reap the benefits of productionism, people normally enter the environmentalism phase. This phase is entered into when the need to improve one's actual living environment becomes as important as earning a living. During the environmentalism phase a person would even trade income for pleasant living conditions and in such cases factors associated with productionism become less important.

be short-lived. Evidence from the 1990s now indicates that specifically the USA might be experiencing its second turnaround in less than 20 years (Elliot, 1997:21; Long & Nucci, 1997:1355). The reversal of the turnaround by the early 1980s seemed to mean that the 1970s were an anomalous period and that the future might be more like the mixed pattern of the 1980s. Not a return to the rapid metropolitanisation of the 1950s and 1960s, but a return to metropolitanisation nonetheless (Frey & Speare, 1988:143; Frey, 1993:741; Frey, 1995:754). The reasons for reconcentration in the 1980s, however, seem cyclical: (1) falling energy prices slowed or halted the search for oil, gas, and coal in rural locations; (2) a crisis in agriculture caused many farms to go out of business and weakened the economic base of many rural communities; and (3) moving manufacturing to rural locations could no longer bring costs down enough to be competitive with exports from low-cost countries (Johnston & Beale, 1994:665). Great Britain, instead, saw a resurgence of growth in the non-metropolitan population in the mid-1980s (Champion, 1994b:1517).

In retrospect, the explanations of both the turnaround in the 1970s and its reversal in the 1980s remain poorly tested. Suburbanisation and the growth of new metropolitan areas are the consistent and dominant patterns of population redistribution in the United States. The relative growth of the non-metropolitan sector has shifted with time, and the 1990s seem increasingly similar to the 1970s in that: (1) non-metropolitan territory has again shifted to net immigration, (2) the number of non-metropolitan counties that are losing population is declining and the number growing rapidly is increasing, (3) population growth in older metropolitan territory has again dropped below the national average, and (4) signs of counterurbanisation are again present as growth moves down the urban hierarchy (Boyle, 1994:1719; Nucci & Long, 1995).

Johnson and Beale (1994:655) explained that the 1980s might have been the anomalous decade when specific cyclical events interrupted and weakened long-term forces for deconcentration. Recent high levels of

immigration have added directly to the metropolitan population, and immigrants' higher fertility builds in a momentum to metropolitan population growth (Nucci & Long, 1995; Clark, 1998:373). The surest conclusion may be that long-term forces are causing population deconcentrate toward less dense locations in suburban fringes in adjacent nonmetropolitan territory, and in many locations clearly removed from metropolitan commuting fields (Champion, 1994b:1518). Future metropolitan/non-metropolitan growth ratios are likely to be influenced by cyclical developments that cannot be foreseen or by interruptions in long-term forces of deconcentration. According to Gordon *et al* (1998:1037), the 1980s turned out to be an "...aberration, because since 1988 the vigorous non-metropolitan growth of the 1970s has resumed, and now has a clear rural emphasis".

In an attempt to formalise a theory based on the observations of Richardson (1980) between polarisation reversal and counterurbanisation, and the other observations on population movements on various levels of the urban hierarchy (Vining & Straus, 1977; Champion, 1989b), Geyer & Kontuly (1993) introduced the differential urbanisation model. Utilising fundamental theories of central places (Christaller, 1966:77), the roles of market forces (Isard, 1975), locational attributes (Richardson, 1973b), diffusion of innovation (Hägerstrand, 1965; Berry, 1972b), development axes and agglomeration economies (Hirschman, 1958; Myrdal, 1957), Geyer and Kontuly (1993:159-160) made some fundamental propositions regarding the evolution of urban systems.

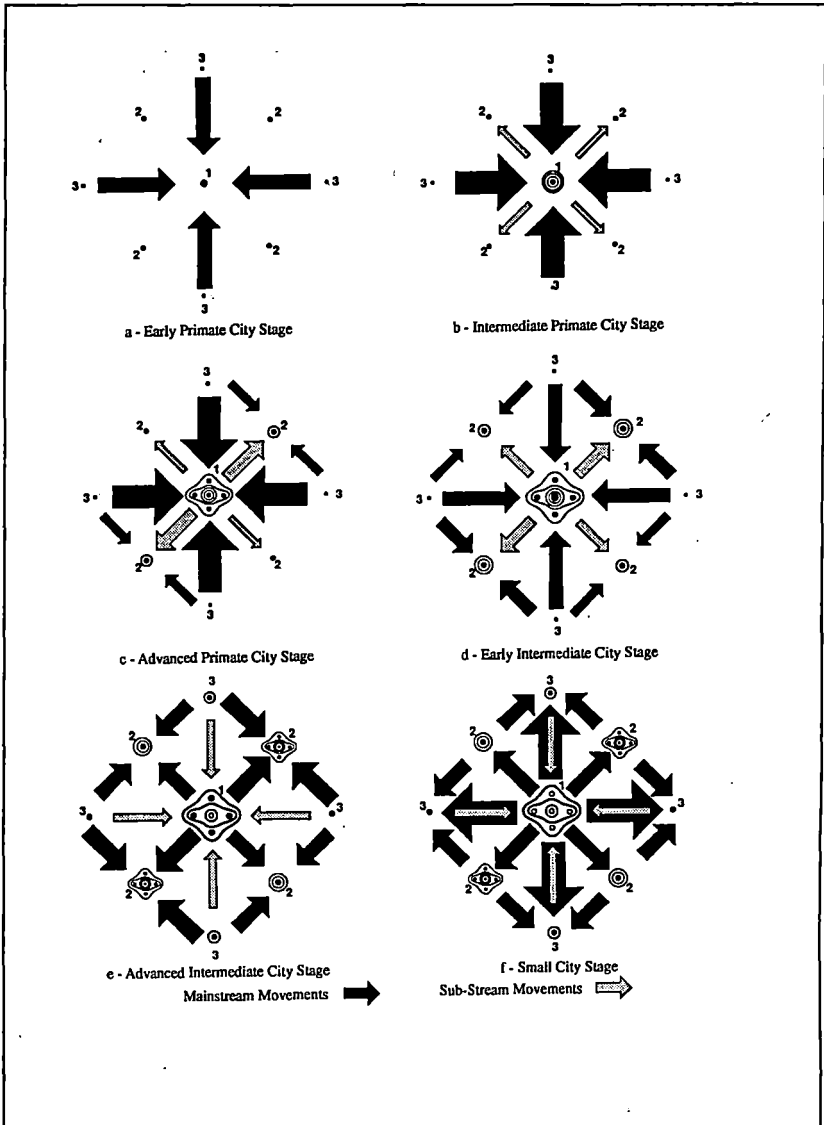
According to this model (Geyer, 1996a), urban systems initially go through a primate city phase, in which a large proportion of economic development and large numbers of migrants are attracted to one or a few primary centres. In the second phase, as the national urban system expands and matures, new urban centres are added to the lower ranks while many of those that already exist, develop and move up through the urban hierarchy. In this process, economic development is dispersed, while the urban system becomes more spatially integrated (Friedmann, 1966).

Third, these expanding national urban systems develop various strata of territorially organised sub-systems, from the macro level through the regional and subregional levels, to the local levels (Bourne, 1975:13). Fourth, the sequence of tendencies observed in the development of urban systems, first toward concentration and then toward dispersion, is not limited to systems at the national level, but can also manifest itself at each of the lower levels of territorially organised sub-systems as the same spatial forces operate at both national and sub-national levels. Fifth, in a growing urban environment, the odds favour the development of secondary centres or urban systems closer to metropolitan areas (Richardson, 1977a:20; Jones *et al*, 1984:437; Hall, 1987:237; Gordon, 1979:282; Boyle, 1994:1719).

Based on these five propositions, Geyer and Kontuly (1993:160) hypothesised an impressionistic spatial characterisation model of differential urbanisation based on net migration flows during specific phases (see Figure 5.4). Initially, there is a phase of urbanisation during which an increasing proportion of the economic activity and population of a country concentrates in a limited number of rapidly growing centres. This is referred to as the primate city phase. This initial phase can be subdivided into three stages. During the early primate city stage (Figure 5.4a), a primate city establishes some degree of overall spatial dominance within an urban system, attracting a relatively large percentage of the net interregional movement. The second phase, i.e. in the intermediate primate city stage the primate city is still largely monocentric and growing rapidly with suburbanisation as a prominent phenomenon (Figure 5.4b). Suburban nodes begin to emerge at this time and the primate city expands at an increasing rate. The rest of the urban system starts benefiting from net rural-to-urban migration, although it responds rather slowly in the beginning. As a result of locational attributes, certain secondary cities develop relatively faster than others do. Finally, the urban system enters the advanced primate city stage when the primate city becomes so large that a monocentric urban structure can no longer prevail.

By means of intraregional decentralisation within what could now be called the primate region, the primate city develops a multi-centred metropolitan character which dominates the rest of the urban system economically and spatially (Figure 5.4*c*). The urban system may expand rapidly at a national level during this phase, with certain existing urban centres entering higher ranks and new centres added to the lower ranks. Where more than one primate city exists, it is highly unlikely that all would be in the same stage of development (Geyer & Kontuly, 1993:162). At some point in the development history of most countries, the primate cities start to mature, their growth rates begin to slow down, and the process of spatial deconcentration starts (Vining & Strauss, 1977:757; Rothblatt, 1994:515; Elliot, 1997:23).

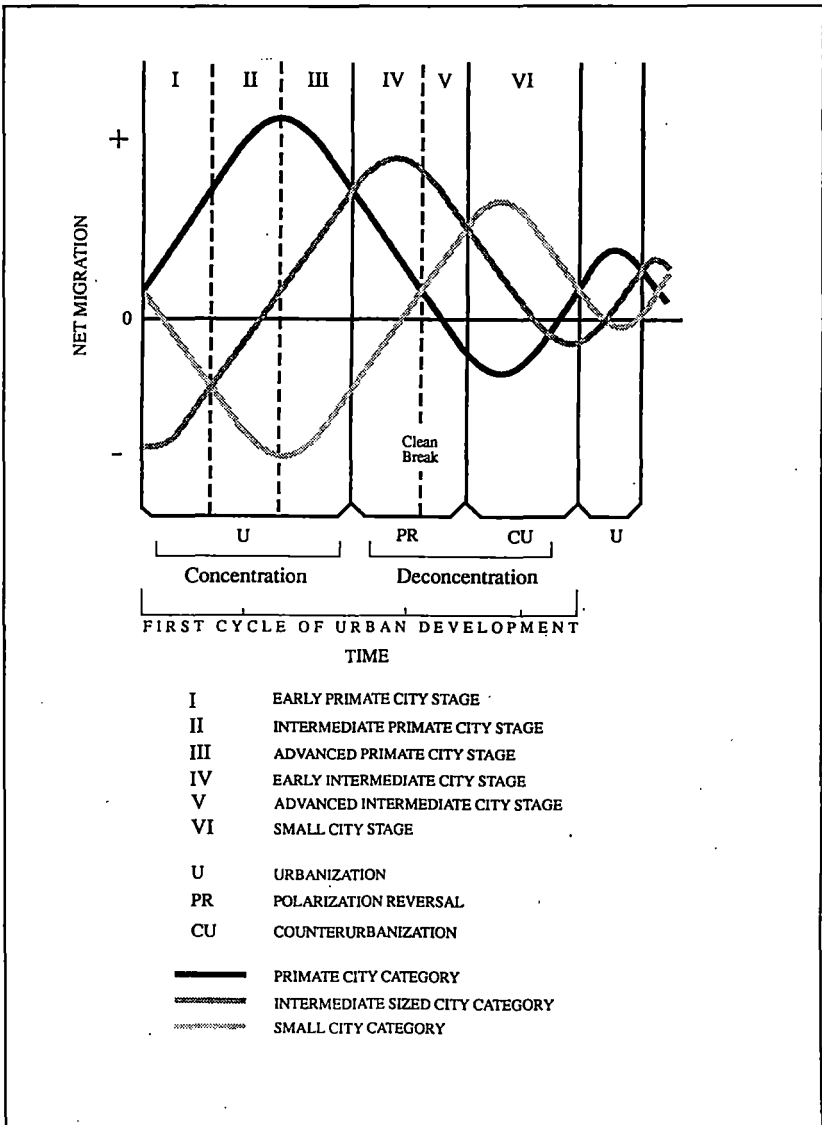
Figure 5.4 Phases of differential urbanisation: mainstream and substream movements



Source: Geyer & Kontuly (1993:171)

The ageing of the primate city is often accompanied by some growth in several centres close to the primate city. At a national level a turnaround of this nature is known as polarisation reversal (Richardson, 1977a:20,67). This process is repeated in ever-decreasing temporal scales. The differential urbanisation model depicted in Figure 5.4 illustrates a clear distinction between the phases of urbanisation and counterurbanisation on the one hand, and the phase of polarisation reversal on the other. The former two phases result in concentration and deconcentration respectively. Major cities gain migrants the fastest during the urbanisation phase at the expense of small cities, and vice versa during the counterurbanisation phase. During polarisation reversal intermediate-sized cities grow at the expense of both major and small cities, even though there may still be an increase in population in the major cities, but at a slower rate now than previously. As a result, there is a positive relationship between the net migration rate and settlement size during urbanisation, and a negative relationship during urbanisation (see Figure 5.5).

Figure 5.5 Temporal characterisation of differential urbanisation

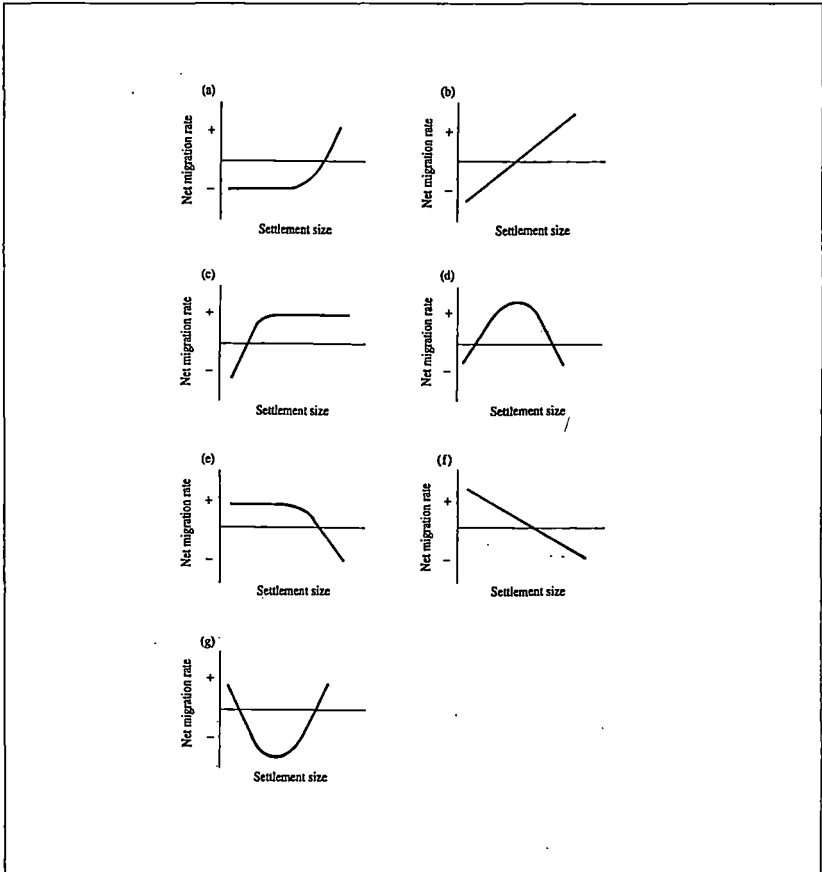


Source: Geyer & Kontuly (1993)

The curves in Figure 5.5 represent the relative position of the different city size categories at the transition from one migration stage to the other. Given the above-mentioned relationship between city size in the urbanisation and counterurbanisation phases, the polarisation reversal phase could be defined as coincident with a symmetrical relationship between net migration rate and settlement size (Figure 5.5*d*). During the polarisation reversal phase intermediate-sized cities grow at a faster rate than large and small cities. The symmetrical relationship can either be parabolic or leptokurtic (Geyer, 1996*a*:49). Consequently, the evolvement of the urban system under ideal circumstances can be visualised in two ways. Firstly, in terms of city size categories and, secondly, in terms of its spatial or geographical dimensions. Thus, initially, major cities grow the fastest, then intermediate-sized cities, then the smaller ones, until the urban system enters the counterurbanisation phase when the growth rate of the smallest cities outstrips that of the larger cities in the system (see Figure 5.6). Spatially, cities closer to the major areas will start growing, then the ones further afield.

These ideal circumstances do not occur in reality, however. Due to the uneven distribution of natural resources and the effects policies of state intervention have on spatial development, intermediate-sized cities and specific smaller cities could start developing simultaneously, resulting in bimodal or multimodal patterns of urban development. The South African scenario will be tested in Chapter Six.

Figure 5.6 *The changing relationship between net migration rate and settlement size during a cycle of urban development*



Source: Geyer (1996a:50)

5.4.2 Differential urbanisation in a global urban system

International migration is largely influenced by the globalisation of the market economy (Jones & Findlay, 1998:93). As the core nations of the world, Capitalism extends outward from Europe, North America and the

Far East with New York, London and Tokyo serving as apices within these cores at the global level (Geyer, 1998b:167). The direct effects of international migration have, however, not been felt evenly within countries (Zlotnik, 1998:466). Although it is dangerous to generalise about the behaviour of all the different types of migrants, the movements of the numerically largest groups nowadays appear to be even more highly skewed towards the major metropolitan centres and entry points than they were in the 1950s and 1960s. The central emphasis in recent literature is upon the globalisation of migration (Champion, 1992:477; Ingram, 1998:1032; Zlotnik, 1998:465). It was even suggested by Champion (1992:477) that in terms of urban and regional demographic change, this "... decade [1990s] is going to be dominated by the phenomenon of international migration". More than ever before, vast numbers of migrants and asylum-seekers are seeking to leave their countries of origin and gain entry into the rich countries of the North, as the demographic gradient between the North and South has become steeper and as international relations are being affected by the birth of the New World Order and by the associated pains of disorder. Consequently, the opening up of market economies and increasing demographic pressures in the Third World make it virtually certain that international migration will play a major role in the demographic and socio-economic future of developed as well as developing countries well into the 21st century.

In addition, global economic restructuring has prompted a surge in labour movement at both ends of the socio-economic scale (Chu-Seng Li, 1994:11), while previous waves of 'temporary workers' have bequeathed a sizeable and distinctive legacy to the destination countries which has subsequently been reinforced by the process of family reunification (Champion, 1994a:653). While international migration is clearly a force to be reckoned with in terms of national population growth, it takes on particular significance in this study because of its uneven spatial incidence within countries. In the United States, for example, two-thirds of the twenty million foreign-born residents are concentrated in only five states,

i.e. California, New York, Florida, Illinois, and Texas, where they are further clustered in the major metropolitan areas (Friedmann & Angelika-Lehrer, 1997:62). Even for countries with a relatively strong natural increase amongst long-term residents, there may be cities and regions where foreign immigrants have acted as a 'replacement population'. This is directly the result of the spatially selective behaviour of most groups of immigrants, though this in its turn is influenced by the way in which places are vacated as a result of migration or mortality in the destination country.

The United States of America and United Kingdom provide examples of this replacement process in action. In the former it can be detected even at the broad regional level. During the 1980s both the Northeast and Midwest lost the same number of internal migrants than the numbers they gained from international migration (Champion, 1994a:668). The situation of a single city like London is even more dramatic. Between 1981 and 1989, it is estimated that the city to have gained 126000 people through international migration while it lost 387000 migrants to the rest of the United Kingdom. London's dominant position in the United Kingdom's recent international flows is by no means a unique case: the larger metropolitan centres in developed countries have traditionally been the principal magnet for immigrants and seem to be important destinations for the latest wave of newcomers (Bernstein, 1997; Clark, 1998:372). With the immigrants of the 1950s and 1960s being very sensitive to the availability of job opportunities, many being recruited directly by employers, very large cities inevitably drew large numbers, but so too did small industrial and mining towns.

Two of the main components of the 'post-industrial' wave of international migration have been focused on major cities: skilled migrants because of the marked concentration of professional, managerial and technical activities there; and refugees because they can hide more easily (Clark, 1998:380). Evidence of a wider range of destinations, partly reflecting the range of people involved in international migration, has been noted specifically in Germany. Amongst the ethnic arrivals in West Germany,

the *aussiedler* from eastern Europe tend to be more concentrated in the Ruhr region, while the *ubersiedler* from the former GDR show a strong preference for Bavaria and other southern states. In general, Blumenfeld (1972:99) points out that people moving to another country for retirement, usually seek out less densely populated areas or small towns in scenic areas with a moderate climate.

According to Champion (1994a:669), there would appear to be certain conditions under which a more dispersed set of destinations can be found, which can perhaps be considered embryonic 'laws'. One, concerns the relative importance of pull and push factors in a migration stream, with the former tending to lead to a more dispersed distribution as opposed to a concentration in large cities and other entry points for those responding to push factors. Two, relates to the volume of the migration stream at any particular time, with larger flows having to spread themselves wider across a country, as has been noted in the case of West Germany (Kontuly & Schön, 1994:1541). Many of the Vietnamese refugees accepted by the United States and the United Kingdom in the early 1980s found dispersal in small groups unsatisfactory and engaged in secondary migration, leading to progressively greater concentrations in the major conurbations. The overwhelming tendency, therefore, is for immigrants to concentrate in the largest cities.

With regard to urban and regional change and spatial planning, it is the interactions with internal migration which form the most important indirect impact of international migration. Several aspects can be envisaged. One is the immediate impact of an immigrant who, if accommodation is not provided, will occupy a housing unit that was previously vacant or had been occupied by another household (Champion, 1994a:670). The immigrant, once settled in a new country, will subsequently engage in further ('secondary') migration, which may be significantly different in nature from the residential mobility patterns of the resident population. However, secondary migration patterns of international migrants who are

more easily assimilated into the local population, will correspond closer with those of the residential labour force (Geyer, 1998b:166).

It has been indicated in this chapter that international market penetration by developed countries tends to displace unskilled labour in certain developing regions of the world. This globalisation process mobilises population from less developed regions to migrate to these core regions. It creates employment opportunities for highly skilled labour in management, finance, and services. Employment opportunities are also created for less-skilled labour in the latter cities for ancillary work in entertainment, accommodation, construction and services. If one applies the same principles outlined in the development of the national urban system, the world systems theory can be extended as follows (Geyer, 1998b:172-3):

- First, the global urban system has gone through more than one primate city phase in history, and is presently finding itself at the end of yet another cycle of primate city development. Economic globalisation is not a new phenomenon. Given the technological limitations of leading nations at different points in time in history, economic globalisation was one of the main driving forces behind all the colonialisation waves over the ages. During the primate city phase referred to in this first proposition, the primate world cities display an economic dominance in particular strategic economic sectors, and large numbers of migrants are attracted to these world centres as a result of this dominance.
- Second, the rate of population increase of major cities tends to slow down incrementally over time, while their levels of economic development tend to gain momentum. Generally, these differences cause cities to move from the lower left sections of Figure 4a and b, to the upper right sections. As the major urban centres on the different continents of the world expand and mature, new urban centres of international importance are added to the lower ranks, while many of those that already exist, develop and move up through the ranks. In this process, new globally significant economic focus points emerge on the

world map and in this manner economic development is dispersed, while the world urban system becomes spatially more integrated.

- Third, various strata of urban networks develop in this expanding international urban system, from the global through the continental to the sub-continental levels.
- Fourth, the sequence of tendencies observed in the development of urban systems, first towards concentration and then toward dispersion or deconcentration, is not limited to systems at the national level only. It could also manifest itself in migration patterns at higher levels of aggregation because the same spatial forces that operate at the national and sub-national levels should also operate at higher levels of aggregation.
- Fifth, as a result of spatial friction, cores of a lower order closer to primate world centres should have a developmental advantage over those further away and this should lead to higher levels of spatial economic networking and integration between the former centres than between the latter.
- Sixth, *ceteris paribus* the odds should favour stronger economic ties between developed nations and less developed nations closer by than between developed nations and less developed nations further away. The existence of globally significant urban focus points in peripheral regions are normally due to the existence of significantly superior locational advantages (Richardson, 1973a) at those points than elsewhere in those regions.

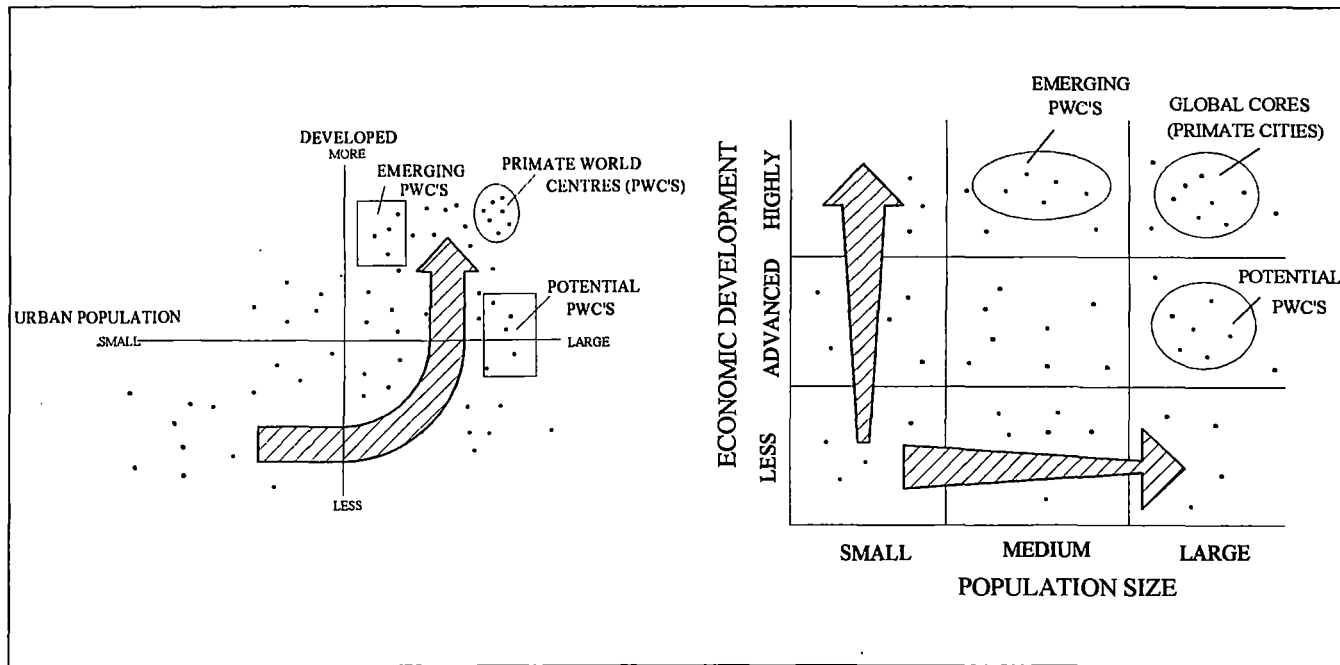
As a result of the impact of these propositions on the development of the global urban system, Geyer (1998b:174) made several further generalisations. First, the world cities and large urbanised regions in their direct vicinity have become spatially integrated to such an extent over the centuries, that, what holds true for individual global cities in terms of capital accumulation and access to markets and resources globally, also holds true for the urban networks around them. In the United States, New

York serves as an apex within the North Eastern Seaboard. Around this inner core area lies an outer core area, stretching roughly from Washington in the south, to Chicago in the west and Montreal in the north. Similarly, London serves as an apex within an inner core area in Western Europe, stretching from Paris in the south to Frankfurt in the east and Amsterdam in the north. This inner core is surrounded by an extensive outer core area, stretching roughly from Lyon and Milan in the south, to Vienna and Berlin in the east, to Stockholm and Oslo in the north, and Manchester and Liverpool in the west (Geyer, 1998b:175). Together, these global apices and their surrounding urban areas constitute urban networks at the highest level of aggregation.

From an international development perspective, the world core regions are not the only areas advantaged significantly by international economic forces of cumulative causation. Also lesser cores such as Hong Kong, the Johannesburg-Pretoria area, and Sao Paulo and Singapore present similar advantages to prospective multi-national developers, albeit at lower levels of intensity and scale than the global cores. In fact, sub-continental cores in the developing world often provide agglomeration advantages far outstripping those of other areas in their vicinity (Geyer, 1998b:175).. The relative locational advantage of these cores cause many influential multi-nationals, international financial institutions, and international agencies to locate their regional headquarters in these centres. This creates job opportunities to prospective skilled and unskilled international migrants that are similar to those offered to them in the world cores.

In a global context, each of the sub-continental cores could be regarded as independent intermediate-sized cores. Looking at the urban system of the world as a whole, therefore, urban networks can be identified at the global, continental, sub-continental, national, sub-national, and local levels, each level forming a different stratum within the same urban system. Many of these sub-continental cores are located in the developing world. In terms of human resource potential, Figure 5.7 clearly shows how the focus, at present, is shifting from urban settlements in the developed towards urban

Figure 5.7 A graphic model of the historical relationship between the economy and population of urban areas



Source: Geyer (1998b)

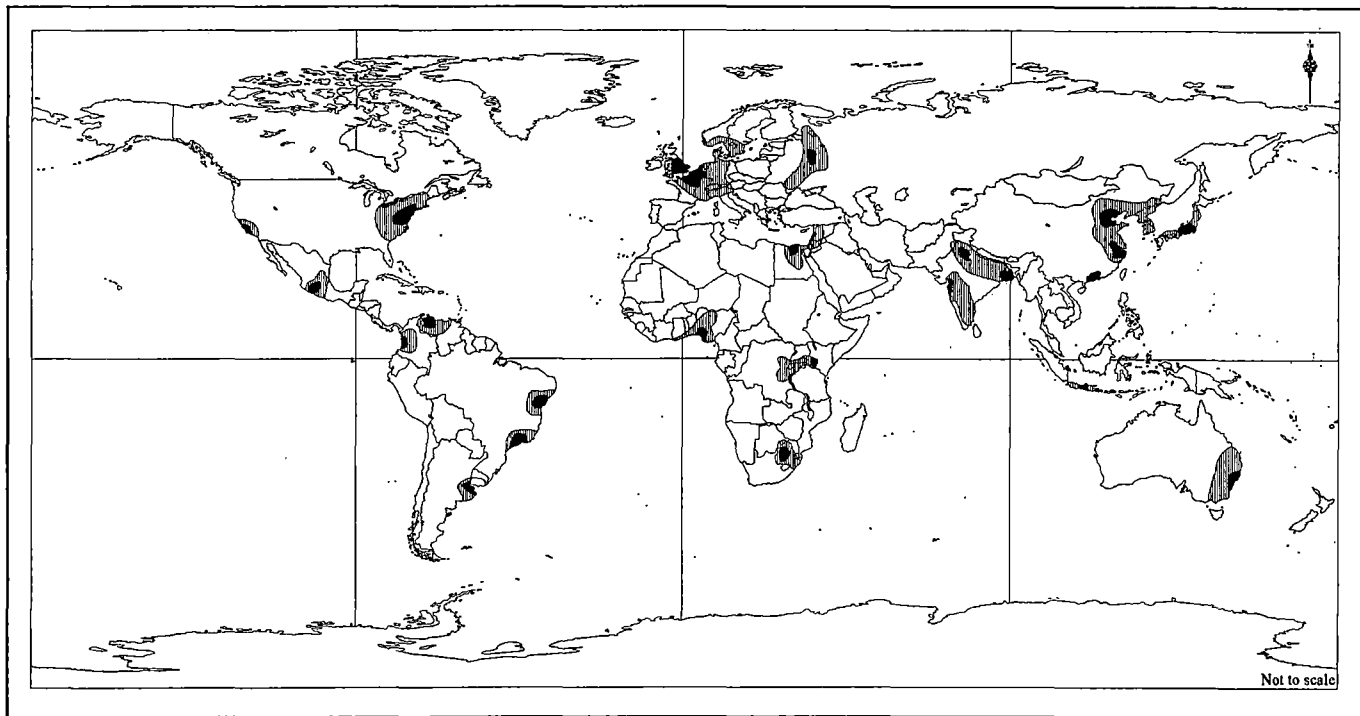
agglomerations in the developing world. Serving as gateways to large tracts of economically less developed territories in the developing world, certain strategically well located Third World cities are already becoming important sub-continental and even continental cores attracting scores of international migrants across the board annually. Based on the process of urban development, and because the emphasis in urban population growth is systematically shifting from the developed to the developing world, indications are that the sub-continental cores shown on Figure 5.8 are bound to become more important destinations in the future relative to present cores in the developed world (Geyer, 1998b:175).

5.5 Conclusion

It is evident from this chapter and the relevant literature that these three main themes, i.e. the urban system, mobility transition, and differential urbanisation, have usually been used and described separately with different focus areas in mind. Accordingly, the urban system approach has been used mainly to describe a region or country's urban hierarchy and the linkages in between. Since the 1990s, the concept has been expanded to include a global or international system of cities, with the world-cities at the highest rank. The concepts of mobility and demographic transition have essentially been used to describe changing life-styles and household arrangements (e.g. fertility rates) as a country or region progresses from less developed to a more developed state. Differential urbanisation describes different migration patterns, over time, in developed as well as developed countries or regions.

It is argued that, in terms of regional planning and policy formulation, definite potential exist in analysing a region in an integral fashion by combining spatial, economic, and social patterns and characteristics. A close relationship can be established with regard to the 'maturing of society and the urban system', - a relationship formalised in this chapter, also with reference to the model on differential urbanisation.

Figure 5.8 Continental and sub-continental cores of the world



Source: Geyer (1998b)

The relationship between an urban system, demographic and mobility transition (a main theoretical statement in this study) and regional policy, however, remains to be tested empirically. Also, the question of an effective policy response to the movement of people and economic activities, within a specific urban system is also raised. The former issue will be dealt with in the next chapter, while the latter question will be contended with in Chapters Seven and Eight.

CHAPTER SIX

6. DIFFERENTIAL URBANISATION IN THE GAUTENG FUNCTIONAL METROPOLITAN REGION

6.1 Introduction

In Chapter One, it was hypothesised that urban systems follow a predictable pattern of growth that can be anticipated by means of the differential urbanisation model (see Section 1.3). South Africa, however, had unique circumstances and policies with regard to spatial development and regional policy (see Chapter Four). Against this background, this chapter aims to analyse the latest census results and to determine to what extent the differential urbanisation model applies to the study area. A previous study by Geyer (1990) suggested the end of the urbanisation phase, i.e. the advanced primate city stage for the metropolitan section of the urban system.

Since 1994, the new democratically-elected government (led by the African National Congress) has taken various steps to eliminate the aforementioned legislation curbing natural migration patterns in the country. A natural migration pattern could consequently only evolve again after 1994. The same holds for the movement of economic activities where the policy changed from a top-down deconcentration policy to a bottom-up approach to regional economic development (Drewes & Bos, 1995). Thus, the main objectives of this chapter are to delineate a study area compatible with the principles of urban system analysis, i.e. a non-political entity free of subjective demarcation issues. When a suitable study area has been identified, the second objective is to determine the development phase of the urban system against the background of local and global influences. The development status of the study area will thus

be determined by means of migration and sectoral development patterns within the urban system.

6.2 Determining the study area

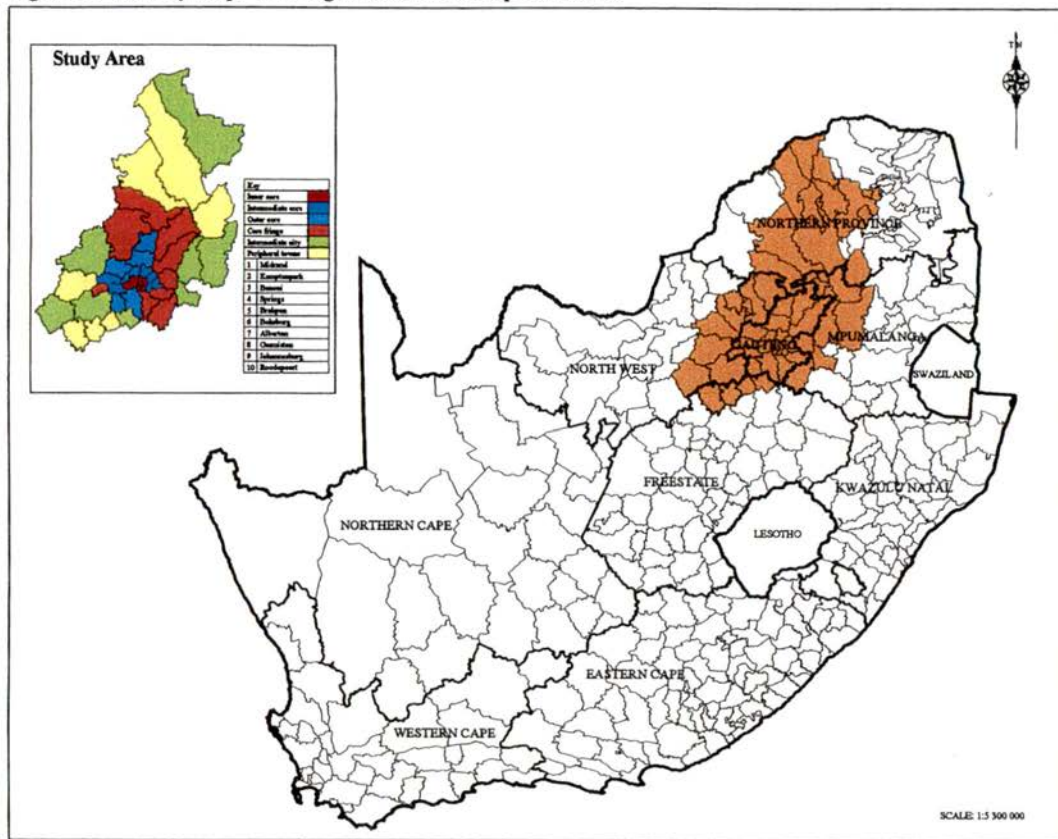
Focusing on the Gauteng metropolitan region, a study area was identified which includes a more or less circular area of approximately 100 to 200 kilometres from the centre of Gauteng. According to the national hierarchy of cities (DPE, 1975:45-53; Geyer, 1996b:18-19), the study area includes a metropolitan region, secondary cities and smaller cities or towns. Geographically, the metropolitan region can be divided into an inner core, intermediate core, outer core, and core fringe. The inner core and intermediate core refer to the original and well-established core cities of the metropolitan area, while the outer core refers to the urbanised and semi-urbanised areas lying outside the core cities. The core fringe zones refer to the towns on the outskirts of the metropolitan area. The non-metropolitan region of the study area refers to the intermediate city regions³⁸ and the small towns in its immediate periphery, adjacent to the metropolitan area.

A larger study area would not be necessary as this study area effectively contains all the elements of the national urban system, i.e. a metropolitan region, intermediate-sized cities, and a peripheral region with small cities and towns surrounding it. Provincial borders were ignored as this study focuses on socio-economic entities within a specific geographical area (see Figure 6.1). As all the population and economic data being used in this study have been published based on the magisterial districts of the country, they were regarded as the most acceptable geographical areas for the purpose of this study. Also, magisterial districts serve as building blocks to form continuous planning regions.

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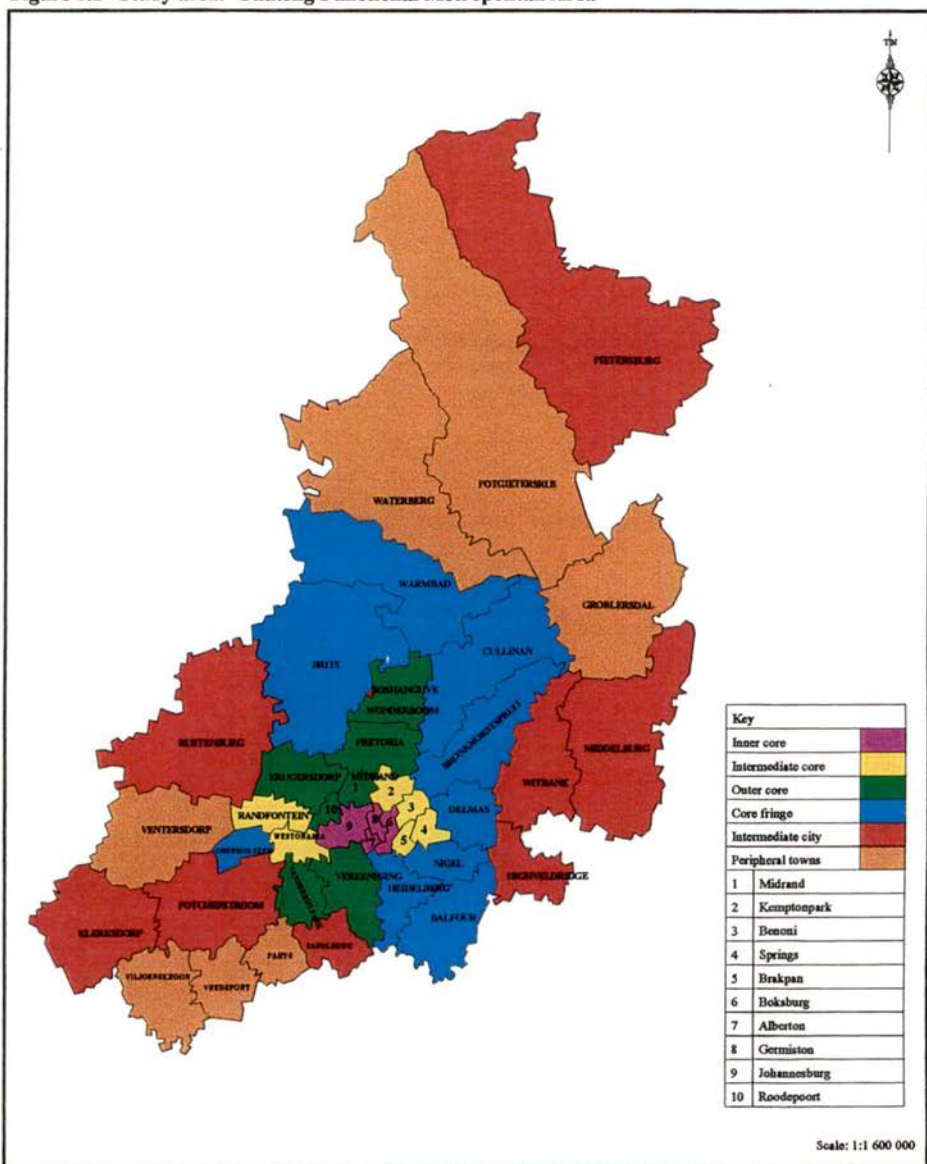
The intermediate city regions refer to regions containing cities that, on a national scale, act as regional centres (Geyer, 1990:395).

Figure 6.1 Locality Map: Gauteng Functional Metropolitan Area



Source: SSA (1998a)

Figure 6.2 Study area: Gauteng Functional Metropolitan Area



Source: SSA (1998a)

6.3 Determining the development phase of a study area

The United States is widely accepted as the most modernised and industrialised country in the world. It can, therefore, be anticipated that other countries would move through similar stages of spatial development. The first phase of deconcentration within urban regions occurred in most of the modernised countries of Europe since the 1970s (see Section 5.4). The second more advanced phase, i.e. deconcentration from metropolitan to non-metropolitan regions, appeared to be imminent in Western Europe and Japan. The third phase of deconcentration within rural regions has only been observed in the United States and certain countries in North-Western Europe (Vining & Pallone, 1982:362; Geyer & Kontuly, 1993:158). These movements down the urban hierarchy, between urban core regions and peripheral regions is termed deconcentration. The latter has followed the former in the urban evolution process; both being prerequisites for counterurbanisation. Consequently, urban development, as measured by the differential urbanisation model may be seen to have two distinct phases: loss of population from the central core areas to benefit the suburban zones, and movement down the urban hierarchy or out into essentially peripheral areas (Ogden, 1985:24-25). Various studies (Vining & Strauss, 1977:757; Vining & Kontuly, 1978:68; Lo & Salih, 1978:39; Vining & Pallone, 1982:363) concluded that the deconcentration phenomenon is an essential phase of the development process of a country.

The slowing down of metropolitan growth has also occurred in several Third World countries. Metropolitan regions in several Latin American countries reflect strong signs of a slowing down metropolitan growth process since the late seventies (Linn, 1978:6). Cities such as Mexico City (Mexico), Caracas (Venezuela), and Santiago's (Venezuela) growth have slowed down significantly, while intermediate-sized cities started growing more (Gilbert, 1993:726-727). Aguilar-Barajas (1990:180) explained that deconcentration of people and economic activities occurred in Mexico City as a result of increased industrial growth within the city. This led to a shortage of industrial land and property, and, combined with

other diseconomies of agglomeration and pressure from the labour market resulted in the beginning of the polarisation reversal process (see Section 5.4.1). Vining (1986:9) indicated that population dispersal occurred away from the Sao Paulo metropolitan region to smaller cities and towns within 150 kilometres from the metropolitan area. India's metropolitan cities (Bombay, Calcutta) have also shown similar signs of slowed growth in the 1980s, while the population of intermediate-sized cities increased (Bangalore, Ahmedabad and Hyderabad) (Gilbert, 1993:727).

The above deconcentration processes are mainly ascribed to metropolitan diseconomies of scale that set in only at an advanced stage of a region or country's development (Hansen, 1980:12; Keeble, 1984:163; Keeble, 1989:74). This stage, according to Vining & Kontuly (1978:68), has not yet been reached by most developing countries. Despite the presence of diseconomies, it is possible that migration from the metropolitan regions may not occur if the number of undeveloped areas are limited or only exist far from the current areas of concentration. Where development opportunities do exist in areas remote to the core region, the diseconomies of metropolitan scale may eventually result in the out-migration of people from the core regions, while the urbanisation process may still be dominant in the country as a whole. When these diseconomies appear, they tend to reflect the stage of economic development of the region as a whole.

Another possibility of determining the urban development phase³⁹, is the measure of the interregional dispersal of industry, i.e. a tendency for intermediate-sized cities located outside core regions to grow faster than the primate cities (Richardson, 1977a:20). Various other indices have been suggested in the measurement of polarisation reversal and counterurbanisation (see Section 5.4.1). After using several indices to measure polarisation reversal, Townroe and Keen (1984:52) concluded that the proportion of urban population in a city region seems to be the principal index. Other, more detailed indicators used in measuring causes

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Compare with Geyer and Kontuly's (1993) five fundamental propositions regarding the evolution of urban systems (Section 5.4.1).

and consequences of population dispersal include the distribution of gender, age, and educational levels (Brown & Lawson, 1989:166), ethnic groups (Geyer, 1990:386), and *per capita* income (Vining, 1986:17).

For a person who lives in a primate city or a firm that is located in such a city to react to a slowing down or decline in the advantages found in the primate city, different possibilities of alternative location exist. The possibility of an alternative location for a person in the core city will normally mean employment prospects in the metropolitan fringe⁴⁰ or an intermediate-sized city, depending on his need for interacting with the core city. Access to public services of reasonable, and not more than a small decline in the real value of his financial income are also important criteria (Townroe & Keen, 1984:46). Similarly for the company, outward movement from the metropolis will normally be regarded as possible if the decentralised centres have relevant infrastructures, services and communication networks.

For the individual, the out-migrant, or the existing company, relocation from the metropolis to non-metropolitan cities or towns rests on certain prerequisites before trade-offs in advantages and disadvantages can be determined. These prerequisites are not absolutes of locational behaviour, but they form a base upon which locational choices are made (Hugo, 1994:15). This is done by trading off the relative advantages of the metropolis against those of, for example, one of the intermediate-sized cities. If the information is available, a company will compare relative land values, transport costs and wage levels just as the individual will compare the availability of employment opportunities, relative house prices, the costs of commuting to work and levels of income. Polarisation reversal and counterurbanisation will consequently be induced by changes in the aggregate pattern of choices.

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In South Africa, most rural-urban migrants have been forced to settle in informal areas on the metropolitan fringes by the previous Government. Many of these informal settlements are located in environmentally attractive areas, where higher income residential expansion is also taking place (see also Sections 6.4.1 and 7.3), so causing potential conflict with regard to property values (Geyer, 1994:394).

Several authors have also echoed the fact that the spatial redistribution of population is heavily influenced by non-economic factors, or so-called environmentalism. The counterurbanisation process definitely appears to be related to an increasing preference for smaller sized cities with natural amenities (Hart, 1983:12; Kontuly & Vogelsang, 1988:42; Champion, 1989b:85; Hugo; 1989:62). Berry (1976:24) indicated that modern preferences are for smaller and lower densities, with richer environmental amenities. These trends have been leading unremittingly toward the reversal of the process of population concentration unleashed by technologies of the Industrial Revolution (Hugo, 1994:15).

According to Geyer (1989b:279), undercurrent population and economic dynamics are not necessarily revealed by mainstream migration patterns, and that this can lead to a disregard of certain population migration patterns at a disaggregated level of assessment which may be of considerable developmental value. Seen in the context of counterurbanisation as well as polarisation reversal, it can be said that at different phases of development, productionism is coupled with the mainstream as well as substream migration patterns in a country (see Section 5.41). In the process of polarisation reversal, the mainstream is towards the metropolitan regions in an effort to seek employment opportunities (Todaro migration model). The migration undercurrent is towards the core fringe and adjacent intermediate-sized cities, mainly because of environmentalism. Conversely, in the process of counterurbanisation, the mainstream towards non-metropolitan areas can be ascribed to environmentalism and the understream to productionism. The urban development process can thus, at different stages and varying intensity, be ascribed to productionism and environmentalism⁴¹.

Environmentalism, therefore, seems to be a powerful tool in the formulation of regional policy. Hall and Hay (1980:232) noted that,

41 It has also been indicated by Geyer (1994a:9) that environmentalism could possibly also be attained in exclusive areas in the metropolitan region. This is a trend which has been realised in areas such as London, Edinburgh, and Toronto where urban renewal schemes have met with the taste and expectations of the 'environmentalist'.

although there have been successful regional policies in certain countries that secured planned out-migration from larger urban areas to planned new towns or urban satellites, it was also unsuccessful on numerous occasions. Conversely, it was found that in Australia's counterurbanisation process, people moved to "... well-watered and attractive areas ... mostly in locations which are adjacent to and relatively accessible from the major metropolitan centres" (Hugo, 1989:81-82). It needs to be noted that some of these 'adjacent areas' are up to 400 kilometres away from the nearest city centre. It seems therefore that the counterurbanisation process, its underlying environmentalism phenomenon and its spatial manifestation, are much more prone to success in a 'natural growth strategy' than in 'forced strategies'.

6.4 Urban development phase of the study area

In an effort to evaluate differential urbanisation in the study area, the economic production characteristics and migration patterns will be scrutinised in the following section. For this purpose, mainstream and understream migration patterns, as well as the Gross Geographic Product for each planning region were analysed.

6.4.1 Population growth

In South Africa, and specifically the Gauteng region, Geyer (1990:386) indicated that the relative concentration of different population sectors has changed in a differentiated manner since the 1960s. Distinguishing between the inner core, intermediate core, outer core, core fringe, intermediate city, and outer periphery of Gauteng and surrounding region, Geyer indicated that the number of blacks has increased proportionally in the inner core of Gauteng, while the share of whites increased relatively in especially the core fringe and intermediate city regions. As indicated previously, differential urbanisation does not constitute only the deconcentration of people from the metropolitan region. The decrease in the white population numbers, i.e. the higher income group, in the inner

core, also went hand-in-hand with a proportional decrease in commercial activities in the same area⁴² (see Section 6.4.2).

Apart from metropolitan migration patterns dictating the relevant phase of differential urbanisation, the adjacent intermediate-sized cities and towns are also relevant. For those that are migrating from rural areas to urban areas in Third World Countries, some centres often serve as 'stepping-stones' in the urbanisation process through step-wise migration (Kok, 1985:85). Although it is not realistically possible to measure step-wise migration in a Third World country such as South Africa, certain tendencies can well be detected from existing data. As blacks in South Africa are only 56 per cent urbanised at present (SSA, 1998a), it can be expected that the urbanisation process will mostly consist of blacks, as the whites, indians, and coloureds are already mostly urbanised. In the case of black urbanisation it is possible to distinguish between three migration patterns, *viz.* an increase in numbers in certain peripheral central places, the movement of agricultural workers to the intermediate-sized cities, and migration to the metropolitan regions (ORD, 1991:26). This phenomenon corresponds closely with Conway's (1980:4-6) model on step-wise migration which indicates that migration occurs in a series of spatial steps up the urban hierarchy.

An important sign of advanced migration patterns is a higher population growth rate for non-metropolitan areas (in adjacent intermediate-sized cities and towns) in relation to the metropolitan population growth rate (Court, 1989:123; Tsuya & Kuroda, 1989:227; Winchester & Ogden, 1989:170). This phenomenon seems to be clearly reflected in recent census data (see Table 6.1). During the period between 1985 (CSS, 1986) and 1991 (CSS, 1992), the metropolitan region⁴³ had an increase of 29.2 per cent, mainly as a result of an increase in the number of blacks of more than 40 per cent. In the same period, the population of the non-

42 The described process refers specifically to the 'intermediate primate city stage' of Geyer & Kontuly's (1993:171) model on differential urbanisation.

43 In this context, the metropolitan region consists of the inner core, intermediate core, outer core, and core fringe. The non-metropolitan region consists of the intermediate-sized cities and smaller peripheral towns (see also Section 6.2).

metropolitan region increased by 26,6 per cent, with the blacks also showing a considerable increase of 32,2 per cent. The most noteworthy aspect of the data, however, is the total population growth during these last two census periods. The metropolitan region's population growth was more than that of the non-metropolitan area between 1985 and 1991. This pattern changed considerably during the last census period (SSA, 1998*b*), whereby the metropolitan population growth pattern illustrated a clear break from previous tendencies. The metropolitan population increased by only 7,8 per cent, while the non-metropolitan population increased by some 13,3 per cent. This is in spite of a reduction of 14,4 per cent in the white population in the non-metropolitan area. The blacks in both the non-metropolitan and metropolitan areas showed a substantial increase of 23,9 per cent and 22,8 per cent, each (see Table 6.1).

Table 6.1 *Population growth in the study area: metropolitan and non-metropolitan*

	African (%)	Coloured (%)	Indian (%)	White (%)	Total (%)
<u>1985-1991</u>					
Total metropolitan	40.7	18.2	35.4	12.1	29.2
Total non-metropolitan	32.3	7.5	43.6	14.1	26.5
<u>1991-1996</u>					
Total metropolitan	22.8	3.8	6.8	-20.7	7.8
Total non-metropolitan	23.9	0.5	8.4	-14.4	13.3

Source: Calculated from CSS (1992) and SSA (1998b)

Study results of the different planning regions of the study area, show that the intermediate-sized cities zones, outer core, and intermediate core have proportionately gained the largest amounts of blacks between 1991 and 1996 (see Table 6.2). The opposite is true for the higher income groups, mostly comprising the whites (CSS, 1998a). Although all the planning zones had a gross loss of whites, the inner core, outer core and core fringe had the largest decrease (between 24 and 29 per cent). The fact that the intermediate core has lost relatively less whites can be ascribed to a strong white contingent in South Africa's capital, namely Pretoria. This city, as the national capital, houses a large number of civil servants that still represent a substantial number of whites.

Table 6.2 *Population growth within the metropolitan study area (1991-1996)*

	African (%)	Coloured (%)	Indian (%)	White (%)	Total (%)
Inner core	23.3	6.9	22.1	-28.6	8.3
Intermediate core	41.6	5.2	20.6	-11.1	19.2
Outer core	28.0	1.0	-11.2	-25.4	12.4
Core fringe	11.3	0.6	2.0	-24.5	2.7
Intermediate city	36.3	-0.2	14.6	-14.6	20.5
Periphery	4.5	8.4	-57.5	-13.2	1.6

Source: Calculated from CSS (1992) and SSA (1998a)

The inner core has lost the largest section of whites, namely 28,6 per cent between 1991 and 1996.⁴⁴ Within the metropolitan region, the intermediate core has shown the largest growth in overall population numbers. This is mainly because of a 41,6 per cent increase in the number of blacks. The outer core and core fringe areas had a significant increase of blacks (28 and 11,3 percent), and an even more significant decrease in whites (approximately 25 per cent).

Analysing the non-metropolitan zones, it is evident that the intermediate-sized cities have been the main focus for population growth. These cities have shown the largest relative increase in total population numbers, mainly because of a 36,3 per cent increase in blacks, and a relative small decrease of whites (14,6 per cent). The peripheral zones have grown little

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This discussion mainly focuses on the white and black ethnic groups as they reflect the two largest groups (10.9 and 76.7 per cent respectively of the total population). With the lifting of legislation prohibiting free migration in South Africa, the Indian and coloured groups also grew substantially in the study area. However, only relatively small groups were present in the study area at the beginning of this decade. The population numbers have since increased significantly, but, having had small numbers previously, do not reflect meaningful numbers.

in the relevant period. Whites and indians decreased, while the number of blacks increased only with 4,5 per cent. A differentiated pattern of migration can clearly be identified in the two most recent census surveys. To provide a longer-term perspective as to differential urbanisation in the study area, Table 6.3 shows the distribution of all the population groups for the last three decades in the different planning regions. According to Townroe & Keen (1984:52), the proportion of urban population in the different metropolitan sub-regions seems to be the principal index in measuring differentiated migration patterns.

Table 6.3 *Distribution of population in the Gauteng and surrounding regions*

	Population share (%)				Total
	Africans	Coloureds	Indian	White	
Inner core					
1970	56.5	5.9	2.5	35.2	100
1980	57.7	6.3	2.8	33.2	100
1985	56.8	7.6	3.1	32.4	100
1991	61.7	6.9	2.8	28.6	100
1996	69.8	7.2	3.3	19.7	100
Intermediate core					
1970	67.9	0.8	1.3	30.0	100
1980	67.3	2.0	2.0	28.7	100
1985	64.6	2.2	2.1	31.1	100
1991	68.6	2.5	3.3	25.6	100
1996	78.1	2.3	2.6	17.0	100
Outer core					
1970	52.4	1.9	1.4	44.3	100
1980	49.5	2.1	1.5	46.9	100
1985	49.8	2.6	1.5	46.1	100
1991	55.6	2.5	1.4	40.5	100
1996	64.9	2.2	1.5	31.4	100
Core fringe					
1970	77.6	0.9	0.6	20.9	100
1980	74.6	1.8	0.7	22.9	100
1985	70.8	1.9	0.7	26.6	100
1991	76.0	1.6	1.2	21.2	100
1996	76.8	1.9	0.8	20.5	100
Intermediate city					
1970	71.9	1.3	0.6	26.2	100
1980	64.9	2.6	0.8	31.7	100
1985	63.8	2.7	0.8	32.7	100
1991	67.9	2.3	0.9	28.9	100
1996	76.8	1.9	0.8	20.5	100
Peripheral towns					
1970	84.9	0.4	0.2	14.5	100
1980	83.1	0.9	0.2	15.8	100
1985	81.9	1.1	0.2	16.8	100
1991	83.0	0.8	0.3	15.9	100
1996	82.8	1.0	0.2	16.0	100

Source: Calculated from DOS (1976), CSS (1986; 1992) and SSA (1998a)

The metropolitan region has shown significant changes in the distribution of the different population groups since the 1970s, especially the three innermost areas. Given the restrictive character of discriminatory legislation between 1948 and 1994, it is evident from the data that the share of blacks in the metropolitan zones was quite small in 1970. A definite shift seems to have occurred with the dawning of a democratic government in the 1990s. The share of blacks increased from around 56 per cent in 1985 to almost 70 per cent in 1996. The same holds true for the intermediate and outer cores, where blacks showed a marked increase since 1991. At the same time the core fringe showed a smaller increase. Exactly the opposite is true for whites in the four metropolitan zones. The share of whites in the inner core was at its highest in 1970, but declined steadily from 1970 to less than 20 per cent in the latest census. In the other three metropolitan areas, the share of whites increased until 1985, but declined significantly since then. In the relevant metropolitan areas, the share of coloureds and indians was relatively constant.

In the non-metropolitan areas, the share of whites increased since the 1970s at the expense of the share of the black population, until the mid-eighties and early nineties. Since then, the share of blacks increased with the elimination of discriminatory legislation curbing the freedom of movement. The indian share has been relatively constant throughout the period, with the coloured group showing only a small decrease in the intermediate city area.

The above movements of the relevant population groups clearly represent a differentiated pattern of migration due to maturation of the urban system. In the relevant period, the share of blacks in the three innermost areas increased by an average of 14 per cent, while the whites' share decreased by an average of 15 per cent. In the core fringe, the blacks' share increased by six per cent, while the whites' share decreased by the same margin. This tendency continued in the non-metropolitan region. The intermediate city region's share of blacks increased by 13 per cent, and the

whites decreased by 12,2 per cent. In the peripheral towns, the share of whites and blacks remained relatively stable.

6.4.2 Gross Geographic Product

As mentioned, the key initiating factor in the polarisation reversal stage is the interregional deconcentration of economic activities with a population shift in response (see Sections 5.4.1 and 6.3). The Gross Geographic Product seems to be a promising qualitative measure to be combined with the population parameter which enables one to differentiate between the relative productive capacities of the urban communities. It also renders an identification of leading economic sectors as well as a comparison of the relative economic performance of different economic sectors (Geyer & Steyn, 1989:10-11).

The Gross Geographic Product is an enumeration of the scale of productive activity and, therefore, the total money value of production generated by production factors over a certain period of time within a specific area. It is a yardstick for the economic performance of a geographical unit, which contains all those economic factors determining the availability of commercial and industrial agglomeration economies in the specific unit (Johnston *et al*, 1986:187; Mouqué, 1999:11). The Gross Geographic Product further reflects the magnitude for production for that area as a result of the combination of human, economic and natural resources in the production process⁴⁵ (see table 6.4).

45 Hanekom (1982) used a similar approach in order to obtain the spatial structure of the country's economic system. He divided the South African space into core regions, the inner periphery, and the outer periphery. This was done by means of determining the Gross Geographic Product per district as measurement of total economic activity in that area. This resulted in the core region contributing 66 per cent, the inner periphery 31 per cent, and the outer periphery 3 per cent of the total Gross Geographic Product for the country.

Table 6.4 *Distribution of Gross Geographic Product in the Gauteng and surrounding region*

Gross Geographic Product share					
Inner core	Mining	Industry	Commerce	Service	Total
1968	1.0	38.3	52.7	8.0	100
1980	0.7	42.8	47.0	9.4	100
1991	0.6	33.9	51.4	14.1	100
1994	0.6	32.9	50.2	16.3	100
Intermediate core	Mining	Industry	Commerce	Service	Total
1968	3.1	40.2	35.0	21.7	100
1980	1.4	46.6	32.3	19.7	100
1991	2.5	34.0	33.7	29.8	100
1994	0.8	33.3	32.8	33.1	100
Outer core	Mining	Industry	Commerce	Service	Total
1968	17.7	50.5	25.4	6.3	100
1980	17.5	51.8	25.5	5.2	100
1991	9.9	46.1	34.2	9.8	100
1994	10.1	47.1	34.5	8.3	100
Core fringe	Mining	Industry	Commerce	Service	Total
1968	70.8	9.6	11.3	8.2	100
1980	62.5	17.3	8.6	5.4	100
1991	46.6	36.8	10.9	5.7	100
1994	25.9	35.9	26.7	11.5	100
Intermediate city	Mining	Industry	Commerce	Service	Total
1968	46.7	23.7	19.3	10.3	100
1980	42.0	37.0	13.7	7.3	100
1991	35.9	43.3	13.7	7.1	100
1994	35.9	43.1	13.9	7.1	100
Peripheral towns	Mining	Industry	Commerce	Service	Total
1968	8.1	28.4	42.1	21.4	100
1980	10.3	29.2	42.4	18.1	100
1991	12.8	16.6	48.9	21.7	100
1994	13.4	14.4	49.9	22.3	100

Source: Calculated from CSS (1970; 1982; 1988; 1993; 1995), DOS (1974), and DBSA (1999)

From the above-mentioned economic indicators, it is clear that the two innermost cores have reached an advanced stage of maturity that usually involves a degradation of infrastructure and facilities (agglomeration diseconomies). All economic sectors have shown a decrease in their contribution to the economy of the inner city. Only the service sector has increased somewhat in all the metropolitan zones. The outer core and core fringe show similar, but less advanced signs of maturation. Although the contribution of the mining and industrial sectors has decreased in these two zones, the commercial and service sectors have increased their contribution to the Gross Geographic Product.

The tremendous growth of the industrial sector's contribution in the core fringe is significant. In addition, the commercial sector has shown a decrease in the inner and intermediate areas, while it was growing significantly in the outer core and core fringe areas. Clearly this relates to the deconcentration of leading sectors from the inner cities toward the outer boundaries of the metropolis.

The non-metropolitan zones show similar signs of industrial deconcentration. This sector's contribution almost doubled since 1968, while the contributions from all the other sectors decreased. This could probably be ascribed to industrial development incentives from the government, that are mainly focused on intermediate-sized centres. The opposite trend is evident in the periphery or small towns. Clearly, the location of mining operations has shifted from its previous metropolitan location to peripheral areas, as this is the only zone that has shown a growth in the mining sector. Mineral resources have been depleted in the metropolitan region and as a result, the contribution of mining to the Gross Geographic Product has decreased steadily. The contribution of commerce has increased in the peripheral towns mainly due to the central place

function of these towns, i.e. provision of goods and services to the towns and the surrounding market areas⁴⁶.

6.5 Evaluation of urban development in the study area

The key initiating factor in the polarisation reversal stage of the differential urbanisation model is the interregional deconcentration of economic activities with a population shift in response (Richardson, 1980). A clear pattern of economic deconcentration has evolved in and around Gauteng as South Africa's primary metropolitan region. First, the previously dominant mining sector has steadily decreased its contribution to the Gross Geographic Product over the past three decades in the metropolitan region. The only increase in the study area occurred in the peripheral, non-metropolitan towns. Even this increased contribution still serves as an indication that mining is the smallest contributor to this study area. Similarly, the contribution of the secondary or industrial sectors to the Gross Geographic Product decreased in all the metropolitan zones, excluding the most peripheral core fringe zone.

The contribution of the commercial sector increased in the two outer zones of the metropolitan region, probably at the cost of the two inner metropolitan regions that have declined markedly. The advanced nature of urban development in especially the inner two regions are thus evident, where all the sectors have shown a decline in the overall contribution of the region's Gross Geographic Product, except for the service or quaternary sector. This process of economic change over time and space in the study area is clearly reflected (see Table 6.5), and is founded on the classical theories of economic growth and transition in developing regions, as described by Weber (1929) and Rostow (1971). This shift in emphasis between economic sectors over time has been found in most developed regions, e.g. London, Paris and New York, where substantial numbers of blue-collar workers in the inner cities moved to peripheral towns during an

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See Christaller's (1966) central place theory.

advanced stage of urban development (Hall, 1984; Savitch, 1994:580). At the same time, the number of white-collar workers increased substantially in the inner cities.

Table 6.5 *Growth of the economic sectors in the metropolitan region (1968-1994)*

Metropolitan region	Mining	Industry	Commerce	Service
Inner core	↓	↓	↓	↑
Intermediate core	↓	↓	↓	↑
Outer core	↓	↓	↑	↑
Core fringe	↓	↑	↑	↑

Source: Calculated from CSS (1970; 1982) and DBSA (1999)

Decrease : ↓
Increase : ↑

The change of each sector's contribution within each zone, and the relevant mainstream and understream migration patterns, give way to the following conclusions. Given the fact that most industrial and commercial entrepreneurs in Gauteng were white, the deconcentration of firms and industry was followed by a deconcentration of especially whites. A definite relationship between the deconcentration of economic entities and the deconcentration of whites is seen in the two innermost metropolitan zones. The contribution of the industrial and commercial sectors to the Gross Geographic Product decreased in this zone since the 1970s. Following that, the share of whites in these areas also decreased between the 1970s and early 1980s. In contrast, the financial contribution of industry and commerce to the Gross Geographic Product increased in the two outer metropolitan zones since the 1980s. The share of whites in these two zones was also the highest in the period between 1980 and

1991. Similarly, the secondary sector's share increased since 1980 in the intermediate city zone, followed by the white population again shifting in response. In this process, they attained their highest level between 1980 and 1991.

It is argued that, in a free-market system relatively free from political bias, it can be expected that industry would probably further increase its share in the local economy of the core fringe and intermediate-sized cities. This is a result of entrepreneurs still being active within the daily urban system of Gauteng with its large market and existing agglomeration economies. These firms have moved from the inner metropolitan zones, and their location in these areas is supported by significant tax holidays from central government. As indicated in Section 4.3, these incentives are mainly available in the outer metropolitan regions (e.g. Springs, Brits, and Rosslyn) and the adjacent intermediate cities (e.g. Highveldridge, Rustenburg, and Potchefstroom) (DTI, 1996*b*).

If revitalisation and urban renewal schemes are properly activated in the two inner metropolitan regions, and issues such as crime prevention have been attended to, it can be expected that the commercial and service sectors would increase their share to the Gross Geographic Product in future. With support from the government, the private sector could again invest in the inner metropolitan area, as was the case in world cities such as New York and Washington (Gihring, 1999:64). Given the latter scenario, the two columns on the right of Figure 6.2 should show increased contributions, while the two columns on the left should remain approximately the same. This situation would be ideal and probably reflect a stable and growing economy for a metropolitan region in a relatively advanced stage of development. Without proactive assistance from the government, however, the commercial sector will further deconcentrate to

the periphery and intermediate-sized cities, with only a subsidised service sector probably showing any sign of growth⁴⁷.

Having established the deconcentration pattern of certain economic sectors over time, the consequent 'response' from the relevant population groups (Richardson, 1980) needs close attention. It is evident from the previous section that, first of all, a clear distinction can be made between metropolitan and adjacent non-metropolitan population growth. A clear distinction has also evolved between mainstream and understream population movement patterns in the six different planning regions. Differentiating between migration patterns of the relevant ethnic groups, a clear distinction can be made between the previously disadvantaged blacks, and the whites that benefited from the previous dispensation. Given the abolition of discriminatory legislation, the migration patterns of blacks increasingly represent mainstream urban urbanisation (see Section 6.4.1). Thus, although whites are already deconcentrating towards the metropolitan periphery, representing the advanced primate city stage, it is anticipated that the urbanisation rate of blacks to metropolitan regions will increase for a considerable period in the future. This is mainly the result of previous legislation that was aimed at curbing the natural urbanisation process in South Africa⁴⁸. The number of coloureds and indians has remained relatively stable, also as a result of relatively small population numbers.

A pattern of deconcentration by whites, representing the early intermediate city phase, is continuing, despite their dwindling numbers. This marked decrease in the number of whites could be ascribed to international emigration (see Section 5.4.2). This latest pattern of migration is a result

47 The mining sector is controlled by the location and amount of natural resources, and shifts from one location to another are a result of this (see Richardson's (1973) non-central places). The service sector is mainly controlled by the Government, and free-market movement as such is not possible.

48 This seemingly retarded process of urbanisation at an advanced stage of urban development is also evident in previously socialist countries, such as China, Korea, and Russia (Gibson, 1994:59; Kwon, 1997:394; Wei, 1997:205). After the lifting of strict legislation, new waves of urbanisation are being experienced, while certain migration understreams are simultaneously deconcentrating from the primate cities.

of the increased social mobility of whites, as well as political pressures from the new, mainly black government.

In previous sections it was shown that social mobility increased over time, especially with substantial increases in per capita income. It was indicated in this study that worldwide, this led to the deconcentration of economic activities and people to non-metropolitan areas. In South Africa the higher income groups are mostly represented by whites (SSA, 1998a)⁴⁹. Consequently, empirical data indicated a significant move of especially whites out of the core and intermediate core regions of the Gauteng metropolis during the 1980s. This signifies the advanced primate city stage. It led to a substantial increase in especially the core fringe and intermediate cities (Geyer, 1990:388). Although a pattern of deconcentration is still evident after the latest census, the increased mobility and lack of support for the new government resulted in the emigration of more than 600 000 whites to mostly Commonwealth countries (SSA, 1998a). This represents a decrease of more than 12 per cent in the number of whites in the country between the latest two censuses.

In addition, issues such as the abolition of the death penalty and a marked increase in crime in most cities, increased the lack of tolerance for the new government by whites (Bezuidenhout, 1998:2). The implementation of affirmative action in all employment categories and across all economic sectors also led to the marginalisation of whites from the political mainstream (Beukes, 1998:13), contributing to the large-scale emigration of young, socially mobile whites to especially English-speaking countries (Great Britain, Canada, Australia and New Zealand⁵⁰). Professional, semi-professional, and technically qualified South Africans are especially in great demand in these foreign countries (Joubert, 1998:4). This

49 According to the 1996 census, 48 per cent of employed black women earned less than R500 per month, while 65 per cent of white men earned more than R3000 per month. (SA, 1998c).

50 Significant communities of white South Africans have been established in these countries, namely approximately 50000 in Canada, 66000 in the USA, 150000 in Great Britain (Holzapfel, 1998:4). These are only approximate numbers as large numbers indicate they are leaving on holiday, while actually seeking work abroad.

phenomenon supports the theory on the second demographic transition in respect of the more developed social groups. People with advanced educational qualifications and/or falling into high-income groups are members of the global village with a high level of mobility.

6.6 Conclusion

From the quantitative measurement of economic production in the study area, it is apparent that a distinctive shift has occurred in terms of spatial location. Accordingly, the primary, secondary and tertiary sectors all decreased their contributions in the metropolitan section of the study area, while all the metropolitan and non-metropolitan regions increased their production in the service (quaternary) sector. These locational changes in production characteristics are typical of maturing urban systems and paved the way for migrational changes within the study area.

Migration patterns in the study area also confirmed the advanced development phase of the urban system. It has been shown that non-metropolitan population growth has surpassed metropolitan growth for the first time, in spite of a net decrease of whites throughout the study area. It has also been revealed that significant substream migration patterns can be isolated whereby intermediate-sized cities close to the metropolitan area have shown the most significant growth. This could mainly be ascribed to large numbers of blacks choosing them as destination.

It would seem that the migration patterns of whites are mainly decided by the principles of environmentalism, i.e. they strive for a better quality of life, whether it be in peripheral regions or other international locations. Another aspect that makes differential urbanisation in the study area unique, is the prolonged urbanisation phase of blacks in South Africa, who are no longer hampered by discriminative legislation. They are still migrating as a result of productionism.

This raises the question of a response in terms of the formulation of regional policy to support the whole urban system through its phases of

maturation. The implication of formulating regional policy for these diverse situations will be dealt with in the following chapter.

CHAPTER SEVEN

7. REGIONAL POLICY GUIDELINES FOR THE GAUTENG FUNCTIONAL METROPOLITAN REGION

7.1 Introduction

This chapter will firstly highlight principles and processes for the formulation of effective regional policy for the study area (compare with Sections 2.3 and 2.4). These principles are essential at most stages of development of an urban system. In the following section the chronological implementation of more detailed regional policy issues, according to the differential urbanisation model, will be proposed. The final section will integrate the aforementioned principles with existing policy initiatives to provide a general framework for regional policy formulation in South Africa, and for the study area specifically.

7.2 Principles for regional policy formulation

The need for regional policy formulation in general has been established and the goals for regional policy spelled out in previous chapters. It has been shown that these policies are generally implemented on two levels of planning (Friedmann, 1966). At the upper level, regional policy ties in with the country's national socio-economic development policies and overall planning process. It provides principles and goals for resource allocation to the relevant urban centres in the space economy (Hoover & Giarratani, 1985:380). In order to identify areas of future economic growth, regional policy must, therefore, be effective in translating existing and anticipated market forces into practical policy guidelines. This is especially important to a developing country like South Africa that cannot afford fundamental mistakes in future policy formulation processes.

The effective anticipation of future market trends will result in the early identification of a number of locations with proven economic growth potential (see also Richardson, 1987c). The identified locations of

potential growth should be sector specific, i.e. a certain location with potential for high-tech industries should make provision only for establishments that complements this sector. While other establishments may also operate profitably at such locations, they do so at the expense of other economic activities, which could have taken advantage of agglomeration economies being developed in an economically viable environment. As agglomeration economies take a relatively long time to be established, the early identification of a limited number of growth centres at the appropriate phase of urban development is essential. This will curb the heavy financial and administrative burden of granting incentives to establishments all over the country in an effort to stimulate economic development.

Besides market trends, existing and anticipated migration trends are also deemed to be of significance on this level of policy formulation. According to Richardson (1987c:227) most policies, however, fail in this attempt. Fuchs and Demko's (1981:80) description of the major determinants of migration is important in this regard:

- The anticipation of employment and income opportunities seem to be the major determinants that accounts for 50 per cent or more of migration rates between geographical areas.
- Non-economic incentives such as improved housing and public services are viewed as major secondary determinants, the exact strength of which remains unknown because of difficulties in quantifying the variables involved.
- Distance also has a substantial deterring effect beyond the financial costs involved in moving great distances.
- In terms of their age, sex, education, and income, migrants reveal selectivity. Migrants are generally younger and better educated, and have better incomes than non-migrants. Sex selectivity varies according to culture and the stage of development.

Even though most social and economic development policies have a spatial

dimension, it is usually regarded to be of less importance (Williams, 1996:65-72). The key, thus, to successful and effective regional policy, is the integration of spatial elements with economic and social development policies. If a regional policy does not take this into account, it would merely "...tinker' with weak spatial policy instruments, while the dominant trends in the geographical distribution of population and economic activity are the joint outcome of market forces on the one hand and the unintended spatial impacts of macro and sectoral policies on the other" (Richardson, 1987c:240). Geyer and du Plessis (1994:16) confirm this by maintaining that "... explicit spatial policies should as far as possible be in harmony with spontaneous spatial tendencies, and ultimately, this should lead to a more optimal exploitation of the country's resource base".

Also, as circumstances differ to a large extent between regions within countries as well as between countries, it is agreed that cognisance should also be taken of principles proven to be unsuccessful in a specific country's development history (see Section 3.3). A successful development policy should, therefore, be built on principles dictating proven success as well as steering away from principles proven to be unsuccessful from an economic development point of view.

Finally, at this upper level, autonomous global social and economic forces increasingly influence regional policy-making. That is, as the world economy becomes more open and competitive, the slightest diseconomies, such as congestion, pollution, and high housing costs, make established centres less desirable and induce continued deconcentration of development (Rothblatt, 1994:502; Hudson, 1997:475). According to this hypothesis, policy-making and urban development are, to some extent, driven by world trends. This has important implications for the formulation and implementation of regional development policies. For one thing, it suggests that the range of options open to capital are now wider than they have ever been. The possibilities in terms of choices of location, production technologies and products are greater than they have ever been.

On a lower level of policy formulation, regional policies must meet the

requirements of local development. Although idealistic, Stern (1985:4) indicated that a comprehensive regional policy should include some of the following elements or policy instruments: provision of land for industrial and commercial expansion; infrastructure capacity sufficient to meet the needs of industrial and commercial undertakings; amenities and a business environment attractive to the private sector; a skilled labour supply adequate to meet both current and future demands of expanding local industries or new industries moving to the area; modernisation of industrial, commercial, and residential facilities and structures to provide an adequate physical environment. Programmes and incentives that reduce front-end costs and risks, and alleviate cash flow problems should be included, so that private investment would be more profitable and less risky. Provision of capital at a reasonable cost for land, plant and equipment, should also receive attention (Stern, 1985:5).

Consequently, the sum of regional policies on these two levels should spell out the investment component in a national framework of development (Friedmann, 1966:18). Regional policy should, therefore, create a bridge from global and national plans to local projects. Ideally, it should be a sustainable policy with a high degree of internal consensus amongst all relevant sectors, and should as far as possible be consistently followed from one government to another.

Moreover, expectations should be modest as policy impacts can be marginal in the short run. For example, most developed regions have implemented some form of deconcentration policy since the Second World War. However, where the slowing of primacy and increased dispersion trends have been observed, it reflected more the onset of the polarisation reversal process than the effects of explicit spatial policies (Richardson, 1987a:209).

7.3 Formulation of regional policy according to the differential urbanisation model

While the foundation has been laid in the previous section describing the

general, possibly idealistic principles dictating regional policy formulation for the study area, the objective of this section is far more specific. It aims at adopting regional policy formulation to complement the stages of urban development according to the differential urbanisation model. According to Friedmann (1966:45), regional policy formulation should be shaped according to the evolution of the urban system, and should address problems on all levels of the urban hierarchy (Richardson, 1981:276; Hoover & Giarratani, 1985:380). Friedmann (1966) suggested four stages of urban economic development, i.e. pre-industrial, transitional, industrial and post-industrial. In pre-industrial societies, such as Bolivia and Afghanistan, the policy emphasis is on the creation of preconditions for 'economic take-off' and regional policy is inappropriate⁵¹. In transitional societies, such as Venezuela and Brazil, there is a need to create a spatial framework suitable for sustaining economic growth, and here regional policy becomes "critical" (Glasson, 1985:195). The third stage, typical of much of Western Europe and the United Kingdom, society often reaps the costs of industrialisation, especially in the form of depressed regions as a result of over-specialisation. Compensating regional policy is essential at this stage. In the fourth, or post-industrial society stage, there is a shift to a new policy focus with the emphasis on urban and metropolitan problems (Hoover & Giarratani, 1985:398). At this stage, typified by the United States of America, much of the emphasis is on the socio-economic problems of modern societies.

Thus, the main point of departure is that regional policy should be based on the whole urban system and formulated according to the phase of urban development. Historically, when congestion was experienced in the primate city, people and economic entities were lured away to new towns and other deconcentrated locations (see Section 3.3). Although positive results in terms of agglomeration diseconomies were experienced in the primate cities, in most cases they also resulted in the neglect of urban

51 See also Rostow's (1971) phases of economic development.

cores. The response to this negligence was usually crisis management and included urban renewal or renovation schemes for the inner cores. The benefit of analysing an urban system's growth and policy response over time with the differential urbanisation model, as proposed in this study, is that one can derive a policy response for the whole urban system during all six stages of the urban development cycle.

According to Geyer and Kontuly (1993:165), urban development occurs in cycles that are repeated over time. A cycle consists of three phases, namely urbanisation, polarisation reversal, and counterurbanisation (see Section 5.4.1). As seen in Figure 5.4, the three phases are divided into six stages. The differential urbanisation model differs primarily from Friedmann's (1966) model in that it is based on the urban systems approach, using migration patterns as an indication of the phase of urban development in a region. This section will aim at formulating specific regional policies and more detailed policy instruments for each of the six stages of urban development in the differential urbanisation model.

As shown previously, the first, or the urbanisation phase refers to the early primate, intermediate primate, and advanced primate city stages. During this first cycle of urban system development, the urban systems of most regions are only partially developed. At this stage, it would be ineffective to use the national urban system to facilitate economic and social change (Glasson, 1985:195). If beneficial to both countries, the promotion of sub-continental hierarchies would be a more viable option in less developed areas, for example Latin America, Africa, and South East Asia. The main reason for promoting international interurban linkages at this early stage of development, is the recognition that the urban hierarchy is a diffusion system and hence is an instrument for development (Pred, 1977:166). Co-operation among less developed countries with a primate city structure can be strengthened with the development of linkages between the leading cities of contiguous countries (Richardson, 1977a:63). This approach will also aid international migration patterns as these developing centres can act as intermediate centres on the global urban hierarchy (Geyer,

1998b:170). These linkages will not necessarily develop spontaneously because of the orientation of primate cities towards their colonial trading partners in the developed world, rather than less developed countries adjacent to them⁵².

During the first three stages, the presence of poverty, pollution, inadequate housing, and other problems in the developing metropolis may not have a negative impact on the attractiveness of these cities to migrants and industry. Foreign, as well as local firms or state corporations are established, while business and industry prosper with the development of agglomeration economies. During this period, it is important that social and economic infrastructure in the primate city be improved and urban sprawl effectively managed. Another priority should be to invest in development axes that would link adjacent intermediate cities to the primate city (Geyer, 1990:394; 1998b:173). Where possible, such development axes should link up with cross-country development corridors. This spatial restructuring in favour of a polycentric as opposed to a monocentric pattern is essential to avoid potentially crippling congestion in the primate city at a later stage. This is especially important when the primate city starts losing its development momentum in the advanced primate city stage. Such a policy would prolong the primate city's growth momentum, and simultaneously accommodate migration and economic growth in the intermediate cities. If not planned for in this way, urbanisation costs and negative externalities like inadequate sewerage facilities, insufficient solid waste disposal, poor air and water quality, and chronic traffic congestion will increase rapidly (Geyer, 1998b:173).

Concentrated deconcentration or growth centre strategies (see Section 3.3.1) would be the obvious means to initiate polycentric urban development that will provide support for the primate city during the polarisation and counterurbanisation phases. To be effective, however, development axes must provide a link between these deconcentration

52 This explains why continental or sub-continental urban hierarchies are much weaker in the developing world than, for example Western Europe.

points and the primate city region. These prerequisites are of the essence, especially during these phases where urban decline and increasing congestion costs in the primate city are potentially at its worst. In this first urban development phase, small and intermediate cities are losing migrants in favour of the primate cities (see also Section 5.4.1), and it is essential that the existing infrastructure and other amenities effectively be maintained at these locations. If necessary, urban diminution must be planned for in an effort to maintain existing services for the later stages of urban development. During the polarisation reversal and counterurbanisation phases, some of these lower ranking urban centres will increasingly attract migrants again, necessitating the effective planning and management of these centres in the early stages.

In the advanced primate city stage, net immigration to intermediate cities becomes positive and reaches its maximum during the early intermediate city stage (polarisation reversal phase). This population gain in non-metropolitan cities mostly reflects an increase in older persons falling in the higher income groups (Berry, 1976:21; Köch, 1980:63; Geyer, 1996:53). In South Africa, and especially Gauteng, this deconcentration process has been ascribed to the increase in low-income groups in especially the core primate city areas (Geyer, 1990:386). Even though the rate of urbanisation to the primate city has decreased, people are still migrating to the primate city region. Only the growth rate has decreased. To enable the South African government to provide social overhead infrastructure to bear the additional burden of the new wave of urbanisation (see Section 6.3), sustained economic growth is essential. Although most of the housing needs of the urban poor can be satisfied by means of informal housing, the provision of a civil and social infrastructure normally requires extensive capital reserves (Geyer, 1994:397). Services such as the supply of water, electricity, sewerage facilities, refuse removal, education, medical and old age facilities can only be provided effectively at the expected rate and of the required quality, if sufficient funds are available. Employment opportunities for the urban poor must receive

special attention, especially in the informal sector. The strong commercial and industrial sectors of the major urban areas should be regarded as a viable vehicle to help stimulate informal sector activities. Practical new ways to accommodate the informal commercial and industrial sectors in the town planning schemes are required. Strenuous taxation of the small-sized firm should be avoided to stimulate entrepreneurship at entry levels.

In many First World countries, this spontaneous deconcentration of higher income groups was also characterised by the deconcentration of especially technologically advanced, and capital-intensive industries. These industries seem to be more sensitive to agglomeration diseconomies and do not particularly suit the skills of the less developed metropolitan community (Geyer, 1994b:398). However, the proportions of higher skilled, higher income groups who are able to support such industries technologically are increasing spontaneously towards the metropolitan fringes and their surrounding intermediate city areas.

An explicit intermediate-sized city strategy would, therefore, be the most appropriate means of capturing growth potential that emanates from inner metropolitan areas. The objective of this regional policy approach is based on the maximisation of economic growth rates in order to maximise the indirect benefits for the South African poor. Income derived from this source could be used for the provision of the capital-intensive urban infrastructure and social overhead services for the poor communities. This policy approach must be supplemented by urban management programmes with regard to existing physical and social services in the primate city in order to decrease economic externalities, and to absorb the population growth of this region.

Given the hypothesis that development in the primate city is managed effectively, and investment in social and physical infrastructures are kept on track, regional policy must especially take account of the natural growth of adjacent intermediate cities during the advanced primate city and early intermediate city stages. Renaud (1981:39) pointed out that the timely expansion and improvement of regional transport systems will relax

constraints on productive investment in locations other than major cities. Accordingly, certain intermediate urban centres located on major transport corridors close to large cities may well be the first urban centres, which attract new, or relocated productive investment. Regional policy in the non-metropolitan area during the polarisation reversal cycle is thus consistent with the intermediate-sized cities strategies discussed in a previous section.

In the last phase (counterurbanisation) of the first differential urbanisation cycle, the migration emphasis shifts to the small city category, without disregarding constant investment and maintenance of services in the other two city size categories. Regional policies should be focused on increasing agricultural production and marketing of agricultural goods, supporting small scale agro-processing industries and diversifying the economic base of small cities or market centres (see also Table 7.1). Activities must be organised to link town-based enterprises with rural supply areas and to make services, facilities and inputs, essential for agricultural production and marketing, easily accessible to rural populations scattered over the landscape (Rondinelli, 1985a:21). Investment in small-scale industrial programmes and farm-to-market roads are essential to link rural areas and central places. Attention must be given to providing water, basic housing, health and social services in towns to increase the productivity of the labour force. Attention must also be given to providing off-farm job opportunities and urban amenities that will keep people in the rural areas and small cities. These initiatives will assist in securing the demographic stability of peripheral regions.

Not all small towns and cities can or should be developed as central places, nor should they all have a full range of services and infrastructures⁵³. As noted earlier, one of the benefits of an integrated urban system is that it provides access to a wide range of functions without each settlement having to provide them all. Thus, regional policy

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See Christaller (1966) and Lösch (1954).

formulation requires careful planning to ensure that essential services and facilities are provided in strategically located settlements and that these places are linked to their rural hinterlands.

In conclusion, because spread effects tend to weaken rapidly with distance, it is evident that a system of cities is necessary to ensure the wider diffusion of innovation. Secondly, it is accepted that an economy and its sectoral distribution change over time and space. As the economy develops and expands, certain industrial sectors become more footloose and are able to deconcentrate to alternative locations with sufficient infrastructure and labour requirements. As technology increases and communication facilities improve, firms that are less dependent on large labour resources and have lower levels of infrastructure demands, are able to locate in smaller sized cities. In turn, this could increase the demand for commercial and other services in these non-metropolitan areas.

Historically, regional policy has been implemented either to complement existing spatial growth trends, or alternatively, to balance spatial development with countermeasures (see Chapter Two). From the above-mentioned section, it is evident that the three urban categories should at all times be managed by regional policy. Only a shift in policy approach during each stage is necessitated, as described in Table 7.1. Selective investment in specific economic sectors in all the stages are of the essence, as well as the maintenance of existing services and amenities. Investing in all economic sectors and providing incentives simultaneously at all the urban centres, or even one city category in the urban system may not be feasible, especially in developing countries. Concentrating only on a few carefully selected locations could serve as an alternative approach. For example, in the stages when the investment policy focuses on intermediate cities, the first priority in a developing country like South Africa should be on those intermediate-sized centres adjacent to the primate city region. A much smaller investment would be necessary to enable economic growth in such an intermediate-sized city than in the case of most other development centres in the outer periphery (Drewes, 1994). In following

stages, emphasis could similarly be placed on a number of small cities relatively close to the strong intermediate sized cities.

Given this broad policy framework as basis, Table 7.1 provides a brief overview of suitable explicit and implicit regional policy instruments and elements (see Sections 3.2 and 3.3) during the six stages of an urban development cycle. Its aim is twofold. First, to place regional policy in a basic form into the temporal perspective of the differential urbanisation model. It is by no means an attempt to provide for all the intricacies of regional policy on its various levels; only to provide a fundamental description of the potential positive interaction between policy implementation during the urban maturation cycle. Secondly, it will provide a framework for evaluating existing regional policy initiatives of South Africa and the study area in terms of established goals of such policy (see Section 2.3).

Table 7.1 *Regional policy according to the differential urbanisation model*

Early primate city stage	Regional policy instruments	Regional policy elements
• High level of urbanisation to the primate city. • This interregional migration is sourced mainly from small and intermediate-sized cities. • The process of suburbanisation takes off within the primate city with the development of smaller nodes. • Primate city establishes some degree of spatial dominance within the urban system.	• Increase absorptive capacity of primate city through selective investments in physical infrastructure. • Establish development axes between primate city and sub-continental / international market centres. • Formulate sustainable urban management strategies for intermediate and small sized cities with dwindling population bases.	• Implement labour-intensive job creation programmes for the provision of housing and public services. • Strengthening of industrial sector in primate city with specific incentives. • Construction of transport connections to promote import and export trading. Simplify administrative arrangements for trading between countries.
Intermediate primate city stage	Regional policy instruments	Regional policy elements
• Migration rate to the monocentric primate city still increasing. • Out-migration from intermediate-sized cities decreases while migration from small cities reaches its highest level. • Suburbanisation is a prominent phenomenon in the development of suburban nodes. • A skeletal national transportation network has been built linking the primate city with sub-continental urban centres.	• Diversify the industrial sector in the primate city region. • Invest in interregional infrastructure provision programmes, with emphasis on linkages with adjacent urban centres. • Promote the maintenance of physical and social infrastructure and other amenities in non-metropolitan centres, with special emphasis on small cities.	• Implement tax incentives for new and existing industrial and commercial development in the metropolitan region. • Provide for less-formalised, labour-intensive industrial development opportunities in industrial clusters. • Build or improve roads and railways between primate city region and adjacent intermediate-sized cities.

Table 7.1 *Regional policy according to the differential urbanisation model (cont.)*

Advanced primate city stage	Regional policy instruments	Regional policy elements
• Metropolitan region still dominates urban system economically and spatially. • A monocentric urban structure no longer prevails in primate city. Evidence of some agglomeration diseconomies appears evident in the primate city. • Intraregional deconcentration of people and economic activities leads to development of a multi-centred metropolitan region. • End of urbanisation phase and beginning of polarisation reversal. • The industrial sector structure has evolved to a stage when they are more footloose and branch plants are feasible.	• Support policies for the deconcentration of footloose industrial activities to selected intermediate or small sized cities. • Put an end to explicit centralisation policies, without deterring new metropolitan development. • Formulate a multi-sectoral approach to economic development in especially the metropolitan region.	• Implement pollution fees and congestion taxes to reduce agglomeration diseconomies in the primate city. • Develop or expand governmental or administrative functions in secondary cities, without eliminating opportunities in the primate city. • Construction of only environmentally-friendly industrial park development on all levels of urban development. • Extensive provision of incentives for tertiary sector development in especially the primate city region and intermediate-sized cities. • Local economic development initiatives must be implemented as an integral part of developing all levels of the urban system.

Table 7.1 Regional policy according to the differential urbanisation model (cont.)

Early intermediate city stage	Regional policy instruments	Regional policy elements
• The primate city is still gaining population in absolute terms, although it is starting to lose in relative terms to the intermediate-sized cities. • The suburban centres within the primate metropolitan region are now growing faster than the central city. The polycentric metropolis with its diversified economic base still prospers. • Intermediate-sized cities reach their highest level of in-migration. • Uneven growth of a limited set of intermediate-sized cities. These cities are close but not part of the primate metropolitan area, and linked by development axes. • The per capita income in the periphery has grown to levels that justify new businesses and industries to cater for local demand.	• Expansion and improvement of transport system between metropolitan region and intermediate-sized cities. • Promote communication strategies to inform relevant enterprises better about the costs and benefits outside the core region. • Decentralise more governmental functions to local government, especially to intermediate sized cities. • Developing local entrepreneurship in the primate and intermediate-sized cities. Remove bureaucratic barriers to create a pro-business environment. • Formulate incentives for sector-specific development on the upper two urban size levels, in accordance with local economic development strategies.	• Build and develop adequate public amenities for industry and commerce in non-metropolitan locations that will reduce the constraints on productive investment. • Develop an efficient regional transport system, including roads, ports, airports, telephone systems, and waste disposal, for the speedy distribution of goods and services. • Provide sufficient stands in intermediate-sized cities for new industrial developments. • Provide financial incentives for industrial, business and informal sector development for at least the primate city and selected intermediate cities. • Integrate the informal business sector in the central business areas. • Decentralise decision-making powers to stimulate increased production in non-metropolitan areas.

Table 7.1 Regional policy according to the differential urbanisation model (cont.)

Advanced intermediate city stage	Regional policy instruments	Regional policy elements
• The inner metropolitan centres lose population in absolute terms, with the central city losing more than the suburban metropolitan centres. • The growth in population that characterised the development of the primate city during the advanced primate city stage is repeated in the faster growing intermediate-sized cities, but on a smaller scale. • Net migration to small cities becomes positive for the first time in the urban development cycle. • A significant level of infrastructure provision has occurred between primate city region and adjacent cities.	• Increase investment in social and economic infrastructure and services in intermediate and small sized cities. • Promote private sector participation in infrastructure development and the establishment of public-private partnerships in physical development projects in the upper levels of the urban hierarchy. • Market the lifestyle and quality of life in intermediate and small sized cities. • Improve governmental and administrative functions in all non-metropolitan authorities. • Concentrate on tourism development strategies in the periphery that now has more sufficient levels in infrastructure.	• Provide initiatives for business support systems like banking and technical assistance facilities on the lower levels of the urban hierarchy. • Provide cultural and recreational facilities (parks, gymnasiums) for managers and professionals at the two upper city-size levels. • Development or renewal of attractive office parks, hotels and waterfront developments on all urban-size levels. • Extensive marketing campaign for a relaxed lifestyle, natural amenities, and low rate of criminal activities in non-metropolitan centres. • Improve efficiency of local government and provide a sound database on issues such as climate, water and the availability of other resources. • Refurbishment of historical buildings or squares, and development of a street life with musicians, traders and small markets.

Table 7.1 Regional policy according to the differential urbanisation model (cont.)

Small city stage	Regional policy instruments	Regional policy elements
• Deconcentration takes place from the primate and intermediate-sized cities toward small urban centres. • Initially those small centres with exceptional locational attributes closer to the former two groups of cities may develop first, but later similar centres in the periphery may also begin to attract local migrants.	• Promote agro-industrial development in peripheral, now being more viable. • Develop a marketing campaign for the range of resources and amenities available in small cities. • Capture the benefits of rural development programmes and prevent income leakage to larger cities. • Strengthen the interregional communication linkages, especially to small cities.	• The emphasis is on promoting agro-industries using raw materials from the rural hinterland. • Develop small and/or informal manufacturing industries that produce cheap, locally used consumer goods from local resources on all urban size levels. • Market the existence of cheap labour and abundance of land in non-metropolitan areas. Also the lack of powerful labour movements in small cities. • Market the 'city-life' experience in metropolitan centres. • Establish small commercial and industrial entities in small cities with strong linkages in the rural region.

7.4 Formulation of regional policy

As indicated in Chapter Four, regional policy in South Africa, at the moment, basically consists of a growth centre strategy, combined with several primary and secondary development axes or corridors. Traditionally, the main criticism against this approach has been the number of growth centres, their location in terms of the urban system, their level of development, and lastly, the lack of incentives for sectors other than industry. It is the aim of this section to evaluate existing policies and provide recommendations, given South Africa's existing level of urban development, as measured by its primary metropolitan region, i.e. Gauteng. Accordingly, the main focus areas of South African regional policy will be evaluated in the next section, followed by a more specific evaluation of regional policy implications for the study area.

7.4.1 Critical evaluation of regional policy

During the past four decades, explicit regional policy in South Africa has been focused on the deconcentration of people and economic activities, mainly for political gain (see also Section 4.2). The turbulent years of political change away from the policy of apartheid and its distorted effects on regional planning, towards a greater democracy, resulted in a process of constantly changing policy instruments (see Sections 4.2 and 4.3). Although the government always tried to implement new policies with some degree of sensitivity and took the firms that were assisted under previous schemes into consideration, one must accept that the changing policies must have had quite a negative effect on the whole development process. As shown in Chapter Four, existing regional policy is focused on the Tax Holiday for industrial development, while provisions are also made for local economic development projects and various spatial development initiatives.

The spatial focus of industrial development policy is currently based on the growth centre concept (see Figure 4.4). The motivation given for this

approach, instead of the uniform ('blanket') approach remains unclear. According to the Department of Trade and Industry, that supervises the scheme, the growth centre must first of all, have a strong component of existing industries with an export component of at least 50 per cent. Furthermore, agglomeration economies must exist at the centre, with the possibility of extending forward and backward linkages. Further criteria include a sufficient labour force at the relevant centre, and a growing industrial sector. Last, the identified growth centres must be situated on a development corridor (Postma, 1997).

The main thrust of the new scheme provides tax holidays at 50 selected 'growth centres'. Most of the growth centres are exactly the same growth poles or industrial development points identified by the apartheid regime to implement its politically-motivated industrial development strategies. Given the existing level of development of the urban system, this change of direction from the 1991 Regional Industrial Development Programme seems to be a positive one, although the number and location of growth centres must again be questioned (compare with Section 4.2). Furthermore, the identification of locations such as Botshabelo, ThabaNchu, Mabopane, Babelegi, Thohoyandou and Michells Plain seems to be politically based, again (see Section 2.3.2.2). Most probably, the latter locations were identified as a result of the government's philosophy of encouraging a more balanced spatial development pattern (Drewes & Bos, 1995; DOH, 1995:2; Senekal, 1997:3; (Bos & Drewes, 1998:19), a viewpoint that inevitably refocuses policy attention in the direction of re-industrialising the former homelands.

A second point of criticism with regard to current regional policy is the consequence for existing industries. Although the need for incentives for existing firms have been raised previously (Nel, 1994:108), the new industrial development programme again only makes provision for subsidising new operations engaged in manufacturing, processing or assembly (DTI, 1996b:2). In spite of a positive Gross Domestic Product

(GDP), South Africa's economy is presently losing more jobs than creating them (Bos & Drewes, 1998:20). A similar phenomenon occurred in France between 1962 and 1967. Some 256 000 jobs were created in their rural areas, but during the same period 202 000 employees lost their jobs as a result of the bankruptcy of manufacturing industries (Bryant, 1980:113-114). According to Thomas (1972:89), developing countries need to invest 60 to 80 per cent of industrial spending in existing industries. In developing countries like South Africa, the existing industries in metropolitan areas must especially be encouraged to produce goods and services more productively. They should also produce improved goods and services and extend their markets. In this way some of the small- and medium-sized enterprises could grow to be more innovative, so that they could become more competitive in terms of global markets. The inclusion of certain existing industries as part of a sustainable regional policy framework, especially in metropolitan areas, would, therefore, seem justified (Bos & Drewes, 1998:20).

Thirdly, the national department of Trade and Industry manages the 1996 industrial development policies. This top-down function carried out by the Department of Trade and Industry, carries the risk that decisions are taken with insufficient knowledge of local circumstances (DCD, 1998:4). A possible link between local economic development and the new industrial development programme would have been possible if a bottom-up approach regarding small and medium sized manufacturing support would be implemented (see Section 2.4.1). Such support could be different for each locality (Anon, 1996:4). Especially in a Third World country, one does understand that the shortage of trained personnel, who can monitor this on local government level, limits this option.

On the positive side, specific issues identified in the previous policies, such as the lack of employment creation, introduction of contemporary technology, sustainability of projects, skill enhancement, fostering of new entrepreneurship and the promotion of foreign investments have been

addressed and built into the qualifying criteria for the 1996 industrial development policies. This is done to promote development in general, and not only to focus on economic growth.

As described in a previous section, local economic development as an urban development instrument is now also accepted in South Africa. A main objective is the levelling of the international playing field by creating more efficient and productive cities (Lewis & Bloch, 1996:739). It also aims at removing the discriminatory aspects of the selective or growth centre approach, for example only 50 centres were identified in the current industrial development programme (van Rensburg *et al*, 1997:8). It leaves the other centres to handle their own problems. The fact remains that local economic development, like the growth pole model, originates from the First World (DCD, 1998). It is a First World tool, made to strengthen the economies of especially smaller towns and cities in developed countries. Such a programme cannot be transplanted directly into a developing country, and must be adapted to local circumstances and the stage of urban development (Bos & Drewes, 1998:22).

One should acknowledge the fact that some towns with serious development problems, like a depleted mining sector, will not always find the local leadership or effective organisation to turn around the decline of their areas by implementing local economic development initiatives. The success rate of smaller towns in South Africa that will have the initiative, know-how and perseverance to implement such a development programme, could well be questioned (Jackson, 1999:31). As described previously, a local economic development manual was formulated by the central government to assist local governments in their pursuit for economic development (DCD, 1998). Initiatives should be taken to ensure that these guidelines are well communicated and understood at grass-roots level and that the necessary professional support at provincial level is given to address local problems relating to economic development. According to Nieuwoudt (2000), a lack of funds for these programmes is,

however, hampering the success of this development instrument.

The third pillar of regional policy refers to the Spatial Development Initiatives. This newly implemented corridor development approach clearly stems from the National Physical Development Plan of 1975 (as described in Section 4.2.3). The main criticism lodged against the 1975 approach toward development axes was that the growth centre approach and the development axes did not complement each other (Geyer, 1986:263; 1990:394). In cases where intermediate-sized cities were situated on axes such as the Rustenburg-Gauteng axis, the Klerksdorp-Gauteng axis and Witbank-Gauteng axis, the centres were said to possess self-generating growth power and should therefore grow without additional government assistance. This was quite a misconception and is repeated in the newly identified development corridors. Previously, when development axes were identified without any equilibrium cores in the periphery, it resulted in the movement of production factors such as labour, capital, entrepreneurship and resources to the core area, promoting centralisation rather than any form of decentralisation (Geyer, 1986:252).

What is also of concern at this stage of urban development, is that the potential of shorter axes that coincide with larger national or even international axes, is not mentioned or even considered (with the exception of the Platinum Spatial Development Initiative). Centres that are of significance in the case of the Gauteng area include Klerksdorp-Potchefstroom, Witbank-Middelburg, Highveldridge, Pietersburg and Rustenburg. These cities are all situated within or adjacent to the daily urban commuter system of the Gauteng area, and form part of a larger polycentric metropolitan structure. The average distance of 100 to 120 kilometres between these intermediate-sized cities and the Gauteng area, also represents the maximum distance that industries are normally prepared to decentralise from the core areas (Batten, 1995:314; Hennings *et al*, 1979:28; Geyer, 1986:164; Bos, 1987:153). All these intermediate-sized cities form equilibrium cores which, together with the Gauteng area,

can act as primary development cores which are essential for the evolution of development axes.

In summary, although positive changes can be detected in the government's approach to regional policy, several fundamental aspects still need to be revised. Regional policy should be formulated against the background of existing levels of agglomeration or development potential, and ensure that a sustainable economic climate is created which will spur the private sector on to invest in infrastructure development projects (Bos & Drewes, 1998:10). The private sector is geared to minimise the risk factors, their programmes are normally accompanied by conditions of agreement and allocation of responsibilities, time and cost frameworks and adherence to agree upon standards (Jourdan *et al*, 1996:718; Jackson, 1999:33). Also when it comes to operation and maintenance, there are definite benefits.

Thus, at the moment, the government's regional policies focus mainly on non-metropolitan intermediate-sized cities, which would seem to be quite correct given the stage of urban development. However, small cities and towns are left to their own devices, with their only guidance on development being a manual on local economic development. The main focus of development corridors and industrial development initiatives are on non-metropolitan growth points. As shown in the previous chapter, South Africa's urban system has probably matured to the advanced primate city or early intermediate city stages. This means that intermediate-sized cities are increasingly gaining migrants and are on a probable economic growth course. However, this leaves the rest of the urban system without any guidance on incentives for economic development or even urban management.

7.4.2 Formulating a regional policy for the study area

Given the status of urban system evolvement in the study area, the reinforcement of a deconcentration-based regional policy seems relevant.

Similar to London, New York and Paris during the seventies, the inner Gauteng region is showing early signs of urban maturity that is accompanied by aspects such as a slower rate of population and industrial growth. Although signs of polarisation reversal have been detected in the study area (see Chapter Six), the advanced primate city stage will probably be prolonged due to the removal of restrictions limiting new industrial development in the metropolitan regions and the increased migration of blacks to these cities. Consequently, the process of urbanisation will continue for some time into the future, resulting in the further development of the metropolitan regions (DOH, 1995:11).

In terms of the previous government's policy on urbanisation, the President's Council (CEA, 1992:64), recommended that the emphasis of South African development efforts should focus on "... intermediate-sized centres on the periphery, nearer to the core regions [and] unless the development of these intermediate-sized cities is linked to smaller and larger places, it is unlikely that they will play a catalytic role in stimulating regional development because spread effects tend to weaken rapidly with distance". Also, "... a system of intermediate-sized cities that are connected to the existing metropolitan areas and to smaller cities and towns - which in turn should be linked to rural service centres and farming areas - seems necessary to ensure the diffusion of innovation, the integration of urban and rural areas and the stimulation of economic activities in a particular region or sub-region". More recently, it was indicated in the Urban Development Strategy (DOH, 1995:11) that steps are needed to "... link smaller cities and towns afresh to their immediate hinterlands or to enhance their links to other urban centres, regions and wider markets in general". These are clearly calls for the implementation of an urban systems approach for regional development. However, no supporting measures or policies have been presented in an effort to link spatial planning with economic development initiatives.

It has been indicated in this study that the emphasis of polarisation reversal

and counterurbanisation is on the lower-ranking centres in the urban hierarchy. During the early intermediate city stage, these centres of growth are primarily situated adjacent to the metropolitan region. The specific distance from the metropolitan region differs from country to country, according to its level of development and physical size. A study on intermediate-sized cities in South Africa, concluded that priority-wise, intermediate sized cities close to the Gauteng-region (100-120 kilometres) should receive priority in terms of development (Bos, 1990:190; Bos & Geyer, 1992/3:57-58; Bos & Drewes, 1998:15). Geyer (1987:284) also noted that the intermediate sized cities 'tied' to the Gauteng-region by means of development axes, can play an important role in the development of a 'regiopolis', or urban system. Geyer (1990:393) indicated that a combination of the development axis or development corridor concept and an intermediate-sized city strategy could prove to be quite useful as an instrument to stimulate industrial 'leapfrogging' from the Gauteng metropolitan region towards certain deconcentration points.

Consequently, development axes could fulfil a useful role as an instrument stimulating industrial leapfrogging from the Gauteng region towards decentralised points in the adjacent periphery. Intermediate-sized cities, closely tied up with the Gauteng region in a system of cities, will play an important role in the sustained growth of the latter area. This could, however, only occur if these deconcentration points and the metropolitan region form a viable system of cities (Geyer, 1987:283-284; Geyer, 1990:393). Although development axes have much potential as regional development instruments, international experience has indicated that most successful development axes in metropolises (such as Washington, Copenhagen, Hamburg, and Frankfurt) do not exceed 100 kilometres (Geyer, 1987:285). The spatial manifestation of development axes is also repeated in the process of industrial deconcentration that usually occurs over a maximum distance of 120 kilometres from the metropolitan region (Bos, 1990:190). This is in accordance with the successful development of growth centres as visualised by Stern (1985:7), which is dependent on "...

reasonable proximity to one or more metropolitan areas".

According to Bos and Drewes (1998:16), the integration of these intermediate-sized cities into a system of cities could, on the one hand, reinforce the self-generating growth potential of the Gauteng area. On the other hand, it could also serve as a channel through which the deconcentration of economic activity in general, but of industrial development in particular, could take place more effectively to areas further removed. More efficient industrial development could also be achieved as these cities are relatively close together. Intermediate-sized cities situated on the direct routes between rural areas and the Gauteng area, can act as interceptor towns, to intercept immigrants who otherwise would have settled in the Gauteng area (Bos & Drewes, 1998:16).

Several important aspects should be noted if the government wants to implement a successful corridor development strategy in this area. Firstly, it is essential that the emphasis should fall on the strengthening of the existing centres on the development corridors (Geyer, 1987: 286). Secondly, priority should be given to centres located closer to the existing metropolitan areas, at least in the first stage of implementation (Geyer, 1990:395; Lewis & Bloch, 1998:742). Neither the Spatial Development Initiatives nor Small/Medium Manufacturing Programme focus on the intermediate region, although they form part of the individual approaches. In fact, existing regional policy focuses primarily on intermediate-sized cities located on national or international routes. A specific spatial focus for these incentives is thus of the utmost importance. These factors are critical because they will determine the intensity or degree of development on the corridors, as this tends to be directly proportional to the distance separating them (Friedmann, 1966:15). The linkage of intermediate-sized cities with Gauteng will enhance the development of network cities from the premise that nearby urban partners can benefit from the dynamic synergy of interactive growth via knowledge exchange and unexpected creativity (Batten, 1995:325).

In order to attain these goals, top priority should firstly be given to the improvement of the communication and transport networks that connect the intermediate-sized cities to the Gauteng area. In this regard it will be necessary to further upgrade the existing transportation routes between the Gauteng area and Potchefstroom, Witbank, Highveldridge, Pietersburg as well as Rustenburg⁵⁴. Secondly, infrastructure provision should enjoy priority in the mentioned intermediate-sized cities surrounding Gauteng, although not neglecting ongoing investment and management of metropolitan facilities.

The newly implemented financial incentive package or tax holiday scheme for industrial development is comparable to the international structuring of incentive provisions (Volschenk, 1996:3; von Keyserlingk, 1996:2; Booyens, 1997:6; Newman, 1997:23; Senekal, 1997:3). Coupled with an urban systems approach that includes all urban size categories, including the use of multi-sectoral development initiatives, it would provide a positive thrust towards attaining the objectives of South Africa's macro-economic policies. The outcome of such a policy formulation process will positively contribute to economic growth, while also contributing to the developing of a functional urban system based of existing and presumed migration patterns in the country (Hoover & Gairratani, 1985:380-381; Urban Foundation, 1993d:57). Although most of the towns or cities identified as growth centres are located on the proposed development axes, they should be phased in given the stage of urban development. At this stage, regional policy emphasis in the study area should be multi-sectoral and focused on the five or six intermediate- sized cities surrounding the Gauteng region. The same principle is relevant for the development axes. Priority should be given to the upgrading of services and a multi-sectoral development approach on these shorter axes emanating from Gauteng in the advanced primate city stage. In a later

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This conforms to the criteria for development of existing growth centres, whereby the chosen towns or cities must have achieved a 'critical mass' before growth within them can become self-sustaining. Accordingly, Richardson (1978b:151) argued that in the typical European or Third World country could sustain no more than between two and six growth centres.

phase of urban development (advanced intermediate city stage), priorities and incentives should shift from the above-mentioned region to specific locations deeper in the periphery, as identified by existing regional policy initiatives.

Lastly, in an effort to ensure the vitality and sustainability of regional policy, the formulating of a comprehensive, well-documented national spatial development framework is essential (Boudeville, 1966:56; Friedmann, 1966:99; Tinbergen, 1967:175; Richardson, 1987a:211). The government, however, seems set on focusing only on various spatial planning initiatives at local level, with little regard for a broader regional or national policy framework. The Local Government Transition Act (200/93) has made provision only for the preparation of local development plans (Integrated Development Plans). Similarly, the Development Facilitation Act (67/1995) made provision for the preparation of Land Development Objectives for local and district authorities. More recently, this bottom-up departure to spatial planning, whereby the planning process seems to be more important than the goal of economic development (see Section 2.4), is also confirmed in the Green Paper on Development and Planning (DPC, 1999:34). According to this draft policy, the "... national spatial planning function should be a limited one".

7.5 Conclusion

From this chapter it is evident that a number of principles has to be present when formulating a sustainable regional policy. The main components that need to be integrated into such a policy seem to be anticipated market and migration trends, the functional integration of other relevant policies, and the influence of national and global forces. When this broad framework had been established, it was shown in this chapter how the different policy options and instruments (see Chapters Two and Three) can be integrated and applied during the six basic stages of urban maturation. As described, the main benefit of such an approach would be the timely adaptation of regional policy over time and through the different phases of growth and

decline within the different urban centres in the hierarchy.

Given this 'ideal' situation, the last section of this chapter provided an evaluation of South Africa and the study area's approach to policy implementation. It is evident that, in principle, the government seems to be on the right track in terms of policy basics, i.e. a combination of top-down and bottom-up approaches throughout the country and the study area. The approach has changed in the last decade to a multi-sectoral policy and has even increased its scope to include adjacent countries. The main criticism, however, is again the reactive manner in which these policies are applied. The emphasis is on non-metropolitan development, mainly because of the enormous imbalances in terms of income and unemployment patterns. It has been shown in the previous chapter that the study area conforms to the differential urbanisation model, which leaves the policy-makers with enough scope to provide financial and other incentives to support existing migration and production trends. This approach will provide a focus for scarce development initiatives, instead of spreading these initiatives thinly throughout the study area, and the rest of the country.

CHAPTER EIGHT

8. SUMMARY AND CONCLUSION

8.1 Introduction

The aim of this final chapter is firstly to provide a synopsis of the views and deductions that emerged from this study. Secondly, it aims to provide final conclusions with regard to the essence of this research process and the achievement of the objectives set in Section 1.2.

8.2 Synthesis

The origin of regional policy, as described in Chapter Two, can be traced back to post-war Europe in the late 1940s and early 1950s. Apart from war-torn areas, socio-economic problems in heavily industrialised coalfield regions (France, southern Belgium, Ruhr in Germany) laid the foundation for the formulation and adoption of what is referred to as regional policy throughout this study (Williams, 1996). Until that time, numerous policies, such as agricultural and transportation policies were formulated within and between regions. Issues such as increasing unemployment numbers, low levels of income and high emigration rates in certain regions incited the formulation and implementation of an all-encompassing policy to address these imbalances (Williams, 1996:120; EC, 1997:21; Taylor & Armstrong, 2000:211).

The main objective of regional policy is, therefore, to create a spatially more balanced socio-economic situation between regions. As shown in Section 2.3, the formulation of regional policy follows a process of evaluating alternatives and creating possible scenarios. This is done by constructing a model or strategy through which the predicted effects can be evaluated and compared. It is during this stage of policy formulation that the proposed differential urbanisation model (as described in Section

7.3) should be introduced. This strategy, whereby existing and future socio-economic trends are anticipated and supported can then be compared to the traditional 'reactionary' approach to policy formulation.

The method or mode by which these objectives can be achieved also varies significantly. Two main issues can be identified, namely the level at which the policy is implemented, and the spatial application of the policy. The former refers to the question of accomplishing socio-economic objectives from above, or from below. Development from above, or usually referred to as a top-down approach, relates to the implementation of regional policy in a 'dictatorial' fashion by the relevant government agency. Little public participation is usually attained and the formulation process is usually non-transparent, with the emphasis on large urban areas. This approach was typical in the first decades of regional policy formulation and implementation in Europe and even the United States of America. Since the 1980s, however, an emphasis shift has occurred in most countries with formal or explicit regional policies. The participation of communities in the formulation process became an issue, and of late, the natural environment has also become a significant issue. The inclusion of people at grass-roots level in the policy formulation process, both urban and rural, has led to the 'development from below' concept. This approach is utilised in most democratic countries today.

In terms of the spatial application of regional policy, one usually distinguishes between a selective or uniform approach. The selective approach refers to a more efficient use of resources by providing incentives for development at specific locations, usually certain towns or cities. A uniform approach is usually implemented in areas where the political situation does not allow for certain areas to be favoured by regional policy. Accordingly, a whole region is consequently earmarked for regional development initiatives.

It is also a well-known fact that many implicit policies, for example agricultural, population, and transport have significant spatial implications.

Some regions opt to formulate only these sectoral policies (implicit) rather than explicit regional policy. The benefits of explicit regional policy have, however, been proven beyond doubt (see Section 2.4).

According to the classification approach adopted in this study, regional policy can also be classified in terms of its goals and objectives. With reference to the above-mentioned question of selectivity, the establishment of broad goals for regional policy usually differentiates between efficiency and equity. When equity is the main objective of a regional policy, it usually means that incentives are spread evenly geographically in an effort to establish a more 'balanced' socio-economic condition. If the main objective is efficiency, regional policy will focus on specific issues, such as certain cities, or certain social and economic groups within the region. The latter approach has been proven to be more cost-effective, but is usually intolerable on a political level.

The second main classification of policy in terms of objectives refers to the sustainability or vitality of the policy. In general, this refers to the sustainability of the natural and social components of the region, as well as political acceptance. The vitality of policy is usually dependent on the process through which it is established, i.e. from above or below. Regional policy implemented in a bottom-up fashion is usually sustainable in terms of the social, environmental, and political spheres. Although the top-down approach achieves more success in terms of economic growth (see Section 2.4), it lacks in terms of the above-mentioned sustainability criteria.

When the process through which regional policy will be implemented has been established, and the various goals identified, the implementation strategy has to be decided upon. This can be categorised into four main options. The first policy option prescribes a non-interference approach in which the goals of regional policy can be reached through the free-market system (*laissez-faire*). Most academics, however, agree that this approach is not the most efficient (see Section 3.2). A second option is to focus

regional policy on the curbing of further economic growth in the large cities or metropolitan areas, as has been the case in many of Europe's leading capitals. Another policy option is the focused development of small and intermediate-sized cities, and the last option is the development of the periphery or rural component of the spatial system.

These policy options are mostly facilitated through regional policy instruments. In this study, regional policy instruments refer to a subordinate level of classification (lower than policy options), whereby growth centres and development axes are seen as the main devices to attain regional policy goals. For example, the instruments that are usually utilised to realise the policy option of slowing down primacy, is the identification of growth centres in the periphery. These growth centres, whether it be countermagnets or provincial capitals, are usually linked to the metropolis by means of development or communication axes. On the lowest, or project level, this policy option would probably be implemented through the establishment of direct restrictions on development in the metropolis or primate city, as well as the provision of financial incentives and infrastructure in other locations (growth centres).

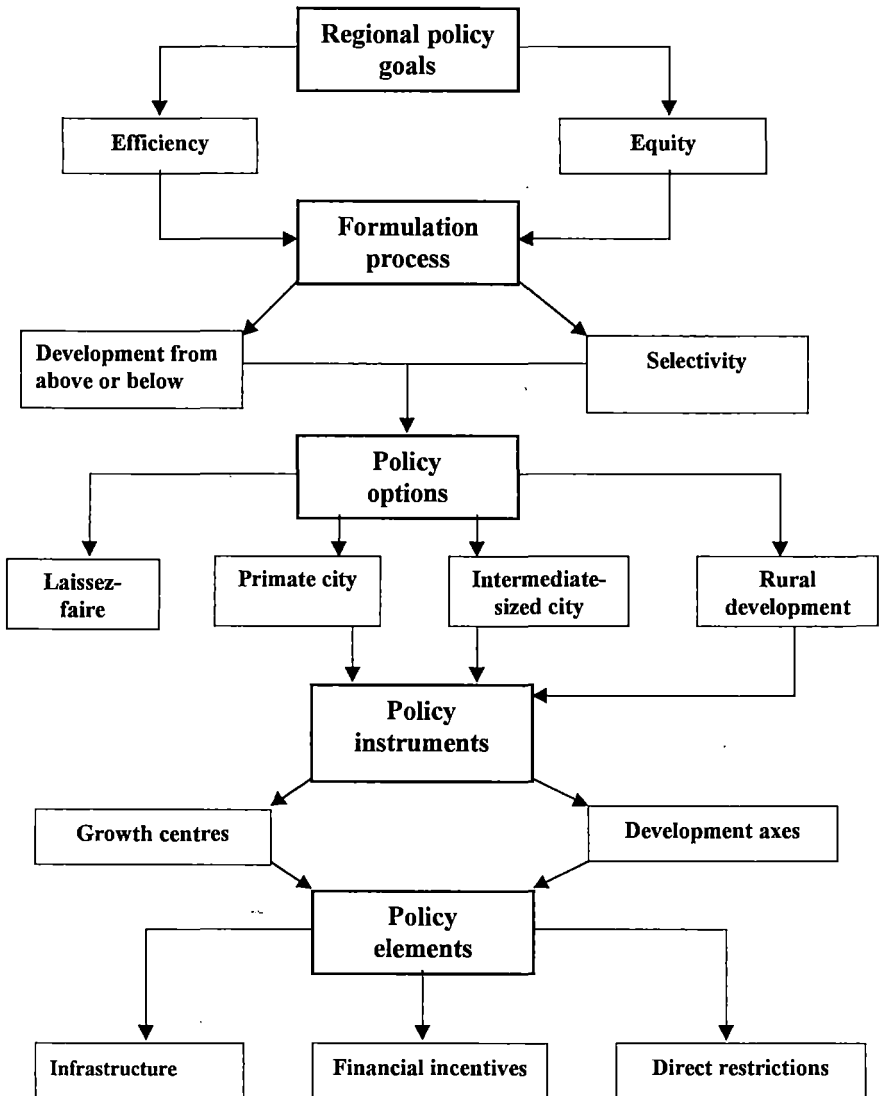
Thus, in this example, the policy option of curbing primacy is realised first in terms of the specific application process (e.g. development from above), and secondly according to the identified goals (e.g. efficiency and vitality). On a lower level, this option is implemented through the utilisation of certain policy instruments (e.g. intermediate-sized cities) and policy elements (e.g. social and physical infrastructure in the periphery). As is evident, the implementation of regional policy usually includes several policy instruments and policy elements, also referred to as hybrid policies. From this study, it is evident that all regional policies can be categorised according to this classification.

An important decision that has to be made throughout the policy formulation process, is the final objective of the policy. As is evident from Chapters Two and Three, pressure groups are increasingly participating in

the formulation of policy objectives, especially in more developed regions and countries. This has led to the phenomenon whereby the process of policy formulation, which includes the public participation process, has become the main objective of policy formulation. In other words, in these regions and countries, the process of regional policy formulation has in effect become the main objective of regional policy.

With South Africa and the Gauteng functional metropolitan region being central themes in this study, the historical implementation of regional policy could be analysed in terms of the above-mentioned classification. Little has been done since the last world war in terms of explicit regional policy in South Africa. As described in Chapter Four, several implicit policies with spatial implications were, however, implemented. Between the 1950s and 1990s, these policies were mostly built around the socio-political objectives of the National Party government. The policies included legislation that prohibited the free movement of some population groups, and initiatives for industries to relocate to the 'homelands'.

Figure 8.1 *Explicit regional policy classification*



Source: Own deductions

In terms of the process through which these policies were implemented, it is clear that this was a top-down approach to regional development. The main goal of the apartheid-system had efficiency - for certain sections of the population - as main goal. These goals were to be facilitated through the curbing of metropolitan growth, and the rigorous development of certain small and intermediate-sized cities (see Section 4.2). In terms of policy instruments and elements, the National Physical Development Plan (1975), and the Good Hope Plan (1981), were based mainly on the use of growth centres and development axes to implement the government's socio-political objectives. Restrictions were also placed on certain developments in metropolitan areas.

In 1991, a drastic change in policy implementation occurred. Although industrial development was still seen as the main growth sector, and development within metropolitan areas were still discouraged, the spatial application of regional policy differed significantly. Accordingly, the Regional Industrial Development Programme encouraged development throughout the South African non-metropolitan space economy (uniform approach). The location of new industrial development was left in the hands of entrepreneurs, i.e. free-market system. As argued in Chapter Four, it would seem that the main goal of this bottom-up policy approach was political acceptance. In terms of policy options, its main goal was to slow down primacy through the use of financial incentives in all non-metropolitan locations.

Independent evaluation of the latter policy showed that, in spite of the locational freedom provided by this policy, new industries clustered in existing intermediate-sized cities and the former 'homeland' towns where physical infrastructure and labour was available in abundance. Consequently, regional policy changed again in 1994 with the implementation of another set of regional development initiatives. This policy was again based on the principles and policies of the 1970s and 1980s, in utilising a top-down, spatially selective approach. Instruments

include the use of financial aid and tax incentives, as well as the provision of social and physical infrastructure.

A positive addition to traditional regional policy occurred in the middle 1990s with the implementation of local economic development initiatives. For the first time, other sectors such as business, agriculture, and services could benefit from regional policy. Even small and less-formal business entities could now benefit from financial incentives. Also, several development axes (corridors) were identified throughout the country, and even across international borders to Botswana, Mozambique, and Namibia. These axial development initiatives were all linked to the development of specific sectors along each axis, such as tourism, industry, and agriculture. Existing regional policy, therefore, combines the development from above and development from below approaches, in that certain growth centres are identified for formal industrial development, but no areas are excluded (in principle) from local economic development incentives. It combines the concepts of efficiency and equity in terms of goals, and combines policy instruments such as growth centres and development axes.

The second main theme of this study, as described throughout, refers to migration patterns in terms of the urban system. It has been shown in Chapter Five that regions can be analysed most effectively in terms of the urban system approach. Accordingly, several types or hierarchies of towns and urban centres can be identified within a region, between regions, and even internationally. The development of an urban system goes through various stages of positive and negative migration patterns, as well as changing economic production patterns. It has been shown that metropolitan areas mature over time with the development of agglomeration diseconomies, and the consequent deconcentration of certain economic activities to the metropolitan fringes and to intermediate-sized cities. This is followed by the growth of intermediate-sized cities, and even small cities, in terms of net migration (differential urbanisation).

As shown in Section 1.2, one of the main objectives of this study is to evaluate and integrate these main themes, i.e. regional policy and differential urbanisation, and to test the integration of these concepts in a local urban system. Gauteng is South Africa's most advanced metropolitan area, but does not constitute an integrated urban system. Consequently, intermediate-sized cities and small cities surrounding Gauteng were also included in a study area in an effort to compile a complete regional urban system. In Chapter Six, migration and economic production patterns were analysed according to the latest available statistics. In an effort to identify more detailed patterns of migration and economic production, the metropolitan area was also sub-divided into four zones. According to the statistics from the 1970s to 1996, it was first established that several migration substreams could be identified throughout this time, with specific reference to the different population groups.

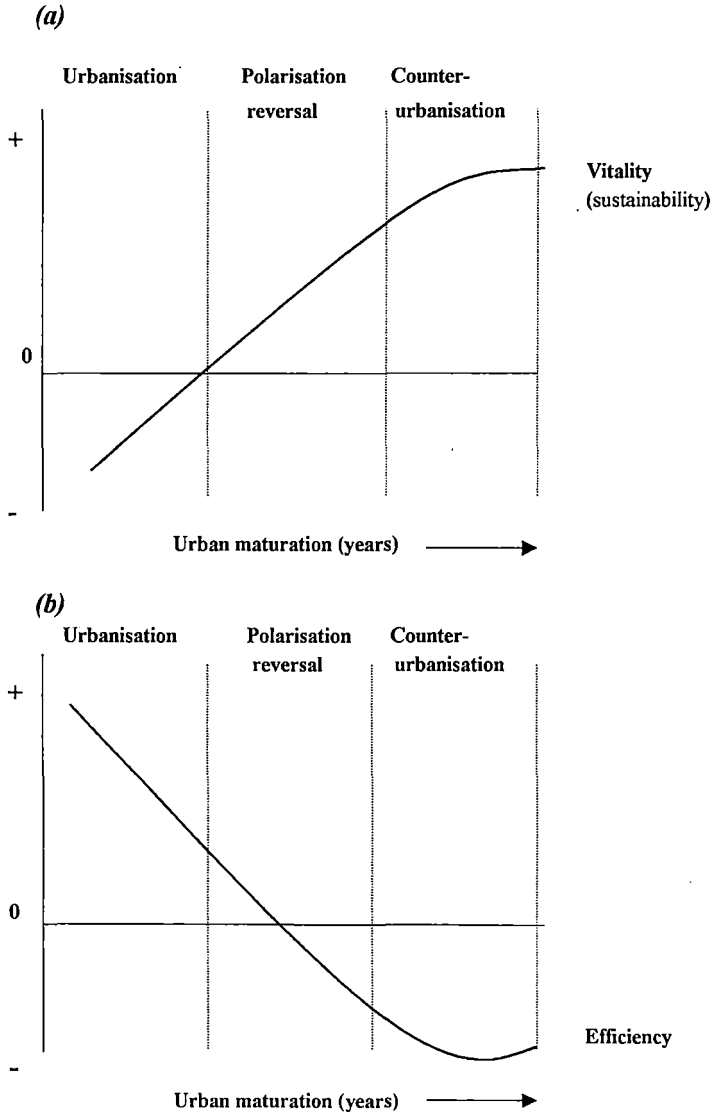
A clear differentiated pattern of migration has evolved in the Gauteng Functional Metropolitan Region. Blacks from the lower centres on the urban hierarchy are currently migrating to the metropolitan core, while the whites are deconcentrating to the metropolitan fringe and intermediate-sized cities. A differentiated pattern of economic production within the urban system in the study area is also evident (see Table 6.5). These trends emphasise the validity of the differential urbanisation model in the study area.

Utilising the differential urbanisation model, the formulation of regional policy for all the central places in the urban system can be facilitated throughout the urban evolution process (see Table 7.1). According to this proposal, an integrated regional policy must be formulated for each urban system, which then only requires an emphasis shift in terms of spatial application during each stage of maturation. It has been shown that selective investment in specific economic sectors in all the stages are of the essence, as well as the maintenance of existing services and amenities.

Investing in all economic sectors and providing incentives simultaneously at all the urban centres, or even one city category in the urban system may not be feasible, especially in developing countries. Concentrating only on a few carefully selected locations could serve as an alternative approach. For example, in the stages when the investment policy focuses on intermediate cities, the first priority in a developing country like South Africa should be on those intermediate-sized centres adjacent to the four core regions (see Table 7.1). In following stages, emphasis could similarly be placed on a number of small cities relatively close to the strong intermediate-sized cities.

In conjunction with the proposals set out in Table 7.1, some general principles can be established. Little can be done to change the urban system's character during the urbanisation phase (differential urbanisation model). The polarisation forces are strong and the whole economy seems to be quite efficient. As people migrate to cities, their perceptions change over time (mobility transition theory) and they become more involved with regard to the development of their surroundings. Accordingly, in a democratic system, the vitality or sustainability of regional policy will increase as the urban system matures, while efficiency will probably decline with the increase in demographic mobility (see Section 2.4.2). With the proposed integration of policy formulation with the differential urbanisation model, however, this problem is largely negated through timely response to potentially crippling economic and social circumstances. Figure 8.2(b) shows the tendency for of economic efficiency to decrease as the urban system, and its population, matures. At the same time, the sustainability of regional policy in terms of the natural environment, political acceptance and social vitality, increases (see Figure 8.2(a)). It is evident that this is not an ideal situation in terms of sustainable development of the urban system.

Figure 8.2 *Regional policy: efficiency and vitality*



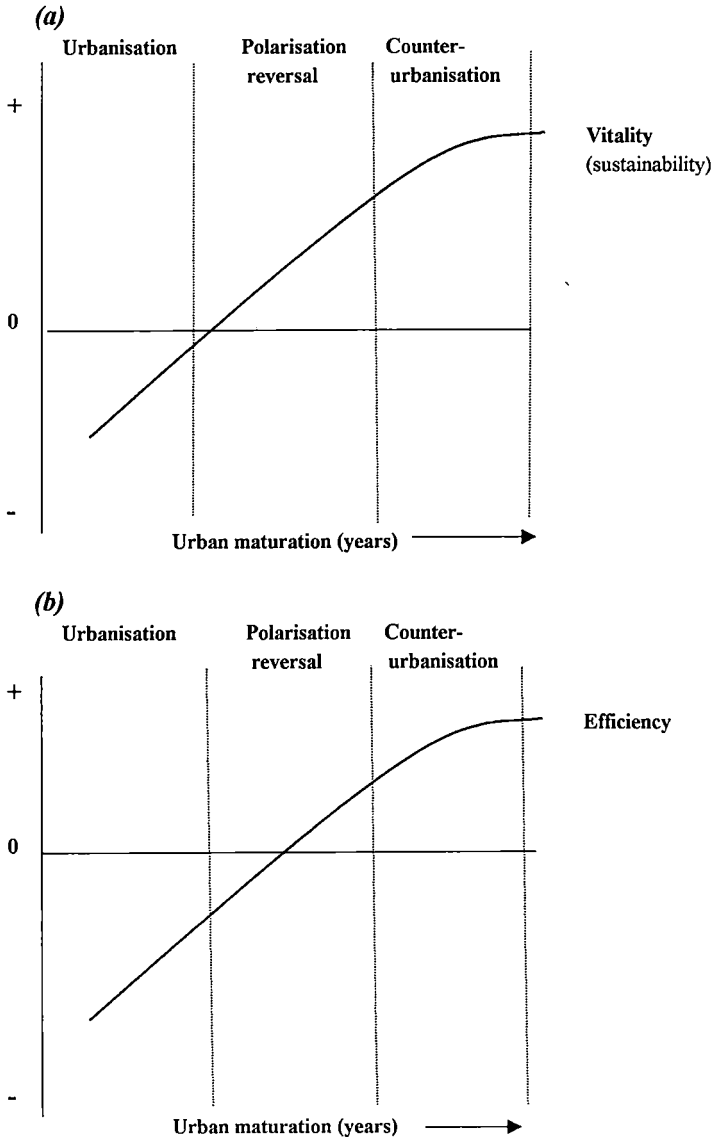
Source: *Own deductions*

As shown in Chapter Two, the principle has been accepted in most developed economies that the free-market system is not the most economically efficient system. In fact, this is the main argument for the formulation and implementation of regional policy. The main drawbacks of economically efficient regional policy, are, however, increased awareness of environmental pressure groups, the rise of civil society, and political pressures. The integration of regional policy and the differential urbanisation model provides policy-makers with a firm theoretical and empirical foundation for increasing economic efficiency over time. Community participation can then effectively be integrated in the formulation process when tough political decisions has to be taken, so as to ensure its long-term sustainability (see Figure 8.3).

This is mainly because issues such as unemployment, and emigration (usually the main reason for formulating policy) can be anticipated in advance and managed more effectively with a sustainably formulated regional policy (see Section 7.3). The integration of differential urbanisation with regional policy (see Table 7.1), firstly, provides for a quantitative and normative foundation for establishing the development status of the urban system. Secondly, it provides a framework for managing the whole system effectively in economic terms by positioning and supporting different economic sectors in their most profitable locations. This study has shown that the Gauteng Functional Metropolitan Region has matured to the 'advanced primate city stage', and even showing signs of the early intermediate-sized city stage. This has specific implications for the sectoral and spatial development priorities (see Table 7.1c and 7.1d) that have to be integrated in all relevant policies and strategies.

Thirdly, the development of such a framework policy should then give impetus and direction to the formulation of provincial and district-level development strategies. These, in turn, would then give direction to the formulation of Integrated Development Plans on urban, metropolitan, and

Figure 8.4 *Regional policy: increased efficiency and vitality*



Source: Own deductions

district levels (Municipal Categories B, A, and C, respectively). Such a regional policy framework, and the consequent regional policy instruments implemented on the sub-national levels, would even provide direction for the formulation of local economic development strategies at municipal level. Depending on the size of municipality, its location in the urban system, prevalent migration patterns, and the local economic character, effective local economic development strategies can be implemented. The fact that local economic development projects should be viable even in the longer term (given the trends according to the regional policy/differential urbanisation framework), will also increase the success of funding applications to government.

In summary, regional policy is formulated, even today, as a result of existing and increasing regional imbalances in terms of unemployment, declining industries, and low per capita income levels, to name a few. The primary aim of regional policy is then to 'balance' the relevant space economy. It is proposed that regional policy should anticipate socio-economic trends instead of reacting to problems or imbalances (as is the case today in South Africa, and even the European Community). It has been proven in various countries and regions, and in the study area, that urban systems mature in an identifiable fashion with consequent changes in production and migration. This study brought together parallel processes that could support each other, instead of being a reaction to a problematic socio-economic situation.

Lastly, South Africa is experiencing exceptional urbanisation pressures following the gradual lifting of apartheid controls on rural-urban migration of the black population since the 1990s. The government seems to be committed to a physical reconstruction and human development programme, much of which is biased towards urban development. In general, the lower the level of urbanisation, the greater the scope for changing the urban settlement and production pattern. If the urbanisation level is high, very little can usually be done to alter the distribution of

population and economic activities. A process of national and regional spatial planning needs to be initiated, based on fuller appreciation of the migration patterns and production trends in different levels of the urban hierarchy. The possibility of redirecting economic activity to non-metropolitan areas of greater competitiveness needs to be evaluated. The need for more explicit regional policy, therefore, seems to be evident.

The study area seems to be following an identifiable pattern of socio-economic development. The timely implementation of suitable regional policy (as demonstrated in Section 7.3) can lead to the increase in both concepts of general sustainability and economic efficiency, instead of falling into the traditional 'efficiency trap'.

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OPSOMMING EN SLEUTELTERME

10. OPSOMMING EN SLEUTELTERME

Titel: *Differensiële verstedeliking en streekontwikkelingsbeleid: 'n gevallestudie van die Gauteng Funksionele Metropolitaanse Streek.*

Streekontwikkelingsbeleid en differensiële verstedeliking is twee fundamentele temas binne die ruimtelike beplanningsveld. Streekontwikkelingsbeleid is veral sedert die Tweede Wêreldoorlog in Europa geïmplementeer, waar regerings besef het dat die vryemarkstelsel nie noodwendig optimale ekonomiese groei op streekvlak verseker nie.

Doelwitte

Die primêre doelwit van hierdie studie is die integrering van effektiewe en volhoubare streekontwikkelingsbeleid met die konsep van differensiële verstedeliking, ten einde 'n effektiewe stedelike bestuursmeganisme daar te stel. Sekondêre doelwitte sluit in:

- ♦ om die beginsels en doelwitte van streekontwikkelingsbeleid en streekontwikkelingsinstrumente te bepaal;
- ♦ die analisering van Suid-Afrikaanse streekontwikkelingsbeleid in terme van bogenoemde klassifikasie;
- ♦ ondersoek na die teoretiese en praktiese toepassings van die differensiële verstedelikingsmodel;
- ♦ om die geldigheid van die differensiële verstedelikingsmodel te bepaal in die Gauteng Funksionele Metropolitaanse Streek; en
- ♦ om relevante streekontwikkelingsbeleid te integreer met sosio-ekonomiese tendense in 'n stedelike stelsel, met spesifieke verwysing na die Gauteng Funksionele Metropolitaanse Streek.

Metodiek

Die rasionaal vir die formulering van streekontwikkelingsbeleid word in Hoofstuk Twee beskryf. Regerings en ander streekowerhede formuleer streekontwikkelingsbeleid ten einde spesifieke doelstellings te behaal. Hierdie doelstellings verander met tyd en is gewoonlik streekspesifiek.

Die relevante owerheid of instansie neem 'n besluit in terme van bogenoemde fundamentele benaderingswyses, waarna 'n keuse ten opsigte van spesifieke beleidsopsies en –instrumente geneem word. Hoofstuk Drie beskryf laasgenoemde beleidsinstrumente asook meer gedetailleerde beleidselemente soos wat dit op projekvlak geïmplementeer word.

In Hoofstuk Vier word die geskiedkundige implementering van streekontwikkelingsbeleid in Suid-Afrika en spesifiek vir die Gauteng- en omliggende streek, ondersoek. Die Gauteng Funksionele Metropolitaanse Streek het reeds 'n gevorderde vlak van stedelike ontwikkeling binne die Suid-Afrikaanse konteks bereik en was histories instrumenteel in die implementering van streekontwikkelingsbeleid.

'n Sentrale tema in hierdie studie, is die beginsel dat stedelike komplekse 'verouder' met tyd. Soos wat hierdie stedelike komplekse ontwikkel, kan verskillende migrasie- en ekonomiese produksiepatrone onderskei word in dieselfde areas, maar die patrone is georiënteer in verskillende rigtings en gebaseer op verskillende motiverings. Hierdie tendense word deur die differensiële verstedelikingsmodel in Hoofstuk Vyf aangespreek.

Na die afskaffing van diskriminerende wetgewing, is die verwagting dat die bevolkingsgetalle van groter stedelike komplekse vir 'n aansienlike tydperk steeds sal toeneem. In Hoofstuk Ses word hierdie migrasieprosesse, asook veranderende produksiepatrone in die studiegebied ontleed, gebaseer op die resultate van die mees onlangse sosio-ekonomiese opnames.

Bevindings

Uit die studie blyk dit duidelik dat streekontwikkelingsbeleid steeds geïmplementeer word in reaksie op bepaalde ongelykhede in 'n streek. Laasgenoemde verwys gewoonlik na hoë vlakke van werkloosheid en kwynende ekonomiese sektore in sekere stede. Die voorstel in die studie is die vroegtydige formulering van streekontwikkelingsbeleid vir al die elemente binne die stedelike sisteem, gegewe die huidige ontwikkelingsvlak in terme van die differensiële verstedelikingsmodel. Hiervolgens kan sentra met toenemende ekonomiese- en bevolkingsgroei vroegtydig geïdentifiseer en ontwikkeling bevorder word. Soortgelyk, kan plekke met kwynende ekonomieë en bevolkingsgetalle ondersteun word in dié fase van stedelike groei.

Die sosio-ekonomiese profiel van die studiegebied, naamlik die Gauteng Funksionele Metropolitaanse Streek, het in die studie bewys dat dit 'n identifiseerbare ontwikkelings- of 'verouderingsroete' gevolg het sedert die 1960s. Dit is ook duidelik in die studie dat die effektiwiteit van streekontwikkelingsbeleid en die volhoubaarheid daarvan gewoonlik omgekeer eweredig is aanmekeer: soos volhoubaarheid toeneem, neem ekonomiese effektiwiteit af. Die voorgestelde integrering van streekontwikkelingsbeleid en differensiële verstedeliking behoort hierdie negatiewe tendens ten opsigte van effektiwiteit en volhoubaarheid om te keer, ten einde toenemende volhoubaarheid en effektiwiteit te verseker in die stedelike ontwikkelingsproses.

[streekontwikkelingsbeleid; differensiële verstedeliking; stedelike sisteem; migrasiepatrone; Gauteng metropolitaanse gebied]

[regional policy, differential urbanisation; urban system; migration patterns; Gauteng metropolitan area]