The Mabopane-Centurion Development Corridor: A historical analysis of successes and constraints and proposals for improvement

by

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In the Faculty of Engineering, Built Environment and Information Technology
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<td>BOT</td>
<td>Build-Operate Transfer</td>
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<tr>
<td>CBD</td>
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<td>Development Bank of Southern Africa</td>
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<td>JIA</td>
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<td>MSA</td>
<td>Moving South Africa Strategy</td>
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<td>OSDIC</td>
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<td>PC-CLGC</td>
<td>Presidential Commission for the Central Luzon Growth Corridor</td>
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<td>PZF</td>
<td>Planning Zone Forum</td>
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<td>RDP</td>
<td>Reconstruction and Development Programme</td>
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<td>SARCC</td>
<td>South African Rail Commuter Corporation</td>
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<tr>
<td>SDI</td>
<td>Spatial Development Initiative</td>
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<tr>
<td>SEZ</td>
<td>Special Economic Zone</td>
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<td>SME</td>
<td>Small and Medium Enterprises</td>
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<td>SMME</td>
<td>Small, Medium and Micro Enterprises</td>
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<td>TCC</td>
<td>Transport Co-ordinating Committee</td>
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<td>VET</td>
<td>Vocational and Entrepreneurial Training</td>
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Die Mabopane-Centurion Ontwikkelingskorridor: ‘n Historiese Analise van Suksesse en Beperkinge en Voorstelle vir Verbetering
deur
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Opsomming

Die Mabopane-Centurion Ontwikkelingskorridor-inisiatief is deur die voormalige Groter Pretoria Metropolitanse Raad in samewerking met ander regeringsfere in 1995 geloods. Dit het geskied by wyse van ‘n beplanningsproses, as deel van ‘n nasionale inisiatief wat bekend staan as die “Four Cities”-projek op stedelike ontwikkelingskorridors (die “Four Cities” verwys na Kaapstad, Johannesburg, Durban en Pretoria). Die loodsing het plaasgevind as ‘n resultaat van die regering se intensie om die integrasie tussen grondgebruik- en vervoerbeplanning (ter bevordering van die ontwikkeling en gebruik van effektiewe en bekostigbare openbare vervoerstelsels), veral op stedelike vlak in die Republiek van Suid Afrika te ondersoek en te bespoedig. Gedurende hierdie tyd het die nasionale regering ‘n siening uitgespreek dat ontwikkelingskorridors geag moet word as ‘n potensiële meganisme vir sosiale opheffing, die bevordering van ekonomiese ontwikkeling en die aanspreek van die segregasie wat deur die apartheidsbeleid in Suid Afrikaanse stede en dorpe veroorsaak was.

Hierdie verhandeling fokus gevolglik op die historiese verloop van die Mabopane-Centurion Ontwikkelingskorridor se ontwikkelingsproses sedert die eerste gesprekke waartydens die projek in November 1995 geinisieer is, tot waar die projek met ‘n 3-jaar implementeringsfase gevorder het. Die navorsing bespreek die fokus van die projek, projekprosesse, suksesse in terme van projek-implementering, asook die institutionele reelings vir projekuitvoering. Beperkinge wat met die implementering van die projekkonsepte, strategiêe en geïdentifiseerde projekte ervaar is, word ook bespreek.

Ten einde die beperkinge aan te spreek en die implimentering van die Mabopane-Centurion Ontwikkelingskorridorprojek te bevorder, is ander stedelike en nasionale korridors, plaaslik en internasionaal, nagevors. Die doel van die navorsing was om vas te stel hoe ander korridor-ontwikkelingsprojekte hanteer word in terme van beplanning en ontwikkeling, asook om potensiële oplossings en voorstelle te vind vir probleme wat in die Mabopane-Centurion Ontwikkelingskorridor ervaar word. Hierdie nagevorsde korridorprojekte was ook in terme van hul eie onderliggende fokusse, projekstrategiêe, institutionele onderbou en suksesverhale bestudeer. Die resultaat van die navorsing is
voortspruitend gebruik vir die formulering van 'n teoretiese raamwerk wat gebruik kon word as basis vir korridor ontwikkeling.

Met betrekking tot die gebruik van die teoretiese raamwerk tot voordeel van hierdie verhandeling, dien dit vermeld te word dat die teoretiese raamwerk as inset gebruik word tot die formulering van voorstelle ter verbetering van die ontwikkelingskonsepte, -strategiêe en projek-implimentering van die Mabopane-Centurion Ontwikkelingskorridor. Hierdie voorstelle konsentreer veral op die verbetering van die institusionele basis wat insluit die verkryging van doelgerigte politieke steun en leierskap vir die korridorprojek, veral wat die projek-implimentering aan betref. Ander voorstelle fokus op die opstel van 'n meer gedetailleerde korridorbestuursplan ten einde verdere beplannings- en implimenterings-aksies gefasseerd te laat plaasvind, sowel as voorstelle ter bevordering van die implementering van ekonomiese en sosiale ontwikkelings-inisiatiewe in die korridor.

Die verhandeling word afgesluit met aanbevelings vir oorweging deur die Stad van Tshwane Metropolitaanse Munisipaliteit, ter bevordering van die implementering van die Mabopane-Centurion Ontwikkelingskorridorprojek.

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The Mabopane-Centurion Development Corridor: A historical analysis of successes and constraints and proposals for improvement

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Summary

The Mabopane-Centurion Development Corridor-initiative was initiated in 1995 by the former Greater Pretoria Metropolitan Council in co-operation with other spheres of government. This took place in the form of a planning process as part of a national initiative known as the “Four Cities”-project on urban development corridors (the “Four Cities” refer to Cape Town, Johannesburg, Durban and Pretoria). Its initiation was as a result of the government’s intention to investigate and accelerate the integration between land-use and transport planning (to promote the development and use of effective and affordable public transport), especially on urban levels in the Republic of South Africa. During this period, a view was expressed by the national government that development corridors were to be regarded as a potential mechanism for social upliftment, the promotion of economic development and the addressing of segregation caused by apartheid policies in South African cities and towns.

As a result, this dissertation, therefore, focuses on the historic sequence of events of the development processes of the Mabopane-Centurion Development Corridor, since the first discussion during which the project was initiated in November 1995, up to where the project progressed over a 3-year implementation phase. The research discusses the focus of the project, the project processes, successes in terms of project implementation, as well as the institutional arrangements for project execution. Constraints with the implementation of the project concept, strategies and identified projects, are also discussed.

To address the constraints and to promote the implementation of the Mabopane-Centurion Development Corridor-project, other urban and national corridors, locally and abroad, were researched. The purpose of the research was to determine how other development corridor projects are dealt with in terms of planning and development, as well as to determine potential solutions and proposals for addressing the constraints experienced by the Mabopane-Centurion Development Corridor. Each of the researched development corridor projects were studied in terms of their underlying project focuses, project strategies, institutional arrangements and success stories. The results of the
research were used for the formulation of a theoretical framework that could be used as basis for corridor development.

With regard to the use of the theoretical framework to the benefit of this dissertation, it is necessary to note that the theoretical framework is used as input for the formulation of proposals for the improvement of the development concepts, strategies and project implementation of the Mabopane-Centurion Development Corridor. These proposals concentrate on the improvement of the institutional basis, which include getting purpose-directed political support and leadership, especially as far as project implementation is concerned. Other proposals focus on the compilation of a more detailed corridor management plan, so as to ensure that further planning and implementation actions take place in a phased manner, as well as proposals to promote the implementation of economic and social development initiatives in the corridor.

The dissertation concludes with recommendations to be considered by the City of Tshwane Metropolitan Municipality with a view to improve the implementation of the Mabopane-Centurion Development Corridor-project.
The Mabopane-Centurion Development Corridor: A historical analysis of successes and constraints and proposals for improvement

CHAPTER ONE

INTRODUCTION

Studies on development corridors are very limited in number. This creates the impression that development corridors have not been studied in the past. This is probably as a result of implementation taking place over a long period of time and that the assessment of the corridor developments can only be done once the results have been recorded. Thus, the success emanating from development corridors is not easy to determine, unless such corridors existed for a period of 20 to 30 years. The corridors in Curitiba (Brazil), for example, were initiated 30 years ago and are now regarded throughout the world as a prominent development corridor model. The real value of its advantages/disadvantages can, therefore, only now be assessed/appreciated.

It must also be stressed that the search for study material revealed that, except for material compiled during the planning and implementation processes of the respective development corridor projects, locally and abroad, only limited material exists for the evaluation/assessment of development corridors.

This dissertation is, as a result of the above, considered to be a lead study on development corridors, with a specific focus on the Mabopane-Centurion Development Corridor (MCDC)-project. With regard to the latter, a number of different dissertation approaches could be used. For the purpose of this dissertation, the successes and constraints experienced by the MCDC-project are discussed. The latter is further backed by a discussion of international development corridors and the formulation of a theoretical framework used to evaluate the corridor and prepare proposals for the improvement of the MCDC-project.

As indicated in Diagram 1 below, this chapter focuses on a background discussion regarding the initiation of the MCDC-project, the successes of the MCDC-project and the limitations/difficulties experienced with the project. Following thereon is a discussion of the scope for the project, the problem statement guiding the dissertation focus, and the purpose of the dissertation. Other aspects addressed include the report outline and the methodology used to address the problem as stated.

1. Background

Development corridors are regarded as one of a number of "urban elements" that can be used in the development of a city, with a specific focus to "integrate natural environments and man-made communities into a sustainable whole" (Duany and Plater-Zyberk, unknown).
With regard to the definitions of development corridors, there is a vast difference in terms of composition and terminology (definitions are further discussed in Chapter Two, paragraph 1.1 on page 10). However, most of these definitions reflect a number of common characteristics about development corridors, viz. that they are linear in nature, focused on land-use and transport integration, promote mixed land-use development, enhance economic development and promote connection and mobility.

Diagram 1: A schematic illustration of the contents of this chapter
The MCDC is in terms of these characteristics, no different. It is also linear in nature, as its integrated development concept consists of:

- a "mobility spine", which serves connection and mobility (north-south direction);
- an "activity spine", which serves accessibility and economic activity, to promote local economic development (also north-south direction);
- a mix of different order "development nodes" and "inter-modal facilities", which are linked through the "mobility" and "activity spines", to further promote economic development, as well as to promote the use of public passenger transport; and
- "access spines" (east-west directions), which direct regional movement towards the above-mentioned components of the development concept, and assisting with the integration of the corridor area with the rest of the city (Urban-Econ Development Economists, 1997b). The MCDC-concept is described in more detail in Chapter 3. Figures are also used to illustrate the concept.

1.1. The initiation of the MCDC-project

The MCDC-project was launched on 17 September 1997 with the following words of the then Mayor of the former Greater Pretoria Metropolitan Council (GPMC), Joyce Ngele: "Let us build the MCDC into the best development corridor in the whole of Southern Africa – if not the world" (Snelco Pro, 1997). The process implemented to enable this announcement in September 1997 was initiated in 1995 and resulted in a "Memorandum of Agreement" signed between the former GPMC and the National Department of Transport, so as to initiate, manage and develop the MCDC-project (Department of Transport, 1997). To ensure that the former GPMC fulfilled its contractual obligations, an official was appointed as a dedicated project manager, to ensure progress with the execution of the MCDC-project processes (GPMC, 1996a). A Steering Committee, consisting of all relevant role-players, was also established to ensure stakeholder involvement and progress with the project processes.

1.2. The successes of the MCDC-project

The successes of the MCDC-project lie in the involved stakeholders’ ability to make progress with the implementation of strategic and supportive strategies (either in the form of further planning activities or project implementation), so as to build momentum to get the MCDC established. However, regardless of the fact that the MCDC-project is regarded by its stakeholders as a necessity to revitalise the western parts of the former Greater Pretoria Metropolitan Area by "promoting/unlocking economic development", "redressing inequities" and to "foster integrated development": the MCDC-project is not without limitations and difficulties.

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1 The former GPMC was a local authority structure of a metropolitan level and was established on 8 December 1994 in terms of the Local Government Transitional Act (Act 209 of 1993).
2 Stakeholders in this case include representatives of the National Government (Department of Transport), the Gauteng Provincial Government, all former local authorities (City Council of Pretoria, Town Council of Centurion and the Northern Pretoria Metropolitan Sub-Structure) situated within the former Greater Pretoria Metropolitan Area, Planning Zone Forums, representative industrial and business institutions, representative transport and public transport institutions, skills academies and training institutions (Afrosearch, 2000).
1.3. The constraints experienced with the MCDC-project

The initial planning results and the progress with the implementation of projects since October 1997 were constantly evaluated by the former GPMC. These evaluation processes were, amongst others, executed through stakeholder interviews in 1999, which revealed that the MCDC-project was not without obstacles, limitations and difficulties, as can be gathered from the summarised extraction from the study and information below:

- A lack of consensus among stakeholders that:
  - the MCDC development concept is indeed a development corridor; and
  - the MCDC-project will really attract investment;
- The MCDC is considered not to be a “greenfields” development. The eastern part of the former Greater Pretoria Metropolitan Area is regarded as a “greenfields” development, whilst the MCDC-area is regarded as an existing urban area that needs upgrading (in fact total revitalisation), which, of course, imposes its own challenges. Oranje expands on this view. He regards the MCDC-area as an area of “deprivation”, characterised by “black townships”, “homeland sleeper towns” and “informal settlements” with “little economic growth” (Oranje, unknown). Therefore, the MCDC-project is challenged with the harmonising of the diverse development, infrastructure and basic needs of the MCDC-stakeholders through the implementation of the MCDC Integrated Growth and Development Implementation Strategy (IGDIS). As proposed by Urban-Econ Development Economists, this could actually be done through the establishment of “a committed organisational structure”, being referred to as the “MCDC Development Body”. This proposed “committed organisational structure” should be “assigned with the responsibility to initiate, co-ordinate and manage the development process” of the MCDC-project (Urban-Econ, 1997b). It should also be in a position to receive funds from government and to source grants to execute its functions. The establishment of this proposed “committed organisational structure”, as a critical implementation strategy to get the MCDC established, is addressed in more detail in Chapter Three;
- Comprehensive co-ordination and management is needed: A “coherent integrated project management and development framework” was considered a necessity to co-ordinate and manage further development and investment in the MCDC-area; and
- It is critical for the development of the MCDC not to lose “momentum, stakeholder interest and commitment”. The MCDC-project established a fair level of momentum, stakeholder interest and commitment since the initiation of the planning activities, which started in May 1996 (Afrosearch, 2000).

Critics such as Oranje, are of the opinion that the MCDC-project is experiencing difficulties related to aspects such as the lack of the provision of high density housing, the development of a fully-fledged inter-modal public transport system and the expected infill development needed to address urban fragmentation and segregation. He, however, also acknowledges that the poor availability of finance in all spheres of government is a major stumbling block for real implementation in the MCDC-area.

3 Urban-Econ Development Economists is a company of development economists appointed by the former Greater Pretoria Metropolitan Council as Project Leaders for the execution of Project Phases 1 and 2 of the Mabopane-Centurion Development Corridor project. See Chapter Three for more detail on the MCDC-project phases. A multi-disciplinary core team, as well as a sub-consultant team supported Urban-Econ Development Economists.
2. Problem statement

Concluded from the background provided above, the MCDC-project has been implemented for only three and a half years and already some progress can be recorded (of which some is documented as background in this dissertation). However, the project is also experiencing constraints which hamper fast track implementation. These constraints have a serious effect on the physical development, economic growth and social upliftment in the MCDC area, as well as reaching the overall goals of the MCDC-project. The real challenge for this dissertation is therefore to find solutions for the improvement of the following problem issues, viz:

♦ What are the problems?
♦ What planning mechanisms/approaches could be implemented to increase and enhance opportunities for investors (communities) to invest in the MCDC area?
♦ What means/mechanisms/concepts exist in other development corridors which can within the ambit of a theoretical framework for development corridors be used to promote the development of the MCDC area through improved management, commitment and funding?
♦ Which institutional mechanisms exist in other development corridors which could be used to enhance budget allocation to address priority catalyst projects in the MCDC area and to sustain stakeholder interest in the MCDC-project?

3. Scope of this study

This study is not focused at determining the feasibility/economic viability of the MCDC-project, as it will require a different focus (for example cost and cost-benefit analysis, input-output modelling, all measured against alternative urban planning alternatives).

This dissertation does focus on a historic overview of the MCDC-project, research of other development corridors to compile a theoretical framework for development corridors and lastly to use the theoretical framework to formulate proposals for improving the MCDC-project.

More specifically, this dissertation is focused on:
♦ determining the rationale behind the use, planning and implementation of development corridors, development concepts and strategies implemented to address own development problems;
♦ formulating a theoretical framework for general guidance, to enhance and promote the establishment of development corridors;
♦ giving a historical analysis of the focus areas, project strategies and institutional frameworks of the MCDC-project;
♦ identifying and describing progress and the difficulties experienced with the establishment of the MCDC-project;
♦ determining lessons that can be learnt from other international development corridors for potential application in the MCDC area; and
♦ preparing proposals for addressing the constraints experienced with the MCDC-project, concluding with specific recommendations for consideration and implementation by the appropriate authority.
4. Purpose of the study

4.1. Main goal

The main goals of this dissertation are to:

- tell the story of the MCDC-project;
- explain what has worked and what not in the MCDC-project;
- research other development corridors, locally and abroad, to find solutions to improve the problems of under-performance in some of the strategies of the MCDC-project.

4.2. Objectives

The objectives of the dissertation are to:

- give an overview of the MCDC-project events, the project processes, results and progress of implementation activities;
- give an overview of the successes experienced by the MCDC-project;
- give an overview of the constraints experienced by the MCDC-project;
- study international development corridors;
- formulate a theoretical framework for development corridors; and
- formulate and prepare proposals for potential application in the MCDC-project.

5. Report outline

The outline of the dissertation is schematically illustrated in Diagram 2 below and further discussed in the paragraphs to follow.

- **Chapter Two**: The chapter focuses on international perspectives and experiences on corridor or related development projects. As an introduction to this chapter, definitions of the term "development corridor" are provided, following with a description of the decision guidelines used to select from a number of international development corridors found world-wide.

  The introduction is followed by a discussion of each development corridor. Each of these discussions represents research on issues such as:

  - a basic background description of the project/study;
  - the key focus areas of the international development corridors, so as to understand the reason for its existence;
  - the project strategies implemented to get the development corridors established, especially where it relates to difficulties experienced by the MCDC-project;
  - the success stories that these development corridors have for potential application in the MCDC-area; and
  - the institutional structures established by international development corridors to manage and expedite implementation.

  This chapter is concluded with a potential theoretical framework for development corridors, explaining:

  - a possible definition of a development corridor;
- principles used for the planning and implementation of development corridors;
- the design elements of development corridors; and
- the preconditions for establishing successful development corridors.

Diagram 2: A schematic illustration of the report outline

- **Chapter Three**: This chapter provides information on the MCDC-project. It starts with a description of the historic sequence of events since the idea of the MCDC-project was initiated in November 1995. Following thereon, the following issues are covered:
  - What is the MCDC?
  - What did the MCDC-project processes involve?
  - What are the focus areas of the MCDC-project?
Chapter Four: This chapter provides detail on some of the critical limitations/difficulties that are experienced with the MCDC-project. These limitations/difficulties relate to aspects which include, amongst others, the lack of political will, the implementation of strategies such as the integration of land-use and public transport in the MCDC's activity spine and the lack of appropriate quasi-public institutional structures to enhance the establishment of the MCDC-project.

Chapter Five: This chapter is structured to reflect the potential application of the lessons learned from the international development corridors on the MCDC-project, including an overall summary of the results of the entire research processes, and concluding with recommendations formulated to enhance the incorporation of the results of the research into the MCDC-project processes. The latter includes the implementation processes aimed at enhancing the overall development of the MCDC-area.

6. Methodology followed

The research methodology followed for this dissertation follows a broad outline of the scientific method described by Leedy4. Reviewing the related literature reveals that the research is primarily theoretical in nature and conducted through different research methodologies5 throughout the different chapters. The research methodologies adopted for this dissertation are further discussed below:

Chapter Two: The research for Chapter Two is primarily documentary (Leedy, 1997) in nature and focuses on local and international development corridors. The literature research includes:
- an Internet search for international development corridors;
- available reports and publications;
- written reports on the findings of foreign study tours;
- marketing material (i.e. brochures, leaflets);
- journalists' impressions given in newspapers and other technical publications; and
- academic publications.

Chapter Three: As the chapter represents a purely MCDC-focus, the research is based on a chronology-in-historical-research-method (Leedy, 1997) and consists of a literature search which relates to:
- technical multi-dimensional background research reports compiled to formulate the

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4 Leedy defines the term "research methodology" as a way of thinking, which represents "...the manner in which we attempt to solve problems in a systematic effort...to confirm the validity of the solutions to the problem others have presumably resolved" (Leedy, 1997).

5 As the research material dictates the research methodology, in this dissertation "methodology" reflects but "...merely an operational framework within which the facts are placed so that their meaning may be seen more clearly" (Leedy, 1997).
MCDC's IGDIS report;
- MCDC-project reports;
- technical project reports;
- minutes of MCDC Steering Committee meetings;
- Council resolutions;
- marketing material, press releases and editorials; and
- professional and sector-specific publications and newspaper clippings.

Chapter Four: Chapter Four is based on the same literature study-methodology as Chapter Two. However, the same literature material is used as in Chapter Three above.

Chapter Five: This chapter is purely theoretical in nature, as it is based on a developmental-research-methodology (Leedy, 1997). Through the application of this research methodology, applications are found for the lessons learned from the international development corridors, so as to address the MCDC-difficulties. Recommendations are backed by literature sources such as:
- official government reports;
- marketing material, press releases and editorials;
- professional and sector-specific publications and newspaper clippings;
- available reports and publications on the international development corridors; and
- written reports on the findings of foreign study tours.
The Mabopane-Centurion Development Corridor: A historical analysis of successes and constraints and proposals for improvement

CHAPTER TWO

INTERNATIONAL DEVELOPMENT CORRIDOR PERSPECTIVES

SECTION A: INTRODUCTION

The research that was done to find study material for this dissertation revealed that study material analysing the development corridor concept, development and implementation approaches, underlying theories, principles and preconditions for development corridors, are not readily available. For this purpose, a broad-based analysis was made of a number of international development corridor projects. The findings thereof are discussed in the first part of this chapter. This includes a discussion on what is meant by a development corridor, the use of the concept to address development and social-related problematic issues, as well as the development of the corridor to attract investment. Through the investigation, it was also attempted to identify the underlying conceptual strategies, as well as the measures taken in terms of the institutional structures put in place to enhance implementation and promote its establishment.

The second part of this chapter focuses on the formulation of a possible theoretical framework for development corridors. In this theoretical framework, issues such as a potential definition for a development corridor, objectives of development corridors and the different components/elements of development corridors, are discussed.

SECTION B: GENERAL

1. Understanding the term "development corridor"

In general terms, the term "development corridor" seems to be a development strip, linear in nature, with specific edges on either side allowing focused movement and activity within such edges. But how is this term defined?

1.1. The term "development corridor"

There are a number of definitions that attempt to explain what is meant with the term, "development corridor". The evaluation of the definitions provided in the rest of this paragraph, revealed that it seems that this phenomenon is not so simple to define. This view is supported
by the different perceptions studied in a variety of sources addressing development corridors. Geyer confirms this opinion in his work about the "Development Axis". There are two confusing aspects about the definitions, the one being the differences in definitions, and the other the differences regarding terminology that is used in such definitions (Geyer; 1986). This is confirmed in the definitions of Friedman, Mayer, the Technical Team of the Interim Co-ordinating Committee of the Maputo Development Corridor, Duany and Plater-Zyberk, the protagonists of the Wetton-Landsdowne Development Corridor, the Policy Development and Implementation Office of the former Department of Development Planning, Environment and Works of the Gauteng Provincial Administration, and the Gauteng Department of Transport and Public Works, which are further discussed below.

The definition used by Friedman and as quoted by Geyer, clearly stresses the importance in the difference in the "intensity" of "economies" one will find in economic activity nodes, as well as the need to travel distances between such economic activity nodes. The definition reflects that a development corridor is 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).

From the definition it is possible to conclude that the economic activity present in economic activity nodes, necessitates the need to travel as a result of physical economic interaction. This interaction implies the necessity to move from one destination to another along a transport link or network.

The definition by Mayer expresses the opinion that:

"...the attraction of any given city, and hence its growth is dependent upon not only its own mass – the demands of its own population – but also its interaction with every other establishment outside the city with which it interacts. The importance of such external interactions, along routes of transportation and communication, may also be measured in terms of the total attractiveness (mass) of each of these external places (establishment clusters) and inversely as the distance of each in turn from the city" (Geyer, 1986).

The definition differentiates between the importance of issues such as economic development and urban growth, as well as the interaction between urban activities and economies.

The Technical Team7 of the Interim Co-ordinating Committee for the Maputo Development Corridor, which is further discussed in Section C of this chapter, refers to a development corridor as:

"...geographical linkages created through policy for the expressed purpose of economic development within certain areas" (Interim Co-ordinating Committee, 1996a).

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6 These sources include a reference to project reports, unofficial and official government reports, doctoral theses and publications in journals.
7 The Technical Team of the Interim Co-ordinating Committee for the Maputo Development Corridor-project, was responsible for all technical analyses and input to aspects related to transport, economic development and potential, social welfare and potential investment projects.
This description of what a development corridor is, emphasises the focus on economic development and links it to the dimension of a specific geographical area, where such unique economic development activities and/or opportunities are to be found. Another aspect of the definition expresses the role of policy issues focused on economic growth.

Development corridors can take up a number of different forms, but the most inherent characteristic is the linearity, "...bisected by an existing or potential infrastructure route spine" (Interim Co-ordinating Committee, 1996a).

The protagonists of the Wetton-Landsdowne Development Corridor, which is discussed in Section C of this Chapter (see paragraph 2.4 on page 23), prefer to refer to a development corridor as a:

"... linear route connecting nodes. Along this corridor high intensity uses will be concentrated. Activity along this corridor need not be uniform and the nature of development will change and respond to surrounding land-uses, concentrating at certain points of highest accessibility" (Department of Transport, 1996b).

This linear concentration of economic activity is also supported by Taniguchi, who in terms of the Curitiba Development Corridor-model, is of the opinion that corridor development represents a concept of planned linear growth. He also adds another dimension, which indicates that the benefits of corridor development bring about measures that result in "a substantial saving in resources" (Taniguchi, 1995). Benefits, such as reduced travel time, higher productivity and the multi-use of services and amenities, bring about savings in the use of scarce natural resources, the use of public funds, and capacity of the local government authority.

Supporting a similar view, the officials of the Policy Development and Implementation Office of the Former Department of Development Planning, Environment and Works of the Gauteng Provincial Government, defined a corridor as:

"...a tract of land, forming a passageway which allows access from one area to another and as a planning concept is mainly associated with linear or axial development" (Gauteng Provincial Government, 1996).

The former Policy Development and Implementation Office (Gauteng Provincial Government) also indicated in their considerations of development corridors, that it represents a linear development form, which is usually centred on a transport axis of some kind. Their perceptions of a "development axis", is that it is an "...area of intensive use along transportation routes and, in particular, those areas that have potential for public transport facilities" (Urban-Econ, 1997).

The Gauteng Department of Transport and Public Works of the Gauteng Provincial Government researched during 1998 the increased impact of the use of urban elements such as "Activity Corridors, Activity Spines and Activity Streets", on the provincial road network. As a result of their research, a number of the above urban elements related to corridor development concepts, were analysed. It included the following:

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8 The name of the former Department of Development Planning, Environment and Works of the Gauteng Provincial Government changed to the Department of Development Planning and Local Government as a result of restructuring in 1997.
a transportation corridor;
• an activity or development corridor;
• an activity spine;
• an activity street; and

They define a development corridor as:

"...a linear strip of land or area, connecting large activity nodes, traversing urban or inter-urban areas, surrounding a major transport facility or facilities providing an appropriate regional level of mobility and accessibility to adjacent areas, containing a high concentration of population and mixed land-uses (job opportunities)" (PWV Consortium, 1998).

Both the Gauteng Department of Transport and Public Works and the National Roads Board (S A Roads Boards, 1993), regard mobility and accessibility as important functions in an urban environment. With regard to the demand for mobility within an urban environment, the mentioned institutions consider "mobility demand", to be a direct response to economic and social development within a given area. In this regard, they state that the "...overall demand for mobility is determined by the distribution of business, dwellings and services and the availability of public and private resources..." (S A Roads Board, 1993).

Duany and Plater-Zyberk, expressed another opinion, viz. that of referring to a development corridor as being:

"...a significant element of the new urbanism because of its inherently civic nature. In the age of the metropolis, with villages, towns, neighbourhoods and districts aggregated in unprecedented quality, the most universally used public spaces are the corridors that serve connection and mobility"...".

This description recognises the importance of development corridors as an urban element, which serves connection and provides mobility, as well as the potential of this urban element to bring about alternative urban development forms where urban activities are more integrated than in the conventional urban forms (Duany and Plater-Zyberk, unknown).

1.2. Conclusion

The definitions discussed above, have certain commonalities. Geyer summarises it into functions, which are related to:

• A linkage function: Linking economic activities, nodes, social facilities and amenities and recreational areas. Duany and Plater-Zyberk support this view by stating that corridors

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9 The Gauteng Department of Transport and Public Works regards "mobility" as the "capacity to move quantities of vehicles or people at a reasonable high speed and acceptable travel time with freedom to manoeuvre without undue interruption and acceptable levels of comfort, convenience and safety" (PWV Consortium, 1998).

10 The Gauteng Department of Transport and Public Works regards "accessibility" as the "...level of direct access that is provided from a specific route to a development" and regards "regional accessibility" as the "...ease to reach a particular area in terms of connectivity to the transportation system and particularly time" (PWV Consortium, 1998).

11 The Concise Oxford Dictionary defines mobility as the ability or freedom to move or flow easily.

12 Other urban elements are for example a central business district, an activity street, open space systems and industrial areas.
serve connection" and "mobility";

- An unlocking function: This function can be regarded as a result of the improvement on mobility and accessibility, causing a direct response towards inherent economic and social development (S A Roads Board, 1993). This in turn, is the result of the unlocking of development opportunities, opportunities for community involvement and even the opportunities for joint ventures between different government spheres;

- A co-ordination function: To arrange concentrated development and related activities into a proper compact urban form by means of high intensity mixed land-uses, supported by the orderly location of high density residential development along a specific transport link (Department of Transport, 1996);

- An alleviation function: The reduction in travel distances, time and cost, the reduction in vehicle congestion, the creation of improved environmentally sustainable urban environments, the addressing of social and racial disparities found in cities and towns in the Republic of South Africa, are all issues which can be addressed through corridor development (VKE, Plan Associates, TRC Africa and Infratech Solutions, 2000). The latter is possible as a result of the benefits brought about by the presence of a public transport system, linked to that the development of a mix of private investments along the public transport corridor integrated with the concentration of public facilities and amenities along the corridor as well;

- A development function: Advantages are created for economic and social activities to locate closer to each other to create agglomeration and comparative advantages (Geyer, 1986). When the latter are located closer to public transport routes, the threshold values thereof improve substantially, simply as a result of the larger presence of buying power making use of the public transport system. Opportunities are also created to establish an improved climate for co-ordinated public and private sector investment (Department of Transport, 1996);

- A mobility/movement/transportation function: Del Mistro and Oranje are of the opinion that this function is one of the primary functions of a development corridor, as it implies the movement of goods, people and services from one point to another by means of different modes of transport (Del Mistro and Oranje, 2001); and

- An access/activity function: The access/activity function stresses the inter-relationships between "land-use", "economic activity" and the accessibility potential to such land-uses and economic activity, provided by a given transport link. In this scenario, "land-use" and "economic activity" is regarded as key functions within the development corridor.

Lastly, the discussion above also revealed that a development corridor should be regarded as only one "urban element" found in an urban complex. Duany and Plater-Zyberk view it as a development phenomenon, which is used in the "new urbanism" as an urban space13 (Duany and Plater-Zyberk, unknown). This reference to the "new urbanism" represents a renewed urban development approach, focused at creating a more integrated urban form where the work, stay and play environments are physically closer situated to each other.

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13 From Duany and Plater-Zyberk's reference to the word "urban space", it is understood that they refer to any area where the inhabitants of that urban area stay, play, work, buy, move and relax.
2. Selection of international development corridor projects for research purposes

2.1. Introduction

As a result of the search for possible study material, a number of international development corridor projects were identified through an intensive Internet search, interaction with officials of the National Department of Transport, as well as interaction with officials of the former GPMC. Official study tour feedback reports and materials undertaken and compiled by national government departments (Department of Transport and the Department of Trade and Industry), the Provincial Government of Gauteng, local governments (Cape Town and the GPMC) and private companies (Urban-Econ and MLH Architects and Planners), were also studied. Official government reports and project reports were also studied to broaden the scope of available information to compile this dissertation.

The list hereunder gives an indication of the international development corridor projects identified in the research for potential study material:

- the Coast-to-Coast initiative through Namibia, Botswana, South Africa and Mozambique. Within this initiative is a number of other national corridor initiatives, namely: the Walvis Bay Corridor; the Trans-Kalahari Corridor; the Platinum Corridor, the Delta Corridor and the Maputo Development Corridor;
- the Mdantsane-East London Development Corridor situated in the Eastern Cape Province of the Republic of South Africa;
- the Khulani Development Corridor in Port Elizabeth, also situated in the Eastern Cape Province of the Republic of South Africa;
- the Weton-Landsdowne Development Corridor, one of the national "Four Cities"-projects situated in Cape Town, situated in the Western Cape Province of the Republic of South Africa;
- the Tembisa–Kempton Park Development Corridor, situated in the Gauteng Province of the Republic of South Africa;
- New Town Development Corridor in Johannesburg, also situated in the Gauteng Province of the Republic of South Africa;
- the Germiston-Daveyton Development Corridor, situated in the Gauteng Province of the Republic of South Africa;
- the Beira Corridor through Mozambique and Zimbabwe;
- the Melanje and Namibia Development Corridors, both in Angola;
- the Benguela Development Corridor stretching through Angola, the Democratic Republic of the Congo and Zambia;
- the Tazara Development Corridor through Tanzania and Zambia;
- the Nacala Development Corridor through Mozambique and Malawi;
- the Curitiba corridor model in Brazil;
- the Porto Alegre development corridor model, also in Brazil;
- the Central Luzon Growth Corridor, also referred to as the W-Growth Corridor, found in the Philippines;
• the Nord Pas de Calais Corridor found in France;
• the Arizona Trade Corridor in North America; and
• the A1 Highway Transport Corridor in the Netherlands.

It is regarded as essential to note that these development corridor projects differ in terms of scale, the reason for their existence, strategies identified for implementation and implementation structures and methods. As a result, not all of the identified development corridor projects could be used for the purpose of this dissertation. It was, therefore, considered appropriate to make use of selection guidelines to choose from among the development corridor projects listed above.

2.2. The selection guidelines

The selection guidelines used to identify the development corridor projects which fulfil the objectives of this dissertation, were the following:

♦ that, as the MCDC-project forms part of a national initiative in the Republic of South Africa to develop urban development corridors, named the "Four Cities"-project, that the other three projects\(^\text{14}\) be studied as potential corridor projects for inclusion in this dissertation;
♦ that urban development corridor projects initiated in Brazil, also a developing country, be studied as international urban development corridor projects;
♦ that the most recently initiated urban development corridor projects in the Republic of South Africa, initiated after the initiation of the MCDC-project, be studied to determine what new development corridor insights were developed since the initiation of the "Four Cities"-project;
♦ that, although a scale difference is found, that development corridors of a national nature be studied, both locally and internationally, in an attempt to find additional lessons which can be learnt from for the formulation of a possible theoretical framework for development corridors;
♦ technically, the projects had to focus on addressing some multi-dimensional urban-related development problems, such as fragmented development, unequal distribution of urban facilities, services and resources, lack of an integrated transport system and unlocked economic development opportunities, all due to historical development policies and approaches;
♦ the projects had to have a concern with, and focus on directed economic development, investment attraction and social upliftment; and
♦ the projects had to have a specific approach towards the establishment of an institutional and policy environment, to promote the management and implementation of project activities.

It must be emphasised once again that this study is regarded a lead study on development corridors. Therefore, the availability of detailed study material played a prominent role in the identification of international development corridor examples.

\(^\text{14}\) The Wetton-Landsdowne Development Corridor, the Baralink and the Greater Warwick Triangle-project.
2.3. Conclusion

By applying the selection guidelines discussed above, seven development corridor projects were identified for incorporation into this dissertation. The result of the application of the selection guidelines is illustrated in Table 1 and briefly discussed below:

- **The Wetton-Landsdowne Development Corridor**: (One of the "Four Cities"-projects initiated in Cape Town) This project was initiated simultaneously with the MCDC-project. As a project, it has similar urban characteristics to the MCDC-project, which emphasises the need for urban restructuring, social upliftment and economic development. It, however, represents a South African example of how a development corridor can be incorporated into an overall city plan. It also incorporates appropriate multi-faceted development proposals and institutional frameworks for possible further consideration;

- **The Curitiba corridor model in Brazil**: This corridor model is, according to MLH Architects and Planners, well known throughout the world for successes reached with regard to aspects such as its land-use and transport integration approaches and concepts, its multi-modal public transport systems, its institutional structures established to implement and manage different elements of its city plan and its innovative problem-solving approaches to alleviate community needs and demands;

- **The Porto Alegre approach, also in Brazil**: Key considerations for including this project in the dissertation includes its location in a developing country, the project’s approach to involve communities with the project planning and implementation, the "own simplified" corridor-concept and their focused approach to enhance purpose-directed economic development;

- **The Tembisa–Kempton Park Development Corridor in the Gauteng Province of the Republic of South Africa**: This project was recently (2000) initiated by a South African representative transport institution, known as the Transport Co-ordinating Committee (TCC). As a project, it represents development corridor considerations from a transport point of view. Therefore, to improve mobility, accessibility, urban integration and involving all spheres of government and the private sector into proposed quasi-public institutions, were key considerations to include this project for the purpose of this dissertation;

- **The Maputo Development Corridor**: This project, although on a much larger scale than an urban development corridor, represents the first development corridor project processes initiated by the national government of the Republic of South Africa (Departments of Transport as well as Trade and Industry). The key considerations for its inclusion in this dissertation includes the project’s approach towards creating a continuous mobility linkage, multi-dimensional analysis and focused investment attraction actions;

- **The Central Luzon Growth Corridor, also referred to as the W-Growth Corridor, to be found in the Philippines**: Key considerations for the inclusion of this development corridor project include its international nature, its strategic positioning as a result of its location, the strengthening of its economic base and related potentials to promote economic growth, as well as the institutional framework established to enhance implementation; and

15 Background on the "Four Cities"-project is discussed in detail in Section C of this Chapter (see paragraph 2 on page 19), as well as in Chapter Three (Section A: on page 97).
Table 1: Selection results of the identified development corridor projects

<table>
<thead>
<tr>
<th>Corridor project</th>
<th>Linked to &quot;Four Cities&quot;-project</th>
<th>Located in developing country</th>
<th>Scale</th>
<th>Multi-dimensional focus</th>
<th>Directed economic development, social upliftment, investment attraction focuses</th>
<th>Dedicated institutional implementation structure</th>
<th>Availability of study material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetton-Landsdowne Development Corridor</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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The Arizona Trade Corridor in North America: This project presents an example of the need to create continuous mobility linkages so as to enhance economic growth, the establishment of business development centres to facilitate business development in the trade corridor, as well as the need to assess potential investments/projects as to determine and ensure that those investments/projects with optimal multiplier effects, are implemented first.

SECTION C: NATIONAL AND INTERNATIONAL DEVELOPMENT CORRIDORS

1. Introduction

This section contains information on core development corridor issues related to key focuses16 of the project, important project strategies17 and success stories that have been studied from the different development corridors, locally and abroad. An indication of the institutional environment required to manage implementation is also included.

The development corridors are discussed in the following sequence:

- the "Four Cities"-project;
- urban development corridors in Brazil;
- a recently initiated urban development corridor in Gauteng; followed by
- regional development corridors, locally and abroad.

2. The "Four Cities"-project

The "Four Cities"-project on urban development corridors was initiated in the Republic of South Africa by the national Department of Transport in 1995. The four projects referred to are the MCDC (situated in the former Greater Pretoria Metropolitan Area), the Greater Warwick Avenue-project (situated in the Durban City Council Area), the Baralink-project (situated in the former Greater Johannesburg Metropolitan Area) and the Wetton-Landsdowne Development Corridor (situated in the Cape Town Metropolitan Area) (Department of Transport, 1996).

These projects were initiated in collaboration with the former office of the Reconstruction and Development Programme.

16 “Key focuses of the project”, for the purpose of this dissertation, is regarded as that focus representing and aiming at addressing the unique problematic issues found in a relevant development corridor-project.

17 “Important project strategies”, for the purpose of this dissertation, refers to a strategy/concept/approach, which is regarded as essential, and which is aimed at establishing a relevant development corridor from an economic, social, land-use, transport and/or institutional point of view.
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In many cases in the Republic of South Africa, new planning and development approaches were based on the findings and guidelines of the Reconstruction and Development Programme (RDP). It is, therefore, necessary to have a brief look at some of the aspects mentioned in the Reconstruction and Development Programme, which are related to corridor development. These include:

- **Transport**: The Reconstruction and Development Programme encouraged the integration of land-use and transport planning. The Reconstruction and Development Programme also stressed the need for public transport, the use of buses to act as prime movers where rail is not available and the creation of a safe, convenient and affordable public transport system;

- **Residential**: With regard to residential development, the Reconstruction and Development Programme indicated the necessity of housing close to places of work and social facilities, the provision of a range of housing types and the need for higher density developments;

- **Environment**: The Reconstruction and Development Programme also implicated that the environment is considered an important element of the urban complex, by stating that environmental development strategies should guide development and should play a crucial role, to reduce pressure on the environment. The protection of natural areas and the determination of an urban edge to protect rural areas, also reflects the need to contain urban sprawl and the development of more compact cities;

- **Small business, industry and employment**: With regard to job creation, the Reconstruction and Development Programme emphasised the importance of aspects such as:
  - the provision of a range of enterprises;
  - making provision for the informal sector;
  - using incentives to promote development;
  - identifying and creating small businesses opportunities; and
  - creating support for emerging entrepreneurs and markets (African National Congress, 1994).

The former Office of the Reconstruction and Development Programme also initiated the compilation of the Draft National Spatial Development Framework for the Republic of South Africa. This spatial development framework identified six key strategies. These related to the development of urban nodes, the establishment of rural clusters, the implementation of sectoral strategies, the development of industrial clusters, the development of economic spines and developing development corridors.

These strategies were aimed at addressing racially-fragmented development, promoting equity, integration and efficiency.

### 2.1. Background

The Greater Warwick Avenue-project, the Baralink-project and the Wetton-Landsdowne Development Corridor-project, are discussed below as part of this section. The MCDC-project, as one of the "Four Cities"-projects, is not dealt with in this section, as it is discussed in detail in Chapter Three.
2.2. The Greater Warwick Avenue-project

2.2.1. General

The Greater Warwick Avenue-project was launched as a result of urban decay found in the west-north-western areas of the central business district of the City of Durban (also see Figure 1 below). The project, therefore, has as its overall focus, the redevelopment of a large portion of the Durban central business district. The main focus of this project was to "...improve the quality of the urban environment in terms of safety, security, cleanliness, functionality and the facilitation of economic and housing opportunities" (Department of Transport, 1996).

The project is institutionally backed by multi-disciplinary planning, management, technical and co-ordinating workgroups and committees that were established to deal with the project processes.

Although this project is linked to the "Four Cities"-project and the implementation of the RDP, the project is not considered to be a development corridor project. It is rather regarded as an urban renewal project affecting a large part of the Durban central business district.

Figure 1: Schematic illustration of the Greater Warwick Avenue-project

2.2.2. Conclusions

For the purpose of this study, this "Four Cities"-project is not considered appropriate for further research and inclusion in this dissertation, as it is not regarded as a development corridor project. It will also not be further elaborated upon in other parts of this dissertation.
2.3. The Baralink-project

2.3.1. General

The development of the Baralink-project started with the compilation of the Baralink Development Framework, which was initiated in January 1995. When the Department of Transport initiated the concept of the "Four Cities"-project in October 1995, the Baralink-project was ready to proceed with some more detailed investigations (also see Figure 2 below) (Department of Transport, 1996).

2.3.2. Key focuses of the project

In terms of the project's key focus, this project initially focused on addressing imbalances in urban development experienced in the area between Johannesburg and Soweto. However, as this project commenced, the project developed into proposals prepared for the development of a development node on 1 500 hectares of land at one of the main entrances to Soweto (Department of Transport, 1996).

Figure 2: A schematic illustration of the Baralink-project

![Baralink Project Schematic Illustration](own interpretation)

2.3.3. Institutional arrangements

Institutionally, a Baralink Co-ordination Committee was established, a Baralink Development Forum was established to ensure community participation, and a number of Technical Task Teams were established to initiate and co-ordinate technical investigative studies (Durban City Council, 1998).
2.3.4. Conclusions

Due to this project not developing into a fully-fledged development corridor but only representing a nodal development initiative, this project has together with the Greater Warwick Avenue-project, not further been researched or elaborated upon in the rest of this dissertation.

2.4. The Wetton-Landsdowne Development Corridor

2.4.1. General

The Wetton-Landsdowne Development Corridor was identified as one of the future metropolitan development corridors in the Cape Metropolitan Spatial Development Framework (see Figure 3 on page 24). It forms part of a network of metropolitan development corridors and nodes, metropolitan open spaces and an urban edge as structuring urban elements, all of which are defined in the cited Development Framework (Cape Metropolitan Council, 1996).

From a planning point of view, the Wetton-Landsdowne Development Corridor-project followed a broad-based approach by identifying opportunities and constraints, followed by the preparation of a spatial development framework, the formulation of implementation strategies, policies and an implementation plan, including a financial plan.

2.4.2. Key focuses of the project

As a project, the Wetton-Landsdowne Development Corridor was initiated with a specific focus to promote urban restructuring and urban integration. The project is also considered to be an ongoing "multi-faceted programme" that could "kick-start" the implementation of the former RDP in Cape Town. This fact once again puts a focus on an attempt to address imbalances caused by development policies and actions during the apartheid era. In the Cape Metropolitan Area, this includes the following:

♦ low density sprawl towards the Cape hinterland;
♦ housing, which was developed in areas with poor environmental conditions;
♦ the fragmented location of developed areas causing the separation of communities;
♦ unacceptable distances between places of work and residence, resulting in long travel distances, time and cost; and
♦ unequally distributed public, social and community facilities and resources (Department of Transport, 1996).

MLH Architects and Planners* identified another important focus for the Wetton-Landsdowne Development Corridor, namely its ability to increase the 1994 population of the affected project area from 22 000 to 84 000 within a "high density mixed-use system", incorporating a number of employment opportunities and other cultural, social and recreational services and amenities (MLH Architects and Planners, 1994).

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*MLH Architects and Planners is a private consultant who was responsible for the formulation of the Cape Metropolitan Spatial Development Framework.
2.4.3. Important project strategies

The Wetton-Landsdowne Development Corridor Project Team implemented a number of form-giving strategies. The first development corridor strategy was summarised in the vision formulated for the project. This vision reflects that the Wetton-Landsdowne Development Corridor is to be developed into a major metropolitan development corridor, integrating transport and land-use in such a manner that both urban elements (transport and land-use), support each other (Cape Town Municipality, 1996b).

A further element linked to the above, is the development of supportive activity corridors, which are linked to "mature" nodes, supported by an efficient public transport system.

Evaluation of the project reveals that the project focused on an existing transport route between the Claremont/Wynberg Metropolitan Node and the Phillipi Centre. Development will focus on this route to stimulate economic growth, benefiting the local community and the overall city structure by making the overall city structure more compact. The development of the Phillipi Centre (industrial area) into a major metropolitan node of economic significance formed another development strategy of the Wetton-Landsdowne Development Corridor-concept. It was considered that this node should attract higher order institutional facilities, recreational facilities and business activities (Department of Transport, 1996 and Cape Town Municipality, 1996b).

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19 "Mature nodes" refer to already developed nodes incorporating economic activity, public facilities and amenities supported by a city-wide integrated public passenger transport system (Cape Metropolitan Council, 1996).
The project, however, will not only incorporate the development of the mentioned transport route, but will also enhance the development of the adjacent suburbs to ensure the integration of co-ordinated development throughout the entire project-area (Department of Transport, 1996).

The more detailed urban development strategies incorporated into the Wetton-Landsdowne Development Corridor-concept are briefly enlightened below:

- **Public transport:** Formulated strategies are focused on providing an affordable, viable and safe public transport system. It is regarded as a strategy that the public transport system for this specific corridor must be 95% road-based public transport (Department of Transport, 1996). Reducing the need for public transport subsidies was also considered a crucial strategy to reduce the dependence on governmental money coffers (MLH Architects and Planners, 1994);

- **Economic development:** The crux of promoting economic growth is to stimulate economic development through creating the right climate for government investment at optimal localities, which benefit the development of the entire corridor. An example relates to the provision of appropriate development and investment incentives at preferred locations (Department of Transport, 1996);

- **Housing:** The development of higher density housing along the previously mentioned transport route and the linkage of the high-density housing projects to an efficient public transport system, were formulated as a strategy to reduce travel distances and to increase the feasibility values of the existing and identified economic development opportunities in the corridor (Department of Transport, 1996);

- **Environment:** The provision of quality public parks and open spaces was specifically formulated as a strategy, so as to create additional economic benefits for local communities (Department of Transport, 1996). This incorporates the development of visually attractive green open spaces (MLH Architects and Planners, 1994);

- **Services:** The provision of appropriate social and physical services, as a support base for private sector investment, is also regarded as a supportive strategy to enhance co-ordinated job creation at localities where it is most preferred. For other areas, the focus would be on the upgrading, improvement and extension of existing social services, so as to work towards the social upliftment of existing communities (Department of Transport, 1996);

- **Facilities and amenities:** Facilities and amenities are distributed unevenly to benefit specific communities. The improvement of access to these facilities and amenities was considered a strategic approach to prove the benefit of corridor development. Improved quality, as well as the multi-functional use of the facilities and amenities were considered even more important issues to enhance social and cultural integration (Department of Transport, 1996). Periodic markets and permanent service delivery facilities and systems accommodating a wide range of commodities, products and services at a single locality, were put forward as a strategy to reduce travel time significantly (MLH Architects and Planners, 1994);

- **Institutional:** The Wetton-Landsdowne Development Corridor-project considered community participation and the positive fostering of initiatives as important institutional strategies, which need to be dealt with appropriately, to assure optimal implementation results. This is discussed in more detail in paragraph 2.4.5 (see page 27) (Department of Transport, 1996);
High-density mixed-use development: The development of high-density mixed-use areas, characterised by a range of residential types and densities close to public transport, as well as including opportunities for formal and informal traders, were regarded as strategies to ensure jobs closer to homes (MLH Architects and Planners, 1994);

Small-scale farming/market gardening: The cultivation of flowers and horticulture for the local market was identified as a dual strategy. On the one hand, to establish an education process and on the other hand, to increase job creation. This approach, incidentally, also provides the opportunity to increase local research, the results of which can immediately be implemented locally to the benefit of the entire corridor community (MLH Architects and Planners, 1994); and

Cost distribution: From a cost point of view, it was found that the project is not only a public sector responsibility, but that the private sector should also be mobilised to invest in a co-ordinated manner to ensure the development of long-term benefits to all stakeholders (Department of Transport, 1996).

2.4.4. Success stories

Irrespective of the integrated urban development strategies representing in itself a “success story” scenario, a number of other success stories have also been identified. These are reflected below.

The first success story is reflected in the use of what is regarded as a “multi-faceted programme” (see paragraph 2.4.2 on page 23), emanating from the implementation of a multi-faceted integrated development-planning approach. This was concluded from the multi-dimensional background research through a literature review of corridors, economic analyses, transport studies, geo-technical investigations, bio-physical studies, cultural studies, a vacant land audit, land-use surveys and services studies (Cape Town Municipality, 1996a, b, c and d).

A second success story is regarded as the importance given to infrastructure projects (public responsibility), to create greater levels of access and an enabling environment for private sector investment and community development. This is supported by identified projects, such as the construction of the Wynberg transport intersection, the upgrading and rehabilitation of Zwelitsha Drive, the construction of the NY3A taxi rank and market, the cleaning and landscaping of Lotus River Canal, the construction of the proposed Ikhwezi multi-purpose community centre, and the construction of the Philippi taxi and pedestrian bridge.

A further success story is the incorporation of the Wetton-Landsdowne Development Corridor into the development of the entire Cape Metropolitan Area as part of a network of corridors.

However, although the above were identified as success stories in the Wetton-Landsdowne Development Corridor-model, it seems from the Cape Metropolitan Spatial Development Framework’s approach that the nature of the corridor is not totally as anticipated, as some problems were experienced since its initiation. These include that the Wetton-Landsdowne Development Corridor will primarily serve a linkage function in the Cape Metropolitan Area and that the Philippi Centre will not be an end destination as originally expected. The overall movement in the metropolitan area will remain north-south through the corridor between the “mature” economic nodes (MLH Architects and Planners, 1994). However, it is expected that the east-west movement along the corridor will increase significantly in future. For the interim
period, it is also expected that the majority of jobs will continue to exist and be created outside the Wetton-Landsdowne Development Corridor-area (Cape Metropolitan Council, 1996).

2.4.5. Institutional arrangements

Institutionally, the project was initiated through the establishment of an Intergovernmental Technical Co-ordination Committee, managed by the City Council of Cape Town. It was this Committee that was responsible to establish a Steering Committee, to ensure the involvement of all appropriate stakeholders during the planning processes, as well as for the execution of the planning processes itself (Department of Transport, 1996).

However, the implementation of the planning results, development frameworks and development strategies were regarded as a much more complex operation. MLH Architects and Planners confirmed that there were no examples in the Republic of South Africa, which could be used as a blueprint to initiate and manage the development of a development corridor. As a result of their involvement in the Wetton-Landsdowne Development Corridor, they realised that the implementation of the project and its development strategies will require a dedicated institutional structure, which could:

- co-ordinate public, private and community development for optimal implementation results;
- be not-for-gain in nature to enable optimal focus on the integration of economic growth and on enhancing social upliftment through providing services that normally have a low feasibility;
- attract investment to preferred locations where the most impact could be obtained and which could serve as a catalyst to create comparative advantages to also attract other related investments; and
- be representative of all stakeholders (MLH Architects and Planners, 1994).

The Wetton-Landsdowne Development Corridor-model proposed a dual, but supportive institutional structure. This relates to the establishment of a development agency as well as the establishment of local development forums.

With regard to the development agency that should be established for the entire corridor area, some key characteristics for the Wetton-Landsdowne Development Corridor were identified by MLH Architects and Planners, based on their findings of a dedicated institutional structure mentioned above. These potential key characteristics for a proposed development agency were identified in collaboration with the project’s stakeholders by the relevant authorities. These include that the proposed development agency should:

- be focused in its action;
- be efficient, transparent and should implement accountable business approaches;
- be a Section 21 Company (not for gain);
- be structured in such a manner that it uses "the resources and skills of both the private and public sector";
- enhance capacity building through involving affected communities in decision-making and project execution processes. It should also be accountable to the affected communities;
- be as representative as possible in its organisational structure;
- have urgency in its operations; and
be chaired by a leading business figure (MLH Architects and Planners, 1994).

In terms of responsibilities, the following were regarded by MLH Architects and Planners as some of the key responsibilities for the proposed Wetton-Landsdowne Development Corridor development agency, viz. that it should:

- be enabled to undertake both transport and land-use planning;
- be placed in a position to apply for funding by means of governmental grants, loans, and so forth;
- provide the required utility services to both the public sector as well as the private sector and the communities;
- provide technical and logistic support to structures as and when needed;
- be enabled to develop an efficient and effective public transport system for the entire Wetton-Landsdowne Development Corridor; and
- initiate projects, as well as act as a developer of housing, manufacturing and SMME's.

Local Development Forums were identified as area-bound forums working in a specific geographical area and representing the community in that geographical area. These forums should enable people-driven processes and respond to community needs. According to MLH Architects and Planners, these Local Development Forums should be transformed to community development corporations over time. Where the latter do not exist, the development agency will have to provide a direct support-base to the Local Development Forums (MLH Architects and Planners, 1994).

2.4.6. Conclusions

The Wetton-Landsdowne Development Corridor is still in its planning phases and limited implementation has taken place. However, it represents a number of aspects that could be considered as planning lessons, essential to any development corridor initiative.

However, from the evaluation of this project, it could be stated that the Wetton-Landsdowne Development Corridor serves both as a mobility corridor and an activity destination. As a development corridor, it has been repeatedly emphasised that it was established as a mechanism to facilitate restructuring and integration of the south-eastern sector of the Cape Metropolitan Area with the rest of the Metropolitan Area (MLH Architects and Planners, 1994).

Strong focus is given towards a development corridor model that ensures sustainable development. In this regard, a critical underlying principle is to increase the population thresholds to high enough levels so that feasible economic development opportunities and social facilities in the corridor are created/supported (MLH Architects and Planners, 1994).

With regard to the Wetton-Landsdowne Development Corridor, the anticipated restructuring will be brought about by implementing proposals, to (see Figure 4 below for a schematic illustration):

- develop mixed land-uses at a high intensity, as well as to develop higher density residential areas along the corridor's transport link;
- improve public transport systems and facilities by means of skills and entrepreneurial training programmes, as well as to establish proper and stronger transport links between...
all transport modes;

- promote people-driven development by incorporating communities in development processes, for example, through infrastructure provision projects. The latter should include a focus on addressing community needs related to housing, health facilities, job opportunities and recreation facilities;

- implement multi-purpose projects to increase optimal development and the sustainable use of available resources;

- invest in human resources by incorporating them into the corridor planning and development processes; and

- maximising development opportunities through improved access to areas adjacent to the public transport link, higher population densities and strategically located public facilities (MLH Architects and Planners, 1994).

**Figure 4: The Wetton-Landsdowne Development Corridor-concept**

Except for considering it a mechanism for urban reconstruction, the Wetton-Landsdowne Development Corridor revealed that development corridors are also regarded as a mechanism to promote local spending to ensure maximum and sustainable development and returns.
From a benefit point of view, the strong points of this project is regarded as its attempts to:

- increase residents’ proximity to jobs;
- the development of higher order recreational areas;
- enhance access to public passenger transport systems;
- create a variety of medium and higher density housing opportunities;
- create a variety of economic opportunities for private sector investment;
- improve access to community and public facilities; and
- improve service delivery.

The Wetton-Landsdowne Development Corridor also illustrates that proposals and strategies to establish development corridors should be integrated into the overall city planning which is done for a city/region where such a development corridor is to be initiated. This is needed so as to ensure that:

- there are not conflicting development proposals/priorities in such a city/region, but that the opportunities found, be developed according to its real potential;
- there is no competition in attracting a single investment to more than one area in that city/region, but that the most appropriate location be found;
- development is guided from a single integrated planning platform; and
- co-ordinated implementation of priority projects in the entire city/region takes place.

Nodal development was also identified as a prominent element of the corridor development concept. For each of these nodes specific actions were identified for implementation. The latter included projects such as road construction, access improvements, public/private joint venture development projects, detail urban design projects, pedestrian facilities and community facilities. From the latter, it is concluded that a large degree of emphasis was given to the provision of physical infrastructure to create an enabling environment for the optimal establishment of a development corridor.

Another added element is the degree to which the Wetton-Landsdowne Development Corridor stresses the support needed for the development of adjacent areas inter-linked with the development of the corridor. This underpins the importance of what is stated above, viz. that the proposals to establish a development corridor should be incorporated in the planning processes of the entire city/region.

The latter also reflects that a direct relationship exists between the development of a corridor and the development of the area surrounding that corridor (which one probably can refer to as the corridor’s direct area of influence).

Furthermore, an impression is created by the planning reports of the Wetton-Landsdowne Development Corridor that policy formulation will become an important mechanism to streamline development and implementation. These policies should be supportive of specific aspects such as rezonings, interfaces, access and parking, as well as improved development application procedures (MLH Architects and Planners, 1994).

Lastly, planning reports reflect the necessity that actions, responsibilities, priorities and financial implications be incorporated into an implementation plan as a mechanism to coordinate and manage the development of the entire development corridor.
2.5. MCDC

The MCDC is not discussed here as part of the other three "Four Cities"-projects, but is dealt with in detail in Chapter Three and Four.

3. Urban development corridors in developing countries: Brazil

3.1. Curitiba

3.1.1. General

Curitiba is regarded throughout the world (MLH Architects and Planners, 1995) by town planners and urban designers as "best practice" when it comes to the establishment of development corridors. MLH Architects and Planners starts to explain the success of Curitiba by stating that it is regarded as a city that "...with minimal resources and sustained population growth, has succeeded in implementing a holistic and integrated city plan aimed at meeting human needs and empowering the individual" via innovative and participative planning and problem-solving measures (MLH Architects and Planners, 1995).

MLH Architects and Planners is also of the opinion that the success of Curitiba is directly linked to strong and committed leadership (originally of a military dictatorship nature). This enabled a situation whereby decisions were carefully considered, especially as and when implemented, as it was constantly measured to contribute to the improvement of the quality of life of the inhabitants of Curitiba. This approach ensured the development of an environmentally sustainable city. The leadership also ensured that solutions delivered multiple benefits and through their committed appearances, confirmed that their focus was to make things work for the community (Herbst, 1992). However, the above does not imply that a military dictatorship is needed to promote the establishment of development corridors, but should rather be interpreted as that strong leadership and commitment are needed to enhance optimum implementation results.

3.1.2. Key focuses of the project

Concluded from the available study material, which represent the views of researchers (such as MLH Architects and Planners, Herbst and Kleynhans, Gough and Van der Merwe) who also evaluated the system in much depth, it is evident that the former Mayor of Curitiba (Jaime Learner) started initiatives to develop a network of urban corridors by concentrating on a specific focus to solve typical urban growth problems. These included, amongst others, the following:

- poor literacy rates as a result of the lack of proper education and skills development opportunities and facilities;
- the lack of accessible public facilities to all residents of Curitiba;
- increasing travel distances, time and cost, especially for the poor staying on the outskirts of the city;
- illegal squatting on the periphery of the city as a result of cheaper land prices;
- increased unproductivity amongst the entire population;
• lack of accessible recreational opportunities and facilities; and
• high population growth (MLH Architects and Planners, 1995).

According to Kleynhans, Gough and Van der Merwe, the first formal urban plan for Curitiba was compiled in 1943, known as the "Agache Plan". The focus of this plan was to reinforce the development of the central business district of Curitiba through a spoke-wheel type of design (concentric roads linked by radial avenues) (Kleynhans, Gough and Van der Merwe, 1997).

As part of an attempt to solve the above-mentioned urban growth problems, Curitiba adopted a holistic integrated development planning approach (as referred to by MLH Architects and Planners in paragraph 3.1.1 above). This was done through a public competition during which a Brazilian consulting firm produced the winning "master plan", which was produced in 1965 (Kleynhans, Gough and Van der Merwe, 1997).

Birk and Zegras made the following observations with regard to the master plan indicated schematically in Figure 5 below:

Figure 5: The Basic Curitiba Spatial Development Concept

![Curitiba Spatial Development Concept](image)

(URBS, 1996)

• **Limiting central area growth:** The plan was oriented towards limiting central area growth (Birk and Zegras, 1993). In fact, MLH Architects and Planners, conducted a comprehensive study of Curitiba for the preparation of the Cape Metropolitan Spatial Development Framework, as referred to in paragraph 2.4.1 (see detail on page 23). They identified an approach reflecting support for this view of Birk and Zegras, stating that:
  - one third of the population is to stay in the "downtown" areas;
  - one third along high density development corridors; and
  - one third in the rest of the city (Department of Transport, 1995).
• **Economic growth**: The plan encourages conventional and service sector growth along two north-south radiating transport arteries (Birk and Zegras, 1993);

• **Encourage industrial development**: Development of an identified industrial zone on a specific located site situated towards the outskirts of the city was encouraged (Birk and Zegras, 1993);

**Figure 6: Evolution of the Integrated System**

![Figure 6: Evolution of the Integrated System](image)

• **Adequate education and health**: The provision of adequate education and health care services and facilities as well as opportunities for recreation, which include some park areas, was all part of an attempt to create socially healthy communities. According to...

(URBS, 1996)
them, healthier communities have higher productivity levels (MLH Architects and Planners, 1997); and

- A sustainable integrated transport system: This included the development of a sustainable integrated transport system (see Figure 6 for a schematic illustration), which is integrated with business development, road infrastructure development and local community development (Birk and Zegras, 1993).

Figure 7: The Curitiba Integrated Transport Network

(URBS, 1996)
In addition to the key focuses mentioned above, the vision for the development of the Curitiba Development Corridor-model, as identified by MLH Architects and Planners, also reflects the necessity of linking employment with place of residence (so as to create shorter travel distances and to reduce cost), reducing private vehicle use in the CBD, reducing pollution in the entire city (to create an environment-friendly city) and facilitating access to amenities (MLH Architects and Planners, 1997).

3.1.3. Important project strategies

Curitiba is regarded as an excellent reflection of using innovative approaches to solve local problems (where each problem is actually regarded as an opportunity for creating innovative solutions). It has a strong focus on a "multi-dimensional integrated development approach". Included in this approach are measures to alleviate congestion, mechanisms to limit population growth, anchor developments and ample public services and programmes to address basic community needs (Taniguchi, 1995).

To underline the latter, it is important to highlight some general strategies within two key urban development strategies, the one being the design of an optimal urban design concept for Curitiba and the other the development of a supportive public transport system.

(a) Curitiba's urban design concept

(i) General

The 1965 Master plan incorporated some innovative measures related to what is referred to as the "Civic management of the plan". But what is so innovative about this? The following were identified by researchers\(^{20}\) who studied the development corridor concept:

- **Reorganising rezoning parameters**: Zoning parameters are directed towards promoting mixed land-use development and high-density housing along the identified development corridors (MLH Architects and Planners, 1997). Kleynhans, Gough and Van der Merwe determined that these high-density developments took place primarily in areas where bulk services, such as water, sanitation, electricity, communication and public transport, are provided (Kleynhans, Gough and Van der Merwe, 1997);

- **Securing affordable housing for the poor**: This is done through a site identification process where the lowest-cost-implication is considered to be a major criterion. An approach is implemented by a housing authority whereby "cheap" land is purchased/expropriated as a first step. Affordable housing is then constructed at variable densities. MLH Architects and Planners also found in some cases, that land in the development corridors owned by the local government, was even "exchanged" for other suitable land (for high density housing provision), owned by private individuals. The exchange-of-land action was often linked to the provision of development rights to the benefit of the private individual, as a form of additional compensation (MLH Architects and Planners, 1997);

- **Implementation of an appropriate communication strategy**: This strategy focused on the continuous provision of information on issues such as project progress, project financing, results of opinion surveys and development priorities (MLH Architects and Planners, 1997);

\(^{20}\) See MLH Architects and Planners and Kleynhans, Gough and Van der Merwe,
Innovative approaches to solve problems: The local authority of Curitiba regarded every urban problem as an opportunity for innovative solutions. Identified solutions often addressed more than one urban problem (Kleynhans, Gough and Van der Merwe, 1997);

Provision of facilities and amenities: The plan provided an opportunity for the provision of facilities and amenities such as schools, libraries, clinics and crèches, next to the road forming the activity spine of the development corridor (Kleynhans, Gough and Van der Merwe, 1997); and

Decentralisation of government offices and services: Provision was also made for the decentralisation of government offices and services closer to residents. The location of these facilities was very carefully considered, as the linkage to the public transport system played a prominent role in the site development process (Kleynhans, Gough and Van der Merwe, 1997).

(ii) The cross-section

The Curitiba urban design concept illustrates the interdependent relationship between transport and land-use planning and development. The conceptual approach is focused on expanding the city along five linear transport routes (development corridors), integrated with the rest of the city through a proper road network. In turn, it is further integrated with a public transport systems and accompanying land-use development.

The cross-section of the development corridor found in Curitiba (see Figure 8 as well as Figure 9), is characterised by the following:

- Dedicated public transport routes: The centre line of the corridor accommodates a two-way direction dedicated public passenger transport route. Buses, forming part of the public transport system, exclusively use this road. Bus stops are found at regular intervals, as well as where the development corridor intersects with the concentric circular routes;

- Two-lane single direction routes: On both sides of the public passenger transport route, a two-lane single direction route is found to benefit the user of the private motorcar. Movement on these routes is normally slow. On-street parking is also provided on this route. Sidewalks divide the public transport route from this route. Therefore, this route could be regarded as an activity route;

- High intensity business frontage: The row of erven fronting the latter route is zoned for business development purposes as a mechanism to promote job creation and in turn attempts to reduce travel distances between places of residence and work. To promote higher intensity economic development on these erven, an incentive is provided whereby the investor is allowed to construct a building, which is in size equal to a maximum of six times the erf area. From the first floor upwards, the building is allowed to overlap the sidewalk, as an additional incentive. A combination of business and residential uses can be accommodated on these erven. However, the structure will still not be allowed to be more than six times the size of that respective erf. The residential component will not be allowed to form more than four times the area of that erf;

- High-density housing: The row of erven behind the "business"-zoned row of erven is earmarked for the development of higher density residential developments. An incentive also applies here. These structures are not allowed to exceed a size four times the size of that respective erf. Height is limited to prevent unnecessary social problems normally related with overcrowding. Business developments are also allowed to take place on these erven. However, parking must then be
provided on site and no sidewalk-overhangs can be developed. Height is still limited to four times the area size of that respective erf:

- **Higher speed mobility routes**: Following on the high-density residential zone, a two lane single direction route is provided. This route is considered a mobility route and the speed on this route is normally much higher that the one serving local businesses fronting the public transport route; and

- **Lower density residential development**: Beyond the latter, lower density residential development is found. This can include normal housing densities of 8 to 12 residential units per hectare (gross) (Kleynhans, Gough and Van der Merwe, 1997).

Taniguchi regards the application of sustainable development principles, which relate to activities such as the preservation of green areas in the city and the "cheap" urban transport rendered through the planning of a simplistic road structure and network, as special characteristics of the Curitiba development corridor model. Equally so, the integrated public infrastructure through the "orderly occupation of urban spaces" and the implementation of recycling programmes (Taniguchi, 1995).

**Figure 8: A cross-section of the Curitiba development corridor model**

![Diagram of the Curitiba development corridor model](image)

(Kleynhans, Gough and Van der Merwe, 1997)
The integrated public transport system, managed by an institution known as URBS (see paragraph 3.1.5 on page 43 for more detail), forms a functional and supportive component of the entire development corridor concept. The public transport concept is based on the following (also refer to Figure 10 below and Figure 11 on page 41):

- **The City Centre Circular Line**: This system operates around the central business district. It consists of white painted passenger vehicles, which can accommodate 30 passengers;
- **Conventional Integration Radial Routes**: This system operates on the normal road network and is also linked with "integration terminals", as well as the central business district. It consists of yellow painted passenger vehicles, which can accommodate 80 passengers;
- **Feeder Routes**: This system links terminals with the neighbourhoods. It consists of orange painted passenger vehicles, which also accommodate 80 passengers;
- **Express Articulated and Padron Routes**: These routes provide the normal terminal to terminal service throughout the entire city. It consists of red painted articulated passenger vehicles, which can accommodate between 105 to 170 passengers;
- **Direct or Speedy Routes**: These routes connect the main districts and surrounding municipalities and stops every 3 kilometres. It consists of silver grey painted passenger vehicles, which can accommodate 110 passengers;
- **Inter-district Routes**: This system links the various transfer and integration terminals and districts without passing through the central business district. It follows circular routes around the city centre. It consists of green painted passenger vehicles, which can accommodate between 110 and 160 passengers;
- **Express Bi-articulated Routes**: This system links the transfer terminals with the central business district. It consists of red painted bi-articulated passenger vehicles, which can accommodate 270 passengers; (C Taniguchi, 1997).

Figure 9: A visual display of a development corridor with its public passenger transport system in Curitiba.

(Kleynhans, Gough and Van der Merwe, 1997)
Information related to the operations of the public transport system has shown that:

- 70% of the population of the city commutes by public transport (Department of Transport, 1995);
- 17 co-operatives are contracted to provide the entire public passenger transport operation;
- a single tariff structure is implemented all over the city. This implies that no matter the distance that a member of the public travels, the tariff stays the same, even if one travel from one bus network to another, as long as transfer takes place at a transfer facility ("tube station"). This implies that the shorter transport routes subsidise the longer routes;
- operators are paid actual kilometres travelled;
- 300 bus companies are incorporated in the public passenger transport operation;
- the public passenger transport operation survives without any subsidisation; (Taniguchi, 1995);
- 340 public passenger transport routes were provided, which have a distance of 1100 kilometres of public passenger transport routes;
- 25 transfer terminals have been developed;

Figure 10: Bus system and colour coding in Curitiba.

![Bus System and Colour Coding](image)

(URBS, 1996)

- tube stations were constructed and tickets can be purchased at the tube station. Once the bus enters next to the tube station, it allows a passenger on-level entrance into the bus – causing a tremendous saving in time for passengers to enter the bus. It also allows the disabled to enter the bus without any obstacles;
- the public passenger transport system also includes a specific tourism route whereby tourists can get on and off a bus travelling on the tourism route, knowing that a next bus will arrive within approximately 20 minutes; and
- a separate public passenger transport system was also developed for the physically and mentally handicapped, creating access to all education and social facilities throughout the city (Kleynhans, Gough and Van der Merwe, 1997).
Other characteristics can be summarised as follows:

- the Curitiba-planners are not concerned about the densification around the central business district or developing an overall more compact city with outer urban edges, but rather about the decentralisation of economic activities (found at higher intensities) towards corridors to alleviate congestion in the central business district and feeder roads thereto. The development of a supportive public transport system forms an integral part of this decentralisation approach, creating the opportunity to decrease the need to do substantial travelling. Simultaneously, it increases the need for and use of a public transport system;
- a strong movement exists to reduce parking in the central business district each year. This is being done by transforming roads to pedestrian ways;
- heavy vehicles are also not allowed during day-time in the central business district. Doing so, results in heavy fines; and
- all hospitals in Curitiba are linked through a separate public transport system (Kleynhans, Gough and Van der Merwe, 1997).

The effective and affordable self-paid public transport service in Curitiba can only be effective though to the development of high densities next to the routes, whilst on the other hand, it is also considered that the densities can only be achieved as a result of the public transport service provided (MLH Architects and Planners, 1997).

3.1.4. Success stories

As a result of the progress made with the development of the Curitiba Development Corridor-model over the past 30 years, the concept proved its ability as an urban restructuring and urban growth mechanism to develop an effective working city. Therefore, a number of best practices can be mentioned which were tested and proven. A long list could be elaborated upon, but for the purpose of this dissertation, the most prominent success stories are further discussed briefly below:

- **The concept**: The concept represents a network of development corridors consisting of high-density mixed land-use developments, supported by a unique public passenger transport system serving the entire city. This implies that transportation is more evenly distributed throughout the city and its surrounding districts;
- **The public passenger transport system**: The public passenger transport system plays a prominent role to integrate all facets and urban elements of the city. One can, therefore, deliberate that the public transport system, which is based on an integrated road network, forms one of the backbone elements of the successes to develop an efficient working city - also compare Figure 12 on page 42 (Kleynhans, Gough and Van der Merwe, 1997);
- **The central business district**: As found by Kleynhans, Gough and Van der Merwe, the concept encompasses a crucial developmental movement whereby the importance of the central business district is reduced. A good element hereof relates to a situation of lower levels of congestion and higher levels of pedestrianisation. This is through the implementation of measures to reduce private vehicle movement in the central business
Figure 11: Passenger transport (bus) facilities/services in Curitiba

(Kleynhans, Gough and Van der Merwe, 1997)
district, by promoting the use of the public transport system and by transforming roads in the central business district to pedestrian ways (Kleynhans, Gough and Van der Merwe, 1997);

- **Land values**: Kleynhans, Gough and Van der Merwe found that the highest land values are no longer to be found in the central business district, but along the development corridors. This situation creates the impression that "wealth" is now also been distributed to other parts of the city and not as normally found, captured in the central business district (H Kleynhans, D Gough and Van der Merwe, 1997);

- **Productive population**: Although detailed numbers and figures could not be found for detailed analysis, an overall general analysis of this urban phenomenon creates the impression that there could be a direct correlation to the population becoming more productive, as it implies that easily accessible jobs are located closer to where people are staying. Reduced travel times will be a result, providing more time to spend with families (resulting in improved family ties) and for recreational activities (Taniguchi, 1995);

- **Information**: The ongoing flow of information to the public is also considered as one of the critical success factors for Curitiba (MLH Architects and Planners, 1995);

- **Congestion**: Vehicle congestion in the central business district is also minimised as a result of the efficiency of the public transport system and the high usage levels thereof, as well as the pedestrianised effects found in the central business district (URBS, 1996);

Figure 12: An integrated community centre and an integrated transfer terminal in one of the development corridors

(Kleynhans, Gough and Van der Merwe, 1997)
Demand for public transport: The strength the development corridors is creating for economic development, further strengthens the demand for public transport and also increases its affordability levels (Kleynhans, Gough and Van der Merwe, 1997);

Committed leadership: The management approach and the commitment of the leaders to make progress and to improve the quality of life through focused implementation also reflects an impression that planners must not only plan, they must implement, step by step (MLH Architects and Planners, 1995);

Institutionally: The institutional set-up, as can be concluded from paragraph 3.1.5 (see page 43 for detail), also reflects that the best developmental results are obtained by mixing public officials’ knowledge with the private sector's business skills. The establishment of non-profit institutional planning and implementation structures seems to be another major contributor to the successes achieved in Curitiba;

Community participation: Community participation is directly incorporated within the ongoing planning processes. In fact, MLH Architects and Planners consider Curitiba a good example of a partnership between local government and the community (MLH Architects and Planners, 1995);

Development programmes: Supportive child development programs, skills transfer and environmental education are all contributing towards improving the quality of life of Curitiba's inhabitants (MLH Architects and Planners, 1995); and

Sustainability: Sustainability is also a major concern and is being promoted through, amongst others, active and intensive waste recycling. Incentives to promote the concept amongst the communities, also form important elements of the corridor concept (MLH Architects and planners, 1995).

MLH Architects and Planners find the “most striking characteristic of the corridors and their development to be the recognition that they are a single component in an integrated system”. This view is supported by the definitions of Duany and Plater-Zyberk discussed in Section B of this chapter (see detail in paragraph 1.1 on page 10).

3.1.5. Institutional arrangements

MLH Architects and Planners regards the military dictatorship, which ruled Brazil for decades, as one of the cornerstones of Curitiba's success, easing the implementation of planning and development approaches decided upon by the governing body. However, the fact that Brazil was under military dictatorship when the Curitiba Development Corridor model was initiated, does not imply that development corridors can only be established under military leadership. In fact, this situation must rather be regarded as a representation of the need for firm and committed leadership and commitment by the governing body to improve the quality of life of its city's inhabitants.

Another cornerstone is the organisational structure and management of the corridor development projects through seven autonomous non-profit agencies. These were established to implement the common development visions that were set for the development of the city. The mentioned agencies are:

- Urbanisation (land-use);
- Industry;
- Curitiba Development Company (CIC);
Curitiba Housing Company (COHAB);
Curitiba Urbanisation Company (URBS);
Curitiba Institute for Research and Planning (IPPUC); and
Curitiba Cultural Foundation (MLH Architects and Planners, 1995).

Some of these agencies are further elucidated:

- The Master Plan of the 1960's proposed the establishment of IPPUC – "Institute of Urban Research and Planning of Curitiba". This institution is responsible for co-ordinating, modifying and overseeing plan implementation on an annual basis (also refer to paragraph 3.1.2 on page 31, as well as paragraph 3.1.3 on page 36 of this section). IPPUC also co-ordinated Curitiba's investment in mass transit between 1970-1986 (Birk and Zegras, 1993);

- URBS is responsible for managing the entire public transport system (refer to paragraph 3.1.3 on page 35), including the respective bus companies operating the system. The fact that the system is a non-subsidised transport system, implies an efficient and effective system that is working within Curitiba.

The revenue earned from sold public transport tickets is paid into a single public transport fund. The bus companies are then paid from this fund for each real kilometre travelled.

The system is being evaluated on a continuous basis and public opinion on the efficiency and effectiveness of the system is valued very high. The results of opinion surveys, which are done constantly, are implemented immediately so as to ensure that the users are satisfied with the system. In this way, URBS ensures the optimal use of the public transport system;

- Industrial development is strongly promoted by a non-profit industry agency, known as "Cidade Industrial de Curitiba". It is dedicated to promote and attract new industries to preferred localities. It promotes communication between government and the industry sector and constantly supports institutions and universities with implementation and education activities.

To encourage industries to locate locally, the "Cidade Industrial de Curitiba" even purchases shares in such companies to confirm the high esteem Curitiba holds for that investment in contributing to economic development.

Co-operation between public and private sectors is considered important. This is underpinned by the full range of services provided to the industrial sector. This includes, amongst others, health, education and welfare facilities, as well as a place of residence to the worker in the immediate vicinity of the industrial area.

Public support is specifically provided to those activities, which can improve production (MLH Architects and Planners, 1995).
3.1.6. Conclusion

A concern raised throughout the world, is that disorderly growth tends to result in an increased demand for and use of public funds, as well as a low quality of life. This was also the case faced by Curritiba in the 1960's. Reports in this regard revealed that an opinion was raised that the reduction in time spent on travel, results in savings as a result in the decrease in the fuel consumption. Simultaneously, time saved leads to an increase in productivity or recreational opportunities. It is the opinion of Taniguchi that the above can be translated into a "profit" for the city and an improved quality of life (Taniguchi, 1995). The above deliberation places a large degree of emphasis on the movement of people and goods over short travel distances, as well as the need to travel as a result of the close proximity of end destinations to the users.

The results gained through the community participation approach of the Curritiba Development Corridor are regarded as an excellent example of a partnership between local government and the community. The approach includes the use of the community to assist in identifying solutions for city problems. These solutions must deliver multiple benefits. In turn, it reflects a total commitment by all role-players to make things work for the community. Taniguchi considered it the only way to address city differences (Taniguchi, 1995).

Therefore, it clearly seems that all development decisions are carefully considered so that when it is implemented, it contributes to the improvement of the quality of life. This approach ensures the development of an environmentally sustainable city (MLH Architects and Planners, 1995).

With regard to zoning and land-use, the Curitiba Development Corridor model reflects:

- that mobility and land-use cannot be disassociated from each other;
- mixed-use high-density development along arteries are necessary to comply with the threshold values of economic activities found in the corridor, which include the public transport system serving these corridors;
- the provision of an effective and affordable public transport system should be considered the highest priority, as it represents the most essential cost-saving mechanism in the development of a city; and
- the city centre, as the major economic activity node found in a city, forms an important urban element of the development corridor concept. In Curitiba, the city centre represents a pedestrian network focused at boosting economic activity in the city as a whole (Birk and Zegras, 1993).

Curitiba contains a number of other essential lessons. Amongst these, the following general lessons can be highlighted according to MLH Architects and Planners:

- "sustained commitment" to work towards the implementation of a common vision;
- expediting the "willingness to take calculated risks", to enhance more speedy delivery processes and improved end results;
- it is regarded as essential to establish "a multi-disciplinary, semi-autonomous, urban planning agency with strong leadership", to oversee planning and implementation activities

21 See Taniguchi (Creating an Environmental Sustainable City; The Curitiba Initiative; The Trend Towards Sustainable Development) and Herbst (Brazil's model city).
on an annual basis;
• not to act too eagerly, but to “move one step at a time”. Kleynhans, Gough and Van der Merwe add that no policy is implemented without a plan of action;
• as commitment towards progress exists, it does happen that mistakes are made. However, irrespective thereof, the approach should be to "learn from mistakes", correct them and continue project implementation. Kleynhans, Gough and Van der Merwe support this view by adding that a constant political will exists to ensure the optimal planning and development results;
• compile specific "goal orientated programmes" related to aspects such as public transport, development incentives, short development application considerations, zoning measures, all to improve the quality of life in Curitiba;
• another strategy is to ensure that "growth must be focused inwards" and that "outward growth must be controlled", to prevent low density sprawl and a decrease in the threshold value of the public transport system (MLH Architects and Planners, 1995);
• a strong relationship must be developed between "public transport corridors supported by high fronting densities", which will create the appropriate "economic thresholds, opportunities for entrepreneurs and a convenient, efficient and sustainable urban public transport system". Kleynhans, Gough and Van der Merwe add that proactive action is supported by built-in tests for such proactive activities, followed by immediate implementation;
• creativity is seen as an essential ingredient to problem-solving. In this regard, communities play a prominent role. Linked to the concept of being creative, is the approach to consider a problem as an opportunity for creative thinking and to maximise that opportunity by solving more than one problem with one solution; and
• a special effort is made to recognise the role of formal and informal businesses in the development of corridors, as each serves a specific purpose and both have a contribution to make to the city's economy (MLH Architects and Planners, 1995).

The success of development corridors is directly related to innovative and effective management of the entire concept. MLH Architects and Planners supports this view as they indicate that innovation and effective management are imperative from inception through to the implementation of project strategies and projects. They also state that ongoing management and the availability of financing will also dictate the success of development. MLH Architects and Planners links the latter consideration to that of also considering the corridor development as a "principle tool in restructuring the urban environment" (MLH Architects and Planners, 1997).

In terms of the urban restructuring focus, it seems that revitalisation can be achieved within a broad approach towards preservation, small scale beautification, special zoning recommendations and design guidelines, implemented through specific urban structuring projects (Taniguchi, 1995).

The urban design concept is regarded by some as a basis for communication and of action. Effectively, it is used for international imageability (Del Rio, 1992). This view is supported by Taniguchi, who is of the opinion that efficient marketing structures guaranteed that the urban design solutions of Curitiba became new urban symbols of modernity, "hallowed and divulged" both nationally and internationally (Taniguchi, 1995).
3.2. Porto Alegre

3.2.1. General

Porto Alegre is a major city situated in the southern parts of Brazil, with very similar urban conditions as Cape Town (Republic of South Africa), due to its location as a harbour city next to the Atlantic Ocean (see Figure 13 above). It is characterised by: degraded industrial areas next to the harbour; radial routes stretching from the central business district (also close to the seashore) into the hinterland (see Figure 14), with lower density development taking place further and further away from the central business district; illegal land invasion of open spaces with poor basic services; illegal squatting taking place on the outskirts of the city where the cheaper land is found; and serious congestion in the central business district. Development directly adjacent to the seashore is also more expensive and of a higher quality. Densities vary from area to area. Linkages between radials are lacking (Andretta, 1995).

A typical laissez-faire planning and development approach was followed by the public sector until the late 1980's. It was only recently (1989), that the local government of that time redirected the planning approach to what is known as the “Participative Budget”-planning approach (see Figure 15 on page 49). As concluded from the latter, the approach places a strong emphasis on community participation, where the public is provided the opportunity to decide about how public funds should be spent. Simultaneously, the planning process made provision for the input by “intellectuals” (for example urban planners and architects, transport engineers and so forth), to guide the city structuring processes.
3.2.2. Key focuses of the project

The existing city structure developed into four radial routes, stretching from the central business district into the city’s hinterland. The central business district, as can be expected, developed into the main centre of economic activity.

As a result, typical urban problems were experienced, such as: uncontrolled urban sprawl, tremendous vehicle congestion (especially in the central business district), time and productivity losses and expensive infrastructure services. A poorly developed public transport system contributed to the problem even further at the time, the reason being that people who needed to travel from the one radial route to a destination situated on another radial route, had to travel through the central business district. This resulted in a situation where the largest percentage (90%) of all bus trips in the city went through the central business district (Kleynhans, Gough and Van der Merwe, 1997).

The efficiency of its neighbour city, Curitiba (refer to paragraph 3.1 on page 31) must have made a serious impression on the local government of Porto Alegre, as, together with the Participative Budget"-approach, the local government initiated the implementation of an integrated land-use and transport planning approach late in the 1980's (Andretta, 1995). The research material implicated a number of sectoral focuses for implementation, viz.:

- **Urban infrastructure and education**: Since the implementation of the "Participative Budget" in 1989, the public placed a fundamental focus on the development of appropriate urban infrastructure and education. The development of the “Participative Budget” was done through the implementation of the “Cidade Constituinte Project”, which is discussed in more detail in paragraph 3.2.3 below;

- **Globalisation**: A specific focus was placed on “globalisation”, not only in economical terms, but also in a cultural context. This focus resulted into a number of innovative strategies focusing on improving conditions for product and service quality and competition (see

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*Figure 14: Schematic view of the development of Porto Alegre*
• Improved public transport: Improving the public transport system was another focus in terms of addressing the efficiency and the effectiveness of the system, as well as improving the existing road network. The underlying reason was that 90% of all busses passed through the central business district, whilst only 35% of the users' destinations are in the central business district (Kleynhans, Gough and Van der Merwe, 1997).

With these focuses, the local government of Porto Alegre attempted to address the following four key questions/issues:

♦ Is the city appropriate for its inhabitants?
♦ Is public income distribution being done effectively?
♦ Are the public's policy priorities being addressed?
♦ Is the government-society relationship improving?

3.2.3. Important project strategies

The Porto Alegre approach towards using integrated land-use and transport planning as a mechanism for urban reconstruction and urban growth, has also only recently (in relative terms when compared to the use thereof in Curitiba) been recognised and introduced (Kleynhans, Gough and Van der Merwe, 1997). Although busy implementing the approach for
approximately ten years now, optimal results have not as yet been obtained, proving that it is a time-consuming process, guided by the availability of supportive financial resources.

Nevertheless, Porto Alegre is implementing a number of concepts, which are worth considering. These include the following:

- **Improving the public transport system**: A serious effort is made to develop and improve the use of the public transport system through integrated land-use and transport planning. One of the strategies being implemented, is the development of a more appropriate road network. This road network should not only relieve congestion in the central business district, but should also be supportive of the development and improvement of a more balanced and equally distributed public transport system. For this purpose, circular routes around the central business district were proposed and initiated, so as to bypass the central business district. A separate public transport system is being introduced on these circular routes, with transfer facilities where it intersects with the radial routes. This approach is also shortening the travel distances for the public transport user, as a user does not need to travel via the central business district anymore;

- **Speed-lanes**: A set of speed-lanes have also been introduced and developed on the radial routes, exclusively for the electronically monitored bus-based public transport system. As in Curitiba (refer to paragraph 3.1.3 on page 35), a single direction road for slow-moving traffic has been created on both sides of the public transport speed-lane;

- **A microbus public transport system**: A microbus public transport system is also operating in the city, but these microbuses are not allowed to make use of the speed-lane system;

- **Reducing movement through the central business district**: It is expected that if the implementation of the speed-lane and the radial public transport system is completed, Porto Alegre will prevent the use of 70% of the amount of busses passing through the central business district at present;

- **Smart-card system**: No through-ticketing exists at present, although Kleynhans, Gough and Van der Merwe found in 1997, that consideration was given to the implementation of a smart-card system at the time. As in Curitiba, the existing public transport system is not subsidised;

Figure 16: Roads transformed into pedestrian ways in the CBD of Porto Alegre

(Kleynhans, Gough and Van der Merwe, 1997)
• **Pedestrianisation**: As in Curitiba, transforming roads in the central business district into pedestrian ways, forms a specific strategy to make the central business district more user-friendly for pedestrians, whilst demotivating the use of private vehicles to reduce vehicle congestion (see Figure 16 above for an illustration); and

• **Economically**: Porto Alegre initiated the development of what can be regarded as an "interesting" approach, through adopting a project known as "Project Porto Alegre Technopolis". The focus of this project is to promote the globalisation of the local economy (Porto Alegre City Hall, unknown).

"Project Porto Alegre Technopolis", is regarded as a multi-institutional effort to promote, amongst others, local economic development. This was done through the improvement of local conditions of competitive insertion. Again, as participation was set as a base for sustainable overall growth, the project is considered to be a typical partnership between a number of role-players, which include the public sector, science and technology institutions, enterprises, casual workers and civil society institutions. Other strategies set for "Project Porto Alegre Technopolis" include addressing local needs and exchanging experiences with interested countries, governments and local institutions (Porto Alegre City Hall, unknown).

One of the examples of "Project Porto Alegre Technopolis", is the establishment of an institution known as IETEC, which is aimed at transforming project or product ideas into real economically viable business initiatives. This institution is described in more detail in paragraph 3.2.5 (see page 53 for detail). Another example is the development of a Trade Point to increase global exposure of locally manufactured products (Porto Alegre City Hall; unknown).

Kleynhans, Gough and Van der Merwe found that "Project Porto Alegre Technopolis" based its development actions and activities on metropolitan actions\(^2\). The underlying principle is that these projects are implemented which promotes aspects such as:

- economic and social development;
- goods and service generation;
- an increase in income levels;
- empowerment, education and improving of skills levels for higher quality jobs; and
- expanding the revenue base for the public sector to enable a more balanced resource distribution application (Kleynhans, Gough and Van der Merwe, 1997).

• **Participation**: The "Participative Budget"-approach was implemented as a participation strategy as a result of the "Cidade Constituinte Project". The "Cidade Constituinte Project"\(^2\) has as strategy the enhancement of the participation of the citizens of Porto Alegre, or as stated by the local government of Porto Alegre, "...a process seeking a global discussion of the city" (Prefeitura Municipal de Porto Alegre, unknown). This approach encompasses a continuous democratic process within which more efficient channels of participation and control were constructed and consolidated by means of addressing four basic topics.

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\(^2\) By definition, the Porto Alegre local government defines "metropolitan action" as "...every activity of public interest done in partnership that promotes the process of technological innovation in the field of production of goods and services, intensive in knowledge" (Prefeitura Municipal de Porto Alegre, unknown).

\(^2\) "The Cidade Constituinte"-project expresses the political will of Porto Alegre's local government to enhance participation experiences of the citizens, which has begun to be developed during the first governing term of the "Popular Administration" (Prefeitura Municipal de Porto Alegre, unknown)
being:
- urban reform and development;
- traffic and transportation;
- economic development; and
- city finance (Prefeitura Municipal de Porto Alegre, unknown).

The latter are further discussed below.

(a) **Urban form**\(^\text{24}\) and development

The aspects incorporated under this topic addressed through the “Cidade Constituinte Project” refer to issues such as:
- the uneven and unfair distribution of basic services and infrastructure (sanitation, paved and lightened streets, education, health care and cultural events) as a result of illegal land invasion and high levels of poverty;
- typical\(^\text{25}\) land settlement, land tenure and housing problems as experienced in the Republic of South Africa;
- promoting urban reform, which represents quality of life improvement and public investment reversion; and
- the compilation and implementation of a “City Directive Plan”.

(b) **Traffic and transportation**

Aspects incorporated and addressed through the “Cidade Constituinte Project” refer to issues such as:
- determining appropriate public transportation service standards which are closely related to the decision and contradictions concerning the construction of urban areas;
- ways and means to overcome the serious traffic and transportation problems experienced in the city; and
- addressing other typical urban development influences and externalities such as land prices, real estate speculation and excessive conservation of commercial and service settlements. Other influences included the lack of land-use definitions, housing for the poor, which is either central but very deteriorated or far from employment opportunities/centres, as well as the great dependency of low-income people on public transport and the lack of public financial resources for public transport.

These aspects are addressed through the compilation of a spatial plan, which also incorporates policies through the “City Directive Plan”.

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\(^{24}\) The local government of Porto Alegre regards “urban reform and development” as that it is based “...on public reversion and tries to guarantee full citizenship exercise to most people still marginal to city resources and possibilities” (Prefeitura Municipal de Porto Alegre, unknown).

\(^{25}\) “typical land settlement” refers to the fragmentation of the city structure, illegal occupation of land, erection of squatter structures and the lack of development control.
(c) Economic development

Aspects incorporated and addressed through the "Cidade Constituinte Project" refer to issues such as:
- slow industrial development processes;
- improvement of commerce and services needed by investors;
- the need to promote tourism;
- the need to promote technological development; and
- the formalisation of the informal economy sectors to absorbed globalisation more dynamically.

(d) City finance

The greatest challenge to be addressed through the "Cidade Constituinte Project" with regard to city finances, is to overcome the increasing demand and need for funds caused by continuous "urban growth and the increased urban complexity" being created by that urban growth (Prefeitura Municipal de Porto Alegre, unknown).

3.2.4. Success stories

There are two prominent aspects that are considered as success stories. These relate to Porto Alegre's approach towards the development of development corridors within the ambit of integrated land-use and transportation planning and development.

The first is their approach towards involving the public directly into decision-making processes to use available public resources to address the needs experienced by the city's inhabitants. The fact that more than 70 other local government structures in Brazil initiated the implementation of a similar participation approach, confirms that it can be regarded as a best practice. This approach ensured that the communities are becoming more involved in, and more responsible for their own future (Kleynhans, Gough and Van der Merwe, 1997).

The second is the innovative approach initiated through "Project Porto Alegre Technopolis", to promote local economic development, as explained in paragraph 3.2.3 above and elaborated on in paragraph 3.2.5 below.

3.2.5. Institutional arrangements

The "Cidade Constituinte Project" was implemented through the following structures:
- as a project, it was guided by an Executive and a General Co-ordinating Committee;
- the elaboration process was organised and developed by four work groups, established for each of the four focus topics as mentioned in paragraph 3.2.3 above;
- an Executive Co-ordinating Committee, which was managed under the responsibility of the local government of Porto Alegre. This committee was responsible for the daily supervision of the project process and organisation of events, as well as the tasks of the four work groups on urban reform and development, traffic and transportation, economic development and city finance. The committee consisted of civil society representatives;
- a General Co-ordinating Committee, which consisted of government members, legislative
power representatives and individual entities and associations. This committee decided on the instructions and guidelines for the "Cidade Constituinte Project"; and

♦ the Porto Alegre City Congress which approved the final document (Prefeitura Municipal de Porto Alegre; date unknown).

To obtain community participation, Porto Alegre was divided into 16 homogenous participative regions. Citizens and representative community groups formed workshops in each of these regions. Budget issues were debated at these workshops by the public, and whilst doing so, determined their own future (Kleynhans, Gough and Van der Merwe, 1997).

Economically, an institutional joint venture approach was implemented to get economic development strategies implemented, especially in terms of the "Project Porto Alegre Technopolis". This approach was implemented through the establishment of an institution being referred to as the "Incubator Entrepreneurial Technology" (IETEC). The Porto Alegre Municipality manages this institution and has as focus the development of services, products and processing processes, based on new technology. Partnerships form a strong base for the approach, as it incorporates education and training institutions, as well as other domestic and foreign-based businesses and institutions. They provide a full range of administrative, communication, legal and technological support. The institution’s specific purpose is to get Porto Alegre known as a world-class centre for developing and generating technological innovations (Kleynhans, Gough and Van der Merwe, 1997).

3.2.6. Conclusions

As development corridors were only recently introduced in Porto Alegre (in the first half of the 1990's), typical lessons are still lacking. However, three prominent goals can be noted:

♦ to position the corridor’s economy as an important part of the global economy. In this regard the Porto Alegre Municipality is focusing the city as an innovative technology and research hub, a unique focus representing a specific demand in the global economy. One can refer to it as a dedicated approach towards "dedicated economic development";

♦ the authorities of Porto Alegre, as with Curitiba, realised that the greater the city size and urban complexity, the greater the demand for public finance. As a result thereof, an investigation was initiated to find a mechanism to "guarantee a balanced development, which will transform the town, starting with a continuous improvement of the life quality standard". It was this search that emanated into a strong emphasis on overall involvement in, for example, planning, problem-solving and prioritisation processes. In the Porto Alegre-scenario, it does not only include community involvement, but also an approach not to always solve your problem by yourself, but to invite "urbanologists, intellectuals, political leaders and others for seminars, as well as group and round table discussions" for problem-solving purposes (Prefeitura Municipal de Porto Alegre); and

♦ the community participation process implemented by Porto Alegre, is an essential lesson to get the community to help guiding the expenditure of local government structures, and which can be learned from. Their approach presents an appropriate model for dealing with the management of public resources.

The development corridor concept has not yet been fully developed in Porto Alegre. This is a result of the slow integration of economic development activities into the public transport system. However, related to the latter, the Porto Alegre authorities are developing a public
transport system that is working for Porto Alegre and her people. A prominent characteristic of this concept is the development of the speed-lane, which enables the separation of public transport and private vehicle use.

The initiative, especially through IETEC, to focus on technological innovations as an economic development strategy to increase the global positioning of Porto Alegre and its business sectors in the world market, is also regarded as a focused approach to benefit local economic development.

4. Urban development corridors launched in South Africa after the MCDC

4.1. The Tembisa-Kempton Park Development Corridor

4.1.1. General

The Tembisa-Kempton Park Development Corridor is situated in the central part of the Gauteng Province, in close proximity to the Johannesburg International Airport (JIA), which has a major influence on the development of this development corridor. The study investigating the feasibility for the establishment of the development corridor was initiated in September 1999.

To guide the project and the project process, the Transport Co-ordinating Committee (TCC), decided to focus strongly on the integration of residential areas and places of work, improving accessibility and promoting modal integration. Attention was also given to influence the direct correlation between development and public transport to "support" each other, as well as to integrate and expand on existing development initiatives to kick-start implementation.

The TCC identified corridor development as an appropriate means to promote the integration of land-use and transport planning. They decided on the Tembisa-Kempton Park Development Corridor project as a pilot project, to test some planning and development principles, as well as due to its potential for private sector interest and investment (VKE Engineers, Plan Associates, TRC Africa and Infratech Solutions, 2000).

4.1.2. Key focuses of the project

The key focuses of the project were to investigate, understand and highlight the potential for corridor development over its length of 14,5 kilometres, to obtain buy-in from stakeholders for implementation, to facilitate private investment and to co-ordinate public investment.

To address these focus areas, the TCC adopted the following approach:

- establishing co-operative involvement of all three spheres of government (national government, the provincial government and the respective local government structures);
- to create an understanding of co-operation between the private and public sector;

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26 The TCC is a land-transport co-ordinating institution established between the Gauteng Department of Transport and Public Works and the respective Metropolitan and Regional Services Councils within the Gauteng Province. The Committee has a number of work groups, each dealing with a different issue, such as land-use and transport integration, road construction, road planning standards, public passenger transport and so forth (personal interview: Mike Krynauw, 27 November 2000).
• to move towards focused investment in transport as a mechanism to promote growth;
• to promote the usage of public transport; and
• to adopt appropriate development promotion mechanisms (VKE Engineers, Plan Associates, TRC Africa and Infratech Solutions, 2000).

As in many cases in cities and towns in the Republic of South Africa, the Tembisa-Kempton Park area is also characterised by a number of urban development problems. These include, amongst others, the following:

♦ Long travel distances: Commuters travel long distances between place of residence and place of work;
♦ Lack of racial integration: A lack of racial integration, especially as far as places of residence is concerned, is experienced;
♦ Undeveloped land: Large parcels of undeveloped farmland, especially between the black and white residential areas, occur;
♦ Isolated high-density development: Isolated high-density black residential areas with a high dependency on public transport as a result of the distanced job opportunity areas, is experienced. These dormitory areas (consisting of 76% of the study area population), are also characterised by the presence of poor economic development activities. On the other hand, the white residential areas are characterised with lower densities situated closer to job opportunities and mostly dependent on private car use;
♦ Industrial development: An existing capacity exist in industrial areas, which is ready for development; and
♦ Different public transport modes: A number of different public transport modes are present in the identified area where the corridor should be developed, but with no integration that exists between these modes (VKE Engineers, Plan Associates, TRC Africa and Infratech Solutions, 2000).

4.1.3. Important project strategies

During the information-gathering phase, three comprehensive strategies were implemented. Firstly, an environmental scan, secondly, the interpretation of the development potential and thirdly, the facilitation of implementation opportunities.

Important issues considered during the environmental scan included, amongst others, aspects such as: planned projects; projects committed for implementation; expected future planning initiatives; stakeholder identification; the gathering of bio-physical and economical data; and the institutional arrangements affecting the project.

During the interpretation of the development potential, special focus was given to aspects such as: catalyst projects; corridor development guidelines; funding sources; opportunity for joint ventures and partnerships; and additional planning required for identified priority development areas.

With regard to investment facilitation, important issues addressed include impediments to growth, the impact of institutional changes, alternative implementation strategies, the identification of action steps, the appointment of a dedicated project champion and the implementation of activities decided upon.
From the study material available, five critical project strategies were identified. These are:

- **Integration of places of residence and places of job opportunities**: Sub-strategies include, amongst others, the reduction of travel distances, the creation of direct linkages between economic nodes, the development of feasible travel options, the creation of higher densities and to promote node-focused development opportunities;

- **Establishing high levels of accessibility**: Sub-strategies include the development of an appropriate road network and the development of a supportive public transport network;

- **Ensuring modal integration**: It includes the provision of appropriately located modal integration facilities, as well as a through-ticketing system, as sub-strategies;

- **Focusing development along public transport routes**: Higher density levels are promoted in the development process, developing a continuous urban structure; and

- **Expanding development initiatives**: To expand development initiatives identified during the information gathering phase.

Other strategies include the development of industrial nodes, promoting residential integration and promoting the construction of across-access routes (VKE Engineers, Plan Associates, TRC Africa and Infratech Solutions, 2000). These strategies culminated in a development concept, schematically illustrated in Figure 17 below.

The TCC also identified project-specific development priorities such as the improvement of the west-east movement across the north-south orientated development corridor to create alternative links to closer located employment areas and the densification of land usage adjacent to the development corridor. Others include improving public transport integration, improving north-south movement and improving access to regional traffic routes.

### 4.1.4. Success stories

Although this initiative was only recently\(^{27}\) initiated and limited implementation initiatives launched, the project still represents some basic successes. These are mentioned below:

- **Co-ordination and co-operation**: Co-ordination and co-operation between all spheres of government was identified as a strategy to improve the implementation of identified project goals and objectives. However, maximising the co-operation needed, implies continuous negotiations, motivation and patience, as each level of government has its own powers and duties. The latter can also be considered a threat due the difference in priorities, budget capacities, different budget and project approval processes and political influences;

- **Encouraging private sector interest**: This was considered a crucial element for success, as without their investment, limited economic growth and land-use development activities will materialise;

- **"Adequate" infrastructure**: The project team placed a specific emphasis on the government’s role to provide adequate infrastructure, facilities and services to guide, attract and enable private sector investment;

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\(^{27}\) See VKE Engineers, Plan Associates, TRC Africa and Infratech Solutions (Status Quo for the Tembisa/Kempton Park Development Corridor. TCC Report).
Figure 17: Tembisa-Kempton Park Development Corridor Development Concept

(VKE Engineers, Plan Associates, TRC Africa and Infratech Solutions, 2000)
An implementation forum: The TCC indicated that the development of an implementation forum, as discussed in paragraph 4.1.5 below, is regarded as a vital success factor. This goes hand in hand with the establishment of a development corporation to fast track development. In this regard, the TCC is of the opinion that local government’s ability to deliver, is questionable, whilst a serious need exist for post-apartheid reconstruction. For this purpose the skills of the private sector need to be incorporated into the delivery process for which government is normally responsible for; and

Catalyst projects: The identification and initiation of catalyst projects to kick-start private sector interest and investment, was considered a necessity by the project team to initiate the economic growth in the corridor area (VKE Engineers, Plan Associates, TRC Africa and Infratech Solutions, 2000).

4.1.5. Institutional arrangements

The project processes were guided by a steering committee primarily consisting of representatives of all three spheres of government. However, three participation groups were identified, being government institutions, groups involved in planning processes and the private sector. A process of consultation was used to get input from institutions such as the nearby airport companies, the South African Rail Commuter Corporation Ltd (SARCC), as well as the Gauteng Department of Housing. Discussion processes were also initiated with various developers involved in existing or proposed development activities, primarily to create awareness of the project approach of the development corridor and to empower these developers on the potential benefits that can be obtained through the development of the corridor.

The establishment of an implementation forum forms part of the implementation proposals to fast track the development of the corridor. The purpose of the implementation forum is to interact in the future development of a corridor, as well as with the private sector. The latter includes interaction with regard to development applications submitted by the private sector to local governments for approval and implementation considerations. Furthermore, the proposed forum should, according to the project team28 of this project, negotiate with government institutions to provide infrastructural facilities and services as and when needed and to adjust and negotiate land-use application. Initiating catalyst projects also forms a specific focus, which goes hand in hand with further planning, implementation and development priorities. The TCC was also of the opinion that the proposed forum should determine, negotiate and offer incentives to promote development in areas where it is most needed, according to predetermined priorities.

The TCC also expects of the proposed forum to establish continuous communication networks with all role-players and stakeholders, as well as to identify, facilitate and establish public/private partnerships.

Marketing the development corridor and its development potential and opportunities, was identified as another potential responsibility of the proposed forum.

4.1.6. Conclusions

The Tembisa-Kempton Park Development Corridor is a recent initiation of a development corridor and has in terms of practical substantiated proof, no lessons to offer. However, in terms of its planning and expected implementation approaches, a number of focuses seem to be essential. These are highlighted below:

- **Government involvement in implementation actions**: It is considered a necessity for all levels of government in the Republic of South Africa, especially those involved in implementation actions, to be incorporated in the planning and delivery processes;

- **The involvement of the private sector**: This incorporates influential processes to move the private sector to invest at preferred locations in the corridor, to benefit a number of development corridor strategies and principles;

- **Improved mobility and accessibility**: Mobility and accessibility levels, not only within the corridor, but also towards the outskirts of the corridor, need to be improved;

- **Improved public transport**: The development of an effective, affordable public transport system was considered essential for enhancing integrated land-use and transport development;

- **Sensitive environmental development**: The development that is taking place in the corridor should be sensitive towards the environment and it should be sustainable;

- **Strengthening of development nodes**: The Tembisa-Kempton Park Development Corridor project adds an interesting scenario to the development corridor concept, viz. that of acknowledging the prominent role development nodes are playing in the Gauteng Province. It seems, therefore, that recognition is given to the direct relationship between the strength of the development nodes linked by a development corridor, and the ability to attract development/investment to the development corridor situated between such nodes;

- **Initiating catalyst projects**: This development corridor places a lot of emphasis on the presence of a catalyst project to kick-start other catalyst projects and private sector investment. In the case of this development corridor project, the catalyst projects are strongly orientated towards the development of the JIA, as well as the provision of infrastructure, such as roads, taxi ranks and inter-modal facilities;

- **Prioritisation of key elements**: Priorities for the development framework can be summarised into four key elements, viz. that of movement, densification, accessibility and public transport integration; and

- **Establishing an institutional implementation framework**: Emphasis was placed on the establishment of an appropriate institutional framework for the purpose of influencing government budgets (so as to channel public investment to where it suits the development corridor concept best). The project also emphasised project identification and implementation, assessing development applications (to test its ability to support the development of the development corridor concept), inform stakeholders and to create opportunities for public/private interventions.
5. National Development Corridors

Processes to establish development corridors in the Republic of South Africa were initiated by National Government. These development corridors were of an international scale, as the aim was to benefit economic development in Southern Africa. Processes used to initiate these regional scale development corridor projects formed the backbone of further lower scale (urban) development corridor projects initiated in the country. Although at such larger scale, the planning and implementation processes used also included lessons for the urban development corridors initiated afterwards, as its implementation actions are also far more advanced. For this purpose, the Maputo Development Corridor, being the first national development corridor initiated in South Africa and Mozambique, was considered for research purposes to formulate this dissertation.

The studying of other international examples of regional development corridors also revealed that there is a strong movement towards using local opportunities and locational advantages to promote the globalisation of that region’s economy, where such a large-scale development corridor project is found. These and other principle issues such as increasing mobility and accessibility, promoting economic development and enhancing overall upliftment, compares well with the focuses of urban development corridors, providing further motivation to also include other international examples of regional corridors for the purpose of this dissertation.

5.1. The Maputo Development Corridor

5.1.1. General

The Maputo Development Corridor, which was officially initiated in August 1995, is regarded as a joint venture project between the governments of the Republic of South Africa and Mozambique. It stretches from Witbank through Nelspruit, both towns situated in the Province of Mpumalanga (Republic of South Africa), to Maputo in Mozambique (see Figure 18 below, as well as Figure 19 on page 64). Past political and warfare issues prevented optimal co-operation and economic development between the two countries, but more so within Mozambique (Interim Co-ordinating Committee, 1996a).

As a project, the Maputo Development Corridor is considered to be a catalyst to unlock the development opportunities in both countries affected by the location of the corridor through "balanced and integrated growth and development" (Interim Co-ordinating Committee, 1996b). It included overcoming transport problems previously hindered by the mentioned past political and warfare issues (Interim Co-ordinating Committee, 1996a).

The Maputo Development Corridor also presents opportunities to overcome aspects such as sustainability, poverty and access to basic needs and social services.

29 The figure also indicates other strategic development and development corridor initiatives in the Republic of South Africa.
5.1.2. **Key focuses of the project**

Although a holistic approach towards development was followed during the planning of the Maputo Development Corridor-project, as was discovered during the research and which is further detailed in the paragraphs to follow, the Maputo Development Corridor has a dual primary focus. In the Republic of South Africa, it can be summarised to one word namely, "access". For the Mozambican part, the focus is understandably in the development of an integrated infrastructure network (i.e. telecommunications, energy and waterway infrastructure such as the harbour and also an improved international airport) and economic development (Interim Co-ordinating Committee, 1996a).

Key goals for the development of the Maputo Development Corridor were identified as being:

- **Improving transport infrastructure**: Public/private partnerships are preferred to improve the needed infrastructure;

- **Maximising investment**: This is supported by integrated infrastructure development, contributing to sustainable growth and development;

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30 "Access" refers to the accessibility of businesses and industries in the South African part of the Maputo Development Corridor, as well as the accessibility towards suppliers, local and foreign markets, so as to improve the economies of scale benefits for such South African businesses and industries situated in the Maputo Development Corridor.
Maximising the social development impact: A benefit for especially disadvantaged communities was foreseen; and
Ensuring environmental sustainability: This should happen throughout the corridor areas.

The project was initiated through careful analysis of a number of secondary key focuses (listed below). These reflect the underlying approach for integrated problem solving, as well as the development of unique opportunities found in the project area. The mentioned secondary key focuses are:

- **Spatial distribution and living conditions:** The indications from the population’s spatial distribution and living conditions reflect distorted settlement patterns, further characterised by poor services and community infrastructure, such as water, sanitation, sports and recreation and health and education facilities (especially in the rural settlements). In this regard, the problems in both the Republic of South Africa and Mozambique have direct similarities;

- **The biophysical environment:** Biophysical data was analysed to determine the unique and core economic opportunities of the corridor and surrounding areas;

- **Infrastructural development:** General infrastructure conditions were determined; and

- **The economy:** The economy was assessed, especially in terms of unique economic sectors found in the areas, such as tourism, mining, manufacturing, agriculture and forestry (Interim Co-ordinating Committee, 1996b).

The above secondary key focuses were each investigated in terms of its salient features, opportunities, critical issues to be addressed and the identification of general development generators. These have been summarised in Table 2 and further discussed below, as well as in paragraph 5.1.3 (see page 66 for more detail).

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**Table 2: A synopsis of the development concerns of the Maputo Development Corridor.**

<table>
<thead>
<tr>
<th>Development focuses</th>
<th>Development concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>South Africa</strong></td>
</tr>
<tr>
<td>Population and settlement</td>
<td>Sparsely populated.</td>
</tr>
<tr>
<td></td>
<td>High population growth rates.</td>
</tr>
<tr>
<td></td>
<td>Population decline in rural areas.</td>
</tr>
<tr>
<td></td>
<td>Increasing unemployment.</td>
</tr>
<tr>
<td></td>
<td>A need to stimulate SME development.</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Fairly well-established infrastructure.</td>
</tr>
<tr>
<td></td>
<td>Opportunity for the expansion of existing communication network.</td>
</tr>
</tbody>
</table>

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31 "General infrastructure" refers not only to the main mobility and transport linkages between the Republic of South Africa and Mozambique, but also to the adjacent secondary road networks, as well as services infrastructure serving all communities, towns and cities found in the corridor area. "Corridor area" refers to the main development corridor, which also incorporates its direct economic area of influence.
**Economy**

<table>
<thead>
<tr>
<th>High rate of income leakages.</th>
<th>Negative environmental impact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>High import dependency.</td>
<td>Lack of technical, managerial, professional and entrepreneurial capacity.</td>
</tr>
</tbody>
</table>

**Social welfare**

<table>
<thead>
<tr>
<th>Lack of private sector involvement.</th>
<th>Lack of private sector involvement.</th>
</tr>
</thead>
</table>

(a) Population and settlement

In both the countries, the Republic of South Africa and Mozambique, investigations indicated that the corridor areas are sparsely populated and experience relatively high growth rates, especially around major towns and cities (Interim Co-ordinating Committee, 1996b). Urbanisation is in the order of the day, leaving the rural areas not only with declining population figures, but also with extreme poverty levels. The urban areas on the other hand, experience high levels of pressure on service infrastructure as a result of the urbanisation trends (Interim Co-ordinating Committee, 1996b).

Specific focus was given to addressing fragmented urban development, different degrees of urban growth in cities, towns and rural settlements in the corridor areas, as well as the levels of densification in these urban areas.

Figure 19: The Maputo Development Corridor

(b) Biophysical

With regard to the biophysical focus, the transformation of the economic sector’s potential (tourism and manufacturing), to stimulate SME development, was identified as a key project focus. It was also found that the traditional culture found in the corridor...
areas provides a well-based opportunity to benefit from the tourism market and its potential. Environmental degradation, skills shortages, management of water sources, management of mining activities, marine balance and conservation of water sources, were all identified as issues of critical importance.

(c) Infrastructure

Improving infrastructural conditions formed a critical focus in the development of the Maputo Development Corridor. In this regard, special attention was foreseen regarding the provision of sufficient bulk infrastructure capacity and the existence of an appropriate road network (especially for lower income levels and rural communities). Other focuses included addressing the inadequate provision of housing, as well as providing missing links in the communication network and improved communication services. Special focus was given to the rail, road and electricity capacity, as comparative advantages for increased investment in the corridor area. This included the proposed establishment of partnerships to develop a joint border post, a toll road system, as well as improving the Maputo harbour.

(d) Economy

The economic focus of the Maputo Development Corridor is strongly related to address the high rate of income leakage\(^{32}\) out of the corridor areas, as well as reducing the high import dependency of the corridor-areas and the exporting of raw materials. The latter was further supported by an approach to promote processing and value adding, as well as reducing the cut-throat competition that exists in the economy.

Reducing the negative environmental impact of the main economic activities (tourism, mining and forestry) in the corridor areas, was identified as yet another focus. The latter was linked to finding alternatives for the high capital intensity of the main economic activities (Tourism, mining and forestry) found in the corridor areas.

The lack of technical, managerial, professional and entrepreneurial capacity in the corridor areas, were identified as secondary focuses to be addressed (Interim Co-ordinating Committee, 1996b).

(e) Social welfare

From a social welfare point of view, the Maputo Development Corridor team identified two strategic project focuses. The one is an opportunity for a high degree of participation from the private sector and the other, to attract new investment to the corridor area.

The evaluation of the social well-being of the corridor communities revealed that the Maputo Development Corridor considers a broad-based focus as part of the attempt to create balanced and integrated development. This is borne out by the fact that the issues\(^{33}\) listed below were all considered important to address, to facilitate the Maputo Development Corridor’s establishment:

\(^{32}\) This implies that raw material is exported out of the corridor areas, for which limited revenue is received. On the other hand, value adding, which represents a substantial revenue base, is taking place outside the corridor-area.

\(^{33}\) It should be noted that these issues are broad-based issues identified at national government level as general representative issues found throughout the different corridor areas in the Maputo Development Corridor.
unbalanced racial domination of economic activities and resources; the high capital intensiveness of production activities, which prohibit advanced social development; the lack of corporate and financial support; low density suburbs culminating into unbalanced urban structures; the poor state of infrastructure and facilities for disadvantaged communities; low literacy levels amongst formerly disadvantaged communities; insufficient training options for skills development and access to tertiary education institutions; the severe shortage of sport and recreation facilities; and insufficient availability of and accessibility to health services in the corridor areas (Interim Co-ordinating Committee, 1996b).

5.1.3. Important project strategies

An evaluation of the unpublished project material generated during the work of the Technical Team of the Interim Co-ordinating Committee of the Maputo Development Corridor revealed that a "preliminary" evaluation method was initially used for the evaluation of economic activities. The same method was used for the compilation of a "natural resources inventory", and the identification of resources that could be used for export from the corridor areas, all in just three weeks. From a time-constraint point of view, there was initially a specific focus to identify development and investment opportunities without detailed time-consuming investigations. The next step was to take these opportunities and to transform them into possible bankable projects, ready to suit investors interests (Technical Team, 1996).

Following on the initial "quick and dirty" project activities, more detailed project investigations, as referred to in paragraph 5.1.2, were conducted. These revealed that the formulation of what is being referred to as "development generators", formed a key strategy to address some of the problematic population and settlement issues experienced by the corridor areas. These development generators refer to project strategies such as:

- **SME-development**: The stimulation of SME development according to the potential thereof in the respective development corridor areas;
- **Empowerment**: The empowerment of people through training programmes to enable them to identify and develop economic development opportunities. The training of women was especially regarded as essential, not only to enable them to enter the entrepreneurial arena, but also in terms of family and household planning;
- **Improved living conditions**: The improvement of living conditions through the provision of proper social services and education throughout the corridor areas, but with a specific focus to the technical and economic empowerment of informal settlers in both urban and rural areas; and
- **Resource allocation**: This include the allocation of appropriate resources to relieve poverty (Interim Co-ordinating Committee, 1996b).

The project strategies as far as the biophysical component of the Maputo Development Corridor is concerned, were identified as:

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34 This implies the domination by whites owning and managing economic activities in the corridor areas, whilst in terms of population figures, whites are the minority when compared to other races.
Environmental management: Developing plans for tourism development and environmental management;
Empowerment: Empowering communities with regard to environmental management and conservation;
Craft manufacturing: Promoting craft manufacturing; and
Promote mining: Optimising the utilisation of the mineral potential in the corridor areas (Interim Co-ordinating Committee, 1996b).

The project strategies for improving infrastructure conditions included providing for telecommunication and electricity for the disadvantaged groups in the corridor areas. It also included the provision of infrastructure that enables the incorporation of disadvantaged communities into economic development activities. This includes promoting small-scale manufacturing, craft and processing opportunities.

Another strategy focused at providing adequate service infrastructure throughout all corridor areas.

It is also attempted to promote the influx of "new money" into the corridor area and not simply reallocating government funds (Interim Co-ordinating Committee, 1996b).

As a result of the focus to promote integrated economic development, a number of strategic approaches were adopted. These include:

- Concentrating economic activity: Economic activity should be concentrated along the main transport links in the corridor;
- Using natural resources: Optimising the use of the abundant natural resources found in the corridor areas in an environmentally sustainable manner (Interim Co-ordinating Committee, 1996d and e);
- Unlocking downstream processing: Unlocking the unutilised potential for downstream processing of raw materials through manufacturing and SME involvement;
- Exports: Utilising the advanced export market opportunities provided by access to the Maputo harbour; and
- Utilising the transport capacity: The strategy focused at increasing movement in the corridor area to take up the under-utilised transport capacities.

Other related project strategies put in motion as economic development generators include the following:

- promoting integrated land-use planning at all levels;
- implementing and developing labour-intensive economic activities;
- build on and developing support for the tourism potential of the corridor areas;
- ensuring the development of a diversified economy; and
- increasing access to training opportunities and facilities for local people as part of an

35 "New money" refers to local private sector investment, as well as foreign investment in the corridor areas (Interim Co-ordinating Committee, 1996b).

36 The reference relates to the implementation of an integrated development planning process similar to what was initially prescribed by the Local Government Transition Second Amendment Act, Act 97 of 1996 for the compilation of Integrated Development Plans.
empowerment programme to establish greater levels of entrepreneurship (Interim Co-ordinating Committee, 1996b).

Project strategies, which were regarded as development generators to address social welfare focuses (as referred to in paragraph 5.1.2(e) page 65), include the following:

- **Joint ventures**: Opportunities to establish joint ventures between national governments, provincial governments, local governments, as well as the private sector should be exploited;
- **Business networks and linkages**: To establish proper linkages between large corporate sector companies and the emerging and informal business sectors;
- **Developing economic cores**: Economic cores should be created according to the potential throughout the different corridor areas, as well as to create equal access to productive land for all;
- **Training**: Provision should be made for more tertiary education institutions;
- **Export promotion**: Export should be promoted through the development of new local economic industrial activities; and
- **Project privatisation**: Government infrastructure projects should be implemented through Build-Operate-Transfer (BOT) project implementation processes (Interim Co-ordinating Committee, 1996b).

The development of a geographical information system to assist with the evaluation of a number of corridor influences (such as the distribution of economic activity and population distribution) along the main transport link, was also implemented as a project strategy to save time during decision-making processes (Interim Co-ordinating Committee, 1996b).

### 5.1.4. Success stories

The Maputo Development Corridor was driven in a focused manner by the national government of the Republic of South Africa, as a result of the superior knowledge and management locally available in the Republic of South Africa. This is proven by the project processes, which indicated that initially, the involved national government departments did not want to fall into a trap of executing one investigation after the other, as well as continuous planning processes, wasting important implementation time.

In itself it holds a message, *viz.* that a strong focus was given to expedite implementation and economic development. This included that mistakes that could have been made as a result of the fast track planning and implementation processes be corrected as implementation commences.

However, there is also a danger linked to this approach *viz.* that a lack of knowledge on a critical development issue might lead to taking an uninformed decision. This statement is supported by the lack of understanding by affected local governments of the critical nature and national need for the Maputo Development Corridor-project. On the other hand, proper project investigation is time consuming, especially if quick decision-making is set as a critical success factor (Interim Co-ordinating Committee, 1996b). Appropriate information was also

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37 Knowledge and management skills are largely absent in Mozambique, as a result of the "braindrain" caused by the civil war/military activities prevalent in Mozambique in the past.
lacking and this further forced the national government to react quickly, based on current knowledge.

With regard to the width of the Maputo Development Corridor, an approach was adopted stating that the width of the corridor is defined by economic activities found in the corridor area. This implies that the corridor do not have a specific demarcated width. The width may vary as a result of the physically dispersed nature of the interactive economic characteristics of some of the development opportunities (for example the presence of minerals) found in some parts of the corridor area.

The real level of success of the Maputo Development Corridor is not known as yet. As referred to in paragraph 3.1 (see page 31 for detail), the development of a development corridor is a time-consuming exercise and real benefits and success stories can only be known after a long period of time. However, short-term results in terms of process implementation and project initiation create certain benefits, which can be regarded as potential success stories. These are:

- access that is being created for local enterprises to global markets;
- employment creation;
- income generation and tax base development, which could be used to alleviate poverty and the provision of community infrastructure and services;
- improved environmental resources management; and
- long-term public investment savings.

For the Republic of South Africa, the Maputo Development Corridor encloses the potential for major cost savings on transport costs of exports via Maputo while, for Mozambique, it means overall economic growth and development.

From an economic developmental point of view, the Maputo Development Corridor is regarded as the first national initiative attempting to promote economic development since the 1994 elections. It can, therefore, be considered a catalyst for balanced integrated growth and development.

5.1.5. Institutional structures

The Department of Transport and the Department of Trade and Industry collectively established the "Overall Spatial Development Initiative Co-ordination Committee (OSDIC)". The Development Bank of Southern Africa (DBSA) provided secretarial as well as technical and management support to the national SDI initiatives. This committee co-ordinated the progress and implementation of the SDI projects.

For the Maputo Development Corridor, an Interim Co-ordination Committee was also established to oversee the project processes and results. A number of Technical Teams were established between September 1995 and April 1996 and which were used to investigate the technical aspects of the project, as discussed in paragraph 5.1.2 (see page 62 for detail).

To enhance economic development and co-ordination between South Africa and Mozambique, a proposal was made to establish the so-called "Maputo Development Company" (a company established not for gain). The Development Bank of Southern Africa (DBSA) provided the management support for the proposed company (which was "informally"
established in South Africa), whilst negotiations were entered into with the Mozambique government to accept the proposal. The Mozambique government, however, did not accept this proposal, as that country’s legislation does not make provision for the establishment of companies not seeking profit.

The "Maputo Development Company" also improved working relationships with the Mpumalanga Provincial Government (Republic of South Africa), to such an extent that as from April 1996, the "Maputo Development Company" started to work from offices of the Provincial Government in Nelspruit.

5.1.6. Conclusion

The Maputo Development Corridor is faced with a number of key challenges, which formed the backbone of the key focuses investigated during the initiation of the project. This relates to the creation and maintenance of a balanced development approach, which is to the benefit of existing and potential local and foreign investors by taking advantage of the investment and development opportunity the corridor areas have to offer.

The Maputo Development corridor represents a challenge, namely to create a substantial benefit for enterprises in terms of cost savings by exporting through the harbour of Maputo. This should translate into tremendous opportunities for economic growth and development in Mozambique. The Maputo harbour is, therefore, from an infrastructural and an economic developmental point of view, regarded as an important multi-modal access point for the import and export of goods. In the Republic of South Africa, to some extent, a relatively well-established economic activity corridor exists, which can use the benefit of the harbour as such a cost saving opportunity.

Identifying potential multiplier effects for identified key economic sectors (agriculture and mining, as in the case of the Maputo Development Corridor), formed a crucial element of the strategy to promote the development of the manufacturing and processing sectors (Interim Co-ordinating Committee, 1996b).

When comparing the Maputo Development Corridor, as a regional development corridor, to the urban development corridors discussed in this dissertation (refer to paragraphs 2.4, 3.1, 3.2 and 4.1), it transpires that all development corridors share similarities, although each operates on a different scale and has its own characteristics. Each is dependent on its own economic activities and particular characteristics. In this regard the Industrial Development Corporation (IDC)38 (Interim Co-ordinating Committee, 1996b) found that its location advantages also contributes to the operation of development corridors on different scales and levels.

The Maputo Development Corridor revealed that there are broad similarities between urban and regional corridors. These include:

- a specific approach to improve economic growth by optimising the potential of unique opportunities captured in the respective corridor areas;
- addressing specific problematic circumstances related to unemployment, lack of social facilities and the disparities amongst communities;

38 The IDC was requested by the National Department of Trade and Industry to evaluate the "nature and level of economic activity", to compile a "natural resources inventory" and to identify resources that could be used for export from the corridor’s study area.
promoting the improvement of transport and the movement of people and goods;

- multi-faceted development programmes integrating aspects such as economic elements, social elements, physical infrastructure elements, spatial elements, as well as institutional arrangements; and

- both focus on holistically integrated development planning.

The IDC's evaluation on the applicability of the corridor-concept for the Maputo Development Corridor revealed that economic nodes and the transportation linkages and volumes form essential elements of the corridor-concept and therefore an example of the "beats on a string" concept for the Maputo Development Corridor. However, the concept is seen to be more than just about transportation, as it also implies the clustering of public and private investments. This includes uses such as housing, SME's, agriculture, service infrastructure and recreation, as normally found in activity corridors between economic nodes.

The Technical Team of the Interim Co-ordinating Committee of the Maputo Development Corridor also revealed that problem areas found in the respective corridor areas related to planning and economic development, forcing governments to implement strategies to link geographic areas with common interest. This view is strongly supported by the IDC (Interim Co-ordinating Committee, 1996a).

6. International development corridors

6.1. Central Luzon Growth Corridor (W-Growth Corridor)

6.1.1. General

The Central Luzon Growth Corridor (see Figure 20 on page 72), also known as the W-Growth Corridor due to its physical w-shape, was initiated in the Philippines as a national project. The located corridor is on one of the three largest islands of the Philippines and stretches over all six provinces found on the island. It stretches over the areas of jurisdiction of 47 local governments (Information Technology Support Centre, 1999a).

The areas of jurisdiction of the local governments have growth and development opportunities for the industrial, tourism and agricultural sectors (Information Technology Support Centre, 1999b).

These growth and development opportunities were created as a result of the corridor’s strategic position at the crossroads in the Asia Pacific Region, serving European and American enterprises (Information Technology Support Centre, 1999b).

6.1.2. Key focuses of the project

The key focuses of this project are to market the corridor area as a logical national and international investment destination and to promote the rapid development of the industrial, eco-tourism and agricultural sectors (Information Technology Support Centre, 1999b).

To get these focuses implemented, more physical-specific focuses have been identified as part of the corridor’s development vision for implementation. These include approaches for the W-Growth Corridor to become:
♦ An industrial heartland: The strategy is to become the industrial heartland of the Philippines, as well as the Asia Pacific Region. For this purpose an approach was adopted to develop Industrial Estates and Special Economic Zones (Information Technology Support Centre, 1999c);

♦ An international transhipment hub: It includes a strong focus on the use of three international airports, as well as the corridor’s access to three international harbours, as a key international distribution network (Information Technology Support Centre, 1999d);

♦ A world conference centre: The tourist attractions and facilities in the Philippines create an unique environment for international conferences; and

♦ A vibrant and competitive agricultural sector: The economic base of the W-Growth Corridor Area is the agricultural sector. Expansion of the existing agro-science and research, as well as strategic agro-processing, form key success factors to further stimulate the agricultural sector (Information Technology Support Centre, 1999e).

Figure 20: The Central Luzon Growth Corridor (also known as the W-Growth corridor) in the Philippines

(Information Technology Support Centre, 1999b)

6.1.3. Important project strategies

A development plan known as the "Central Luzon Development Plan", forms the basic development framework for the development of the corridor. This development plan is implemented and managed by a Commission (see paragraph 6.1.5 on page 74 for detail), established for this purpose. The development plan has a 15-year integrated development vision, focused to promote the balanced pursuit of economic growth, social development, and environmental quality.
The development plan indicates that the first line of the w-shaped corridor below is to be developed as the tourism belt of the corridor. This belt focuses on the area's natural beauty, white beaches, amusement parks and a number of existing and potential tourist facilities and destinations.

The inner peak of the w-shaped corridor (see Figure 20 above), is proposed as an industrial belt. This belt includes 22 industrial estates, including 3 special economic zones and 2 export processing zones. Skills-intensive and technological advanced industries are also to be found in this belt, of which the majority is small and medium enterprises. A project strategy to improve the "competitive cost of production" was regarded as an essential part of the project. To reach the latter, optimal locations of industrial estates and special economic zones in relation to the proposed international distribution network, were chosen. The training of skilled and educated manpower also formed an integral part of the industrial development strategy.

The rightmost line (see Figure 20 on page 72), is being developed as the vibrant agricultural belt, which will incorporate dedicated high value crops suitable for this area, as well as agro-forestry (Information Technology Support Centre, 1999b).

6.1.4. Success stories

No information with regard to success stories could be obtained on the Internet or from the literature on the corridor.

However, the following could be regarded as success stories in the making and which could contribute to the successful development of the W-Growth Corridor:

- Using existing road network: The project capitalises on the existing road network in the corridor-area. This implies a major time (the construction of a road is time consuming) and cost saving when compared to the development of a new road network;

- Increasing economic efficiency: The project is working towards economic efficiency, environmental sustainability and to strengthening its people's participation in the corridor's development processes. This is indicated by the fact that the economic activities are skills-intensive, are focussed to use natural resources in sustainable manner, as well as the fact that the majority of the economic activities are small and medium enterprises (Information Technology Support Centre, 1999b); and

- An appropriate institutional framework: The established institutional framework (see paragraph 6.1.5 below for detail on composition and responsibilities), is also considered a potential success story to get the W-Growth Corridor developed. The mentioned institutional framework is an indication of the need for a dedicated project leader and a multi-disciplinary project team to:
  - work as a single goal-orientated entity, to implement the common vision, goals and projects determined to reach optimal results;
  - ensure optimal involvement and co-operation between stakeholders;
  - ensure co-ordination between stakeholders and project activities; and
  - ensure integration of planning and implementation activities.
6.1.5. Institutional structures

The W-Growth Corridor-initiative is considered an essential economic development attempt to position the Philippine's economy as a strategic location in the world economy. For this purpose, a Presidential Commission, referred to as the Presidential Commission for the Central Luzon Growth Corridor (PC-CLGC), was established.

The responsibility of the PC-CLGC is the orchestration and the co-ordination of all development efforts in Central Luzon.

In terms of the PC-CLGC's composition, the following list of member institutions gives an indication of the multi-faceted approach adopted to develop the W-Growth Corridor in an integrated manner:

- Chaired by the Secretary of Trade and Industry;
- the Chairman: Mount Pinatubo Commission;
- the Under-Secretary: Department of Agriculture;
- the Under-Secretary: Department of Environment and Natural Resources;
- the Under-Secretary: Department of Public Works and Highways;
- the Under-Secretary: Department of Transportation and Communication;
- the Under-Secretary: Department of Tourism;
- the Chairman, Subic Bay Metropolitan Authority;
- the President, Clark Development Corporation;
- the Director-General, Philippine Economic Zone Authority;
- the Governors of the provinces of Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac and Ambales; and
- three representatives from the private sector appointed by the President.

Three task forces are used to address critical issues. These are:

- a task force on investment facilitation;
- a task force on land-use; and
- a task force on strategic infrastructure (Information Technology Support Centre, 1999a).

6.1.6. Conclusion

The Central Luzon Growth Corridor has a number of similarities when compared to other national corridors, such as the Maputo Development Corridor, discussed in paragraph 5 (see page 61 for detail). Related hereto, is the emphasis given to promote economic development by focusing on a specific primary sector, such as the agricultural sector, which forms the economic base of the Central Luzon Growth Corridor. Two other issues also come to the fore, the one being to improve production methods through continuous research, and the other, to simultaneously promote the development of the supportive secondary sector. In this regard continuous research on improved manufacturing and production activities ensures that a value-added product be produced, instead of only delivering unprocessed products.
The above approach stresses the importance of and relationship between economic development and research to remain a world leader on a specific economic development field. One can refer to it as keeping the “strategic edge”. It also compares well with the approach in Porto Alegre (representing an urban economy), where the focus is on developing a technological innovation hub (see paragraph 3.2 on page 47 for detail). Another characteristic is the issue of maximising comparative advantages as a result of the strategic location\(^{39}\) of the relevant corridor area, as well as the strategic location of unique development opportunities found in such a corridor area.

Furthermore, emphasis is also placed on maximising development opportunities by using existing resources, such as the natural environment to develop the tourism industry as proposed for the Central Luzon Growth Corridor, or the establishment of a World Conference Centre (a centre of centres), as a result of the movement of people between the East and West through the Pacific Region.

Lastly, an important attempt is made to use existing infrastructure as a mechanism to create a comparative advantage to further strengthen the global position of the W-Growth Corridor-area in the Pacific region.

### 6.2. International – The Arizona Trade Corridor

#### 6.2.1. General

The Arizona Corridor is found in the state of Arizona, situated in North America, and is regarded as a “trade corridor\(^{40}\). Arizona is rectangular in shape (631 km from north to south and 549 km from east to west). Its western border is formed by the Colorado River. Four states meet in the north-western corner, viz. that of Arizona, New Mexico, Colorado, and Utah (also see Figure 21).

This corridor project adds the facilitation activity in terms of the movement of goods, services, people and information to the corridor concept as being a critical success factor to activate and accelerate economic activity and growth in a corridor area (Anon, 1996).

#### 6.2.2. Key focuses of the project

The key focus of the Arizona Trade Corridor-project is to position the Arizona economy in the Northern American trade environment, by creating a regional-orientated vibrant business environment. The latter is further supported by a focus to ensure efficient access to multiple markets (Anon, 1996).

#### 6.2.3. Important project strategies

The Arizona Trade Corridor has certain key strategies to increase economic activity in the corridor area. These include the following:

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\(^{39}\) "Strategic location" in this instance refers to its physical location in relation to markets (local, regional, national, international or combination thereof), resources, high levels of mobility, regional and local accessibility, high levels of expertise, skills and entrepreneurship.

\(^{40}\) A "trade corridor" is defined as a "geographically designated area that facilitates the national and transnational movements of goods, services, people and information" (Anon, 1996).
• **Developing well-structured physical infrastructure**: This is done by improving highway, rail, air and sea linkages between places of entry into Arizona, national and international markets and places of economic activity in Arizona. The purpose is to create a lower cost for the movement of goods. This is further supported by strengthening policies to promote inter-modal transportation and related economic activities;

**Figure 21: The state of Arizona**

(Microsoft Corporation, 1996)

• **Establishing commercial infrastructure**: This includes the provision of warehousing facilities, as well as to develop trade zones at strategic locations where it will create multiplier benefits to stimulate further economic growth and job creation. The formulation of trade incentives is also considered a supportive measure to promote economic activity. In this regard, the trade incentives should be further supported by improved regulatory measures for the movement of goods, services, people and information;

• **Generate and implement programs and policies**: This strategy advances and integrates business services, telecommunication and information infrastructure to help to create a favourable international business environment;

• **Improving skills**: To improve business and professional skills and services throughout the corridor area;

• **Improve linkages**: The focus is to establish well-structured social, political and business linkages between the respective countries and communities affected by the corridor project;

• **Promoting a broad range of economic activities**: Economic activities should create economic benefits for the regional and national economy, especially as a situation exists where the state’s main city, Phoenix, serves as a distribution point for agricultural products...
of the Salt River Valley and as a commercial, manufacturing, and financial centre for the state (Microsoft Corporation, 1996); and

- **Step-by-step implementation:** A flexible step-by-step project implementation and development approach is used to solve critical issues without hampering progress (Anon, 1996).

Concluded from the above, it is evident that this project has a strong focus on creating a policy environment within which the implementation of projects related to the strategic elements of the corridor project can be implemented. These policies can be regarded as control and/or management mechanisms to get the multi-faceted projects implemented by the different implementation institutions (Anon, 1996).

Although a trade corridor of international status, the Arizona Trade Corridor-project also stresses the need for continuous road links between economic nodes, as well as the need for improved access between remote areas and the corridor. This approach is similar to the other corridors discussed in this chapter.

The Arizona Trade Corridor adds another approach to the corridor-concept, viz. that of the necessity for successful "centres for economic development". These mentioned "centres for economic development" have certain unique characteristics, which include strong public-private sector co-operation, government policies (which are in support of economic development), modern transportation and telecommunication infrastructure, as well as a wide range of financial and business support services.

Although it is not explicitly stated in the Internet material, it is concluded from the analysis that an impression is created that the Arizona Trade Corridor has as a strategy the establishment of small business development centres along the corridor. The purpose is to assist with the implementation of the corridor's strategic development plan, as part of an integrated attempt to develop the entire trade corridor as a successful "centre for economic development" (Anon, 1996).

6.2.4. **Success stories**

It would seem that the project is still young, as a number of studies to investigate the feasibility of the development of the corridor were completed only as recently as 1996. Success stories could, therefore, not be obtained. However, it seems that the strategy to develop a mix of policies and development programmes could become a potential success story (policies are normally approved by political figureheads and development programmes normally implies the provision of budget for project implementation). This approach could possibly ensures political backing as well as a mechanism to ensure that the implementation agents make provision in their respective budgets to enable project implementation.

The identification and use of economically-based "decision criteria", to evaluate policies and project investment for overall economic implications, could also be regarded as a possible mechanism to evaluate future potential success stories. This way, it could be ensured that informed decisions are taken, based on that policy's or investment's expected rate of return

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41 "Strategic elements" refer to project elements such as: "the border development", "highway investment", "rail and inter-modal transportation", "aviation development", "development of business services" and the "development of communications and information systems" (Anon, 1996).

42 "Decision criterion" is regarded as "...a yardstick against which to gauge the performance of policies and investments (whether proposed or existing) in achieving their objectives" (Anon, 1996).
and its social benefits. The assessment is done by comparing the expected rate of return against a pre-determined minimum required rate of return for such a policy or investment.

6.2.5. Institutional arrangements

No information could be obtained as far as the institutional framework for the project is concerned. However, the development corridor has a number of institutions, which are involved in the development of the trade corridor. The following list represents a number of the primary institutions that could be identified from the study material:

- the Arizona Department of Transport;
- the Arizona Department of Commerce;
- the Federal Highway Administration/Centre for the New West; and
- the Arizona University Consortium.

Figure 22: Phoenix, the capital of Arizona, is regarded as the centre of economic activity and therefore regarded as the origin and destination of movement in the trade corridor.

Some of the secondary listed institutions involved, include the following:

- Swift Transportation (transportation agent);
- Arizona Public service;
- Arizona Automobile Association;
- Tucson Electric Power Company; and
- Pima County Department of Community Services.
Concluding from the nature of the business of the institutions mentioned in the list above, it is evident that this project is also strongly orientated towards integrated developmental approaches.

6.2.6. Conclusion

The Arizona Trade Corridor project contains a number of lessons.

As found in a number of the development corridors studied as part of this dissertation, a strong focus is given to promote economic development. In this regard the Arizona Trade Corridor study material revealed that:

♦ the initiators of the project are strong supporters of identifying and supporting those investments\(^{43}\), which enable the creation of multiplier benefits to increase the economic growth rate of the corridor area. As a result, it is expected that investments with higher multiplier benefits will create higher levels of agglomeration advantages, attracting more and speedy investment to a specific area;

♦ the authorities involved also embarked upon a process to create incentives for certain preferred existing and potential developments at preferred locations;

♦ the authorities involved are also strong supporters of networking as an economic development approach to establish firm trade links with its suppliers and markets, both economically and physically; and

♦ the creation of a diversified economy for the corridor area is promoted to ensure a more balanced approach towards economic development.

The authorities involved in the Arizona Trade Corridor stressed step-by-step implementation, similar to a number of other development corridors, such as Curitiba and the W-Growth Corridor. For this purpose, the formulation of development programmes and policies plays a prominent role to co-ordinate and manage the step-by-step implementation approach.

In terms of road infrastructure, the Arizona Trade Corridor study material confirmed the essence of continuous mobility (transport) linkages throughout the trade corridor area. It therefore seems that the principle of "continuity" is a firm criterion for the establishment of any corridor.

Nodal development also forms a prominent element of the Arizona Trade Corridor-project.

The most outstanding is the approach applied to ensure feasibility and having maximum benefits through the application of what is referred to as "decision criteria". Projects and investments are all measured in monetary terms to determine the feasibility of such a project or investment. A similar approach was found in the discussion of the Temba-Kempton Park Development Corridor (refer to paragraph 4.1 on page 55 for detail).

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\(^{43}\) "Investment" in this scenario, not only refers to the private sector’s investment in new economic development opportunities, but also physical and social infrastructure.
SECTION D: A THEORETICAL FRAMEWORK FOR DEVELOPMENT CORRIDORS

1. Introduction

This section attempts to capture typical corridor strategies, concepts and development corridor lessons found in the discussion of the respective development corridors in Section C above, in order to formulate a potential theoretical framework for development corridors.

As illustrated in Diagram 3 below, the theoretical framework discussed in this section consists of a proposed definition for a development corridor, development principles for guiding the planning and establishment of development corridors, design elements of a development corridor concept and lastly a number of preconditions for the planning and development of development corridors.

Diagram 3: A schematic illustration of the theoretical framework components

2. A possible development corridor definition

To formulate an exact description of what a development corridor is, can by no means be regarded as so simplistic as it might sound. In fact, the definitions discussed in Section B of this chapter, already indicate the different perceptions and opinions that exist around the concept of development corridors. However, the discussion on development corridors in Section C reflects in the broadest sense that a development corridor could be regarded as a possible mechanism to create change within a city. As a concept, it is often focused to promote urban reconstruction and the enhancement of urban growth where it is strategically needed, benefiting the civil society in more than one way. This statement is supported by the words of Jaime Learner (former Mayor for Curitiba) when he said: “I think we should rediscover the city as an instrument of change. I know it’s a very optimistic view of the city, but I have to be optimistic because my vision of humanity is optimistic. If not, nothing will work” (Herbst, 1992).

Duany and Plater-Zyberk also expressed an opinion that a development corridor brings along “… an alternative future for the building and re-building of regions,…” and “… neighbourhoods
that are compact, ...". These areas, they state, are also characterised by mixed land-uses, which are pedestrian friendly, functionally and are integrating "...natural environments and man-made communities into a sustainable whole" (Duany and Plater-Zyberk, unknown).

The following issues were considered essential as background to determine the core focus of a development corridor:

- **Development corridors need a supportive transport network**: The Gauteng Department of Transport and Public Works was of the opinion that a "...road network needs to be in place to facilitate the full development potential of adjacent land...", therefore, accommodating and giving "...momentum to urban restructuring initiatives..." (PWV Consortium, 1998);

- **Development corridors enable restructuring**: Enabling restructuring ( spatially and economically), is a similarity found amongst all the development corridor projects discussed in Section C above. Naude confirms this view, by stating that development corridors in an urban environment have a specific focus on preventing urban sprawl, densification and infill-development (to overcome fragmented urban areas). It includes the development of affordable and effective public transport-oriented development corridors as major urban structuring axis. He is also of the opinion that the development of major new regional economic activity nodes in close proximate to presently peripheral low-income areas, is an essential element of development corridors (Naude, 1996);

- **Development corridors are linear in nature**: Development corridors seem to be linear in nature, as researched by the Gauteng Department of Transport and Public Works (Gauteng Province, Republic of South Africa). It is this linear nature, they state, which benefits the principle of urban integration a great deal more (and more practical) than any other urban form (PWV Consortium, 1998); and

- **Development corridors increase markets to promote growth**: The Gauteng Department of Transport and Public Works (Gauteng Province, Republic of South Africa), also supports the view that economically, development corridors attempt to increase markets through higher densities, increased visibility, benefiting shorter walking distances and increasing access to facilities and amenities.

From a national corridor perspective, it seems that corridors throughout the world are developed for development promotion purposes, to expand the development opportunities for a specific economic sector and/or industry and increased access to public amenities and private investments within the corridor area, as well as between the corridor and surrounding areas, markets or economic activity nodes (Interim Co-ordinating Committee, 1996a).

A view expressed by the Technical Team of the Interim Co-ordinating Committee of the Maputo Development Corridor, shows that job creation opportunities in corridor areas are not enough to sustain the population found in a corridor, hence the strong focus given towards promoting economic development and a move towards social upliftment.

- **Basic development corridor principles**: MLH Architects and Planners elaborated as follows on the principles applicable to corridors, irrespective of it being an urban corridor or a national corridor:
  - the opinion is held by MLH Architects and Planners that the influence of a corridor stretches beyond its boundaries. For this reason, the development thereof needs to be dealt with in an integrated manner, with the rest of its surroundings. It should, therefore, never be considered in isolation;
• development corridors function both in terms of mobility and accessibility. The transportation system developed for a specific corridor must accommodate both these functions;
• the links which exist between land-use, transport and density, confirms the integrated nature of a development corridor. MLH Architects and Planners holds the opinion that the establishment of a development corridor will always be influenced by the development of the influence sphere of a corridor;
• as revealed by especially the Curitiba development corridor, points of conflict must and could be managed as points of greatest opportunity;
• public transport and pedestrians should receive the highest priority as part of an integrated multi-modal transport system, when an integrated land-use and transport system is being developed for a development corridor; and
• information sharing on the development corridor (i.e. planning, implementation, progress, public opinion, development opportunities and economic growth), was reflected in most development corridors as an essential strategy, especially to attract private investment. Therefore, information should be generally available, accessible and communicated on a continuous basis (MLH Architects and Planners, 1997).

With the above as background, it seems that an all-encompassing definition for a development corridor could be guided by the fact that development corridors should be regarded as a development concept, which can in itself also be regarded as just another element within the urban fabric, consisting of a grouping of a number of other urban elements (such as mobility routes, activity routes, activity streets, public transport routes, business and community-related land-uses and industrial parks), to form an identifiable linear "urbanised strip". This "urbanised strip" should promote, amongst others, aspects such as the efficiency and use of a public transport system, economic activity and job creation adjacent to the public transport route and facilitate the accessibility to public amenities and facilities. It should also be supported by a set of multi-faceted development programmes and policies, attracting and promoting inward growth towards the corridor area.

This dissertation confirms in Section B of this chapter that a number of different definitions could be formulated. However, for the purpose of developing a basis for a theoretical framework, the following definition is derived from the research in Section C above:

"A development corridor could be regarded as a development concept, supported by a range of development programmes and policies, which organises (when implemented) other urban elements in such a manner that it forms an obvious identifiable linear urban strip, characterised by a definite higher intensity of mixed economic and public activity, movement and direct interaction, than found in the surrounding environment."

3. Principles incorporated in the planning and establishment of development corridors

Keeping in mind the discussions in this chapter, it should be stated that no two development corridors could ever be the same. Therefore, defining a single set of principles44 which could be used to plan and establish a development corridor, does not seem possible. What does

44 "Principles" in the discussion in this Section, refers to the guidelines used/ incorporated, to guide a planning process for the formulation of a specific development corridor concept.
seem possible, is to identify a number of general principles found in the planning and establishment processes of a development corridor. However, the individual or combination of principles found in a development corridor, will differ from corridor to corridor and will not necessarily be relevant to or be present in all development corridor projects.

For easy reference, the identified principles are grouped into four broad-based groupings (as illustrated in Diagram 4 below)

### 3.1. Transport-related development corridor principles

As learned from the development corridors discussed in this chapter, all development corridors have strong transport-related principles. These include the following:

- **To optimally promote the use, efficiency and affordability of public transport**: When considering the Curitiba Development Corridor, this principle can be considered one of the most essential principles used to increase the productivity in a city. It must, however, be accompanied with the provision of a high intensity of economic activity next to the public transport route, as well as high population densities to increase the threshold value of the public transport system (Kleynans, Gough and Van der Merwe, 1997). An important sub-element of this principle is, therefore, to create the population densities needed to support profitable public transport (MLH Architects and Planners, 1995);

Diagram 4: The four broad-based development corridor principle-groupings

- **To reduce travel times**: Reducing travelling distances and time is essential in terms of reducing the cost of a service to the public. This does imply that land-uses should locate in close proximity to a public transport route (Krynauw, 2000);
- **To promote pedestrianisation**: The Curitiba Development Corridor-model reflected that pedestrianisation forms a key principle in the development of a corridor. Public transport facilities should be easily reachable by foot. On the other hand, public facilities and amenities should also be situated within walking distances from public transport facilities. The pedestrianisation of the Curitiba central business district is also promoted to prevent excessive economic growth at the central business district⁶ (representing job

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45 A central business district normally represents the centre where the most job opportunities are found in a city.
opportunities), and to prevent unnecessary vehicle congestion (MLH Architects and Planners, 1995);

- **To use parking as a development control mechanism**: On-street parking tends to develop in development corridors, whilst the decrease of parking in a central business district is being used as a mechanism to prevent people from using private vehicles to travel to the central business district (causing congestion) and to encourage the use of public transport systems (Birk and Zegras, 1993); and

- **To increase mobility and accessibility in a co-ordinative and purpose-directed manner**: Both these functions are present in any development corridor. The nature and extent differ from the scale of corridor and the need to have more from the one than the other. However, normally a combination of both is present in any development corridor.

### 3.2. Land-use-related development corridor principles

Development corridors have a strong element of land-use and transport (especially public transport) integration. This integration result from a comprehensive planning process with a strong element of a strategic development vision, which necessitates the use of mixed land-use development as a planning principle. Mixed land-use development is a common phenomenon within development corridors, as it provides the opportunity to integrate a mix of public facilities and private investments along a continuous public transport corridor (Krynauw, 2000). Mixed land-use development along a development corridor also helps to reduce the need to travel by locating land-use at, for example, multi-purpose centres. Mixed land-uses also demand the need for special zoning rights, which should also be used as an incentive to promote preferred developments along the development corridor or even discourage certain land-uses to locate in the development corridor, if needed.

### 3.3. Economic-related development corridor principles

The economic principles incorporated in the planning and establishment of development corridors include the following:

- **Job creation closer to places of residence**: It seems to be a prominent characteristic of development corridors to develop a situation where jobs (economic activity) are created closer to the place of residence (Krynauw, 2000). Given that the place of residence forms part of a zone of higher residential densities created next to the public transport corridor, it eases access between the place of residence and the place of work. The concept is further enhanced when the public transport corridor is integrated with the development of a parallel running activity corridor in close proximity to the public transport corridor. Activity corridors tend to enhance the development of SMME’s, as well as providing an opportunity for the location of accessible public facilities and amenities (which in turn attract further businesses as a result of the concentration of people at such public facilities and amenities). MLH Architects and Planners, in this regard, stated that higher population densities create opportunities for potential entrepreneurs (MLH Architects and Planners, 1995); and

- **Strengthening the development of prominent nodes**: This principle is not always found in development corridors (compare the Curitiba Development Corridor-model where the central business district is the only economic node - there are no economic nodes at the end of the five established development corridors in Curitiba). However, the PWV-
Consortium is of the opinion that by promoting the development of major metropolitan
nodes, the development of activity corridors linking such nodes is further strengthened
between such nodes (PWV Consortium, 1998). MLH Architects and Planners adds
another element viz. that of the accommodation of both the formal and informal private
sectors in the development nodes and the activity corridors (MLH Architects and Planners,
1995).

3.4. Social-related development corridor principles

From a social point of view, a number of interrelated principles could apply. These relate to
ttempts to prevent the separation amongst communities (enhancing integration), enhancing
literacy amongst the poorer communities, relieving poverty, improving access to development
and employment opportunities, as well as improving access to information and basic services.

4. Design elements of the development corridor concept

Again, the discussion in Section C of this chapter revealed that different design elements exist
amongst the different development corridor projects, but even more so, between development
corridors of an urban scale and those of a national scale. The discussion in this paragraph is,
however, more focused on design elements for urban development corridors, than for national
development corridors. The purpose, therefor, relates to the discussion in Chapters Three,
Four and Five, which encompass a discussion on the MCDC-project (being regarded as an
urban development corridor).

For urban development corridors, typical design elements incorporated into a development
corridor concept include, amongst others, those identified design elements schematically
illustrated in Figure 23 and further summarised below:

- **Economic activity nodes**: Economic activity nodes (central business districts,
  neighbourhood centres, industrial parks, office parks) as urban elements, are often used
  as economic anchors for the establishment of development corridors between such nodes;
- **Direct public transport links between economic activity nodes**: Development corridors,
especially the urban development corridors, are characterised by the design of a
  supportive integrated public transport system. The most prominent part of the integrated
  public transport system seems to be that part linking one economic activity node with the
  other. The rest of the system is planned to feed into or support the movement towards the
  direct public transport link between the economic activity nodes;
- **Activity (accessibility) links**: An activity link is normally established parallel to the main
  public transport link to enhance access to job creation in a single strip, found between the
  economic activity nodes;
- **Mixed land-uses**: Mixed land-use is normally promoted next to the activity links;
- **Higher density residential development**: To create the appropriate levels of thresholds
  needed for both the public transport system as well as economic activity next to the activity
  links, a higher residential density-zone next to the activity link is a key to the success of
  establishing proper operating development corridors;
- **Mobility links**: Higher and lower order mobility links are established parallel to the activity
  link in a development corridor to ease movement from one end of the corridor to the other
end of the corridor or within the development corridor, respectively;

Figure 23: A schematic illustration of design elements for urban development corridors

- **Accessible public facilities**: Public facilities often form some of the most known bases to encourage the need to travel. It is, therefore, argued that these facilities should be established within or close to a public transport corridor to reduce the need to travel longer distances;

- **Open spaces**: This design element is regarded as an essential element of the concept, as it is regarded as a main ingredient to promote environmental sustainability, easy access to recreation opportunities and the overall productivity of the city’s population. In South
Africa, urban farming is also incorporated as part of this design element; and

- **Urban edges:** Urban edges in the form of rural areas, natural areas and farmland are used to promote inwards growth towards the development corridor.

No obvious design elements were identified for development corridors of a national scale. However, it seems that development corridors of a national scale are rather built around the philosophy of a development corridor, which is characterised by the application of the principles discussed in paragraph 3 on page 82. The two most prominent of these characteristics, as illustrated schematically on Figure 24 below, are **firstly**, those related to the establishment of proper "continuous mobility linkages" between places of major economic significance and other places of entry for international economies, and **secondly**, those characteristics related to "increasing accessibility levels" between places of economic resources (representing sectoral opportunities for economic development) and places of value adding (situated at, for example, economic activity centres) found within the corridor area. Other characteristics include the stimulation of economic centres through value adding at processing-plant locations, upgrading of the rural areas through the development of the potential economic resources found in the respective corridor areas, as well as the promotion of SME-development along the major mobility linkage.

### 5. Preconditions for the establishment of development corridors

A number of preconditions for the successful planning and establishment of development corridors were identified within a number of functional fields (see schematic illustration on Diagram 5 below). As a result of the detailed discussions in Section C of this chapter, no in-depth discussion with regard to the individual preconditions were put forward in the paragraphs to follow, as to prevent unnecessary duplication. Therefore, the identified preconditions are only listed and briefly highlighted.

#### 5.1. Transport-related preconditions

The following transport-related preconditions for the establishment of development corridors were identified:

- **The existence of a proper integrated multi-modal framework:** Krynauw stresses the fact that a well structured integrated multi-modal framework for public passenger transport needs to exist. This should be done through an integrated transport planning exercise, done for the entire city/development corridor, addressing all modes of transport (Krynauw, 2000);

- **Limiting through-movement:** The Curitiba Development Corridor model implicates that through-movement of vehicles with no destination in a development corridor or an economic activity node, should be discouraged. Fines are payable when heavy vehicles enter the central business district during day-hours. Loading and unloading take place after-hours (Kleynhans, Gough and Van der Merwe, 1997); and

- **Separating public and private vehicle movement:** All urban development corridors' concepts support the separation of public transport and private vehicles as a method to ensure that users can reach destinations much quicker and cheaper with public transport than private vehicles, especially if the public transport system is a dedicated system.
Figure 24: Schematic illustration of a typical development corridor at a regional scale

Linkage to international economies

Harbour

Economic activity centre

Economic Resource (Tourism)

Economic Resource (Mining)

Economic Resource (Agriculture)

Economic Resource (Forestry)

Accessibility links

Continuous mobility link

Linkages to international economies

Economic development opportunities (e.g. SMME's)

Rural settlements
5.2. Land-use-related preconditions

Identified land-use-related preconditions include, amongst others, the following:

- The need for a holistic integrated development planning process: Planning of development corridors is characterised by the application of a strategic integrated development planning process, whereby a number of issues are incorporated, viz. that of land-use, transportation, economic development and social development. Through this planning process, a development framework and development corridor concept is generated, which should strengthen the development of a compact city. MLH Architects and Planners is of the opinion that this integrated development framework should be robust and dynamic to accommodate urban changes and human choices, as and when necessary;

- Supportive urban design parameters: Development corridors also demand the formulation of a special set of urban design parameters related to aspects such as frontage, height, parking, access and cross-sections of the development corridor. The purpose is to create a specific preferred urban image within the development corridor;

- Continuous evaluation: Spatial implementation results need to be assessed on a continuous basis so as to change direction if needed; and
5.3. Economic-related preconditions

Development corridors in general place considerable emphasis on creating economic growth. Therefore, identified preconditions include the following:

- **Linkages to mature nodes**: The existence of mature economic nodes normally strengthen the opportunity for economic growth as a result of the economic interaction and movement that could emanate from such node towards the corridor area;

- **Establishing diversified economies**: As a result of the opportunity created through the development of mixed land-use, it is also necessary to promote the development of diversified economies. Those include the promotion of industrial and even agricultural activities;

- **The application of incentives and disincentives**: The establishment of development corridors is going hand in hand with incentives to attract job creation activities to development corridors. Disincentives are provided to prevent the "wrong" location of land-uses not belonging in the corridor, to establish elsewhere. In general, incentives are applied to guide growth and development in the development corridors. This creates a situation where inward growth towards the development corridor is promoted, whilst outward growth is controlled. This includes the incorporation of an element focusing at containing and controlling urban edges (MLH Architects and Planners, 1995);

- **Business facilitation**: The development corridors reveal a strong element of business development facilitation taking place to identify and develop economic development opportunities. The establishment of business development (support) centres are highlighted by the Arizona Trade Corridor, as well as in the Curitiba Development Corridor (SEBRAE, unknown), especially in terms of the need for such facilitation initiatives to promote economic development amongst communities;

- **Marketing**: Economic development opportunities and project progress should be continuously marketed. This ensures a constant flow of information to inform businesses and communities. It creates a situation of active business sector involvement, as well as enhancing economic networking and cluster development; and

- **Feasibility testing**: The Arizona Trade Corridor implicates that projects and investments should be tested before implementation as to ensure that those projects and investments with the maximum multiplier effects are implemented first, so as to enhance speedy economic growth. It comprises an element of continuous evaluation of economic growth and developmental effects, to ensure that the authorities embark upon the "correct" development strategies.
5.4. Preconditions as far as social issues are concerned

Development corridors have a pertinent contribution towards an improved social environment for the individual, as it represents cost savings and easily accessible facilities (Krynauw, 2000). This statement is supported by an element of incorporating the provision of social facilities in the development corridor next to the public transport system.

Furthermore, most development corridors, such as the Maputo Development Corridor, the W-Growth Development Corridor and the Curitiba Development Corridor-model, include an element of promoting human resources development through the implementation of empowerment programmes, entrepreneurial training and the provision of training institutions. The centralisation of these actions at multi-purpose community centres (accommodating a number of public amenities, community facilities and opportunities for recreation and sports activities), distributed in a balanced manner throughout the development corridor, seems an essential element of social upliftment and promotion. Ensuring adequate education and even health facilities are, therefore, definite preconditions for establishing efficient working development corridors.

A further indirect result is related to enabling an increase in the overall productivity amongst the entire population. This incorporates an element of promoting community development.

5.5. Locational preconditions

This essential precondition relates to the use of the “strategic location” of the entire development corridor to benefit the establishment and growth of such a corridor. It also incorporates the location of development opportunities or the placement of public facilities and amenities (for example, in the form of a multi-purpose community centre), in a development corridor. The location of different land-uses in relation to each other is another element which, for example, could stimulate the establishment of places of residence closer to job opportunities.

5.6. Environmental-related preconditions

Taniguchi is of the opinion that development corridors have a strong element of sustainable environmental development. This incorporates the provision of open spaces and recreational areas in the development corridor, easily accessible by means of the public transport system (Taniguchi, 1995).

5.7. Infrastructure-related preconditions

Development corridors are characterised by an element of large infrastructure investments needed to encourage private sector investment. This includes infrastructure, such as the development of the public transport system. However, the development corridors discussed in this chapter also revealed a strong element of using existing infrastructure as a cost-saving measure. Other preconditions include:

- Providing effective, efficient and affordable service infrastructure: An impression is also

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46 "Strategic location" refers to the location of the development corridor in relation to aspects such as markets, existing and proposed infrastructure, resources and development programmes and policies.
created by Birk and Zegras that development corridors represent a strong element of creating effective, efficient and affordable physical infrastructure services (i.e. water, electricity and sanitation) as a result of the intensity of demand caused by higher densities along the development corridors (Birk and Zegras, 1993);

- **Development corridors need catalyst projects**: It seems that most development corridors embark upon the initiation of catalyst projects to "kick-start" development. These are normally initiated as part of a government intervention to promote private sector interest and investment; and

- **Infrastructure projects**: All development corridor projects incorporate an enormous amount of infrastructure projects needed to create an enabling environment for natural economic development and establishing a feasible public transport system.

### 5.8. Participation as a precondition for the establishment of development corridors

Development corridors have a strong element of active community involvement in the planning, implementation and problem-solving processes (Andretta, 1995). In fact, participation is considered a partnership between local government and the community. Taniguchi considered the involvement of the community in planning and problem solving the only way to address city differences (Taniguchi, 1995). The Curitiba Development Corridor adds another dimension to this element, viz. that of continuously evaluating public opinion and interest to guide changes desired by the public.

### 5.9. Institutional requirements as preconditions for development corridors

The development corridors discussed in this dissertation implicate that there is (and should be) a committed institutional structure taking responsibility for the initiation, implementation, monitoring and revisiting of the development corridor plan/concept formulated for a respective corridor. The dedicated institutional structure is, therefore, an essential development corridor element and incorporates the following:

- **Absolute commitment to the development vision**: The discussion on development corridors revealed that a development corridor should have a focused vision, shared by all stakeholders. This vision should be focused to achieve the goals set in the development plan for the development corridor (MLH Architects and Planners, 1995). An impression is also created that the overall vision should be communicated regularly to the communities and key stakeholders. The latter goes hand in hand with political commitment and strong leadership to implement and finance projects;

- **Calculated risks**: A willingness to take calculated risks should exist to test new development approaches (MLH Architects and Planners, 1995); and

- **Multi-disciplinary nature**: MLH Architects and Planners reflects that an established "...multi-disciplinary, semi-autonomous, urban planning agency with strong leadership...", is a vital element to reach the goals of the corridor’s development plan (MLH Architects and Planners, 1995).

Other preconditions related to institutional issues include the following:

- **Development corridors need government involvement**: In all the development corridors the
government has a specific role to play, especially in terms of project management and giving project direction. It should also act as facilitator to guide budget spending and private sector investment. Equally important, it should create an enabling environment for natural economic development through the provision of infrastructure, facilities and services;

- **Goal-orientated development programmes**: Another element is that of developing goal orientated programmes to address primary issues, such as public transport, high density housing, private sector investment and public sector spending (MLH Architects and Planners, 1995). A proper funding strategy should be compiled as a supportive element to get the development programmes implemented. The latter should be accepted by all stakeholders;

- **Creativity**: Creativity is an essential problem-solving element of actually any developmental approach. However, the corridor discussions in this dissertation revealed that creativity should lead to the creation of multiple multiplier effects created by one investment (MLH Architects and Planners, 1995). For this purpose, it is deemed necessary to involve urbanologists, intellectuals, political leaders and others for seminars, group and round table discussions for problem-solving purposes (Kleynhans, Gough and Van der Merwe, 1997); and

- **Inclusivity**: All development corridors reflect the need to involve all "applicable" role-players in the planning and development processes. However, a strong indication is given with regard to the involvement of all spheres of government as partners to increase the development corridor's credibility with investors as far as implementation actions are concerned.

### 5.10. Policy-related preconditions

A number of policy-related preconditions were identified to guide the planning and development of a development corridor. One of the prominent preconditions is the use of policy guidelines to influence budgetary processes of role-players and stakeholders, especially that of government. The latter goes hand in hand and in accordance with the integrated development framework, as well as identified actions, programmes and projects formulated to guide the development of the corridor (Urban-Econ Development Economists, 1997b).

From the discussions in this chapter, it also seems that the implementation of corridor development programmes should incorporate a strong institutional approach as part of a development corridor's policy environment. In many cases, some sort of corporation (public or quasi-public entity) will have to be established to co-ordinate and package land-use/economic development opportunities. With regard hereto, the national Department of Transport of the Republic of South Africa found the latter more appropriate and preferable for establishing development corridors, than the large-scale "co-operative agreement approach" involving too many role-players (Department of Transport 1993).

Furthermore, development corridors enclose a range of corridor-related policies adopted to get a development corridor established. These adopted policies relate to, amongst others, issues such as zoning indicators and land-use rights, greater levels of intensity with regard to development along the corridor, environmental compatibility of development initiatives and projects (Gauteng Provincial Government, 1996), public-private co-operation, political decision-making (which should be quick, pragmatic and ease the immediate translation of the
decision into reality) and maintaining momentum. Others such as functions and responsibilities of role-players, institutional structuring, multi-disciplinary project approaches, timeous planning to address congestion (Department of Transport, 1995) and development programmes by government, can also be added to the list.

SECTION E: CONCLUSIONS

The development corridors, whether on an urban scale (such as Curitiba) or at an international level (such as the Maputo Development Corridor), revealed that the successfulness of development corridors are directly related to three issues. These are their dependence on the intensity of mixed land-use development (economic activity), the strength of a well-developed multi-modal transport network, and the density of activity levels alongside such a development corridor. These could also form an essential base for a theoretical framework for development corridors.

The former Department of Development Planning, Environment and Works of the Gauteng Provincial Government expressed a view which acknowledged that the development along a transport corridor is not only "reliant upon", but also has an "influence" on an urban environment. This inter-relationship forms part of a number of development processes and issues within which the corridor is developed (Gauteng Provincial Government, 1996). This implies that development corridors are not a new concept towards urban or regional development. This view was reflected in a number of the development corridors (Industrial Development Corporation, unknown).

It is acknowledged that transport networks have a major impact on the nature and extent of development in a specific development area. In the Republic of South Africa, it was that same transport network that reinforced the development of the fragmented apartheid cities and settlement patterns found in the country, which are now requiring reconstruction actions. It is, therefore, no wonder that all spheres of government consider the development corridor approach as a mechanism to address these high levels of spatial fragmentation and the lack of appropriate economic development activities in the dormitory townships. In itself, the corridor concept is also regarded as an opportunity to create additional development opportunities and linkages to bring about a more efficient/effective urban environment (Gauteng Provincial Government, 1996). The latter is further supported by the proposed theoretical framework discussed in Section D of this chapter.

However, it is also obvious from the development corridor discussions that corridors differ in nature and extent, as each attempts to address its own unique problems and issues experienced in that respective corridor's area. These problems and issues refer to the respective area's economy, transport networks and social facilities, characteristics, interaction and past economic and spatial development policies, as well as political frameworks (Gauteng Provincial Government, 1996).

A distinction is drawn between urban and region development corridors. In this regard, it can be concluded that:

♦ urban corridors are often focused at working towards urban reconstruction (or even revitalisation of the urban structure), economic growth enhancement, integrated inter-
modal transportation (with a strong focus on public transport) and social upliftment; whilst

- **regional corridors**, on the other hand, have a strong focus on strengthening the corridor's position in the global economy and, therefore, focus on the enhancement of well-structured infrastructure, improving human resource skills levels and public policies encouraging economic development (Anon, 1996).

Irrespective of the nature and extent of the corridor, a number of benefits were identified through the formulated theoretical development corridor framework, which can be summarised as follows:

- corridor planning creates an opportunity for innovative and creative designs and problem-solving opportunities;
- it necessitates the integration of land-use and transport planning;
- it has a strong focus on attracting and promoting private sector investment and joint ventures;
- it benefits the development of a compact urban form;
- it establishes the opportunity for greater levels of economic efficiency and productivity due to shorter travel distances and reduced travel time;
- sustainable environmental development and environmental protection are enhanced;
- it enables the establishment of efficient multi-modal transport systems;
- it allows a local and regional planning and development approach;
- it creates the opportunity to integrate fragmented spatial forms;
- it creates the opportunity for the more efficient use and allocation of urban and regional facilities; and
- it can be developed step-by-step, according to pre-formulated development programmes and as budgets permit implementation.

However, it seems that the corridor concept is relatively easy to plan, but that the real challenge is to set up appropriate institutional structures, which can take the responsibility to implement the appropriate projects, and to co-ordinate implementation. All corridors are characterised by a number of implementation agents who are responsible for implementation actions.

Furthermore, development corridor projects seem to have two common characteristics, namely, that they are:

- focused at providing solutions for an own unique problem (or set of problems), to ensure better and affordable living environments; and
- based on the implementation of a set of integrated multi-faceted strategies which have specific spatial implications (for example a linear nature, urban/rural integration, urban edges and so fourth) and underlying principles (for example higher densities, improved urban efficiency, compact city, sustainability, and so fourth). This is supported by the view

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47 In this regard it should be realised that the nation/country is represented via the corridor.
of the Industrial Development Corporation (IDC), which states that "corridors of development are defined by the complexity and diversity of activity, which are generally supported by other spatial strategies, such as nodes, economic spines and individual clusters" (Industrial Development Corporation, unknown).

The IDC was involved in the potential analysis for the development of the Maputo Development Corridor.
CHAPTER THREE

THE MCDC-PROJECT

SECTION A: GENERAL

1. Introduction

The Mabopane-Centurion Development Corridor (MCDC)-project, as referred to in Chapter Two, is discussed in depth in this chapter. This incorporates a reference to the development corridor approach in the Republic of South Africa, but focuses primarily on sections reflecting the key focuses, project strategies, success stories and the institutional arrangements for the MCDC-project.

2. Background issues to the corridor development approach in the Republic of South Africa

As far back as the early 1970’s, the Republic of South Africa experienced a general lack of focused urban development contributing to principles such as urban efficacy, efficiency and productivity, especially as far as public transport-orientated development is concerned. This view was expressed repeatedly in reports compiled in the past by government, amongst them the report of the Driessen Commission on Urban Transportation in South Africa, compiled in 1976 (Department of Transport, 1993).

Furthermore, the fact that government could not succeed in integrating public transport and the government’s economic development policies in the 1980’s and 1990’s, contributed (together with the former apartheid policies) to the development of the fragmented urban complexes, as known today. The latter is expressed in official government reports compiled by the national Department of Transport in the 90’s, which recognised the “…need for affirmatively restructuring South African cities in favour of those who are disadvantaged by poverty, limited access to cars and the legacy of apartheid…” (Department of Transport, 1993).

Although several attempts were since then initiated to promote the government’s economic development policy and to implement projects (to get public transportation to support adjacent development), the Department of Transport in terms of an investigation into “Joint venturing institutions for integrated development along public transport corridors” (completed in 1993),

49 The MCDC is located within the boundaries of the former GPMC (now the City of Tshwane Metropolitan Municipality), situated in the Gauteng Province of the Republic of South Africa.

could not obtain substantial results where public transport supports adjacent land-use development enough. It could therefore be deliberated that the development corridor initiatives launched in 1995 as a joint venture between national and local government spheres, were the first real attempts to pilot projects focussing on the integration of land-use and transport planning.

The initiation of development corridors, with the primary purpose of integrating transport and land-use planning as to promote public transport use, was for the first time introduced actively through the "Four Cities"-project (see paragraph 2 on page 19 in Chapter Two for detail). The national Department of Transport initiated the "Four Cities"-project in 1995, as the Department's contribution to the national government's SDI programme. When evaluating the nature of the individual "Four Cities"-projects, all are related in some or another way in addressing unbalanced development, with special focuses to relieve urban and transport-related problems experienced by the disadvantaged. The MCDC-project is no different (as is explained in more detail in the rest of this chapter).

The Spatial Development Initiatives (SDI's) such as the Maputo Development Corridor discussed in Chapter Two, are considered to be the first attempt to implement the country's economic development policy. It is generally developed according to a process based on the identification of key areas, each with its own specific economic focus and core characteristics. Strategies on lead economic sectors to promote investment are then compiled and marketed as catalyst projects to enhance economic growth. Furthermore, the SDI's encompass existing or proposed infrastructure especially road infrastructure, causing the creation of one or other form of development corridor (Naude, 2000). The SDI's took on different forms, such as Special Economic Zones (SEZ's), Development Corridors, Industrial Development Zones (IDZ's), or specific city precincts (Urban-Econ Development Economists, 2000b).

In 1998 the national Department of Transport introduced the "Moving South Africa Strategy (MSA)", to further enhance the development and use of public transport (Department of Transport, 1998a) as well as to densify areas along transport corridors (Krynauw, 2000). Regarding the latter, the MSA is strongly taking into account the "...global context of falling trade barriers, increasing linkages to the global economy and increased competition for global markets...".

However, the MSA regards the improvement of transport in the Republic of South Africa as an "enabling industry", to function as a "guarantor of national integration". From an urban development point of view, MSA strongly promotes volume concentration through the development of "high volume corridors" to reduce cost for both operator and user as well as to address users' transport needs. In fact, three key strategies emerge from the MSA. These include the densification of corridors and nodes to reach appropriate economies of scale for public transport and the economic activities found along the corridor, improving the affordability of different transport modes and to improve public transport efficiency.

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51 Just more than 82% of the poorest part of the population of the former Greater Pretoria Metropolitan Area reside in the identified Primary Study area of the MCDC-project (see paragraph 4.1 on page 118). When considering the Secondary Study area (see paragraph 4.1 on page 118), the MCDC-project has a direct influence on almost 95% of the poorer communities residing in and around the former Greater Pretoria Metropolitan Area (now included in the City of Tshwane Metropolitan Municipality).
SECTION B: THE KEY FOCUS OF THE MCDC-PROJECT

This section reflects the project focus of the MCDC-project by means of an explanation of the chronological sequence of events which happened between the initiation of the idea to establish a development corridor in the former Greater Pretoria Metropolitan Area and the 1st of May 1996 when the planning activities of the MCDC-project were initiated.

1. Introduction

The MCDC-project is a joint venture project initiated in November 1995 and involves all spheres of government, the private sector and communities. The former GPMC managed the project until the establishment of its successor-in-law, the City of Tshwane Metropolitan Municipality (see Figure 25 on page 100), which was established on 5 December 2000, took it over. The establishment processes of the MCDC were initiated after the approval of the MCDC Integrated Growth and Development Implementation Strategy (IGDIS) (see paragraph 139 for detail) in September 1997 (GPMC, 1997c). This IGDIS report was the result of 15 months of multi-dimensional background research, brainstorming exercises, workshops, participative processes and focused strategic thinking. It forms the backbone of the establishment of the corridor and consists of a development perspective of the MCDC area, an economic development rationale and development strategy, an integrated development framework, strategic implementation projects and implementation strategies. (Urban-Econ Development Economists, 1997b)

2. Background to the initiation of the MCDC-project

2.1. General

A study tour group to South American cities, consisting of officials representing the Gauteng and North West provincial authorities, SA rail authority, Johannesburg City Council, PREMET, taxi operators and transportation planning consultants in 1995 (14 to 28 August 1995), came to the final conclusion that "...integrated land-use planning is essential to, inter alia, successful public passenger transport services. This needs to be backed up by the committed implementation of politicians and developers, if success is ultimately to be achieved...". (Department of Transport, 1995).

In a study done by the SA Roads Board on the improvement of mobility as a result of land-use planning, it was concluded with regard to Pretoria as a case study, that a "...combination of infilling and densification will produce significant travel time and travel cost savings, particularly if the infilling and densification are complementary to the development of public transport corridors...". This conclusion stressed the need for the development of corridors in the former Greater Pretoria Metropolitan region, especially that of the MCDC area, which focuses on improving mobility and accessibility in the western parts of the former Greater Pretoria Metropolitan Area (S A Roads Board, 1993). The same study revealed that significant "accessibility benefits" are obtained where economic development activities are concentrated in mixed-use corridors. The study also confirmed that corridor development will assist in

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52 The MCDC-project is regarded as an urban reconstruction project with the aim of developing a metropolitan development corridor on the western side of the former Greater Pretoria Metropolitan Area (Urban-Econ Development Economists, 1997b).
developing a more efficient public transport system, making use of existing rail and road infrastructure (S A Roads Board, 1993).

Figure 25: Boundaries of the City of Tshwane Metropolitan Municipality

The Greater Pretoria Regional Structure Plan, compiled for the area of jurisdiction of the former Pretoria Regional Services Council area, was completed in 1994. This plan indicated that most people making use of public passenger transport systems throughout the Greater
Pretoria region\(^{53}\) were found in the Mabopane, Winterveld, Soshanguve, GaRankuwa, Atteridgeville and Olievenhoutbosch areas (see Figure 26 on page 101 for a schematic illustration). Travel took place towards the central business areas of the former Pretoria City Council area and the Centurion Town Council area (Plan Associates and Stewart Scott, 1994). The Greater Pretoria Regional Structure Plan also reflected that "massive development opportunities" previously constrained by "past development policies and inefficient land-use developments"\(^{54}\) exist in the western parts of the Greater Pretoria Region. This statement played a prominent role in defining the proposed development corridor area (Urban-Econ Development Economists, 1997b).

2.2. The discussions between the Department of Transport and the former Greater Pretoria Metropolitan Council

The Directorate: Land-use and Planning (former Greater Pretoria Metropolitan Council\(^{55}\)) which was responsible for metropolitan public passenger transport systems, metropolitan transport planning, metropolitan land-use management and metropolitan guideline planning.

Figure 26: Transport corridors in the Greater Pretoria Region (1995)

\(^{53}\) "Greater Pretoria region" basically refers to the immediate area of influence surrounding the Pretoria urban complex, stretching from KwaNdebele in the east, to Brits in the west, Olifantsfontein in the south to Hammanskraal in the north.

\(^{54}\) This statement is applicable in the area from Soshanguve south wards through Pretoria West up to the SAMRAND development area situated in the south of Centurion.

\(^{55}\) The Greater Pretoria Metropolitan Council (GPMC) was established on 8 December 1994 as a Transitional Metropolitan Authority (Proclamation no. 38, 1994).
of the national Department of Transport on 14 November 1995 to discuss the possibility and interest of the former GPMC to initiate a development corridor project in the former Greater Pretoria Metropolitan Area.

During the meeting it was mentioned by the representatives of the Department of Transport that funds for development corridor projects were negotiated with the former office of the Reconstruction and Development Programme. The approved funds were earmarked strictly for projects aimed at integrating land-use and transport planning by applying urban development corridor principles. Specific attention was also requested for the incorporation of fast track implementation projects in the initiation of such development corridor projects.

The interest of the former Greater Pretoria Metropolitan Council to initiate such a development corridor project was followed with a request from the representatives of the national Department of Transport to submit a business plan for consideration. This business plan had to be submitted to the Department of Transport by 22 November 1995, only 8 days after the meeting on the 14 November 1995 took place (Krynauw, 2000b).

3. The project processes of the MCDC-project

3.1. Nov 1995 to April 1996

3.1.1. The Nov 1995 business plan

The Division: Metropolitan Guideline Planning (a former Division in the former Directorate Land-use and Planning of the former GPMC), took the responsibility of compile the business plan for the proposed corridor project. The business plan was compiling according to the standard guidelines for the preparation of business plans for the former Office of the Reconstruction and Development Programme. The contents of the business plan, as given below, forms an important base of the focus of this project, as it provides specific background information on why the western parts of the former Greater Pretoria Metropolitan Area were chosen for the corridor project.

The business plan addressed aspects such as the project name, decision-making and control, the decision-making authority (responsible officer), the location of the proposed corridor project, background information, project phases, aims and objectives of the corridor project, deliverables, planning done previously, actions already underway/completed, possible role-players and possible funding (GPMC, 1995).

Some of the above aspects are discussed briefly below.

(a) The project name

The name that was at first chosen for the corridor project, was the PWV-9-corridor. However, this name was changed during the business plan compilation process. This name-change was a result of input received from the other three local government structures in the former Greater Pretoria Metropolitan Area, namely the former City Council of Pretoria, the former Town Council of Centurion and the former Northern Pretoria Metropolitan Sub-Structure. Reasons provided at the time were the following:

- residents in the northern metropolitan local councils of the Greater Johannesburg
Metropolitan Area were negative about the construction of the PWV-9 for reasons of their own. Therefore, using the term "PWV-9" as the basis for a name for the corridor area could result in unnecessary confusion and negative perceptions about the project from the start;

- on the other hand, the northern section of the envisaged corridor area incorporated an urban complex (Mabopane/Winterveld/Soshanguve), which has amongst the communities in general/collective terms been referred to as "Mabopane". The Mabopane railway station (situated in Soshanguve), being the busiest rail station (pedestrian wise) in the country, was regarded as a potentially important economic activity node. Therefore, the term "Mabopane" was chosen as a reference to the area forming the northern end of the proposed corridor area; and

- with regard to the southern end of the proposed corridor area, it was deliberated that the Midrand Development Axis, and not Johannesburg, be regarded the southern economic anchor of significance. Therefore, the PWV-9 (which could at the time be considered a major link between the western parts of the Greater Pretoria Metropolitan Area and Johannesburg), was not considered to form the spine in the southern parts of the proposed corridor, but rather the so-called route R55.

The name that was then collectively chosen for the corridor project, was the "Mabopane-Centurion Development Corridor" (GPMC, 1995).

(b) Decision-making and control

In the business plan it was proposed that the "accountable officer" (also see Diagram 6 below for a schematic illustration) for the project be the former Director-General of the Department of Transport, Mr. Khetso Gordhan.

The proposed "accountability chain" for the project included the Director-General of the Department of Transport, the Chief Director: Strategic Planning of the Department of Transport and Public Works of the Gauteng Provincial Government, the Chief Director: Development Planning of the former Department of Development Planning and Environment, also of the Gauteng Provincial Government and lastly, the then Executive Director: Directorate Land-use and Planning of the former Greater Pretoria Metropolitan Council.

The former Greater Pretoria Metropolitan Council was also proposed to be the "decision-making authority", with the Executive Director: Directorate Land-use and Planning as the "Responsible Officer" for the corridor project (GPMC, 1995).

(c) The motivation for the project

The motivation for the need to initiate the corridor project, summarised from the MCDC Business Plan, was as follows:

- urban development throughout the entire western parts of the former Greater Pretoria Metropolitan Area took place in an uncoordinated manner. The area also experienced a lack of accessibility;
Diagram 6: Proposed MCDC accountability chain

- Accountable officer: Department of Transport (Director-General)
- Chief Director: Development Planning
  Department: Development Planning and Environment
  Gauteng Provincial Administration
- Chief Director: Strategic Planning
  Department: Transport and Public Works
  Gauteng Provincial Administration
- Decision-making authority: Greater Pretoria Metropolitan Council
- Responsible Officer: Executive Director: Land-use and Planning
  Greater Pretoria Metropolitan Council
- Project Manager: Senior Town Planner: Metropolitan Guideline Planning
  Division: Metropolitan Guideline Planning
  Directorate: Land-use and Planning
  Greater Pretoria Metropolitan Council

- a need existed for facilitating integrated development between the three former metropolitan local councils situated within the former Greater Pretoria Metropolitan Area, as well as the phasing of engineering services;
- a need existed to concentrate investment where the most benefit could be obtained in terms of job creation at localities such as the Mabopane station, Rosslyn/Klerksoord industrial area, Akasia central business district, the Predustria area, Sunderland Ridge and the SAMRAND development area;
- the section of the PWV-9 that already existed, was regarded by Plan Associates and Stewart Scott as "... the most important lifeline for the development areas north of the Magaliesberg..." and should be extended southwards. The proposed southern section of the PWV-9 was considered to be "... the key for increasing the development potential of the western parts of the Greater Pretoria Metropolitan Area...". The existence of different land uses, as well as different transport modes and nodes, provided "... the potential to optimally integrate transportation and land-use planning..."; and
- The largest commuter figures were found in the western parts of the former Greater Pretoria Metropolitan Area. The status quo report on regional passenger transport revealed that approximately 30% of all commuters in the former Greater Pretoria Metropolitan Area travelled from Mabopane to Pretoria on a daily basis. This
represented a figure of 67 850 commuters per direction per weekday at the time. This figure represented the total of all three modes of public transport, namely bus (17 800 per weekday per direction), rail (24 800 per weekday per direction) and taxi (25 250 per weekday per direction).

(d) The initial corridor areas

The MCDC Business Plan indicated that the MCDC area (see Figure 27 below) is located in the western half of the former Greater Pretoria Metropolitan Area and stretches north-south over a distance of approximately 60 kilometres. The proposed corridor area included “...the areas of Soshanguve North, Soshanguve, Klip- and Kruisfontein, Rosslyn, Klerksoord, Akasia, Lady Selborne, Suiderberg, Kirkney, Atteridgeville, Laudium, Mnandi Agricultural Holdings, Sunderland Ridge (Centurion) and the Blue Hills area” (GPMC, 1995).

During the “background research”-process (as discussed in paragraph 4.2 in Section C: on page 120), the corridor’s study area was demarcated as that area which includes the following areas: Tswaing; Soshanguve; Klip- and Kruisfontein; Rosslyn/Klerksoord; Akasia; Parts of Pretoria North; West Moot; Pretoria West; Atteridgeville/Lotus Gardens; Predustria; Laudium/Clau dia /Erasmia; Sunderland Ridge, Rooihuiskraal/Heuweloord; SAMRAND development area; and Olievenhoutbosch (Snelco Pro; 1999).

The layout of the different corridor areas are schematically illustrated on Figure 28 (see page 107 for detail). Hereunder a brief discussion on the reasons for including the respective areas into the proposed MCDC area.

Figure 27: The location of the MCDC and the former Greater Pretoria Metropolitan Area within the Gauteng Province.

(No-Line and Snelco Pro, 1999)
i. Soshanguve North

A community-supported framework plan was compiled for this area, situated at the most northern end of the MCDC (see Figure 28 on page 107 for a schematic illustration), furthest away from job opportunity centres. It is located in an area characterised by rural settlements, which is located in the Northwest Province. The fact that Soshanguve North was vacant and the need for land amongst residents in the adjacent rural settlements high, put Soshanguve North under severe pressure for illegal land invasion. The other problems experienced in the area, related to the lack of public transport in the area and the existence of the Tswaing crater, a sensitive historic heritage and conservation site.

ii. Soshanguve

At the time of the compilation of the business plan, Soshanguve consisted of 44 500 fully occupied residential sites and had almost no land for any further development to accommodate the poor (see Figure 28 on page 107 for a schematic illustration). The only portions of land available were for infill development (mixed land-use development). These could only be used to relieve the real short-term need for housing. The short-term need to settle illegal invaders in this area, entailed approximately 15 000 families at the time. For this reason, the Soshanguve North and also the Klip- and Kruisfontein areas were earmarked for affordable housing projects for the total spectrum of income groups. Soshanguve also provided for several other land uses (i.e. business, industrial, education, social), which were not fully utilised as yet. A structure plan was compiled for Soshanguve in 1988, which, due to extreme growth rates, were already outdated in 1995. A new draft structure plan was being compiled during the year when the MCDC Business Plan was formulated.

iii. Klip- and Kruisfontein

The Klip- and Kruisfontein area is situated just south of Soshanguve and just north of the Rosslyn industrial area (see Figure 28 on page 107 for a schematic illustration). The area was in terms of infill development suitable for urbanisation and was due to this potential identified by the Gauteng Provincial Administration as a “Special Development Area”. The area was largely vacant when the MCDC-project was initiated. This area was under severe pressure to accommodate lower income levels, which was confirmed by the influx of illegal squatters. The area experienced a lack of public facilities whilst having the potential to accommodate approximately 45 000 families. A development framework was at the time of the preparation of the MCDC Business Plan available, to guide the development of the area as a single entity only and not as an integrated part of the larger urban fabric found in this part of the former Greater Pretoria Metropolitan Area.

iv. Rosslyn/Klerksoord

Rosslyn is an industrial area just south of the Klip and Kruisfontein area (see Figure 28 on page 107 for a schematic illustration). Approximately 70 % of its well-serviced industrial sites were occupied with development. The area was in the past identified as an industrial decentralised point. It was considered a major job
Figure 28: A schematic layout of the MCDC area

The PWV-9 forms the central mobility spine along which corridor development could take place.

i. Soshanguve-north incorporates the Tswang - enviro museum and a national destination for eco-tourism, environmental education, recreation and research. Area under pressure for invasion.

ii. Soshanguve is characterised by dormitory settlements and a need for an economic base which requires new investment, security of investment, entrepreneurship and economic infrastructure. Although the latter (e.g. serviced business stands) existed, it was considered limited and did not attract sufficient investment.

iii. The Kip-and Kruisfontein Planning Framework identified locations for economic development. Strategies and actions to facilitate development to establish local markets for economic activities had to be implemented.

iv. The Rosslyn/Klerksdorp node had ample available land to accommodate new investment in industrialisation. New entrepreneurs need to be identified to take advantage of available infrastructure and existing agglomeration economies. Linkages to freeways were considered important elements to promote sustainable growth.

v. Akasia is in its early stages of development and its catchment area is constrained by leakages in potential expenditure. The main reason being the lack of higher order goods and services being provided in the CBD. The construction of the PWV-2 could start to create a greater need and potential for development.

vi. Lady Selborne is characterised by land restitution claims that need to be solved. Together with Suiderberg, opportunities existed for densification.

vii. The Kirkney node experienced slow growth as an industrial node. Linkages to freeways were regarded important elements to promote sustainable growth.

viii. Lotus Gardens incorporated opportunities for mixed land-use development, as well as serious urban intensification activities.

ix. Atteridgeville was in serious need of economic activity and social upliftment.

x. The Predustria economic node was considered environmentally unfriendly with limited to no vacant land for expansion.

xi. Laudium/Claudius experienced limited economic activity and housing for the poor was urgently needed.

xii. The Mhudi agricultural holdings posed as an opportunity for agricultural and tourism projects.

xiii. Sunderland Ridge provided important economic development opportunities for the inhabitants of Laudium and Claudius.

xiv. Low income settlements in Elevenhoutbosch were ideally located with respect to existing and developing economic activities in Midrand. However, a local economic base was also needed to support viable communities.

xv. The SMFAND development area in Centurion provided an important economic link with Midrand and in itself had an important job creation potential.

(Snelco Pro, 1997)
provider in the area. The area, however, was characterised by a lack of proper regional accessibility and it seemed at the time that this had a direct effect on the rate of industrial development.

v. Akasia

Akasia was considered a “white new town” area, which was properly planned, but developed at low residential densities with vast areas of agricultural holdings in between. Installed infrastructure, especially bulk services, only made provision for the developed residential areas, and not for the agricultural holdings, which were earmarked for future urbanisation (see Figure 28 on page 107 for a schematic illustration). Ample opportunity existed for densification to increase threshold values for economic activities found in Akasia. A location for a central business district was also planned, but except for a large shopping centre, no major development took place. The lack of proper regional accessibility was again identified as the reason for this lack in business development. The development opportunities also provided a potential platform to promote social integration.

vi. Lady Selborne/Suiderberg

The Lady Selborne/Suiderberg area was considered a partly serviced but primarily vacant area (also see Figure 28 on page 107 for a schematic illustration). This area was unfortunately subject to land restitution claims, providing the reason why this area was underdeveloped. In terms of potential, it had a favourable potential for higher density development. The area is close to the Pretoria central business district, which further makes this area attractive for development purposes. However, in the MCDC business plan an opinion was expressed that this valley where Lady Selborne/Suiderberg is situated, is extremely pollution sensitive and government will have to be very careful with regard to the type and density of development allowed in this area. The area is also close to the Kirkney/Zandfontein industrial area, which has the potential to become a prominent employment opportunity area.

vii. Kirkney

Kirkney is a light industrial/commercial area situated in the same pollution-sensitive valley as the Lady Selborne area (also see Figure 28 on page 107 for a schematic illustration). Fully serviced industrial land had been vacant for some time. The lack of regional accessibility and north-south mobility routes, which could link the area directly to the Rosslyn industrial area in the north and other economic nodes in the south, was seriously hampering economic growth (GPMC, 1995). It was expected that the southward extension of the PWV-9 could solve this problem, as it would facilitate access to the labour market situated in Atteridgeville, just south of the Witwatersberg, which separates the two mentioned areas.

viii. Lotus Gardens/Westfort/Elandspoort

Although limited residential development was found in the Lotus Gardens area, it was mainly characterised by vacant land suitable for further housing provision projects, as well as some employment creation opportunities (also see Figure 28 on page 107 for a schematic illustration). The adjacent Westfort area is a historic site and was earmarked as an area with ample opportunities for tourist-related
economic activities, such as site-seeing and hiking. The Elandspoort-area was characterised by higher density development. These areas are only approximately ten kilometres from the Pretoria central business district.

ix. Atteridgeville and surroundings

Atteridgeville was regarded as a fast developing higher density township area, characterised by very limited economic activity (also see Figure 28 on page 107 for a schematic illustration). The population was dependent on employment opportunities in the Pretoria central business district, situated approximately 12 kilometres from the economic core of the former Greater Pretoria Metropolitan Area and only two to three kilometres from Predustria industrial area. The area was also in need of a variety of community and social services and amenities.

x. Predustria

Predustria is an old heavy-industry area accommodating, amongst others, the former ISCOR-plant and the Pretoria West Power Station (also see Figure 28 on page 107 for a schematic illustration). Due to the abolishment of the ISCOR-plant, the consequent loss of employment opportunities and the heavy industry-nature of this area, the Directorate: Metropolitan Economic Development (of the former GPMC), believed that this area was in fact ready for improved smaller scale manufacturing activities. The rail line from Atteridgeville stretches through this area, and could, therefore, be considered as a major potential employment provider to the people of this part of the former Greater Pretoria Metropolitan Area. The rail line was also regarded as an opportunity to reduce travel distances by creating jobs closer to the place of residence of those staying in Atteridgeville and the Pretoria west area.

xi. Laudium/Claudius

Both these areas were characterised by the settlement of Greater Pretoria’s Asian community (also see Figure 28 on page 107 for a schematic illustration). Laudium, which is located to the west of route R55, primarily housed the older and poorer part of the Asian community. Limited economic activity was present in this area. Claudius, located east of route R55, was the wealthy part of the Asian community. No economic activity was found in this area.

xii. Sunderland Ridge

Sunderland Ridge is an industrial area within the southern part of the proposed MCDC area and accommodated those industries which were regarded as a hindrance and which could not be accommodated elsewhere in the former Centurion Town Council Area (also see Figure 28 on page 107 for a schematic illustration). In terms of road linkages, this area lacked direct road links with the major economic activity areas in and around the proposed MCDC area, although it benefited from the direct link with some higher order provincial mobility routes such as the R28 highway.
xiii. Mnandi Agricultural Holdings

The Mnandi Agricultural Holdings were characterised by many informal and illegal industrial uses, which spontaneously occurred on the farm portions and small holdings situated in the western parts of Centurion (also see Figure 28 on page 107 for a schematic illustration). The area could directly benefit by the construction of the PWV-9, as it would increase mobility, regional and local accessibility which in turn could create the potential to attract urban development to this area. The development of this area could also assist with correcting the urban form in the southern part of the former Greater Pretoria Metropolitan Area, which was considered to be continuously expanding towards the east.

xiv. Olievenhoutbosch

This area was largely vacant but under extreme pressure to accommodate low-income high-density development. It is situated close to the employment areas of both the Midrand and Centurion areas (also see Figure 28 on page 107 for a schematic illustration). The area was unfortunately characterised by underlying dolomite, which has a direct impact on the infrastructure installation costs as it demands infrastructure of an extremely high standard. These high standard infrastructure services had a direct bearing on the housing cost, which made it difficult to develop real low-income suburbs in this part of the proposed MCDC area.

xv. The SAMRAND development area

This area, which was largely vacant, is situated between the former Centurion Town Council area and the fast growing Midrand development axis (also see Figure 28 on page 107 for a schematic illustration). It was considered to have the potential to become an upmarket mixed land-use development area, accommodating golf estates, commercial and office activities, as well as high-tech industries.

(e) The proposed two-phased project approach

The business plan suggested a two-phased project approach. Firstly, to establish a growth and development strategy for the MCDC area and, secondly, to establish a detail design and development strategy for the Klip- and Kruisfontein/Soshanguve area for fast track implementation. However, the business plan suggested that the two phases should be executed simultaneously. The focus related to the second phase changed early during the execution of the technical part of the project processes, as further discussed in paragraph 2.2 on page116 (GPMC, 1995).

(f) Aims and objectives

According to the MCDC Business Plan, the main aim was to establish a “...growth and development strategy for the Mabopane-Centurion Development Corridor in order to achieve fully integrated and sustainable development...” (GPMC, 1995).
(g) Deliverables

The MCDC Business Plan indicated that two sets of expected deliverables were determined. The one set was guiding the compilation of the proposed Growth and Development Strategy and the other the fast-track implementation of development in the Klip- and Kruisfontein area.

It was proposed that the process to compile the proposed Growth and Development Strategy had to include technical processes focused at:

- analysing the multi-dimensional status quo situation of all proposed areas for inclusion in the proposed MCDC area;
- completing a SWOT analysis of the results of the status quo investigation;
- identifying projects for implementation;
- the preparation of a development framework, policies and strategies; and
- the preparation of implementation actions (GPMC, 1995).

The foreseen deliverables for the Detail Design and Development Strategy for the Klip- and Kruisfontein/Soshanguve area, were primarily focused at identifying implementation projects and the preparation of implementation processes and programmes for priority projects (GPMC, 1995).

(h) Participation process during the compilation of the business plan

A draft business plan was compiled by the former Greater Pretoria Metropolitan Council within the limited time available. This draft business plan was submitted to heads of departments (involved in town planning and transport engineering) from the three former metropolitan local councils situated within the borders of the former Greater Pretoria Metropolitan Area. The draft business plan was also submitted to TRC Africa56. The inputs received from the three metropolitan local councils and from TRC Africa formed the total opportunity for the preparation of the business plan. As a result of the limited time available to request the widest possible input, no input could be obtained from the private sector, nor from communities staying in the identified corridor areas. To overcome this problem, a comprehensive community participation process was proposed in the business plan (that was to be executed once the business plan was approved). All inputs received at the time stressed support for the proposed corridor project.

The revised business plan was re-submitted to the Department of Transport via TRC Africa, on 22 November 1995. (Krynauw, 2000b).

3.1.2. The RDP approval

On the 12th of January 1996, the former Greater Pretoria Metropolitan Council received telephonic confirmation from the national Department of Transport that the former office of the Reconstruction and Development Programme had approved the business plan for the project. The approval also included an amount of R2 million to execute the business plan accordingly.

56 TRC Africa is a private sector consultancy specialising in land-use and transport integration, which was appointed by the national Department of Transport to assist with the final submission of a combined business plan received from all four councils taking part in the "Four-Cities"-project. The company also reacted in an advisory capacity to the Department of Transport in terms of promoting land-use and transport integration, as well as co-ordinating events during which the progress with the respective projects were evaluated and discussed.
(Krynauw, 2000b). Conditions for the approval of the project and the project’s budget, focused on ensuring inclusivity, community involvement, dedicated project management and project results, as well as proper financial management and feedback reporting (Office of the RDP, 1996).

3.1.3. The project proposal

As a result of the telephonic confirmation received from the national Department of Transport, the former Greater Pretoria Metropolitan Council proceeded on a risk basis to request private sector consultancy firms to prepare project proposals for the implementation of the approved business plan. This request to the private sector companies was made in January 1996.

The private sector firms invited to submit project proposals were identified by the Division: Metropolitan Guideline Planning (former Greater Pretoria Metropolitan Council). At the time, the same Division was also initiating a process to compile Land Development Objectives (in accordance with the Development Facilitation Act, Act 67 of 1995) for the former Greater Pretoria Metropolitan Area. Officials of the Division did a survey of existing town planning and urban economist firms located in the former Greater Pretoria Metropolitan Area. Ten of the larger firms were identified and listed. Of these ten companies, five companies for each project were "allocated" to the two projects for an invitation to submit project proposals.

The project proposals were received in February 1996 and were evaluated and considered by an evaluation panel that consisted of representatives\(^{57}\) of the former Greater Pretoria Metropolitan Council and the three metropolitan local councils (GPMC, 1996).

The project proposal of the firm "Urban-Econ Development Economists" was unanimously chosen by the evaluation panel as the firm to be recommended to the former Council of the Greater Pretoria Metropolitan Area for appointment (see detail on the resolution by the Council of the former Greater Pretoria Metropolitan area in paragraph 3.1.4 below) (GPMC, 1996a).

The project proposal of Urban-Econ Development Economists was considered a thoroughly structured and comprehensive proposal, which incorporated important project processes and approaches that were well accepted by the applicable authorities comprising the evaluation panel. The criteria used for the evaluation of the project proposals included the following:

- the respective firm’s interpretation of the business plan, prepared for the proposed MCDC-project as approved by the Office of the Reconstruction and Development Programme;
- the availability of knowledge related to concepts, benefits and implications of development corridors. It was, however, expected that as the corridor concept is new in South Africa, companies would not have appropriate experience in this regard. Nevertheless, this criterion was included to test companies’ ability to study the concept in a record period of time and to determine what urban, transport and economic elements they will incorporate into the planning and foreseen implementation processes;
- an understanding of government’s development programmes and policies that existed at the time and which could have an influence on the proposed MCDC-project;
- the methodology proposed to execute the project, which included a well-structured technical as well as participation approach;

\(^{57}\) The representatives included officials and Councillors from the former Greater Pretoria Metropolitan Council, as well as the former metropolitan local councils found within the boundaries of the former Greater Pretoria Metropolitan Council.
the multi-disciplinary nature of the proposed project team needed to position the MCDC-project as a multi-faceted and integrated development attempt;

- the timeframes and programmes to support quick planning and implementation processes; and

- the proposed budget and its allocation to execute the project processes and phases.

3.1.4. The Greater Pretoria Metropolitan Council report of 28 March 1996

To proceed with the project processes and phases proposed by Urban-Econ Development Economists, the former Greater Pretoria Metropolitan Council resolved on 28 March 1996 as follows:

RE轱LSSED:

1. That the R 200 000 as budgeted for by the Directorate: Land-use and Planning, be approved to begin the initial phases of the project, until the appropriation of the R 2 million from the National RDP Office for the project. (Vote: ZZ 1444 95 35 – Planning & Land-use and Transport Planning).

2. That the specialist technical advisor, Urban-Econ, as determined by a comprehensive evaluation process, be accepted as the nominated project advisor for this project, at a fee not exceeding the amount of R 2.2 million (including VAT).

3. That the Northern Pretoria Metropolitan Substructure, the City Council of Pretoria and the Town Council of Centurion be involved in the finalising of the project brief, as well as the process to be followed when compiling the Growth and Development Strategy for the Mabopane-Centurion Development Corridor.

4. That a Co-ordinating Steering Committee be established to ensure co-ordination between the compilation/implementation of the Growth and Development Strategy for the Mabopane-Centurion Development Corridor (as a project) and the Strategic Metropolitan Development Framework (as a project), comprising, at least of representatives of the GPMC, the Northern Pretoria Metropolitan Substructure, the City Council of Pretoria and the Town Council of Centurion, as well as representatives of the respective technical advisors for these projects.

5. That Mr. H A Kleynhans be appointed Project Manager.

6. That in order to promote competition and emerging technical advisors, pending the determination of a proper policy with regard to the appointment of technical advisors, the Section 59 Committee: Transport and Land-use should monitor the use of emerging technical advisors on an ongoing basis and that URBN-ECON would have to report in this regard on a monthly basis. If the Section 59 Committee is not satisfied with the progress in this regard, it serves the right to recommend future participation of such emerging technical advisors.

(REMARK: With regard to the appointment of Urban-Econ, it was agreed that the firm be appointed to draft the Growth and Development Strategy.

During the discussion of the item by the Section 59 Committee: Transport and Land-use the opinion was expressed that politicians should have the opportunity to provide input in the determination of technical advisors, prior to the meetings of the Section 59 Committee: Transport and Land-use. On this issue it was replied that the GPMC is at this stage in the process of drafting a policy for the appointment of technical advisors, in which the role of the politicians will be set out in detail.

In the meantime, regarding the use of emerging technical advisors during the process of the Growth and Development Strategy, it was decided that the recommended technical advisor must report back on a monthly basis to the Section 69 Committee on this issue.)

(GPMC, 1996a).
3.1.5. The project contract between the former Greater Pretoria Metropolitan Council and the Project Advisor

The former Greater Pretoria Metropolitan Council compiled a comprehensive contract to ensure the proper execution of the project proposal submitted by Urban-Econ Development Economists. This contract and the contract to compile the first Land Development Objectives for the former Greater Pretoria Metropolitan Area for 1996 were the first of its kind signed in the former Greater Pretoria Metropolitan Council to execute town planning projects.

The contract with the appointed project advisor addressed aspects related to the responsibilities of the respective affected parties, the project fees and the financial arrangement for the project, the project approaches, project execution and project management arrangements. It also included the RDP-approved business plan and the compilation of a workbook within which the entire project had to be determined and documented (see paragraph 3.1.7 below for detail on the contents of the project workbook).

The contract between Urban-Econ Development Economists and the former Greater Pretoria Metropolitan Council was signed by the Acting Chief Executive Officer of the former Greater Pretoria Metropolitan Council on 16 April 1996 (GPMC, 1996b).

3.1.6. The project contract between the national Department of Transport and the former Greater Pretoria Metropolitan Council

A contract for the execution of the MCDC-project was also signed between the national Department of Transport and the former Greater Pretoria Metropolitan Council, although more than 18 months (4 December 1997) after the MCDC planning processes had been commenced with. This contract provided guidelines and parameters according to which the RDP funds had to be used for the execution of the approved business plan. It also provided clarity with regard to the role, responsibilities and relationship between the national Department of Transport and the former GPMC, guidelines for urban development projects, as well as guidelines for the development planning processes in government (Department of Transport, 1997).

3.1.7. The project workbook

As referred to in paragraph 3.1.5 above, the first step executed according to the contractual agreement referred to, was the compilation of the "project workbook", with the involvement of the respective role-players determined by the Council of the former Greater Pretoria Metropolitan Council (refer to paragraph 3.1.4 on page 113). This project workbook was compiled to manage the project processes and results, as well as to ensure the effective implementation of the business plan and the project proposal. The project workbook also ensured that each project team member knew exactly what was expected from him/her during each stage, at what time the deliverables were expected and at what cost. This project workbook was completed and accepted by the MCDC Steering Committee in April 1996.

The project workbook consisted of five sections, viz.:

- An introduction: This section focused on the objective of the study, the composition of the project team, the two distinct project phases to be executed and the expected role of the MCDC Steering Committee in the project processes;
The formulation of an Integrated Growth and Development Strategy: This included strategy focuses to use an integrated planning process as basis for the execution of the MCDC-project, as well as to clarify the community participation process. The technical planning process, the main responsibility of each member of the project team and the deliverables to be completed for each project step, were also described;

- The formulation of a development facilitation plan: This section focused on fast track implementation projects, especially in the Klip-and Kruisfontein area, as Phase Two of the project;

- The project programme: An exposition of time frames and deliverables was formulated; and

- The project budget: The cost per deliverable and per project team member were determined. The project team consisted of a core team, which included the following disciplines:
  - urban and development economists;
  - transport and other service engineers;
  - town planners;
  - a development corridor expert; and later also
  - urban designers.

This combination of disciplines was proposed by Urban-Econ Development Economists in their project proposal and so accepted by the former Greater Pretoria Metropolitan Council.

The core team was backed by a support team representing a number of specialists of other disciplines viz. that of: a community facilitator; a small-scale farming specialist; a commercial farming specialist; a human resources development consultant; an environmental developer; an economic development service specialist; a financial development expert; and an institutional development specialist (Urban-Econ Development Economists, 1996b).

SECTION C: THE PROJECT STRATEGIES OF THE MCDC-PROJECT

This section reflects the strategies of the MCDC-project by means of an explanation of the chronological sequence of events starting with the initiation of the planning activities on 1 May 1996 until the initiation of implementation actions on 17 September 1997.

1. Introduction

The implementation of the project workbook discussed in paragraph 3.1.7 above, was initiated on the 1st of May 1996. This Section, therefore, reflects the results of the execution of the project and planning processes of Phases One and Two of the MCDC-project in the form of a set of multi-sectoral strategies. These strategies were structured in such a manner that it also provided a planning framework for the identified strategies as the project planning was commencing and as implementation took place.
The formulation of an Integrated Growth and Development Strategy: This included strategy focuses to use an integrated planning process as basis for the execution of the MCDC-project, as well as to clarify the community participation process. The technical planning process, the main responsibility of each member of the project team and the deliverables to be completed for each project step, were also described;

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2. The project phases

As reflected in the RDP-approved business plan, the project constituted two phases, the one being the compilation of a Growth and Development Strategy for the entire corridor and the other, fast-track implementation of priority implementation projects in the Klip-and Kruisfontein area. These are briefly discussed below.

2.1. Phase 1 – Growth and Development Strategy

Phase One of the project consisted of the formulation of an Integrated Growth and Development Implementation Strategy for the entire MCDC area. A project strategy, to conduct the study in an "integrated and holistic" manner was implemented to incorporate and co-ordinate the different development dimensions found in the MCDC area.

The above-mentioned project strategy consisted of two clear-cut processes. The one being a technical process and the other a community participation process. Both these processes are further discussed in paragraph 3 below (Urban-Econ Development Economists, 1996b).

2.2. Phase 2 – Klip-and Kruisfontein – fast-track implementation

Phase Two was regarded as the process focusing on the identification of development projects, especially in the Klip-and Kruisfontein area, as well as the facilitation of implementation processes of priority projects. The proposed process at the time included a four-step approach, which included the identification of projects and assessing the impact of the identified projects, followed by a prioritisation process. An implementation strategy for the identified priority projects and the facilitation of implementation processes of the identified projects also formed part of the approach.

3. The planning processes for preparing the Growth and Development Strategy

Two processes were made provision for, the one being a technical process, and the other a participation process. The two processes and the reasons for the two processes are further elaborated upon in the paragraphs to follow.

3.1. The technical process

The technical process consisted of eight steps. These are indicated in Diagram 7 below and further discussed in paragraph 4. Each step represented activities executed by the respective multi-disciplinary project team members. The technical process was seen as a strategic and scientific exercise to determine the most viable development strategy and proposals, integrated through an overall integrated planning process.
Diagram 7: The Planning Process

**STEP ONE**
Delineation and goal formulation

**STEP TWO**
Multi-dimensional background research

**STEP THREE**
Database and planning models

**STEP FOUR**
Integrated Development Framework

**STEP FIVE**
Multi-dimensional project identification and prioritisation

**STEP SIX**
Project details

**STEP SEVEN**
Impact assessment

**STEP EIGHT**
Implementation Plan

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Socio-political scan
Compile work groups

Steering Committee Workshop

Round One work group
Verify research

Steering Committee Workshop

Round Two work group
Comment on Development Framework

Steering Committee Workshop

Round Three work group
Assist with project identification and prioritisation

Steering Committee Workshop

Round Four work group
Comment on Implementation Plan

(Urban-Econ Development Economists, 1996b)
3.2. The participation process

The participation process was dealt with as a separate, but integral part of the technical process. In fact, a comprehensive participation approach was executed. In the process, five area-bound work groups and one regional based work group were established throughout the MCDC area.

To establish these area-bounded workgroups, the appointed community facilitator, Thebe Development Consultants, completed a comprehensive community scan to identify potential representative groupings and institutions such as tax-payer associations, community forums, church associations, farmers’ associations, local interest groups and schoolmasters. The community participation reports compiled by the community facilitator revealed that a total of approximately 1000 representative community institutions were identified and incorporated into the area-bound work groups (Thebe Development Consultants, 1996a).

One work group was established for all the regionally-based organisations. These include institutions such as the South African Railway Commuter Corporation (Pty) (SARCC), taxi associations, bus operators, national government departments, provincial government departments, representative business associations and institutions and political parties.

During each step, whilst the project team commenced with the technical execution of that step’s technical process, the facilitators empowered the workgroups on that specific step. The empowerment was done, amongst others, by means of work group discussions on aspects such as the aim of a respective project step and the expected role of the technical specialists, government and the communities. Underlying legislation, development programmes and policies and other project-related matters having an influence on the project processes, were also clarified.

After completion of the technical work, the results were discussed and workshopped until a stage of acceptance was reached. Work groups were always provided additional time to provide further comment and input.

Each step was completed before the next step was commenced with.

4. The project steps of Phase One

4.1. Delineation of the study area and goal and objective formulation

This first step of the technical process was conducted during May 1996 and included the determination of a dynamic, but specifically demarcated study area. The reason was to guide the focus on the MCDC-project and the execution of the project steps within an agreed study area, accepted by the MCDC Steering Committee. The project team’s actions resulted in a first report known as the “MCDC Delineation of the study area and preliminary goal formulation; Interim working document no.1, June 1996”. Aspects that were dealt with included the identification of a primary and a secondary study area (also see Figure 29).

The “primary study area” was considered that geographical area which “…will directly be influenced by corridor development, as well as an area which represents its sphere of influence…” (Urban-Econ Development Economists, 1996c).

The “secondary study area” was considered that area which “…could influence, or which would be influenced by the development in the primary study area…” (Urban-Econ Development Economists, 1996c).
below for an illustration). All the members of the project team also formulated goals and objectives for their responsible professional fields to give focus to the work executed during the next project-steps illustrated in Diagram 7 above. These goals and objectives were formulated for the following multi-faceted issues:

- **Economic development**: To enhance the development of a more diversified economy by using the comparative advantages of the respective corridor areas to the benefit of the existing and potential economic activities found in that area;
- **Transport development**: To develop an integrated road network which would enhance economic growth and balanced urban/rural development;
- **Land-use development**: To create opportunities for mixed land-use development, especially for the disadvantaged;
- **Agricultural development**: To "maximise the utilisation" of all agricultural opportunities and resources in a scientific and sustainable manner;
- **Human resources development**: To improve and utilise the skills levels of the communities in the MCDC area, as well as to increase access to training facilities and opportunities;
- **Environmental protection**: To promote sustainable environmental development and enhancing "integrated environmental control" and conservation; and
- **Community participation**: To ensure involvement in the MCDC-project from all applicable stakeholders on a continuous basis (Urban-Econ Development Economists, 1996c).

**Figure 29: An illustration of the primary and secondary study areas of the MCDC-project**

(Urban-Econ Development Economists, 1997b)
After the acceptance of the contents of the above-mentioned report by the respective work groups and the Steering Committee, the project team commenced with the second step, using the results of the first step as a guiding mechanism to ensure a focused project execution approach. This first step was completed in one month (Urban-Econ Development Economists; 1996c)

4.2. The multi-dimensional background research

The multi-dimensional background research was initiated in June 1996 and was completed in August 1996. It started with sectoral investigations, followed by the compilation of a number of sectoral reports:

- **The transportation sector**: The report explaining the transportation situation in the MCDC area also incorporated an investigation of all infrastructure services. The report was compiled by Africon (Africon, 1996);
- **Agricultural development**: This report, which was compiled by Agtec, primarily concentrated on existing commercial agriculture in the identified primary and secondary study areas, as well as the potential therefore (Agtec, 1996);
- **The environmental sector**: Bolweki Enviro-Waste completed a comprehensive environmental analysis for the entire MCDC area. It also incorporated the influence of all legislation managing environmental issues and the implications thereof for the MCDC-project (Bolweki Enviro-Waste, 1996);
- **Human resource development**: Social aspects related to health, welfare, education and training in the identified MCDC area were analysed by MANSTRAT. The results captured in the human resource development report created an understanding of the human development status quo, as well as the opportunities and potential of the population located in the MCDC area (MANSTRAT, 1996);
- **Corridor development**: A report reflecting the results of an investigation regarding the benefits, underlying principles, views and approaches related to development corridors, was compiled by Morley Nkosi Associates (Morley Nkosi Associates, 1996);
- **The economic sector**: All socio-economic aspects found in the MCDC area, were investigated by Urban-Econ Development Economists (Urban-Econ Development Economists, 1996d);
- **Small-scale farming**: The use of small-scale farming and using it as an approach (opportunity) towards job creation in the identified MCDC area, was investigated by People Agricultural Development (People Agricultural Development, 1996);
- **The institutional sector**: The institutional situation and influences found at the time, affecting the potential establishment of the MCDC, were investigated and documented by Wolmarans and Associates (Wolmarans and Associates, 1996); and
- **Land-use development**: Van der Schyff, Baylis, Gericke and Druce Town Planners investigated the existing land-use patterns and trends in the MCDC area. They also identified and investigated the presence of inhibitors to establish a development corridor in the MCDC area (Van der Schyff, Baylis, Gericke and Druce Town Planners, 1996).

These reports were then used to compile a single integrated report, known as the "MCDC: Development Perspective" (Urban-Econ Development Economists, 1996d).
Towards the completion of the above-mentioned investigations, the project team also realised that for the MCDC-project to be really successful, an analysis of the marketing potential of marketing opportunities found during the multi-dimensional research-process, should also be incorporated with the project processes and results. For this purpose, an analysis of marketing opportunities, concepts and approaches was conducted by Msomi Hunt Lascarus. The results of their investigation resulted in "A marketing strategy for the Mabopane-Centurion Development Corridor" (Msomi Hunt Lascarus, 1997).

During June 1996, the project team also commenced with the first two steps of Phase Two, as referred to in paragraph 2.2 above. This resulted into the compilation of a report known as the "MCDC Project identification and prioritisation, Phase Two, Steps one and two; Interim working document no 2, July 1996" (Urban-Econ Development Economists, 1996e).

It was through the evaluation of the results contained in the above-mentioned reports, that the MCDC Steering Committee during August 1996 realised that it was not possible to proceed with Phase One and Phase Two of the MCDC-project simultaneously. The reason was that the planning process had not yet reached the stage where a strategic development vision for the development of the MCDC was known and which was needed to measure the importance of projects for prioritisation purposes. Phase Two was, therefore, halted until the completion of Phase One in August 1997 (MCDC, 1996c).

It was then that the MCDC Steering Committee strategically realised that the technical process lacked a strategic vision for the development of the MCDC.

The lack of a strategic development vision was corrected by the formulation of a vision and a schematic development concept for the MCDC. The latter was negotiated and formulated during September 1996 by the respective role-players involved through the participation processes. The accepted vision incorporated the restructuring of five key focus areas, viz.:

- directed economic development;
- integrated transportation systems (accessibility and mobility);
- investment attraction;
- integrated and compact spatial development; and
- human resource development.

A detailed development vision was also formulated for each of these focus areas (Urban-Econ Development Economists, 1996f).

4.3. The data base and planning models developed for the MCDC-project

It was only after the acceptance of the above-mentioned vision in September 1996 by all involved in the MCDC-project, that the Project Team commenced with this third project step. During this step, the development economists, Urban-Econ Development Economists, gathered information from the former GPMC's financial data bases. This information was used to develop five potential growth scenarios, using the principles of input/output modelling. The results of the analysis and the growth models that were developed, are given in Diagram 8 below.
Concluding from Diagram 8 below, the project team investigated five potential growth scenarios focused on the year 2010 as a projection year. The following resulted from their investigation (also see Diagram 8 for an illustration of the discussion below):

- **A historic growth scenario**: The historic growth determined for the identified MCDC area, was projected into the future. The results of this scenario indicated that in terms of the population growth experienced in the MCDC area, the unemployment rate would increase dramatically. This scenario was, therefore, not considered;

![Diagram 8: MCDC 1996 – 2010 Scenario development](attachment:Diagram_8.png)

**ECONOMIC GROWTH SCENARIOS**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Growth</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1</td>
<td>1996 Growth</td>
<td>9.7%</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>MES Growth Path</td>
<td>6.2%</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>Low growth</td>
<td>11.1%</td>
</tr>
<tr>
<td>Scenario 4</td>
<td>5% Unemployment</td>
<td>12.8%</td>
</tr>
<tr>
<td>Scenario 5</td>
<td>Possible Growth</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

(Urban-Econ Development Economists, 1996d)

- **The macro-economic strategy scenario**: The proposed/required 6% national growth scenario was investigated. While results of this scenario was considered a possibility for implementation, the estimated growth potential of the MCDC area was regarded as being unlikely to reach a 6% employment growth rate;

- **The low-growth scenario**: This scenario was based on the real growth in the national economy. This scenario implicated that the unemployment rate will dramatically increase. This scenario was, therefore, also not regarded as an appropriate economic growth scenario for the further planning of the MCDC area;

- **A 5% unemployment growth scenario**: In this scenario, the project team investigated a decrease in the unemployment rate from 24%, as calculated for the MCDC area, to a 5% unemployment rate. To reach such a target, it implied creating a 12.8% employment growth rate. Reaching a 12.8% growth rate was regarded as totally impossible and this was, therefore, not further considered by the project team; and

- **A possible economic growth scenario**: The project team, when analysing the MCDC’s economy, determined that the MCDC area had the potential of a 4.4% employment growth rate, given that certain problematic issues, such as the lack of proper regional and local mobility and accessibility throughout the MCDC area, were addressed. This economic growth scenario was accepted by the MCDC Steering Committee, as the scenario to determine the potential future growth and demand for developable land, infrastructure,

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60 The calculations determined that the scenario could result in an unacceptable 49% unemployment rate by the year 2010.

61 The MCDC-project team determined that the MCDC area had an average unemployment rate of 24% at the time of investigation.
community services, facilities and amenities (Urban-Econ Development Economists, 1996d).

After scenario five was chosen by the MCDC Steering Committee as the most realistic economic growth development model, the project team commenced with a process to establish basic principles for the development of potential planning models. This was done by evaluating and applying seven preconditions for corridor development. These were:

- connectivity between major nodes;
- densities and continuity;
- location of significant land uses;
- existence of multi-modal transportation;
- propensity for development;
- absence of inhibitors; and
- high level of accessibility.

These seven preconditions were then strategically compared with the five restructuring key focuses of the vision. Corridor elements and functions, such as those found in Chapter Two, were then carefully integrated to develop a possible development corridor concept for the MCDC area. The results of this exercise are briefly discussed in the following paragraphs, which also reflects the criteria as well as the corridor elements and functions incorporated into the planning process, as to develop the MCDC development corridor concept.

### 4.3.1. Improved regional accessibility

"Improved regional accessibility" for both labour and economic markets, was adopted as a first criterion to "maximise investment opportunities". The elements and functions incorporated in the conceptual planning process were based on the interaction between economic markets and labour, the principle of direct and effective accessibility, as well as cross-linkages (physically and economically) with other corridors such as the Maputo/Trans-Kalahari, the Pretoria/Johannesburg development axis, the Pretoria/Krugersdorp road link and the Pretoria/Babelegi/Warmbaths transport corridor.

Figure 30 provides a schematic illustration of the application of improving regional mobility as a development criterion.

### 4.3.2. Integrated transport systems

The second criterion used by the project team, was that of establishing an "integrated transport system". The functions and development corridor elements incorporated in the conceptual planning process, included aspects such as approaches to facilitate regional mobility and movement, the establishment of an appropriate mass transport system and the establishment of effective transport linkages. Integrated land-use and transport planning as a planning approach was considered the basis to integrate the MCDC area with the surrounding circulation systems as well as to modify the short term location of land-uses within the MCDC area.

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62 In this instance a "transport corridor" implies a mobility link benefiting the movement of both people and goods over a longer distance with limited interference.
Figure 31 provides a schematic illustration of the application of the proposed criterion for developing an integrated transport system.

4.3.3. Directed economic development

The following criterion was that of applying a directed economic development approach. For this purpose, the project team focused on cluster development and the development of industrial complexes. High-density mixed land-use development, functional specialisation, agglomeration, the realisation of economies of scale, the geographical concentration of economic activity and the spatial hierarchy of market areas, were all elements and functions incorporated in the conceptual planning processes.
Figure 32 provides a schematic illustration of the application of the elements and functions needed to promote directed economic development in the MCDC area.

4.3.4. Urban and rural restructuring

The next criterion applied by the project team focused on urban and rural restructuring, as a focus to work towards "integrated and compact spatial development". The approach implied the demarcation of an urban edge at localities adjacent the corridor where the prohibiting of urban sprawl would contribute towards inwards growth, as well as the incorporation of elements and functions such as the creation of a mixed land-use pattern and high-density residential development. Functional diversity and a variety of development options, as well as
land-use specialisation, reaching spatial quality, the integration of land-uses and the maximisation of interaction with minimum travel, also count among the applied development corridor elements.

Figure 33 provides a schematic illustration of the application of the elements and functions discussed above, to work towards urban and rural restructuring in the MCDC area.

Figure 32: Directed economic development

(Urban-Econ Development Economists, 1996f)

4.3.5. Human resources development

The last criterion used by the project team for the preparation of a development corridor concept, is that of human resources development. As an overall integrated and holistic development planning approach was applied, the project team considered the integration of
this criterion to promote "community enablement and development" as an integral part of the planning approach.

Development corridor elements and functions incorporated in the conceptual planning process included the establishment of a training cluster, the implementation of human development programmes, the provision of amenities and redevelopment, the promotion of job creation, as well as the improvement of access to and integration of all facilities and amenities throughout the MCDC area.

Figure 34 provides a schematic illustration of the application of the elements and functions to promote human resources development in the MCDC area, especially from a spatial planning and development point of view.

Figure 33: Urban and rural restructuring

(Urban-Econ Development Economists, 1996f)
4.4. The integrated development framework

In November 1996, the MCDC Steering Committee accepted the proposed basis for a development corridor concept as discussed in paragraph 4.3 here above. The MCDC project team then had to use the accepted schematic development corridor concept, to formulate a realistic area-focused integrated development framework for the entire identified MCDC area.

Figure 34: Human resources development

(Urban-Econ Development Economists, 1996f)
At this point in time, a serious delay was experienced with the preparation of the required development framework. A single sub-consultant, who was of the opinion that the MCDC is not a corridor, caused this delay, as numerous discussions over a two month period was held by the project team to test the grounds for this company's opinion. During this period no progress in terms of the project execution was made. As a result of the discussions, the rest of the project team agreed to the view that the MCDC is indeed not a development corridor yet. But the rest of the project team simultaneously stated that the MCDC, in terms of their respective multi-disciplinary investigations, has indeed the potential to become a development corridor of metropolitan magnitude, given that certain critical success factors are met. When the consultant still did not succeed in reaching deadlines for work agreed upon by the project team, the continuous pressure from stakeholders and government to perform and to make progress resulted in the replacement of the town-planning specialist. A new combination of appointments by the appointed project advisor, Urban-Econ Development Economists, was then made.

These appointments incorporated the inclusion of a new town planning consultant, Cadré Plan, as well as an urban designer, Greef and Associates. This team then formulated the required draft integrated development framework within a period of only one month. The final integrated development framework was completed towards the end of February 1997 (Cadré Plan and Greef and Associates, 1997).

The urban elements incorporated in the integrated development framework and on which the development concept of the MCDC-project was based, included a mobility spine, urban nodes, an activity spine, activity streets, access spines, an open space system, urban edges and inter-modal transfer nodes. Each of these are briefly discussed in the following paragraphs (also see Figure 36 on page 133 for an illustration of the MCDC Integrated Development Framework).

### 4.4.1. A mobility spine

Cadré Plan and Greef and Associates proposed the development of a mobility spine (also refer to Figure 35 below), as a project strategy to provide a transport link between the major existing and proposed economic nodes in the MCDC area, as well as those situated towards the south (Greater Johannesburg/West Rand area) and towards the east (Pretoria central business district). It was also focused at providing linkages with other corridors such as the Coast-to-Coast initiative, of which the Maputo Development Corridor discussed in Chapter Two, is part of. Furthermore, it had to provide effective access at regular intervals to the activity spine (discussed in paragraph 4.4.3 below), by means of accessibility roads (discussed in paragraph 4.4.5 on page 131 below) (Urban-Econ Development Economists, 1997b).

Other important characteristics included linkages to markets and other physical and economic activities, similar to those focused on in the W-Growth Corridor in the Philippines. It had to improve proper regional mobility, encourage an effective mass transport system and be integrated with the rest of the development corridor concept.
4.4.2. Urban nodes

As in the case of the Tembisa-Kempton Park Development Corridor, the MCDC project team regarded urban nodes as "...a place of the highest accessibility and advantage where both public and private investment tend to concentrate...". The consideration by the project team to incorporate urban nodes was based upon the argument that urban nodes are regarded as magnets to attract economic activity and the movement of people and goods. This approach is similar than used with the Wetton-Landsdowne Development Corridor. The work of the project team further revealed that the stronger the economic activity, the stronger the movement, which in turn creates the potential for economic activity on these movement links.

The strategy was, therefore, to stimulate the development of these nodes (existing and proposed nodes) in terms of a range of both small and large-scale enterprises. In this regard, the project team stated that a hierarchy of nodes could develop along the MCDC area (Urban-Econ Development Economists, 1997b).
4.4.3. The activity spine

The project team viewed an activity spine as a route found in close proximity to the mobility spine, integrated into a road hierarchy through the provision of an accessibility route (see Figure 35 above for a schematic illustration). The project team also accepted that the activity spine is linking urban nodes with each other, accommodating a range of mixed land-use activities. It, therefore, is also characterised by the movement of a number of different transport modes. Cadre Plan and Greef and Associates were also of the opinion that, as the activity spine attracts people and investment to a linear line, it will provide the ideal opportunity for a properly developed public transport system along such an activity spine. It should, therefore, be characterised by issues such as higher densities, improved spatial and environmental quality, land-use integration and shorter travel distances. Furthermore, as in Curitiba, the need to travel should decrease as a result of the range of land-uses to be found next to the route (Cadre Plan and Greef and Associates, 1997).

4.4.4. Activity streets

Activity streets (see Figure 35 above for a schematic illustration) were considered by the project team as streets found in certain areas where a concentration of economic development is found adjacent to an activity spine, for example, where major inter-modal transfer nodes are developed to ease the movement of pedestrians. The project team regarded these inter-modal transfer nodes as more local in nature (Urban-Econ Development Economists, 1997b).

4.4.5. Accessibility spines

The project team used accessibility spines as routes of a higher order linking the mobility spine and the activity spine with each other (see Figure 35 above for a schematic illustration) (Urban-Econ Development Economists, 1997b).

4.4.6. An open space system

Cadre Plan and Greef and Associates focused on an open space system as an essential element of the development corridor concept. They regarded its purpose as being to enhance the spatial and environmental quality of the corridor. They stated that an open space system provides opportunity for sports and recreation, as the different nature areas also differ in character and potential. It also provided an opportunity to create an urban edge, to stimulate higher densities and to establish a more compact urban form (Cadre Plan and Greef and Associates, 1997).

4.4.7. Urban edges and interfaces

The project team included the prevention of urban sprawl as an integral strategy of the MCDC-project as to enhance higher density development. Also so to reach the appropriate thresholds needed to develop a proper public transport system which, amongst others, provides easy access to public facilities and amenities along the activity spine. They, therefore, regarded it essential to address the interface between the urbanised area and the adjacent rural areas. For this purpose, it was proposed that the MCDC-project should also stimulate both commercial farming and urban agriculture, as a development strategy, similar to the Wetton-Landsdowne Development Corridor. This strategy supports another proposed
strategy, viz. to increase the productive use of land to contribute to the economic development of the corridor (Urban-Econ Development Economists, 1997b).

4.4.8. Inter-modal transfer nodes

As in Curitiba, inter-modal transfer nodes were also proposed by the MCDC project team, not only as part of a strategy to promote public transport, but also to create opportunities for economic activities (as a result of the presence of pedestrians, which represent the buying power necessary to increase the feasibility of an economic activity).

Figure 36 below reflects an illustration of the MCDC Integrated Development Framework, prepared through the application of the set of urban elements proposed as the development corridor concept. The concept's elements (as discussed above) applied in the MCDC area is not considered a standard, but were proposed by the MCDC project team as the most appropriate combination of urban elements to formulate a development concept, contributing to the revitalisation of the western parts of the former Greater Pretoria Metropolitan Area. Furthermore, as the MCDC area and project consist of different areas (see paragraph 3.1.1(d) on page 105 for detail), each with its own unique characteristics and potentials, area to area proposals were also prepared by the project team to optimally utilise the potential of those respective areas. The latter, however, is for the purpose of this dissertation not further discussed, as it represents the detailed application of the proposals made in the MCDC Integrated Development Framework.
Figure 36: The Integrated Development Framework of the MCDC-project

(Urban-Econ Development Economists, 1997b)
4.5. The multi-dimensional project identification and prioritisation

An essential part of the project strategy executed by the project team was to identify projects for implementation. This was done as part of a process to initiate the development of the MCDC. These projects were aimed at "...addressing the development constraints, opportunities and needs..." within the MCDC area. The purpose given by the project team was "...to make a definite social, economic and spatial impact..." on the MCDC area (Urban-Econ Development Economists, 1997b).

Another strategy implemented by the project team to promote the establishment of the MCDC, was to use an approach for the project identification process whereby projects were identified from a technical point of view. Communities and private sector institutions were also granted the opportunity to identify projects, which they considered to be essential for the establishment of the MCDC. This approach resulted in the identification of numerous projects. After these projects were listed and grouped, the project team realised that to implement all the identified projects, will require a substantial amount of money. The project team also realised that it will be difficult to prioritise these projects in terms of importance, as the projects are of different magnitudes, implementation will be the responsibility of different authorities (and spheres of government), and have different importance levels for the different stakeholders involved in the MCDC-project. To overcome the prioritisation problem, a process was decided upon whereby projects were categorised from a strategic implementation point of view. The projects were then categorised into "Strategic Projects"63, "Development Support Projects"64 and "Basic Needs Projects"65. Also referred to Annexure A – A list of the identified projects.

The Strategic Projects mentioned above, were considered the essential part of the project strategies as to promote the establishment of the MCDC. These Strategic Projects are therefore briefly discussed below.

4.5.1. A focused marketing strategy

As in Curitiba, marketing the development corridor concept and the opportunities for development, this project was identified for the sole purpose of compiling a strategy to create awareness of the MCDC-project and to market the MCDC as "...an entity with its own identity and character..." and also to market the respective development opportunities of its different areas (Msomi Hunt Lascarus, 1997).

4.5.2. A small business support programme

The project team considered the large number of informal traders present in the MCDC area, as opportunities for local SMME development. According to the project team, it also represented a concept to promote linear economic and social development along the

63 "Strategic Projects" were considered as projects of strategic importance, essential to the successful establishment of the entire corridor (Urban-Econ Development Economists, 1997b).
64 "Development Support Projects" were defined as those projects that are not of strategic importance to the entire MCDC-project, but still essential to the development of parts of the MCDC area (Urban-Econ Development Economists, 1997b).
65 "Basic Needs Projects" were defined as those projects identified by different communities and role-players in the MCDC area and which were bound to a specific location in the MCDC area (Urban-Econ Development Economists, 1997b).
proposed activity spine of the MCDC-project. It was considered essential that issues such as those listed below be addressed through a small business support programme:

- that a comprehensive support function be established to stimulate both existing businesses and new potential businesses in the MCDC area, similar to the approach used in Porto Alegre;
- "to address business needs..." of SMME's, both formally and informally; and
- to stimulate the development of the informal sector business into formal businesses (Urban-Econ Development Economists, 1997b).

4.5.3. A public support programme

A three-fold purpose was identified for this project. Firstly, to create assistance with the location and the establishment of investments. Secondly, to enable the MCDC-project to compete more favourable for investment with other areas within the former Greater Pretoria Metropolitan Area, the province and even the country. Lastly, to develop a supportive development programme, which could provide realistic incentives and which was flexible enough to adapt to economic and political changes, as in the case of Curitiba. The development programmes should also be acceptable to the existing and future business community, should easily find access to funding and be easy to maintain (Urban-Econ Development Economists, 1997b).

4.5.4. The development of an urban port

The proposed "Urban Port" area comprises the Rosslyn/Klerksoord industrial area, the Akasia central business district and the Wonderboom Airport area. It is in this area where the MCDC area is intersected by the Coast-to-Coast initiative of the national government. The strategic purpose identified by the project team was aimed at maximising the development opportunities brought about by the intersection of the two corridors. An urban node of metropolitan importance in this part of the MCDC area could be promoted, similar to what is proposed in the Arizona Trade Corridor. However, to guide the implementation of this strategy, a comprehensive "...pro-active and integrated development framework..." had to be compiled for the "Urban Port" area (Urban-Econ Development Economists, 1997b).

4.5.5. Developing an open space policy for the MCDC area

Cadré Plan and Greef and Associates acknowledged that the MCDC area has unique open spaces, which were incorporated into the planning rationale as an essential asset in terms of future existence. It is also situated in such a way that it could be used as a container for urban sprawl. Strategically, as the MCDC is an urban corridor of approximately 60 kilometres, it was considered essential by the project team that the corridor should not only be characterised by densified urban areas, but should also provide ample open areas for recreational purposes, as in Curitiba. It was therefore determined that an open space policy should be compiled to guide sustainable development in a co-ordinated and integrated manner, stimulating possible environmental friendly economic activity, even within the open spaces (Urban-Econ Development Economists, 1997b).
4.5.6. Promoting densification in the MCDC area

This strategy is quite generic in nature and found in most urban development corridors discussed in this dissertation and encompasses a specific focus on the development of a higher density residential component in the MCDC area. This was considered essential to trigger the urban and rural restructuring that was considered needed in the MCDC area. The MCDC project team, therefore, suggested as a strategy that a number of high-density residential pilot projects be initiated to trigger the above-mentioned urban and rural restructuring. This could, according to the project team, be executed through the implementation of design criteria and mechanisms for implementation at each of the potential pilot project areas (Urban-Econ Development Economists, 1997b).

4.5.7. Intensification and diversification in the MCDC area

Facilitating intensification and diversity in the corridor, especially with regard to the development of the activity spine (discussed in paragraph 4.4.3 on page 131) and the urban nodes (discussed in paragraph 4.4.2 on page 130), was regarded as an essential strategy to “…ensure viability of the MCDC as a corridor of integrated and compact economic and spatial development…”. As with the Wetton-Landsdowne Development Corridor, this was regarded as a mechanism to ensure the effective integration of the MCDC area with the rest of the area of the “new” City of Tshwane Metropolitan Municipality. The project team determined that it should provide ample access to opportunities as it should stimulate continuity between the mentioned urban nodes in the form of a development “energiser” (Urban-Econ Development Economists, 1997b). A similar approach was found in the Wetton-Landsdowne Development Corridor, as well as the Tembisa-Kempton Park Development Corridor.

4.5.8. Establishing a mobility link across the Witwatersberg (PWV-9-link)

The purpose of this project was regarded a necessity to create a continuous mobility axis from the one side of the corridor to the other, similar to that proposed for the Arizona Trade Corridor linking one side of the state with the other. This link should increase accessibility to other areas adjacent the MCDC area, supporting the economic linkages found between the urban nodes in the MCDC area. It could also increase access to other markets found outside the MCDC area (Urban-Econ Development Economists, 1997b).

The mobility spine is also considered a major catalyst to kick-start the establishment of the MCDC development projects (Krynauw, 2000).

4.5.9. Creating a link to the Witwatersrand

The project team determined during the transportation network analysis that there was no proper free-flow link between the MCDC area and the Midrand Development Axis, situated to the south of the MCDC area. Strategically, a link to this area was viewed as a “desired line of movement” (Krynauw, 2000). The reason was that the Midrand Development Axis was regarded as an established economic node with which the MCDC area should be linked to strengthen the economic linkages that exist between the Midrand area and other urban nodes in the MCDC area. The supportive aim was, therefore, to establish a continuous access and mobility link between the MCDC area and the Midrand Development Axis. By doing so, continuity could be enhanced between the two areas (Urban-Econ Development Economists, 1997b).
4.5.10. Establishing activity spines along the MCDC area

The proposed activity spine of the MCDC-project was suggested as the "backbone of development" throughout the MCDC area by the project team. Mixed land-uses and core activities were to be accommodated next to the activity spine along its total length between two urban nodes, similar to what is being implemented in Porto Alegre.

Strategically, this proposed strategic project was focused on an opportunity for promoting urban restructuring as it could increase opportunities for local access to areas of development. It also represented opportunities for densification, SMME development, mixed land-use developments, public transport, as well as easier access to public facilities (Urban-Econ Development Economists, 1997b).

4.5.11. Developing a public passenger transport system for the MCDC area

Realising that the integration of land-use development with an effective public transport system, especially such as that found in Curitiba, is regarded as a vital strategy to promote the establishment of any development corridor, the project team regarded the implementation of this project as quite logical to facilitate and support mixed land-use development in the MCDC (Krynauw, 2000). However, the real challenge seemed to be an attempt to improve access to public transport and to improve the level of service of such a system. Preventing the development of a fragmented system, but rather fully integrating it with the entire system to be developed for, which is since being referred to, as the area of the City of Tshwane Metropolitan Municipality (Urban-Econ Development Economists, 1997b), was also part of the challenge determined for the implementation of this strategic project.

4.5.12. Establishing guidelines for the development of an interface between different transport modes (inter-modal transfer facilities)

As mentioned in paragraph 4.5.11 above, the development of an effective and affordable public transport system was regarded as essential to the development of a corridor. A corridor also accommodates the movement of a number of different modes of transport. It was, therefore, necessary for the project team to develop inter-modal transfer facilities at specific locations benefiting the users thereof. To increase optimal benefits such as in Curitiba, the MCDC project team proposed the formulation of a set of guidelines to address this interface between the different modes of transport. It was also stated by them, that it should be done in such a manner that not only public transport benefits, but it should also benefit the potential for economic development that normally exists in the vicinity of such an inter-modal transfer facility (Urban-Econ Development Economists, 1997b).

4.5.13. Instituting Vocational Education and Training (VET) and Entrepreneurial Development Programmes

The MCDC project team determined that the MCDC area had an enormous labour potential, although largely uneducated. When compared to the number of training institutions found in the MCDC area, which in fact was regarded by the project team as a comparative advantage, it was difficult to clarify the poor levels of education that existed among the MCDC communities. Therefore, as was proposed for the Wetton-Landsdowne Development Corridor, a strategy was identified to initiate the institution of community and entrepreneurial training...
programmes in an attempt to also address the high levels of unemployment found in the MCDC area. This strategy included an approach to enable communities to identify and create own employment opportunities in their respective areas through the implementation of entrepreneurial development programmes instituted by the different training institutions situated in the MCDC area (MANSTRAT, 1996).

4.5.14. Human development information and support centres

The strategic purpose of this project was determined as being multi-faceted and included a number of strategies, viz. that of:

♦ the establishment of human development information and support centres at strategic locations, preferably on the activity spine to ease access for the public to such centres, as well as the use of public transport;
♦ the provision of multiple information on a number of issues and concerns which could easily be accessed by means of electronic infrastructure, supported by a trained staff component to help illiterate community members; and
♦ to act as one-stop community facilities, incorporating economic activities, community and public facilities (Urban-Econ Development Economists, 1997b).

4.6. The project details and project impact assessments of the identified strategic projects of the MCDC-project

After the completion of the project identification process in March 1997, the project team commenced in April 1997 with the sixth and seventh steps, as reflected in the technical planning process (given in Diagram 7 on page 117). These two steps were executed simultaneously by the project team and resulted in the preparation of project details and impact assessments for only the 14 strategic projects discussed in paragraph 4.5 above.

To ensure that a focused approach was followed with the overall development of the MCDC area and, therefore, with the implementation of the strategic projects, a strategic decision was taken by the project team to create a proper information basis for each of the respective strategic projects, as was done for the Maputo Development Corridor. This information basis was based on the following:

♦ a detailed description formulated for each strategic project;
♦ a description of the different components/elements of each of the projects;
♦ identified vital issues for each respective project, to prevent any unnecessary pitfalls;
♦ the linkages of each of the respective strategic projects to other projects, government sectors and the private sector, were established and described;
♦ the expected development impact was determined;
♦ the potential key role-players, which should be involved in project execution, were identified;
♦ the expected institutional influences were determined;
♦ potential funding options for the execution of the respective projects were determined; and
♦ a brief implementation plan for each of the respective projects was formulated.
This approach not only streamlined the decision-making process to enhance implementation, but also created an "informed platform" for all involved role-players in the MCDC-project, to enable more speedy delivery.

4.7. The implementation plan for the MCDC-project

In May 1997, the MCDC project team put together a fully fledged implementation plan, which focused on two primary strategies, viz. that of:

♦ managing the development of the MCDC-project by means of the establishment of interim task teams (further discussed in detail in Section E.). The proposal made by the project team stipulated that these task teams were to exist until such time the proposed MCDC Development Body (also discussed in more detail in Section E.), was established. The foreseen purpose of the proposed MCDC Development Body was to initiate, co-ordinate and manage the development processes of the MCDC-project. Other strategic issues included the availability of development information, the monitoring of economic growth, accessing development funding, implementing a marketing program, establishing acceptable levels of co-ordination and the involvement of communities, the private sector and the public sector; and

♦ implementing the identified strategic projects, development support projects and the basic needs projects (Urban-Econ Development Economists, 1997b).

4.8. The Integrated Growth and Development Implementation Strategy of the MCDC-project

Towards the middle of June 1997, the project team completed the entire planning process as captured in Diagram 7 (see page 117 for detail) in draft. The results emanated into the compilation of an integrated report known as the "MCDC Integrated Growth and Development Implementation Strategy".
Implementation Strategy" (IGDIS) (also see Figure 37 above). This report formed the basis for the implementation actions and activities, further strategic planning exercises needed, and detail design and implementation parameters for the establishment of the MCDC. It also incorporated an institutional framework within which the development of the MCDC-area could be managed.

In July 1997, approximately 1000 copies of the report were distributed to all members of the established MCDC work groups for final input and comments. Members of the public were also invited by means of an advertisement placed in local newspapers (Beeld, Pretoria News, Sowetan and Rekord), as well as radio interviews, to consider the report. Thirty days were allowed for final input and comments (Thebe Development Consultants, 1997a and b). The extraction from a progress report of Thebe Development Consultants provided confirmation of the above, as well as the extent to which attempts were made to keep the public informed throughout the compilation of the IGDIS-report (also see Equation 1 on page 141, Equation 2 on page 142 and Equation 3 on page 143).

After receiving less than 30 final inputs and comments by the end of July 1997, the project team assessed all comments and finalised the IGDIS-report during the first week in August 1997. Given the fact that the report was so widely publicised for input and that only a limited number of comments were received, actually surprised the MCDC project team as a lot more comments were expected.

The final IGDIS report represented the core aspects of the work and thinking of the project team, government and other stakeholders, completed during a 15-month period. In itself, it represents a success story as, irrespective of delays caused by a number of project activities, close adherence to the original project programme was maintained. When the planning processes were initiated in May 1996, the project team decided to implement the words of Curitiba’s Jamey Learner66 “...make progress and correct mistakes later...”.

The completed report formed the strategic guiding mechanism to get the MCDC established and specifically focus on issues such as:

- the foundation laid during the multi-dimensional background research period;
- the development corridor concept, with its associated vital issues and the demarcation of the MCDC area;
- the development status of the MCDC area from a national, provincial and metropolitan context, as well the sectoral development perspectives addressed during the multi-dimensional background research activities;
- the formulation of development and growth scenarios;
- the MCDC development principles, goals and objectives;
- proposed spatial development framework concepts and principles;
- the MCDC Integrated Development Framework, giving a development focus of each individual area included in the MCDC area, as well as sector specific development proposals and strategies;
- the identification and categorisation of development projects, which also give specific focus to those projects identified as "non-negotiable projects" needed to get the entire MCDC established;

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66 Jamey Learner was the Executive Mayor of the City of Curitiba when the development corridor approach was introduced in Curitiba (also refer to the discussion on Curitiba in Chapter Two on page 31).
• an integrated implementation strategy to manage the implementation of projects and the
development of the entire MCDC area; and

• potential "...design and establishment parameters..." for the establishment of the MCDC
Development Body "...to ensure the development of the MCDC..." (Urban-Econ
Development Economists, 1997b).

The results, findings and proposals contained in the IGDIS-report were approved in
September 1997 by the former Greater Pretoria Metropolitan Council, as well as the former
metropolitan local councils\(^{67}\) in the area of jurisdiction of the former Greater Pretoria
Metropolitan Council. The resolutions taken, indicated the acceptance and approval of the
MCDC Integrated Development Framework (also see Equation 4 below for an extract of the

Equation 1: The communication of the MCDC-project to the public

| The process comprised a detailed identification of stakeholders within the study area, two sessions of
| interviews with key stakeholders, and four rounds of meetings with the identified Working Groups
| and other community groups. |

2. PUBLIC RELATIONS COMPONENT

Media/Press Releases & Press Conferences

Members of the press were made aware of the Mabopane-Centurion Development Corridor project
during a media briefing by the Minister of Transport, Mr. Mac Maharaj, on 21 May 1996.

A Press Release announcing the completion of the draft Integrated Development Framework
document for the Mabopane-Centurion Development Corridor was prepared by the Chief Liaison
Officer of the Greater Pretoria Metropolitan Council, and distributed to the following media on 19
June 1997.

Electronic Media

SABC Radio
Radio Thobela
Radio TNT
Radio Winterveld
Radio Soshanguve
Radio Tuks
Radio Rippel

Print media

The Beeld
The Sowetan
The Citizen
Frontnus
Metro Weekblad
SACOM News
Pretoria News

(Thebe Development consultants, 1997b)

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\(^{67}\) The former metropolitan local councils refer to the City Council of Pretoria, the Town Council of Centurion and the
Northern Pretoria Metropolitan Sub-Structure.
The resolutions also made provision for maximum support by the respective authorities for the implementation of the identified development projects to get the MCDC established, as well as the approval of the MCDC Integrated Implementation Strategy. The establishment of the proposed MCDC Development Body was also approved.

Equation 2: The communication of the MCDC-project during the initial phases of the project

2.1.3 The following articles were published by the print media during the initial phases of the project:

i. on 22 May 1996, the Pretoria News printed an article headed, “Corridor link mooted”, which introduced the Project at its initial planning stage.

ii. A further article, based on a brief press statement prepared by the Greater Pretoria Metropolitan Council, titled, “planned corridor ‘will boost western area”, was placed by the Pretoria News, on 23 May 1996.

iii. A press statement made by the Gauteng MEC for Development Planning and Local Government, MEC S Schiceka, was published on 10 June 1996, by The Beeld, under the headline, Planne vir korridor n’ eerste vir Suid Afrika”.

iv. An article entitled, “60 km growth strip for city’s west side”, was published by the Pretoria News on 03 October 1996, introducing the Project.

v. A further article, giving an update on the progress of the Project, appeared in the 24 October 1996 edition of the Pretoria News, bearing the title, “MCDC plan taken a step forward”.

vi. The October/November 1996 issue of Business First, included an article headed, “Marrying the Rich South with the Poor North”, giving information on the Project and its expected economic impact.

vii. The November/December 1996 issue of Empower, included an article titled, “Unlocking area’s economic potential”, which introduced the Project and outlined its expected areas of impact within the publication’s distribution area.

During March 1997, the Pretoria News printed an article titled, “R1-m boost for crater museum”, publicising the planned development of the Tswaing Crater Museum in the North of the Corridor, amongst other cultural projects announced at the International Symposium on Culture, Communication and Development.


x. The Rekord-Moot, of 4 July 1997, published a similar article headed, “Plans for corridor completed”.

xi. The above information was also published under the headline, “Framework on corridor development available for comment, in the Rekord-Noord, 4 July 1997.

xii. On 27 August 1997, the Pretoria News published an article entitled, “City project clears way for opportunities”, outlining the expected socio-economic impact of the Project’s initiative to empower communities by improving access to information.

Press conference

As part of the publicity campaign for the Mabopane-Centurion Development Corridor, a Press Conference was held where Mr Peter Maluleka, Chairperson of the Greater Pretoria Metropolitan Council Executive Committee addressed members of the press.

(Thebe Development consultants, 1997b)

As a result of the resolutions taken by the respective Councils, it was also ruled that the MCDC strategies and projects had to be incorporated and reflected in the Integrated
Development Plans compiled for the respective Councils (GPMC, 1997c). This was done to further promote co-ordination and to link identified projects to budgets to enable implementation and the establishment of the MCDC.

Annexure B contains copies of some of the articles on the MCDC-project that appeared in the media.

Equation 3: Press release of the completed MCDC Integrated Development Framework, inviting comments on the report

Press Release

GREATER PRETORIA METROPOLITAN COUNCIL
OFFICE OF THE CHIEF EXECUTIVE OFFICER

TO: Sidwell Medupe, 804 1184
FROM: Page Boikanyo-GPMC Communication Section
DATE: 19.06.1997

The GPMC is pleased to announce the completion of the draft document of the Integrated Development Framework for the Mabopane-Centurion Development Corridor.

This document which outlines the different dimensions of development accompanying the corridor, is an outcome of extensive discussions and inputs made by a wide-range of organisations and institutions. These included among others: the Soshanguve Residents Association, Social and Welfare Organisations, Hawkers Associations, Builders, Community Policing Forums, CSIR, the different Metropolitan Local Councils in the Gauteng Province, Political Organisations, Environmental Forums and so forth.

The corridor will stretch from Mabopane and Soshanguve in the North, proceed through Akasia and Pretoria West to Centurion and ultimately to the Samrand Development. The project will bring with it housing as well as job opportunities. In this regard 45 000 households will be established in the Klip and Kruisfontein area only and this is likely to be coupled with the creation of 71 000 jobs over a period of 14 years. Undoubtedly, a project of this magnitude is bound to generate economic growth for Greater Pretoria and its inhabitants.

Now that the draft of this important project has been completed, the Greater Pretoria Metropolitan Council wishes to invite inputs from members of the public with the aim of finally completing the Integrated Development Framework document. The closing date for contributions from the public is 7th July 1997. These should be forwarded to the GPMC, Directorate of Land Use and Planning, P.O Box 6338, Pretoria, 0001. The draft copy of the document could be consulted at the GPMC, (4th Floor Room 415) H.B Phillips Building, Cnr. Bosman and Schoeman, Pretoria.

Enquiries:
Hendrik Kleynhans
Tel (012) 323 9351 / 325 4880

(Thebe Development consultants, 1997b)
The above-mentioned approval resulted into a launch of the project to the media and potential investors on 17 September 1997. This launch formed part of the implementation of a marketing strategy, to make people (especially developers and investors throughout the Republic of South Africa) aware of the MCDC initiative and its opportunities.

Equation 4: Resolutions of the former GPMC regarding approval of the IGDIS-report

This report was submitted to the following Section 59 Committees: Transport and Land-use, MED and RDP, Electricity, Community Services/Safety, Water and Environment, Finance and Fiscal Affairs and they resolved as set out below:

A copy of the relevant Annexure to the report will be available at the Council meeting of 4 September 1997.

RESOLVED:

1. That cognisance be taken that Phase I of the MCDC project have been finalised in the form of the Mabopane-Centurion Development Corridor Integrated Growth and Development Implementation Strategy.

2. That the MCDC Integrated Development Framework, of the Mabopane-Centurion Development Corridor Integrated Growth and Development Implementation Strategy, be approved.

3. That maximum support for the Development Projects, of the Mabopane-Centurion Development Corridor Integrated Growth and Development Implementation Strategy, be granted.

4. That the MCDC Integrated Implementation Strategy, of the Mabopane-Centurion Development Corridor Integrated Growth and Development Implementation Strategy, be approved.

5. That the establishment of a MCDC Development Body to actively manage and monitor the establishment of the MCDC and the implementation of the Mabopane-Centurion Development Corridor Integrated Growth and Development Implementation Strategy, be approved.

6. That the development concepts and strategies in the Mabopane-Centurion Development Corridor Integrated Growth and Development Implementation Strategy, where applicable, be accommodated in the respective IDP’s (metro level, city-wide level and planning-zone wide) to be compiled in the areas of which the MCDC forms part of.

7. That the implementation of the IGDIS and specific projects, be subject to full feasibility studies being undertaken during the implementation phase.

That cognisance be taken that the media launch of the MCDC Integrated Growth and Development Implementation Strategy will take place on September 17, 1997 be approved.

(GPMC, 1997c)

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SECTION D: SUCCESS STORIES

1. Introduction

The implementation activities of the MCDC-project (with regard to the strategies and projects captured in Section C, paragraph 4.8 on page 139), were initiated in October 1997 with the
SECTION D: SUCCESS STORIES

1. Introduction

The implementation activities of the MCDC-project (with regard to the strategies and projects captured in Section C, paragraph 4.8 on page 139), were initiated in October 1997 with the
establishment of three Development Task Teams (discussed in detail in Section E:, paragraph 2.5 on page 161). Although the MCDC-project is regarded as a long-term development initiative, some successes have been achieved since the launch thereof in September 1997. These successes related to the implementation of its strategic projects (discussed in paragraph 4.5 on page 134), as well as other projects and strategies. Progress on the latter is discussed in this section as part of the successes achieved with the progress on the establishment of the MCDC (over a 30-month period starting in October 1997).

2. Successes with the implementation of the strategic projects

2.1. The focused marketing strategy

The compilation of a marketing strategy (also refer to the discussion on paragraph 4.5.1 on page 134), was also completed in August 1997 and resulted into a report known as the "Marketing Strategy for the MCDC". This marketing strategy was approved by the then Greater Pretoria Metropolitan Council on 4 September 1997 (GPMC, 1997d).

The fact that the marketing strategy for the MCDC-project was approved simultaneously with the approval of the IGDIS report, created the advantage that the MCDC initiatives could in terms of the potential for private sector investment, be communicated much quicker. The MCDC project team, at that point in time, also incorporated a marketing manager appointed by the former GPMC, to proceed with the implementation of the approved marketing strategies. Marketing activities, which were implemented since October 1997, included the following:

- the publication of a bimonthly newsletter, the MCDC News;
- the establishment of the MCDC Business Forum as a platform to communicate MCDC-related matters to the business and investor sectors;
- press releases on progress with the project and crucial issues on a regular basis;
- information sheets on important development opportunities and development areas;
- newspaper articles;
- the development of a website;
- exhibitions;
- presentations at conferences (such as the Third Urban Planning and Environmental Symposium and AKCI);
- a marketing video that was distributed world-wide through embassies located in Pretoria;
- a photo-bank;
- video clippings;
- a marketing package that was compiled and distributed world-wide through visits by foreign delegations, as well as visits made by local councillors to countries abroad;
- an awareness brochure which was compiled and distributed;
- an MCDC Golf Day, which was held in May 2000, to interact with investors, developers, financial institutions and businessmen; and
- a comprehensive marketing brochure was compiled and distributed.
2.2. The small business support programme

The implementation of this project (also refer to discussion on paragraph 4.5.2 on page 134), was initiated in October 1997. The project was from the start handicapped by capacity-problems within the responsible authority, the former Greater Pretoria Metropolitan Council. This resulted in a workshop that was held with a number of public and representative private sector institutions from all over the country, which took place on 10 March 1998. As a result of this workshop, a number of crucial issues were identified, which could be dealt with as individual projects. These issues included the following:

- involving the corporate business sector in the setting up of so-called container businesses;
- stimulating home-based development initiatives, as well as stimulating urban agriculture;
- involving large enterprises in local entrepreneurial development;
- promoting practical training;
- facilitating access to funds for small-scale business development projects;
- ensuring affordable cost of capital and creating easier access to markets;
- establishing links to tourism opportunities and markets;
- involving pensioners in small business development; and
- developing entrepreneurship among communities.

Two implementation processes emanated from the above workshop. One pertained to the drafting of business plans for small-scale hydroponic systems as a method to promote urban agriculture as well as the wholesale distribution of meat in the northern parts of the MCDC area. Secondly, in January 1998 it resulted in a request from the MCDC Business Development Task Team to appoint a “Business Development Champion”. The main purpose of this proposed appointment was to promote business development in the MCDC area. This resulted in a three-year continuous appointment in September 1999. The appointed company, Business Performance Systems, specialises in facilitating the establishment of businesses (GPMC, 1999a). This initiative resulted in a process whereby in April 2000 a total of 108 potential business development opportunities had been identified, evaluated and prioritised.

Project scopes, testing the pre-feasibility of each, were compiled for 12 of these projects. For some, processes were initiated to transform the project scopes into proper business plans to initiate funding applications and implementation.

2.3. The public support programme

The public support programme (also refer to the discussion on paragraph 4.5.3 on page 135) relates to incentives put in place to promote development within the MCDC area. The progress made in this regard included an investigation by the former GPMC’s Directorate: Metropolitan Economic Development into all possible incentives local government could apply at local levels to promote overall economic development.

A bulk service contribution policy is being compiled since 1999. Although not finalised, the MCDC project team did succeed to be in constant negotiation with the project manager responsible for the compilation of the policy. The purpose of the negotiations was to establish
a subsidised discount benefit for investors who would like to establish in the MCDC-area (GPMC, 2000d and City Management Consultants, 2001).

The most successful support seems to be the fully serviced industrial land of 144.5 hectares in Rosslyn Extension 2 (see Figure 38 on page 147 for the location of the Rosslyn industrial area), which was purchased by the former Greater Pretoria Metropolitan Council in 1998. The industrial land is used as a land incentive to attract industrial development to the Urban Port-area (see discussion on the Urban Port in paragraph 4.5.4 on page 135, as well as paragraph 2.4 below) (GPMC, 1998a and 1999a). Two applications with a total investment value of approximately R120 million were approved by the former Greater Pretoria Metropolitan Council (GPMC, 1998j and 1999b and c). The one application was for the development of a vehicle distribution centre to ease the export of locally manufactured motor vehicles and the other for the expansion of a pet food manufacturing plant. Two other applications (for meat processing and the manufacturing of collapsible steel containers), comprising a total investment value of approximately R200 million, were also under consideration by the former Greater Pretoria Metropolitan Council in April 2000 (GPMC, 2000a and b).

2.4. The development of an Urban Port

Various kinds of progress were made with regard to the planning of the proposed Urban Port (also refer to the discussion on paragraph 4.5.4 on page 135).

The planning process was initiated in 1998 and resulted in the preparation of an "Urban Port Spatial Development Framework" (Urban-Econ Development Economists, 1998a). The completion of the above investigation was in November 1998 followed by the initiation of a process to establish an Industrial Development Zone in the proposed Urban Port area (also refer to Figure 38 below).

Figure 38: The Urban Port area

(Urban-Econ Development Economists, 1999)
For this purpose, an Industrial Development Zone motivation report was compiled for lobbying with the appropriate authorities to investigate and support the initiative (Urban-Econ Development Economists, 1998b).

In 1999, the above investigations resulted in yet another investigation. This investigation determined the strategic value of the Urban Port area. The report known as "A Strategic Development Perspective of the Urban Port", was completed in June 2000 (APS Plan Africa, 2000a). Simultaneous with the latter investigation, a process was initiated to plan the southwestern quadrant of the proposed Urban Port area in more detail. The purpose, to guide the development requirements experienced by the local government in the area (APS Plan Africa, 2000b).

An access management plan for the Urban Port area (to ensure maximum accessibility and adequate circulation), was also completed in June 2000 (Africon, 2000).

In February 2000, the Development Bank of Southern Africa (DBSA)68 initiated an investigation amounting to R500 000, focusing on determining the potential declaration of the Urban Port area as a Special Economic Zone (SEZ). The purpose was to determine supportive measures for the development of the automotive cluster already located in the former Greater Pretoria Metropolitan Area (Urban-Econ Development Economists, 2000a).

A number of other supportive projects affecting the development of the Urban Port area were also conducted during the 30 months between October 1997 and April 2000. It included the initiation of processes to upgrade the Wonderboom Airport area into a possible international airport, the extension of the K8 route towards the N1 highway, the construction of the missing link in the K14, the upgrading of three railway stations and inter-modal facilities, as well as the construction of the N4 Platinum Toll Highway.

The Urban Port area has been recognised by the former Greater Pretoria Metropolitan Integrated Development Plan 1999/2000 as one of four major Metropolitan Activity Nodes (MAN's) (Plan Practice Town Planners, 2000).

2.5. Developing an open space policy for the MCDC area

The Environmental Conservation Act, Act 73 of 1989, provides for the compilation of Environmental Impact Assessments (EIA's) to, amongst others, ensure sustainable environmental development. However, the compilation of EIA's is expensive and time consuming. The approval process of submitted EIA applications is often even more time consuming and could, therefore, hamper quick delivery and development in the MCDC area, to a serious degree.

Therefore, the execution of a strategic environmental assessment was initiated in the beginning of 1998 and completed in 1999, focusing on the entire MCDC area (also refer to discussion on paragraph 4.5.5 on page 135). From this information, Plan Associates compiled an interim open space system, which included an "Interim Open Space Policy". This policy document contained specific development guidelines and principles for future development in the MCDC area. The policy was approved by the former Greater Pretoria Metropolitan Council in July 1999 and also accepted by the provincial government department concerned with

68 The national Department of Trade and Industry appointed the DBSA to provide support with the co-ordination of the country's SDI activities and therefore requested the DBSA to fund the Urban Port SEZ project.
environmental protection as a guide to be used for the assessment of EIA's received from developers in the MCDC area (Plan Associates, 1999). As the aforementioned report incorporated a mass of detail, a more user-friendly *manual* was produced towards the end of 1999. This was followed by the compilation of a user-friendly *brochure* in June 2000, known as the "MCDC: The Natural Solution". This brochure explains the necessity for EIA's, as well as the compilation and application processes needed to comply with the Environmental Conservation Act, Act 73 of 1989 (Blue Planet, 2000).

### 2.6. Promoting densification in the MCDC area

Densification (also refer to the discussion on paragraph 4.5.6 on page 136) of the MCDC area can, at this point in time, not be regarded as a success story. The reason being that most of the development that did take place, took place as infill-development in areas such as Soshanguve, Klip- and Kruisfontein, the West Moot, Lotus Gardens, Atteridgeville and Olievenhoutbosch. There are no successes with regard to the proposed densification pilot projects, or with densification along the alignment of the proposed activity spine. The willingness from the former metropolitan local councils to initiate such projects, as well as the availability of funds to kick-start such projects, seem to be serious obstacles.

### 2.7. Intensification and diversification in the MCDC area

Although a number of new developments*69* were observed in the MCDC area since October 1997, these developments do not create the impression that real progress was made to promote intensification and diversification within the MCDC area (also refer to discussion on paragraph 4.5.7 on page 136). Although some of these developments were substantial in capital-values, the impact thereof, when considering the entire size of the MCDC area, is considered to be limited. The project team of the MCDC ascribes this to the fact that the MCDC area stretches over a distance of approximately 60 kilometres and of which the physical environment is characterised by large potions of vacant serviced land, low-density urbanised areas, farm land and nature areas. Another important factor relates to the project being a long-term development initiative, which also have to "compete" with market-preferred locations towards the east of the former Greater Pretoria Metropolitan Area.

### 2.8. Establishing a mobility link across the Witwatersberg (PWV-9-link)

The construction of the PWV-9-link (also refer to the discussion in paragraph 4.5.8 on page 136 and Figure 39 below) was considered a major catalyst for development (Krynauw, 2000). The construction of the link is the responsibility of the Provincial Government of Gauteng. The MCDC project team, through the former GPMC, started in October 1997 with a facilitation process to stress the importance of this road not only for the establishment of the MCDC, but also for the development of the entire former Greater Pretoria Metropolitan Area. Due to this facilitation process, the MCDC-project succeeded in speeding up the doubling of the PWV 9 over a length of approximately 10 kilometres north of the Rosslyn industrial area, northwards to the entrance to Soshanguve. This process was initiated in January 1998 and completed towards the end of 1999. This resulted into a tremendous improvement of the accessibility of this part of the MCDC area. During the same year, the Provincial Government of Gauteng initiated the compilation of an EIA in compliance with the Environmental Conservation Act, Act 73 of 1989, for the remainder of the proposed alignment of the PWV-9 between the West

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*69 "Developments" are in this scenario regarded as new township establishments, industrial development initiatives and even small business development initiatives.*
Moot area, up to the Greater Johannesburg area. At the time of compiling this dissertation, the findings of the EIA-investigation still needed to be considered by the Provincial Department of Agriculture, Conservation, Environment and Land Affairs.

Figure 39: Schematic illustration of the primary road network affecting the MCDC area
A study, known as the "Access and Mobility"-study, was conducted during the second half of 1998 and 1999 with a transport model known as the EMME2-model\textsuperscript{70}. The purpose of this study was to determine the feasibility of the construction of the PWV-9 through the area of jurisdiction of the former Greater Pretoria Metropolitan Area. The results of this study indicated that, should the road already have been constructed some time ago, the private sector could have saved R1,2 billion per annum (even if the road was tolled). This saving is calculated in terms of time-savings, saving in distances travelled and running costs. With a 4.4% employment growth scenario without tolling the PWV-9, these potentials savings could be as much as R6 billion per annum. These figures confirm that the road should have been constructed some time ago. In fact, some of the results also indicated that "gridlocks" would be experienced in the MCDC area, especially close to the Pretoria central business district, within a period of five years if the PWV-9 is not to be extended and if public transport systems are not improved. These potential cost saving indications provided the necessary motivation for the MCDC project team as well as the former Greater Pretoria Metropolitan Council, to proceed with further lobbying activities to get the road constructed as a matter of urgency (Africon and Stewart Scott Incorporated, 1999).

The former Greater Pretoria Metropolitan Council also initiated an EIA-investigation as well as an investigation determining the costing differences between an open cutting and different tunnelling options, so as to get the road constructed over/through the Witwatersberg. Both these investigations were completed in 1999 and both determined that the best alternative\textsuperscript{71} is a low gradient tunnel option.

### 2.9. Creating a link to the Witwatersrand area

As reflected in paragraph 4.5.9 (see page 136 for detail), no free flow link following the desired lines of movement from the MCDC area to the Midrand Development Axis, exists. The latter is at present served by the Ben Schoeman (N1) (Krynauw, 2000). The former GPMC, therefore, proceeded in August 1998 with discussions with the Gauteng Provincial Government and the adjacent former Khyalami Metropolitan Council as well as the former Metropolitan Local Council of Midrand, to mutually investigate the provincial and local road network planned for the respective areas. According to Krynauw (Chief Metropolitan Transport Planner: former GPMC), certain principles to change the planned road network in the southern part of the MCDC area were agreed to by all parties involved. However, no physical changes to the road network were as yet brought about, as the creation of the necessary linkages is considered a long-term activity (MCDC Steering Committee, 2000a).

### 2.10. Establishing activity spines in the MCDC area

The progress made with the proposed MCDC activity spine (also refer to the discussion in paragraph 4.5.10 on page 137) includes the following:

- an investigation into the alignment of the activity spine was initiated by the former Greater Pretoria Metropolitan Council in October 1997. The investigation was completed in June 1998 and consisted of a detailed technical analysis to determine a strategically preferred alignment. The investigation also identified a number of different urban design guidelines for the activity spine which could be applied in the different areas according to the respective areas' characteristics (TRC Africa, 1998);

\textsuperscript{70} The EMME2-model is a transport model used to test and project transport movement, the need for transport links, the expected increase in vehicle movement over a period of time, as well as the demand for public transport.

\textsuperscript{71} The best alternative is a low gradient tunnel option.
the above was followed with the completion of a pre-feasibility report for the initiation of the construction of the northern section of the activity spine stretching from the Akasia central business district, through to the Soshanguve central business district (V3 Consulting Engineers, 1999). The implementation of the results contained in this report was approved by the former GPMC in April 2000 (GPMC, 2000). The construction of the road has not commenced as yet, although numerous applications were prepared and submitted to a number of institutions to apply for implementation funding worth R80 million; and

the former Centurion Town Council initiated an investigation in April 1999 into different alternative alignments for the activity spine through their former area of jurisdiction. This was followed with a number of surveys testing the opinion of those residents whose properties were to be affected by a preferred alignment (MCDC Steering Committee, 2000a).

2.11. Developing a public passenger transport system for the MCDC area

No progress can be reported with regard to the development of an effective all-encompassing public transport system for the MCDC area, as discussed in paragraph 4.5.11 (see page 137

Figure 40: Schematic illustration of preferred free-flow link

71 See BKS and Knight Hall Hendry (1999) for detail on the cost comparisons of the different environmental concerns, as well as the different vertical and cost options.
for detail). The reason for this is related to the fact that the responsible authority initiated the compilation of an Integrated Transport Plan (ITP) for the entire former Greater Pretoria Metropolitan Area. The planning for a public transport system for the MCDC area will form part of this planning process. This planning process has as yet not been completed. It can, therefore, be expected that the improvement of the existing public transport system will still take a long time, as implementation will be directly dependent on the availability of funds.

2.12. Establishing guidelines for the development of an interface between different transport modes (Inter-Modal Transfer Facilities)

No progress was made with regard to the formulation of guidelines for the development of inter-modal transfer nodes (also refer to the discussion in paragraph 4.5.12 on page 137). The Chief Planner: Public Transport Systems of the former Greater Pretoria Metropolitan Council indicated that these guidelines will in future be incorporated with the Integrated Transport Plan being compiled for the City of Tshwane Metropolitan Municipality (MCDC Steering Committee, 1998b).

A decision was taken by the MCDC Steering Committee in 1998 that, where such guidelines are needed, it be dealt with in an ad hoc manner, as was done for the preparation of the Klipand Kruisfontein central business district development framework, where the development of such an inter-modal transfer node had been incorporated (MCDC Steering Committee, 1999c).

2.13. Instituting Vocational Education and Training (VET) and Entrepreneurial Development Programmes

The progress with this project (also refer to the discussion in paragraph 4.5.13 on page 137), is also limited. As can be concluded from the minutes of the MCDC Steering Committee meetings, a number of obstacles were experienced which hampered progress. This included the lack of capacity and funding at local government level to deal with the project, as well as the lack of understanding of the problem by role-players.

It can, however, be reported that the MCDC-project did succeed in providing support to the Technikon Northern Gauteng in March 1999 to initiate a project with international financial support working towards the establishment of an entrepreneurial development centre in the Soshanguve area. The purpose of this joint venture, which was launched in December 1999 by the Northern Gauteng Technikon, is to promote entrepreneurship in the former township areas. The initiative is known as “Tabisa” (MCDC Steering Committee, 1999d).

2.14. Human development information and support centres

Although an initial investigation was initiated by the MCDC-project to consider locations for such centres, the project (also refer to the discussion in paragraph 4.5.14 on page 138) was halted as a result of the expected changes in the local government structures (MCDC Steering Committee, 1999b).

Table 3 below provides a brief assessment of the above-mentioned strategic projects in terms of progress, obstacles experienced and intervention needed to speed up delivery. Progress is rated as poor, fairly successful, successful and excellent.
<table>
<thead>
<tr>
<th>Project name</th>
<th>Progress</th>
<th>Obstacles experienced</th>
<th>Challenges</th>
<th>Intervention needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focused marketing strategy</td>
<td>Fairly successful</td>
<td>The PWV-9 needs to be constructed before the real development opportunities can be marketed</td>
<td>Keeping momentum with the marketing activities, as well as keeping investors</td>
<td>Resolutions regarding the construction date of the PWV-9 need to be determined and communicated</td>
</tr>
<tr>
<td>Small business support programme</td>
<td>Poor</td>
<td>Lack of capacity with local government, lack of development funding</td>
<td>To involve private sector in job creation activities</td>
<td>Marketing and joint venture projects</td>
</tr>
<tr>
<td>Public support programme</td>
<td>Poor</td>
<td>Lack of support, lack of funding</td>
<td>To find measures to attract investment</td>
<td>Produce policy to create incentives in the corridor area, disincentives to discourage investment elsewhere</td>
</tr>
<tr>
<td>Urban Port development</td>
<td>Fairly successful</td>
<td>Lack of funding, political commitment and private sector involvement</td>
<td>Involving the private sector and to get recognition for potential at national level</td>
<td>Lobbying national and provincial government, establishing a joint venture platform.</td>
</tr>
<tr>
<td>Open space policy</td>
<td>Excellent</td>
<td>To distribute brochures</td>
<td>To get all developers, investors and stakeholders informed</td>
<td>Marketing</td>
</tr>
<tr>
<td>Densification</td>
<td>Poor</td>
<td>Lack of funds, supportive policy measures and dedicated official commitment</td>
<td>Getting financial support</td>
<td>Launch pilot projects</td>
</tr>
<tr>
<td>Intensification and diversification</td>
<td>Poor</td>
<td>Lack of funds, supportive policy measures and dedicated official commitment</td>
<td>Getting financial support and convincing private sector of potential</td>
<td>Identify and implement catalyst projects</td>
</tr>
<tr>
<td>Constructing PWV-9-link</td>
<td>Fairly successful</td>
<td>Implementation funds and authority responsibilities</td>
<td>Establish pressure amongst communities and investors</td>
<td>Lobbying national government to partly subsidies construction</td>
</tr>
<tr>
<td>Linking with Witwatersrand</td>
<td>Poor</td>
<td>Long-term event, lack of funding, road network needs to be corrected</td>
<td>To get financial support and realign planned routes</td>
<td>Lobbying and convincing authorities of benefits</td>
</tr>
</tbody>
</table>

It should be noted that this column the reference to the term “poor” does not necessarily imply that unacceptable levels of progress were made with these strategic projects. In fact, in most cases the implementation of the projects are long-term focussed. Therefore, no real impact could have been made over the three year period the MCDC is being developed.
<table>
<thead>
<tr>
<th>Establish activity spine</th>
<th>Poor</th>
<th>Lack of funding</th>
<th>Getting funds</th>
<th>Motivate importance, benefits and need for funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public passenger transport system</td>
<td>Poor</td>
<td>Part of city-wide integrated transport planning process</td>
<td>Giving ongoing input</td>
<td>Monitoring planning process continuously and facilitate implementation processes</td>
</tr>
<tr>
<td>Inter-modal transfer facilities</td>
<td>Poor</td>
<td>Part of city-wide integrated transport planning process</td>
<td>Giving ongoing input</td>
<td>Monitoring planning process continuously and facilitate implementation processes</td>
</tr>
<tr>
<td>VET and entrepreneurial training</td>
<td>Poor</td>
<td>Lack of capacity with implementation authorities, complex issues to solve, extent of need exceeds availability of funds</td>
<td>To document need, kick-start co-ordination amongst authorities and distribute information</td>
<td>Establishing a communication and co-ordination forum</td>
</tr>
<tr>
<td>Human resource development centres</td>
<td>Poor</td>
<td>Local government transformation processes and availability of funds</td>
<td>Inform transformation processes</td>
<td>Giving continuous input</td>
</tr>
</tbody>
</table>

3. Successes with the implementation of other MCDC-initiated projects

3.1. The MCDC demonstration project

Towards the end of 1997, the MCDC-project was granted the opportunity by the Department of Transport to apply for funding to initiate a number of demonstration projects. Through the participation of all the members of the MCDC Steering Committee, 17 potential projects were identified and incorporated into a business plan compiled by Urban-Econ Development Economists (Urban-Econ Development Economists, 1998c). As a result of the approval of this business plan, an amount of R2,2 million was approved in 1998 and allocated for the execution of the projects listed in Table 4 below.

During 1998 and 1999, 95% of the projects listed below were completed through the involvement of different authorities (such as the former GPMC, the former Pretoria City Council and the former Town Council of Centurion), training institutions (such as the University Witwatersrand), NGO’s (such as the National Cultural Historic Museum) and private sector companies (such as Index, Agriconcept and Africon).
Table 4: The MCDC demonstration projects

<table>
<thead>
<tr>
<th>Nr.*</th>
<th>Project name</th>
<th>Year completed</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PWV-9 Accessibility–Modelling investigation</td>
<td>1999</td>
<td>R 230 000</td>
</tr>
<tr>
<td>2</td>
<td>Modelling of the north-west areas of the GPMC area</td>
<td>1999</td>
<td>R 160 000</td>
</tr>
<tr>
<td>3</td>
<td>Environmental Investigation of a section of the PWV-9 freeway crossing the</td>
<td>1999</td>
<td>R 84 000</td>
</tr>
<tr>
<td></td>
<td>Witwatersberg (Daspooortrant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>PWV9 – Feasibility assessment of the Daspoort Ridge Crossing – detailed</td>
<td>1999</td>
<td>R 16 000</td>
</tr>
<tr>
<td></td>
<td>tunnel cost estimation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Implementation of Marketing Strategy</td>
<td>1999</td>
<td>R 425 000</td>
</tr>
<tr>
<td>6</td>
<td>Brokerage fees</td>
<td>On-going</td>
<td>R 100 000</td>
</tr>
<tr>
<td>7</td>
<td>Establishment of the MCDC Development Body</td>
<td>2000</td>
<td>R 50 000</td>
</tr>
<tr>
<td>8</td>
<td>Atteridgeville Urban Agricultural Project</td>
<td>1998</td>
<td>R 200 000</td>
</tr>
<tr>
<td>9</td>
<td>Soshanguve Gladioli Flowers Project</td>
<td>1998</td>
<td>R 50 000</td>
</tr>
<tr>
<td>10</td>
<td>Soshanguve small abattoir project</td>
<td>1998</td>
<td>R 50 000</td>
</tr>
<tr>
<td>11</td>
<td>Administrative support for implementation</td>
<td>1999</td>
<td>R 150 000</td>
</tr>
<tr>
<td>12</td>
<td>Establish an IDZ at Rosslyn/Wonderboom</td>
<td>1998</td>
<td>R 250 000</td>
</tr>
<tr>
<td>13</td>
<td>Implement the Tswaing Business Plan</td>
<td>1999</td>
<td>R 90 000</td>
</tr>
<tr>
<td>14</td>
<td>Schurveberg dam and tourism project</td>
<td>1998</td>
<td>R 35 000</td>
</tr>
<tr>
<td>15</td>
<td>Herb production project</td>
<td>2000</td>
<td>R 110 000</td>
</tr>
<tr>
<td>16</td>
<td>Olievenhoutbosch Urban Agricultural Project</td>
<td>1999</td>
<td>R 100 000</td>
</tr>
<tr>
<td>17</td>
<td>Implementation of the Soshanguve School Project</td>
<td>1998</td>
<td>R 100 000</td>
</tr>
</tbody>
</table>

(Urban-Econ Development Economists, 1998c)

* Where appropriate, the number in this table correlates with the number in Figure 41 below

An analysis of the MCDC demonstration project budget referred to above reveals that the budget for listed projects was spatially distributed as indicated in Table 5 below.

Table 5: Spatial distribution of the demonstration project budget throughout the MCDC area

<table>
<thead>
<tr>
<th>Area</th>
<th>Amount</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire MCDC-project</td>
<td>R 1 215 000</td>
<td>55,2</td>
</tr>
<tr>
<td>Atteridgeville</td>
<td>R 200 000</td>
<td>9,1</td>
</tr>
<tr>
<td>Soshanguve</td>
<td>R 200 000</td>
<td>9,1</td>
</tr>
<tr>
<td>Rosslyn</td>
<td>R 250 000</td>
<td>11,4</td>
</tr>
<tr>
<td>Tswaing</td>
<td>R 90 000</td>
<td>4,1</td>
</tr>
<tr>
<td>Centurion</td>
<td>R 245 000</td>
<td>11,1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>R 2 200 000</strong></td>
<td><strong>100,0</strong></td>
</tr>
</tbody>
</table>

(Urban-Econ Development Economists, 1998c)
3.2. Other projects

A number of other projects were also initiated by other members of the MCDC Steering Committee as a contribution to the implementation of the MCDC-project strategies and concepts. This included the initiation of a planning process to plan five stations in the Klip- and Kruisfontein area in 1999 by the South African Railway Commuter Corporation (Pty) (SARCC). Two of these stations have been budgeted for (Station B – R16 million and Lebaleng – an estimated R6 million). Construction in 2001. Two other stations, Mabopane and Wintersnest, were also upgraded by them during 2000 (MCDC Steering Committee, 2000b). The purpose of these projects was to improve the access to trains as commuters' main means of public transport, as well as to improve the service itself.

The Provincial Government of Gauteng initiated the doubling of the PWV-9 between Rosslyn and Soshanguve in 1998, as well as the construction of the K4 route (south of Soshanguve),
an interchange where the K4 and PWV-9 intersects and another interchange where the PWV-9 and K216 intersect, in 1998. The total value of these projects was R80 million. The common purpose of these projects was to increase the accessibility of the Klip- and Kruisfontein area. All these construction projects were completed in November 1999 (MCDC Steering Committee, 2000a).

In the Klip- and Kruisfontein area, the realignment of route K216 was also initiated in 1998, with a total project cost of R26 million. This project was initiated as a joint venture initiative between the former Greater Pretoria Metropolitan Council, the Gauteng Provincial Government and the Department of Transport. The anticipated completion date was set for February 2001. The purpose of this project was focused at improving the accessibility of the entire Klip- and Kruisfontein area, improving road capacity in the Rosslyn industrial area and to improve access to the proposed central business area located at the crossing between route K216 and the Mabopane/Rosslyn rail line (it is also here where Station B, as mentioned above, is to be constructed) (MCDC Steering Committee, 2000b).

Hereunder is a list of some of the other projects initiated/implemented under the auspices of the MCDC-project:

**Table 6: Other projects initiated to promote the establishment of the MCDC**

<table>
<thead>
<tr>
<th>Project name</th>
<th>Project cost</th>
<th>Year completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Klip-and Kruisfontein Roads Master Plan</td>
<td></td>
<td>1998</td>
</tr>
<tr>
<td>Negotiations and purchasing of Rosslyn X 2 by the former GPMC, to use the land as an incentive to attract industrial development to Rosslyn</td>
<td>R 24 million</td>
<td>1998</td>
</tr>
<tr>
<td>The Klip-and Kruisfontein central business district development framework</td>
<td>R 450 000</td>
<td>1999</td>
</tr>
<tr>
<td>The Soshanguve central business district business plan</td>
<td>R 50 000</td>
<td>1999</td>
</tr>
<tr>
<td>The initiation of 30 small-scale hydroponic spinach production units</td>
<td>R 300 000</td>
<td>1999</td>
</tr>
<tr>
<td>The development of a land incentive evaluation model for the evaluation of applications for a land incentive in the Rosslyn X 2 industrial area</td>
<td>R 50 000</td>
<td>1999</td>
</tr>
<tr>
<td>The detail layout planning and township establishment of the Klip-and Kruisfontein CBD</td>
<td>R 80 000</td>
<td>2000</td>
</tr>
<tr>
<td>The initiation of the planning of the so-called Island-station in the Urban Port area</td>
<td>Being budgeted for</td>
<td>2000</td>
</tr>
<tr>
<td>The development of an Economic Growth Monitoring Mechanism</td>
<td>R 120 000</td>
<td>2000</td>
</tr>
</tbody>
</table>


**4. Summary**

To summarise, the success stories experienced in the MCDC-project are the following:

- quick progress was made with the implementation of some of the strategic projects (as
summarised in Table 3) and especially other projects (as summarised in Table 4) since the approval of the IGDIS-report in September 1997 (also refer to paragraph 4.8 - see page 139 for detail). The real impact of these implementation activities still needs to be determined (it can form the basis of another dissertation that could be compiled to test the impact of projects implemented in development corridors);

♦ it was stated by stakeholders during an investigation to establish the MCDC Development Body, that the full-time dedicated project management related to the planning and implementation processes of the MCDC-project is regarded as a success story, as it contributed directly towards the progress made with the implementation actions completed since October 1997 (Afrosearch, 2000); and

♦ the MCDC project team confirmed that it was possible to develop a fully integrated development planning process proposing fully integrated development proposals. The real challenge, however, seems to be the implementation of the results of this integrated planning process through a single, appropriately\(^{73}\) structured organisational structure (Afrosearch, 2000).


SECTION E: INSTITUTIONAL

1. Introduction

This section briefly discusses the participation structures and responsibilities established for the project execution processes. Information is also provided regarding the proposed MCDC Development Body.

2. MCDC planning structures

2.1. The MCDC Steering Committee

According to the contractual agreement between the Department of Transport and the former Greater Pretoria Metropolitan Council (see paragraph 3.1.6 on page 114 for detail), the overall responsibility for the management of the MCDC-project settled in the former GPMC. However, a Steering Committee was established on 27 March 1996. This action was taken as a result of:

♦ a precondition from the former office of the Reconstruction and Development Programme related to the approval of the project and its budget; and

♦ the resolutions of the former Greater Pretoria Metropolitan Council taken on 28 March 1996 (see paragraph 3.1.4 on page 113 for detail).

The Steering Committee consisted of representatives from the following institutions:

♦ the former Greater Pretoria Metropolitan Council (several departments);

\(^{73}\) See the discussion on the proposed MCDC Development Body in paragraph 2.6 on page 162.
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The Steering Committee consisted of representatives from the following institutions:
- the former Greater Pretoria Metropolitan Council (several departments);

73 See the discussion on the proposed MCDC Development Body in paragraph 2.6 on page 162.
• the former City Council of Pretoria (several departments);
• the former Town Council of Centurion (several departments);
• the former Northern Pretoria Metropolitan Sub-Structure (several departments);
• representatives of the former Brits Transitional Local Council (town planning and transport engineering);
• representatives of the former Eastern Gauteng Services Council (town planning and transport engineering);
• representatives of the former Western Gauteng Services Council (town planning);
• representatives of the former Midrand Transitional Local Council (town planning and transport engineering);
• representatives of the Khyalami Metropolitan Council (town planning);
• the Provincial Government of Gauteng (several departments);
• the Provincial Government of the Northwest Province (several departments); and
• the Department of Transport.

The responsibilities of the Steering Committee, as accepted during its first meeting on 27 March 1996, were summarised as follows:
• guiding project execution;
• co-ordinating inputs;
• monitoring spending versus progress;
• preparing detailed cost estimations for projects;
• preparing implementation programmes;
• considering and approving each step of the project processes;
• keeping role-players informed;
• monitoring the work of the Project Management Committee; and
• compiling a final report “...on the performance and results of the project for consideration by the GPMC and the RDP Office...” (MCDC Steering Committee, 1996a)

This Steering Committee still exists and now concentrates on the monitoring and co-ordination of project implementation activities.

2.2. The MCDC Project Management Committee

A Project Management Committee was established in April 1996 with representatives from the former Greater Pretoria Metropolitan Council, the former City Council of Pretoria, the former Town Council of Centurion and the former Northern Pretoria Metropolitan Sub-Structure (several departments), as members. Urban-Econ Development Economists, as the appointed project advisor, was also a member of this Committee.

The responsibilities of the MCDC Project Management Committee included the execution of the planning processes, the management of the project, guiding the project team and monitoring project results and progress.
The committee was abolished in July 1996 as a result of duplication that appeared between this committee and the responsibilities of the Steering Committee, as well as that of the appointed project manager (MCDC Steering Committee, 1996c).

2.3. The MCDC participation structures

Community participation structures were established in the form of area-bound work groups (refer to paragraph 3.2 on page 118, as well as Diagram 7 on page 117). A separate work group was established for the regionally-based institutions and organisations (Thebe Development Consultants, 1996a, b and c).

These work groups existed for the entire period during the execution of Phase One of the MCDC-project, which was completed in August 1997. Thereafter, the work groups were abolished. Since Phase Two was commenced with in October 1997, use was made of so-called Planning Zone Forums (PZF's) for project participation processes. These structures were established by the former Greater Pretoria Metropolitan Council during August 1997.

PZF's represented a system of community involvement in the integrated development planning, decision-making and project implementation processes that took place throughout the entire area of jurisdiction of the former Greater Pretoria Metropolitan Council.

2.4. The MCDC project team meetings

Regular project team meetings, workshops and brainstorming sessions were held as from the start of the planning processes in May 1996. The purpose was to discuss project strategies, the project's progress and results, comments, criticism and project processes.

These meetings are still being held to determine guidelines for project execution and to find solutions for obstacles experienced during project execution.

2.5. The MCDC development task teams

After the approval of the IGDIS-report in September 1997, the project team proceeded in October 1997 with the implementation of the strategies and projects contained in the report. For this purpose, three task teams were established in accordance with the approved Integrated Implementation Strategy. These three task teams included a Business Development Task Team, a Spatial Development Task Team and a Social Development Task Team (Urban-Econ Development Economists, 1997b).

The responsibilities of the task teams could be summarised as follows (also refer to Diagram 9 below for a schematic illustration):

- to ensure the incorporation of the MCDC strategies and projects with the respective Integrated Development Plan processes of the respective councils found in the former Greater Pretoria Metropolitan Area;

74 More specifically, the PZF concept represented a structure that was “...designated to ensure complete coverage ... in order to provide a unrestricted platform of opportunity for comprehensive involvement by civil society ... in the identification, prioritisation and implementation of projects in the respective areas...”. 19 such PZF’s were established throughout the area of jurisdiction of the former Greater Pretoria Metropolitan Council (GPMC, 1999f).
to facilitate and initiate project implementation processes;
• to manage and monitor project progress;
• to co-ordinate project results and input amongst role-players; and
• to distribute information related to project progress.

In January 2000, the Spatial and the Social Development Task Teams were combined to act as one task team. This was done as a result of a lack of progress with the human resource development-related strategic projects (see paragraphs 2.13 and 2.14 respectively for detail).

The former Greater Pretoria Metropolitan Council nominated Councillors in January 1998 to act as chairpersons for the task teams. This ensured that political representatives were also involved in the technical activities and could easily report back at council meetings regarding the progress made with the establishment of the MCDC (GPMC, 1998h).

These task teams were established to act as interim “implementation agents”, until such a time that the MCDC Development Body was established. However, although approval was granted to establish the latter, it has not happened as yet. The task teams, therefore, still commence with their respective project responsibilities.

2.6. The proposed MCDC Development Body

The proposed MCDC Development Body, for which approval for establishment was granted by the former Greater Pretoria Metropolitan Council in September 1997 (refer to paragraph 4.8 on page 139), was in terms of a preferred type of structure and preferred composition further researched during 1999 and 2000. During this investigation, some key findings were made with regard to the need of a development body for the MCDC-project. Hereunder an abridged list of the findings:

• a serious need existed for the enhancement of economic growth in the MCDC area;
• the need for the further implementation of an interactive planning and development process;
• the need to maximise development opportunities in the MCDC;
• the need to facilitate active community involvement, consultation and empowerment, especially during implementation processes;
• need for the development of an appropriate information data base; and
• the identification and implementation of projects with the highest added value (Afrosearch, 2000).

In terms of a proposed structure, it was proposed that a Trust be established, accommodating all respective stakeholders and role-players. These role-players should ensure the credibility of the further planning and implementation processes of the MCDC-project. For dedicated implementation, administration of the MCDC structures and provision of “adequate business and development support”, it was proposed that a small Section 21 Company (a company not for gain), be established, consisting of four to five employees at the most.

It was proposed that this MCDC Development Company should have the responsibility to:

• lobby and market the MCDC concept;
implement an integrated development planning and implementation approach;
• obtain "sufficient buy-in" and commitment from stakeholders;
• "promote economic and business development with a local and regional focus";
• negotiate and compile an appropriate incentive package to attract investment to specific focus areas;
• provide a "policy interpretation" function;
• obtain and ensure the availability of business and related information;
• initiate a "flagship project", which could benefit all MCDC-stakeholders and which could simultaneously secure continuous commitment to the MCDC-project;
• "implement effective communication and feedback processes...";
• prevent any duplication of functions between the proposed development body and that of other stakeholders, such as local government;
• "think globally whilst acting locally"75; and
• "assess and address social and environmental impacts..." as a result of corridor development activities (planning and implementation) (Afrosearch, 2000).

However, irrespective of the above proposals to develop the MCDC area as a partnership between all applicable stakeholders (with a strong private business leadership basis), the structure still has not been established. This is to be a crucial handicap in the implementation and developmental processes of the MCDC-project.

3. The budget of the MCDC-project

With regard to the budget for the execution of the planning and implementation projects of the MCDC-project, a variety of financial resources were used. This is a result of the fact that a number of institutions are stakeholders in the MCDC-area and each implement those projects which fall within the ambit of their responsibilities and authority. Stakeholders which made major financial contributions, include, amongst others, the following:
• the former office of the Reconstruction and Development Programme;
• the national Department of Transport;
• the Gauteng Provincial Government – Department of Transport and Public Works;
• the Gauteng Provincial Government – Department of Housing and Land Affairs;
• the former Greater Pretoria Metropolitan Council;
• the former City Council of Pretoria;
• the former Town Council of Centurion;
• the former Northern Pretoria Metropolitan Sub-Structure; and
• the South African Railway Commuter Corporation.

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75 This includes aspects such as the marketing of local development opportunities internationally, the improvement/provision of infrastructure services to increase the global competitiveness of companies in the MCDC area and improving international access to local information.
Diagram 9 MCDC Implementation Framework

THE SHARED VISION

The MCDC is a sub-regional development spine that will accommodate growth and development opportunities at the local, metropolitan and regional levels. This will be achieved in the five restructuring key areas outlined below.

Directed economic development
Investment
Integrated transport systems
Urban and Rural restructuring
Human Resource Development

Business Development Task Team 1
Spatial Development Task Team 2
Social Development Task Team 3

- Sustainable growth
- Opportunities
- Route continuity
- Compact city
- Comparative advantage

- Employment
- Linkages
- Optimal network
- Urban port dev
- Social projects

- Industrialisation
- Income
- Sufficient capacity
- Public transport
- Identified needs

- Directed economic development
- Investment
- Integrated transport systems
- Urban and Rural restructuring
- Human Resource Development

- Directed economic development
- Investment
- Integrated transport systems
- Urban and Rural restructuring
- Human Resource Development

Goals and Objectives

Strategic

Needs and Support projects

FUNCTIONAL/SECTORAL INTEGRATION

(Urban-Econ Development economists, 1997b)
This situation reflects the necessity (from within the representative MCDC structures) for using facilitation as an approach to get institutions to accept their respective responsibilities in the MCDC area and to budget for priority projects decided upon as a representative group.

A separate account known as the “MCDC: Urban Reconstruction Fund”, was also opened in April 1996 for the depositing of funds received from external sources. Approximately R16 million has already been channelled through this fund to execute projects which could contribute to the initial implementation actions of the MCDC-project.

SECTION F: CONCLUSION

To initiate the establishment of a development corridor by starting with the compilation of growth and development strategies as was done for the MCDC, was regarded as appropriate for the MCDC-project and the area within which the MCDC is to be established. When compared to the development corridor perspectives discussed in Chapter Two, this approach will not necessarily work for other development corridor projects.

Furthermore, from the theoretical framework discussed in Chapter Two, it seems that the establishment process for the MCDC is still in its “child’s shoes”. It also seems that it is potentially lacking a number of implementation approaches guiding development through the preparation of development programmes and policies, special incentive schemes and dedicated institutional structures focussed on implementation and development activities. However, this does not imply that the provision of these aspects will speed up the delivery and developmental processes of the MCDC-project, but it does seem that these potential opportunities should be identified and considered.

It can also be deliberated that it is not appropriate to measure the MCDC-project against other development corridor projects and to accept their project approaches and strategies due to the fact that:

- the physical circumstances and characteristics of each development corridor area differ;
- the nature of the social, economic and physical circumstances, needs and requirements of communities differ;
- the availability of implementation funds differ;
- political commitment of responsible authorities differ;
- institutional structures established to manage and implement projects, differ;
- the level and extent of infrastructure projects, which are needed to create an enabling environment for the establishment of the corridors, differ; and
- government policies and approaches differ.

The national Department of Transport expands on the above view by proposing that “…corridor development projects should be established in terms of an overall urban development and reconstruction programme…” (Department of Transport, 1993). However, although the project strategies and sub-projects of the MCDC-project are incorporated into

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76 External sources refer to institutions other than the former Greater Pretoria Metropolitan Council.
the overall "urban plan"\textsuperscript{77} for the former Greater Pretoria Metropolitan Council, an evaluation\textsuperscript{78} revealed that it does not differentiate between development priorities experienced in the entire metropolis (to work towards focused urban/rural restructuring). The latter incorporates a lesson for any development corridor project, viz. the establishment of a development corridor in a given urban environment should be measured against the development priorities of the entire urban area it forms part of.

The Gauteng Spatial Development Framework also regards the MCDC initiative as a "...provincially significant economic initiative...". It also recognises the importance of the mobility spine of the MCDC area, the PWV-9, as a road aiming at underpinning densification, a compact city and a guide to corridor development. In other words, the MCDC is, from a provincial perspective "making sense" (APS Plan Africa, 1999). These statements made in the Gauteng Spatial Development Framework specifically deal with the location and nature of the physical development of Gauteng, "...ensuring a sustainable, equitable and economically viable future settlement pattern...".

\textsuperscript{77} The "urban plan" refers to the Greater Pretoria Metropolitan Integrated Development Plan.

\textsuperscript{78} Please note that it is not the purpose of this dissertation to question the quality of the former Greater Pretoria Metropolitan Integrated Development Plan.
The Mabopane-Centurion Development Corridor: A historical analysis of successes and constraints and proposals for improvement

CHAPTER FOUR

CONSTRAINTS EXPERIENCED IN THE MCDC

SECTION A: INTRODUCTION

The MCDC was initiated by means of the compilation of a number of multi-faceted growth and development strategies (see detail in Chapter 3). These strategies were either transformed into projects or incorporated into Integrated Development Plans, where further planning projects were conducted and initiated to adopt or even further refine the MCDC strategies.

However, irrespective of the progress with the implementation of the project strategies and projects, the MCDC-project is experiencing constraints which are hampering speedy delivery and the implementation of the corridor concept.

SECTION B: NEGATIVE IMPACTS EXPERIENCED WITH THE IMPLEMENTATION OF THE MCDC-PROJECT

1. Introduction

The MCDC-project is not only about successes, as discussed in Section D: (see page 144 for detail), but also represents a number of limitations and difficulties experienced that seriously hamper implementation and full-scale development. As part of a process to test the MCDC role-players’ perceptions of the MCDC-project, especially with regard to the establishment of a development body for the MCDC-project (also refer to paragraph 2.6 on page 162 for detail), a number of constraints were detected. These are summarised and briefly elucidated in Table 7 below. The table also reflects the seriousness of the limitation, the potential effect if not addressed, as well as a brief proposed solution to overcome the limitation.
Table 7: Typical limitations/difficulties experienced with the implementation of the MCDC-project

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Seriousness</th>
<th>Expected effect if not addressed</th>
<th>Proposal to address limitation/difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of and need for a development body.</td>
<td>Business plans for commercial activities can not be implemented as government can not get involved or fund such activities.</td>
<td>Limited economic development will continue to exist.</td>
<td>Get approval from local government to initiate as a joint venture with the private sector. The alternative, get private sector to establish the development body and then get local government buy-in.</td>
</tr>
<tr>
<td>Need for a detailed financial and investment co-ordination and management plan.</td>
<td>Lack of financial sources lead to low levels of success.</td>
<td>Availability of funds can even further decrease.</td>
<td>Compile plan as a joint venture with MCDC-stakeholders.</td>
</tr>
<tr>
<td>Lack of interest and commitment.</td>
<td>Political figureheads and senior officials are not fully committed to implementation processes as a result of own interests.</td>
<td>Lower levels of interests or even resistance can be experienced.</td>
<td>Lobby and convince political figureheads of potential. Mobilise communities and private sector to address politicians regarding need for the project.</td>
</tr>
<tr>
<td>Lack of implementation funding.</td>
<td>Extreme difficulties experienced to obtain funds for catalyst projects.</td>
<td>Further urban fragmentation, lack of social upliftment and poorer levels of economic growth.</td>
<td>Get all government spheres involved and influence budgets. Establish links with financial institutions. Concentrate on information distribution.</td>
</tr>
<tr>
<td>Need for special zoning regulations.</td>
<td>Incentives to promote the development along the activity spines and at the urban nodes are lacking.</td>
<td>No innovation. Development trends of the past will continue.</td>
<td>Innovative rezoning actions to stimulate small business development. Provide enabling infrastructure.</td>
</tr>
<tr>
<td>Need for innovative ideas.</td>
<td>A lack of innovative solutions exist to solve local problems.</td>
<td>The problem will continue to exist.</td>
<td>Promoting strategic thinking exercise amongst stakeholders. Involve public and private sector in finding solutions for experienced problems.</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------</td>
<td>---------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Co-ordination levels too broad for one person.</td>
<td>Too much project-sectors are being managed by a single project manager as a result of a supportive multi-disciplinary team.</td>
<td>Poor progress levels.</td>
<td>Establish a multi-disciplinary project implementation team, supported by focused action groups and task teams to address specific project issues.</td>
</tr>
<tr>
<td>Bureaucracy during decision-making.</td>
<td>Long decision-making processes are handicapping speedy delivery.</td>
<td>Slow growth will continue.</td>
<td>Formulate corridor specific policy and process measures to streamline decision-making.</td>
</tr>
<tr>
<td>Role-players’ commitment levels differ.</td>
<td>Uneven progress experienced amongst corridor sectors.</td>
<td>The need for co-ordinated integrated development will increase.</td>
<td>Continuously implement projects to prove government commitment.</td>
</tr>
<tr>
<td>Limited successes from external sources of finance.</td>
<td>Social upliftment projects are limited.</td>
<td>The lack of integration will continue to exist.</td>
<td>Government to create an enabling environment through infrastructure and services provision, information provision, development facilitation and innovative pro-active actions.</td>
</tr>
<tr>
<td>Keeping a steady momentum.</td>
<td>A lack of obvious visual implementation activities are experienced.</td>
<td>Build-up momentum can be lost. Building new momentum will be extremely difficult as trust is lost.</td>
<td>Prove commitment. Communicate even limited progress continuously. Involve private sector in project implementation.</td>
</tr>
</tbody>
</table>

(Afrosearch, 2000).
The above are further considered and more collective proposals are discussed in the paragraphs to follow.

2. Economic development and investment attraction

Although a number of new developments emerged since the launch of the MCDC-project in September 1997, an analysis of the MCDC-project indicated that the job creation targets determined in the economic development framework compiled for the MCDC-project (see Diagram 8 on page 122), are not being reached. To determine whether economic growth is indeed experienced in the MCDC area, the project succeeded during 2000 to develop a mechanism\(^ {79} \) to test growth in the different economic sectors. The results of the model were not known at the time of the compilation of this dissertation.

As a second alternative, the respective local authorities affected by the MCDC-project were requested to submit information regarding township establishment applications, rezoning and subdivision applications, as well as information on approved building plans (of those Planning Zones situated in the MCDC area). In the absence of "raw economic data", this information is in an indirect manner used as indicators determining the effect of economic growth in the MCDC area. The results thereof are captured in Table 8 below.

Table 8: Development applications received in the MCDC area between the period 1996 and 2000

<table>
<thead>
<tr>
<th>Applications received</th>
<th>MCDC area</th>
<th>1996</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Township establishment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Council of Pretoria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>ii.</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Town Council of Centurion</td>
<td></td>
<td>12</td>
<td>7</td>
<td>8</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Northern Pretoria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan Sub-Structure</td>
<td></td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Rezonings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Council of Pretoria</td>
<td></td>
<td>92</td>
<td>51</td>
<td>52</td>
<td>33</td>
<td>18</td>
</tr>
<tr>
<td>i.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Town Council of Centurion</td>
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<td>26</td>
<td>36</td>
<td>32</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>Northern Pretoria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan Sub-Structure</td>
<td></td>
<td>4</td>
<td>3</td>
<td>13</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Subdivisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Council of Pretoria</td>
<td></td>
<td>37</td>
<td>33</td>
<td>41</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>i.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Town Council of Centurion</td>
<td></td>
<td>75</td>
<td>87</td>
<td>62</td>
<td>27</td>
<td>36</td>
</tr>
<tr>
<td>Northern Pretoria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan Sub-Structure</td>
<td></td>
<td>12</td>
<td>7</td>
<td>6</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>iv.</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Building plans approved</td>
<td></td>
<td>4615</td>
<td>3928</td>
<td>4719</td>
<td>4096</td>
<td>4093</td>
</tr>
<tr>
<td>City Council of Pretoria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Town Council of Centurion</td>
<td></td>
<td>975</td>
<td>1099</td>
<td>877</td>
<td>921</td>
<td>1255</td>
</tr>
<tr>
<td>Northern Pretoria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan Sub-Structure</td>
<td></td>
<td>1952</td>
<td>2015</td>
<td>1590</td>
<td>1075</td>
<td>1043</td>
</tr>
</tbody>
</table>

i. West Moot area.
ii. Pretoria West.

79 The mechanism is being referred to as the MCDC Economic Growth Monitoring Mechanism and consists of a computer programme specifically developed to evaluate economic growth, using base information from the levy databases of the former GPMC.
(Own interpretation of information received from the town planning offices of the former City Council of Pretoria, the former Town Council of Centurion and the former Northern Pretoria Metropolitan Sub-Structure)

The information from Table 8 above was taken and graphs formulated for each of the different types of development applications to visually illustrate the effect of the potential growth. These effects are illustrated in Graph 1 [Township establishment applications considered in the MCDC area (1996 – 2000)], Graph 2 [Rezoning applications considered in the MCDC area (1996 – 2000)], Graph 3 [Subdivision applications considered in the MCDC area (1996 – 2000)] and Graph 4 [Building plans approved in the MCDC area (1996 – 2000)].

Graph 1: Township establishment applications considered in the MCDC area (1996 – 2000)

Graph 1 above indicates that there is a direct correlation between the launch of the implementation activities of the MCDC-project in 1997. But, it is also obvious that momentum to continue with the development trend was lost towards the year 2000.

Graph 2 below does not really reflect any correlation with the implementation activities of the MCDC-project as initiated in 1997, except for a stabilisation period between 1997 and 1998. However, it does indicate a general decline in the number of rezonings considered towards the year 2000. This situation stresses the need for serious intervention to promote economic development and job creation in the MCDC area, especially in the area of the former City Council of Pretoria, which experienced a serious decline in percentages.
Graph 2: Rezoning applications considered in the MCDC area (1996 – 2000)

Graph 3: Subdivision applications considered in the MCDC area (1996 – 2000)

Graph 3 above indicates a decrease in the total number of considered subdivision applications up to the year 1999. Since then the number of applications considered, have stabilised. The graph also indicates that it is especially the former Town Council of Centurion, which experienced a serious decrease in subdivision applications received.

Graph 4 below indicates a stable flow of building plans approved over the period 1996 to 2000. Using approved building plans as an indicator for economic growth actually reflects that the economy in the MCDC area experiences a state of equilibrium, indicating that no real economic growth is being experienced in the MCDC area.

In total, using indicators such as township establishment applications, rezonings, subdivisions and approved business plans, the results reflect that the MCDC-project has not succeeded as yet in promoting economic growth and that serious intervention is needed to kick-start the identified catalyst projects of the MCDC-project, if the plan is to make a real impact in economic growth in the MCDC area.
Furthermore, concluding form the applications received for an industrial land incentive in Rosslyn X2 (forming part of the proposed Urban Port for the MCDC area), some investment was attracted and taking place, but was localised at the Urban Port only. Other developments were taking place without incentives. These are found more towards the southern parts of the MCDC area, where the MCDC is more accessible as a result of the existing provincial road network.

The question can therefore rightfully be asked: What potential mechanism can local government put in place to guide and promote focused private investment at preferred localities, to boost the establishment of the MCDC area and the implementation of corridor principles?

The expected economic development along the proposed activity spine was also not taking place, even though certain sections thereof are in existence. To address this situation, committed local government officials should assist to facilitate processes amongst property owners to “kick-start” such development.

On the other hand, as Lategan acknowledged, economic development is critical to ensure the sustainability of the MCDC-project. It should, therefore, be pursued more aggressively (Lategan, 1999).

3. The lack of an integrated public transport system

Although a number of separate public transport systems are found in the MCDC area (such as the dual bus/rail systems from both Soshanguve and Atteridgeville to the Pretoria central business district – see Figure 42 on page 174), the systems are not found throughout the entire MCDC area and is also not integrated with the proposed overall land-use development concept as yet. The reason seems to be that more emphasis is placed on the day-to-day operations of public transport as a result of a number of critical issues related to aspects such as the taxi-industry formalisation and rationalisation processes, taxi violence, as well as the
competition between the different modes (rail, bus and minibus taxis) of public transport found in the MCDC area. The fact that each mode operates through different operators, further contributed to a lack of movement towards mutual progress. Studying the minutes of the MCDC Steering Committee meetings revealed that the dominant issues playing a prominent role affecting the successful implementation of an effective and affordable public transport system not only within the MCDC area but also integrated into the entire public transport system for the City of Tshwane Metropolitan Municipality, seem to be the following:

- different profit motives between the different operators and modes;
- different threshold values of the different modes;
- different operating costs;
- different operators;
- lack of governmental control over some of the operators; and
- subsidisation of more than one mode on the same travel route.

The fact that public transport has not been developed optimally, is also considered to be a result of the dispersed cities and low density development (APS Plan Africa, 1999).

Figure 42: A schematic illustration of the public transport system in the former GPMC area
The Gauteng Spatial Development Framework also indicated that it should be a city’s main objective to develop the most “…appropriate spines of transport, in order to bring people closer to job opportunities and to create a more effective and efficient system”. Again, this objective correlates with some of the main objectives of the MCDC-project strategies related to the development of an activity spine, a public passenger transport system and inter-modal transfer nodes. This way, the advantages brought about by the development potential of an area can be optimised as a result of the intense movement of people, representing all, but especially local buying power.

Some of the obstacles encountered vis-à-vis speedy planning actions, include issues such as:

- new policy actions by national government which are being compiled and implemented with regard to the formalisation of the taxi industry;
- processes to contract bus routes;
- processes to identify a single mode for subsidisation purposes, so as to prevent more than one mode being subsidised on the same route;
- difficulties experienced by some communities to use public passenger transport; and
- difficulty of finding common ground between planning authorities to develop focused public transport strategies to facilitate and support mixed land-use development (Krynauw, 2000).

There is, however, no doubt that the need for an adequate public passenger transport system in the MCDC area will continue to exist until provided. This was confirmed by the results of the Access and Mobility study referred to in paragraph 2.8 (as discussed on page 149).

4. Lack of development funding

The MCDC stretches over a huge area of approximately 60 kilometres, with a vast variety of fragmented urban developments and communities with different needs and cultures. To establish the MCDC under these circumstances, simply implies that billions of rands are needed over a long period of time (say 30 years, as in the case of the Curitiba Development Corridor), to establish a continuous development corridor as planned for in the IGDIS-report.

Again, the involvement of different stakeholders (especially different local authorities), with different functions and responsibilities in the MCDC area, made it even more difficult to put together an overall budget for the MCDC-project. The MCDC-project, therefore, has to take whatever financial assistance/contribution it can get to stimulate its developmental processes.

This difficulty was also identified at a workshop held for stakeholders on 28 January 2000 (MCDC Steering Committee, 2000c). At this workshop the suggestion was made that a financial plan with dedicated responsibilities be compiled for inclusion in the local Integrated Development Plan processes. Although incorporated as a project in the Integrated Development Plan prepared for the former Greater Pretoria Metropolitan Council, it again could not materialise during 2000 as a result of budget cutbacks experienced in the former Greater Pretoria Metropolitan Council (Plan Practice Town Planners, 2000).
5. Lack of “political will"

One of the most prominent difficulties experienced by the MCDC-project, seems to be the lack of political commitment, or what can be termed, "political will". The MCDC-project was executed within the framework of a comprehensive participation framework, which went hand-in-hand with continuous feedback to politicians through participation, information and presentation sessions. Feedback also included the distribution of marketing material and direct involvement as chairpersons of, for example, the MCDC development task teams, regular progress reports to council meetings, as well as to the national Department of Transport (Thebe Development Consultants, 1996a, 1997a and 1997b). Nevertheless, the overall political commitment, which theMCDC-project probably needs to promote social upliftment amongst the more than 95% poorer communities affected by the MCDC-project, is lacking. Determining the grounds for the lack of political will, is, however, not considered the purpose of this dissertation.

However, the fact remains that overall political commitment to enhance the implementation of the MCDC-project and principles was lacking thus far and it stays a crucial success factor for the successful establishment of any development corridor, as depicted in Chapter Two. A change of political structures (as experienced during the recent local government elections), also had a negative influence. New politicians represent new ideas, ideologies, own priorities and own urban planning structures, creating a situation where these newcomers need to be informed, empowered and convinced of the role the MCDC-project can play with regard to economic growth, land-use and transport integration and social upliftment.

6. Lack of commitment among officials

Another difficulty experienced within all government spheres, was to get officials from representative government institutions/departments to commit themselves to implement the goals and objectives which had been mutually negotiated and agreed upon. Only those officials on which the development of the MCDC area had a direct impact in terms of reaching the goals and objectives of its own institution, are committed to the MCDC-project.

Some reasons for this situation is reflected by the following:

- **Priority differences**: The priorities of the individual stakeholders differ from the priorities of the MCDC-project. The priorities of the institution represented were always placed first;
- **Lack of capacity**: Involved officials have a diverse range of responsibilities to execute and which are all measured in terms of the individual’s overall performance within his/her own organisation. The MCDC responsibilities, as a result, then became just another responsibility; and
- **Lack of funding**: A lack of funding for implementation was experienced at all spheres of government. In this scenario, even officials committed to the MCDC-project could not fulfil their responsibilities.

7. Lack of social development

Five prominent difficulties were experienced with regard to promoting social development in the MCDC area. These were:
The number of social fields involved: The most common difficulty was the number of different social fields that are incorporated under the term "social". These included, amongst others, housing, health, welfare, arts and crafts, sports, museums, education and safety and security. Each of these also had its own unique but diverse needs and characteristics, which made co-ordination difficult;

The lack of development funding: The MCDC area accommodates approximately 82% of the poorer communities situated in the area of jurisdiction of the former Greater Pretoria Metropolitan Council. In terms of the City of Tshwane Metropolitan Municipality, the MCDC-project has an influence on more than 95% of the poorer communities residing in its boundary. As a result, the MCDC-project identified an enormous demand for social facilities and amenities throughout all the social sectors. This demand and need for social facilities, also implied an even greater burden on scarce public funds. The simple fact of the matter was that there were just not enough funds to address all social needs.

The lack of co-ordination between the social sectors: As a result of the number of social sectors involved in promoting social development to bring about social upliftment, the MCDC-project experienced a situation indicating that it is extremely difficult to bring these sectors together under one "umbrella" and to find common solutions for problems experienced by the individual sectors. This co-ordination proved so difficult, that the MCDC-project in January 2000, combined its Social Development Task Team activities with those of the Spatial Development Task Team. This measure was implemented so as to prevent losing those stakeholders who did experience benefits through the MCDC-project processes. In this regard, the MCDC task teams experienced that even the simple function of information sharing had tremendous benefits to help social institutions finding solutions and contacts for problem-solving activities;

The lack of capacity: A general lack of capacity existed among the respective social institutions, especially with the government spheres involved in social sectors, to deal with the total real demand for social development and upliftment; and

The lack of "top management" support: As a result of the overall lack of capacity dealing with social issues in the MCDC area, the MCDC Social Development Task Team proposed the appointment of a "social development champion". Although external funds were negotiated for this purpose, top management officials just resisted the idea without giving any reason. The result: no progress in terms of integrating the social sectors under one forum where real social issues could be discussed, ideas exchanged, solutions proposed and information shared.

8. Lack of overall project prioritisation at metropolitan level

The Integrated Development Plan (IDP) compiled for the former Greater Pretoria Metropolitan Area, incorporated the planning proposals, strategies and development guidelines done for a number of different areas and initiatives found within the area of jurisdiction of the Greater Pretoria Metropolitan Council, amongst others, the three city-wide Integrated Development Plans. The former Greater Pretoria Metropolitan Integrated Development Plan, therefore, included the identified MCDC concepts and strategies.
A list with projects also appeared in the Integrated Development Plan. However, there were not sufficient funds available with local government to implement/execute all the listed projects. The lack of a comprehensive prioritisation system to determine the real benefits and need for the implementation of each listed project, resulted into a situation where the importance of the identified MCDC projects could not be assessed against the importance of other identified projects that appeared on the list. It therefore could not “compete” fairly against the other listed projects, as each department/directorate negotiated a fair share of the budget to implement their identified priorities (City of Tshwane Metropolitan Municipality, 2001).

9. Slow progress with business development

Although the MCDC-project is involved in a number of business development initiatives such as the initiation, administration, marketing and management of the Rosslyn industrial land incentive, the formulation of a bulk service contribution policy and the appointment of a business development specialist to identify and facilitate the development of business development opportunities, no real progress was made. The reasons for this are related to:

- **Feasibility of possible opportunities**: Preliminary surveys for potential business development opportunities were undertaken throughout the MCDC area. The pre-feasibility investigations of these opportunities revealed that most of them had high feasibility values. But a common problem prevails, viz. that of not providing sufficient security to maintain the opportunity in terms of getting external investment;

- **Overall economic climate**: Development of the MCDC economy was also strongly related to the economic growth of the country as a whole. Any influence on the national economy resulted in a direct influence on the local economy, especially as far as attracting bigger investments was concerned;

- **Development time**: To establish a new business takes at least an average of two and a half years. Larger investments can even take longer. This trend created an impression that there was limited progress in the MCDC area. However, it is expected that a progressive progress curve will be experienced, say five years from now, given that proactive business development facilitation is taking place, which is supported by the provision of enabling infrastructure services and development policies and programmes;

- **Lack of innovation amongst officials**: Officials only did what was expected from them. No motivation measures existed to come forward with innovative proposals to stimulate job creation;

- **Lack of development funding**: To initiate a new business opportunity normally demands an enormous amount of capital. This capital is normally provided by financial institutions and their requirements for qualifications are very high. It is, therefore, often extremely difficult to get finance for a small business venture. On the other hand, local authorities are not in a position to make funding available for such opportunities, as not enough funds are available on their respective budgets to provide appropriate infrastructure service; and

- **Lack of infrastructure and implementation funds**: The MCDC project team regarded the implementation of the activity spine concept as an opportunity to create opportunities for small business development. In this regard, it was the experience of the MCDC project

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80 “Projects” refer to a multi spectrum of projects (infrastructure provision and maintenance, emergency services, planning projects, sports field development, economic development projects and so forth) usually found on the budget of a local authority.
team that there were not sufficient funds available in local government budgets to undertake such projects over the short term as a measure to speed up economic development processes.

SECTION C: CONCLUSION

The results of the research discussed in this chapter reveal that the implementation of the MCDC-project is being hampered by a number of crucial constraints. These constraints, as explained in Diagram 10 below, can basically be grouped into five groups, viz. that of:

- a need for commitment to implement the MCDC concepts, strategies and projects, especially from a political point of view;
- the provision of lacking infrastructure systems such as transport routes (the PWV-9 and the activity spine) and an integrated public passenger transport system;
- the lack of funding needed to make a definite impact in terms of project implementation and investment attraction;
- the improvement/establishment of co-ordination and management mechanisms to ensure phased and focused implementation of priority projects; and
- the need for planning and development mechanisms to enhance economic growth and social upliftment.

Diagram 10: Five broad-based constraints experienced by the MCDC-project
Chapter Five

Recommendations for Improvement

Section A: Introduction

In this chapter, solutions are proposed for the limitations and difficulties experienced by the MCDC-project (as discussed in Chapter Four). This is done by making use of lessons learnt from the international development corridor discussions and the produced theoretical framework formulated in Chapter Two.

As a main structuring device, the Curitiba Development Corridor model is used whereby more than one problem/difficulty is addressed through a single solution.

Section B: Potential Application for the International Development Corridor Discussions

This section attempts to determine how certain approaches and concepts used for the development of other development corridors could be applied on the MCDC area to address its own difficulties.

1. A proposed MCDC Mayoral Commission

It is proposed that a proper institutional framework for the MCDC-project be established. The motivation for the latter is based on the creation of a platform focused on the promotion of cooperative support between all involved stakeholders and to find solutions for the difficulties experienced, such as a lack of political commitment, commitment from officials and other stakeholders and the lack of overall financial support. It also especially focuses on involving the business sector in the MCDC’s decision-making processes.

To overcome the limitations and difficulties mentioned above, it is suggested that a mayoral commission (see Diagram 11 below for a schematic illustration) be established in the office of the Executive Mayor of the City of Tshwane Metropolitan Municipality. A similar approach was followed with the W-Growth Corridor in the Philippines, although at a national level. In this way, it could possibly ensure that the MCDC-project be dealt with at the highest possible political level at local government, easing the political and technical management and control.
Diagram 11: Proposed structure of the proposed MCDC Mayoral Commission and linkages with other MCDC institutions.
of the MCDC-project. It can also ease the influence of and discussions with executive representatives of other institutions, organisations and entrepreneurs, locally, nationally and globally.

As discussed in Section D of Chapter Two, A Theoretical Framework for development Corridors, a principle of inclusivity is proposed. This can be reached by incorporating representatives from all applicable role-players representing all spheres of government. A similar approach has been proposed for the Tembisa-Kempton Park Development Corridor. The motivation, therefore, is to establish proper communication linkages with other key decision-makers, as well as to initiate a process whereby the role-players representing the different spheres of government would be more directly pushed into action.

It is also suggested that the existing institutional project framework of the MCDC-project (which include the MCDC Steering Committee, the MCDC Project Manager, the MCDC Business Development Task Team, the MCDC Spatial Development Task Team and the MCDC Social Development Task Team) be incorporated into the newly proposed institutional project framework.

Given the above, the proposed MCDC Mayoral Commission should comprise of the following:

- **A political champion**: A political champion in the person of the Executive Mayor of the City of Tshwane Metropolitan Municipality, to head the MCDC Mayoral Commission;

- **A portfolio councillor responsible for social development**: The Portfolio Incumbent: Community Development of the City of Tshwane Metropolitan Municipality, to chair the MCDC Social Development Task Team (Task Team members should comprise top management officials representing all applicable institutions and all aspects related to the social sectors);

- **A portfolio councillor responsible for business and spatial development**: The Portfolio Incumbent: Economic Development of the City of Tshwane Metropolitan Municipality, to chair both the MCDC Business Development Task Team and the MCDC Spatial Development Task Team, as both fall in the ambit of his/her responsibilities (Task Team members should comprise top management officials representing all applicable and related disciplines);

- **National government representatives**: The appropriate Deputy Director-Generals of both the Department of Trade and Industry and the Department of Transport, dealing with corridor development and SOl’s, should be included as members of the proposed Mayoral Commission. The purpose would be to assist with national policy inputs, to ease access for funding through other government programmes and to build networks with international markets and investors;

- **Provincial government representatives**: The appropriate Heads of the Department of Development Planning and Local Government, the Department of Economic Affairs and Finance and the Department of Transport and Public Works of the Gauteng Provincial Government. The purpose: to get mutual acceptance of development needs and priorities, to promote the co-ordination of overall project priorities and budget allocations, as well as to continuously share information on progress and influences;

- **The MCDC Development Company**: The CEO of the proposed MCDC Development Company, representing the “agent” responsible for project implementation, investment attraction and initiation of business development projects. The purpose would be to
initiate, facilitate, manage and co-ordinate the implementation and development of activities/projects decided upon by the proposed structure (especially as far as economic development projects/initiatives are concerned), as well as to give feedback on progress made with implementation;

- **Organised business**: A representative of an organised business institution (such as the Pretoria Business Chamber), should be incorporated, to give strategic private sector business input into the MCDC-project decision-making processes;

- **The MCDC Steering Committee**: The Chairperson of the MCDC Steering Committee, established as a precondition by the former office of the Reconstruction and Development Programme, should be incorporated so as to ensure ongoing integration and involvement; and

- **The MCDC Project Manager**: The appointed MCDC Project Manager should be incorporated to ensure at an official level that the MCDC is administratively, financially and technically well managed, co-ordinated and promoted.

It should be noted that this is just a proposal and the practical implementation obviously still has to be determined and tested.

2. The expansion of the IGDIS report into a fully-fledged corridor management plan for the MCDC-project

The MCDC Integrated Growth and Development Implementation Strategy, compiled to initiate the development of the MCDC, can be regarded as an initial step when compared to some of the lessons learned from the Curitiba and other development corridors.

The one prominent lesson from the Curitiba model is to ensure that the development corridor concept, in all its dimensions, is totally integrated into the overall city plan. This approach is also applied in Cape Town, where the Wetton-Landsdowne Development Corridor is incorporated into the Cape Metropolitan Spatial Development Framework. Although the MCDC-project proposals have thus far also been incorporated into the respective Integrated Development Plans compiled in the area of the Greater Pretoria Metropolitan Council, it has never been incorporated or assessed from a long-term strategic planning point of view. In other words, it has never been evaluated in terms of its contribution towards the implementation of the entire city's long-term strategic development goals and objectives.

To enable the latter, it is proposed that a corridor management plan be compiled which incorporates a number of possible actions (also see Diagram 12 below for a schematic illustration of the proposals discussed hereunder):

- **Analysing the progress made with the implementation of the IGDIS**: A clinical analysis of the results and progress made with the implementation of the contents of the August 1997 IGDIS-report, should be conducted;

- **Compilation of an environmental management plan**: The Strategic Environmental Assessment and the Interim Open Space Policy for the MCDC area (see detail in Chapter 3 paragraph 4.5.5 on page 135), should be used as a basis to compile a comprehensive environmental management plan. The purpose would be to guide all future development in the MCDC area from an environmentally sustainable point of view. It would also assist to help potential investors and developers to identify potential obstacles much quicker in
their developmental and decision-making processes;

- **Compilation of a detailed land-use plan**: A detailed land-use plan, which consists of land-use planning, economic development proposals and opportunities, urban design criteria and guidelines, access management, phasing and projects, should be compiled. The purpose being: to guide private sector investment towards preferred locations, to guide public sector processes in terms of infrastructure provision and to keep the wider community informed regarding the expected development opportunities;

- **Special land-use zonings and procedural measures**: More appropriate zonings should be investigated and applied, promoting mixed land-use development. Higher densities and the intensification of development along the corridor should also be made possible through new zonings. The latter should benefit quicker decision-making, increasing threshold values for public and private sector investments, as well as benefit the overall development in the MCDC area;

- **Compilation of a financial plan**: A financial plan consisting of projects, priorities, phases and funding methods and institutions, should be compiled by using the results of the actions listed above as input; and

- **Formulating a set of prioritised strategic development programmes and policies**: A set of prioritised development programmes and policies for the implementation of the existing, as well as newly proposed strategic projects, should be compiled. The purpose: to give special attention to critical development issues and to enhance a situation of speedy delivery and implementation.

The final Corridor Management Plan should, therefore, incorporate time frames, prioritised projects, budget needs, development guidelines, principles and strategies, financing strategies, urban design criteria and guidelines, allocated responsibilities and proposed management mechanisms and structures. Furthermore, it should serve as the guiding tool for the MCDC-Mayoral Commission to guide decision-making and enhance the development of the MCDC area. It should also serve as a guide to influence the budgets of all other stakeholders involved in the MCDC-project.

The results of the MCDC Corridor Management Plan should then be incorporated as input into the overall Integrated Development Plan revision process. This should be done at the time when a strategic development framework is being negotiated for the entire area of the City of Tshwane Metropolitan Municipality. With an improved project prioritisation process, linked to the implementation of strategic development goals and objectives, the MCDC budget needs will be more appropriately evaluated against all other multi-faceted projects. The end result: prioritised implementation of priority projects optimally benefiting the entire population of the City of Tshwane Metropolitan Municipality and thereby also the residents in the MCDC area.
Diagram 12: Proposed Corridor Management Plan and process for the MCDC

- MCDC's Integrated Growth and Development Strategies and concepts
- IDP Process
  - Projects
  - Projects
- Corridor Management Plan
  - Evaluation of IGDIS implementation results and progress
  - Detailed Land-use Plan
  - Land-use zoning regulations and procedural measures
  - Prioritised Strategic Programmes and policies
  - MCDC Management Plan
- Potential elements of the Corridor Management Plan
  - Prioritised projects
  - Time frames
  - Management structures
  - Development guidelines and principles
  - Urban design guidelines
  - Responsibilities
  - Improved strategies
- Overall project prioritisation
  - Prioritised Implementation
3. Social sector integration

It was proposed in the MCDC IGDIS-report that a representative forum be established where social issues could be discussed (Urban-Econ Development Economists, 1997b). Related thereto, it is proposed that the matter be discussed with the newly appointed Executive Mayor of the City of Tshwane Metropolitan Municipality, with a view to assisting with the removal of the political obstacles preventing the establishment of a proposed representative MCDC social development forum (see Diagram 13 below for a schematic illustration). The purpose being: to enhance the integration of the social sectors with the spatial and transport sectors and to address social concerns in an integrated and supportive manner. Altogether, it should enhance social upliftment of the disadvantaged communities in the MCDC area.

Diagram 13: Proposed social sector integration

4. Business development centres for the MCDC area

The discussion about the Arizona Development Corridor (see paragraph 6.2 on page 75 for detail), revealed that a system has been put in place where business development centres are established to promote local economic development. In this regard, it is proposed that the City of Tshwane Metropolitan Municipality adopt a similar approach for the MCDC area.

The proposed business development centres (see Diagram 14 below for a schematic illustration), should be joint ventures between the local authority, education and training institutions, organised business institutions, non-governmental organisations and financial institutions. The aim should be to provide any kind of business-related information or service at these centres.
A process could also be adopted whereby business opportunities are identified, the feasibility thereof tested and a comprehensive business plan compiled. These packaged opportunities could then be either marketed or a local entrepreneur could be trained so as to implement the opportunity and to promote job creation.

Close relations should also be maintained with the “Tabisa” project, implemented as an entrepreneurial training centre at the Technikon Northern Gauteng, to train entrepreneurs among disadvantaged communities.

The proposed business centres should be located adjacent to the proposed MCDC activity spine or established at inter-modal transfer nodes. This way, the centres can become highly accessible to the public as they are directly linked to the public transport system. This, in turn, should also support the use of the public transport system.

This system could be expanded through the establishment of community development forums, which over a period of time, could be transformed to community development corporations, as proposed for the Wetton-Landsdowne Development Corridor (refer to paragraph 2.4.5 on page 27 for detail). The community development forums could initially be serviced by the proposed business development centres, until they are transformed into development corporations.

These proposed business development centres should of course be further investigated in depth in terms of operations, cost implications and management, before negotiations for implementation are initiated.

5. Integrated land-use and public transport systems

The Gauteng Spatial Development Framework is based on the Development Facilitation Act\(^1\) and identifies a definite fragmented urban form as one of the major development issues present in all cities/towns in the Province of Gauteng. The latter is according to the Gauteng Spatial Development Framework caused by the spatial distribution of economic activities and racial segregation. One of the largest development concerns caused by the latter, is the fact that the higher density developments are found in the apartheid townships, which developed at the periphery of a city/town (instead of at the centre). It is further causing a situation where a lack of employment is prevalent in these higher density areas, as well as the need to more often than not travel uneconomical distances to the central areas where the largest percentage of jobs are normally located.

With regard to transport, the Gauteng Spatial Development Framework also recognised the fact that road transportation is a form-giving element in the spatial form of our cities in Gauteng. This also applies to the Greater Pretoria Metropolitan Area, where the MCDC (western parts of the former Greater Pretoria Metropolitan Area) experiences a slow to zero economic growth scenario and a lack of regional mobility and access roads. For this purpose, the Gauteng Spatial Development Framework identified five critical factors as principles to promote development in the Province of Gauteng. These, as listed below, are closely related to corridor development and should be used as a guide in the development of concepts for urban development:

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\(^1\) The Development Facilitation Act (Act 67 of 1995) is specifically focused at implementing the Reconstruction and Development Programme. In general terms, the Act facilitates an increment in development and housing delivery processes, as well as to rectify the imbalanced urban forms caused by the apartheid era (APS Plan Africa, 1999).
Resource-based economic development: Resource-based economic development is focused at promoting economic development through a thrust-based approach focusing on an improved manufacturing sector, information technology, telecommunications equipment, research and development, bio-medical industries and the services sector;

Containing urban growth: To prevent unlimited urban sprawl;

Redirect urban growth: Redirection of urban growth through integrating residential areas with areas of employment opportunities so as to create a functional urban form. Important issues in this regard are densification and achieving growth on vacant land;

Development beyond the urban edge: Rural development beyond the urban edge to achieve a balance between rural and urban development as well as to "protect" rural land against urbanisation. The last is a specific planning principle prescribed in the Development Facilitation Act, Act 67 of 1995, stating that one land-use is not subordinate to another; and

Mobility and accessibility: The mobility and accessibility functions are the base for the implementation of all the afore-mentioned principal-factors. (APS Plan Africa, 1999).

Within the framework provided by the five critical factors discussed above and the theoretical framework formulated in Chapter Two, it is proposed that a development concept be adopted by the MCDC-project, which is further refined to correlate more directly with the concept applied in Curitiba. The purpose is to promote the integration of land-use and public transport systems in such a manner that the one totally complements the other.

As discussed in Chapter Three, the MCDC area consists of a number of different unique homogeneous areas. As a result, it is expected that the development concept will differ in terms of context, intensity, contents and nature from area to area (TRC Africa, 1998). It is therefore not the purpose of this dissertation to prepare detailed proposals for the development concept, but rather to prepare a general concept, which could be altered or refined according to the influences, found in the different MCDC areas. The concept, which could be applied in the Klip- and Kruisfontein area between Soshanguve and the Rosslyn industrial area, is further illustrated schematically in Diagram 15 below. The concept includes the following:

- using the PWV-9 as the high-speed mobility route to accommodate through-movement of people not having a destination in the development corridor;
- using the Mabopane-Rosslyn rail line as the main public transport mode, with a hierarchy of stations developed along the length of the rail line to serve local and regional commuters. The higher order stations should be aimed at accommodating regional commuters and, therefore, be considered for higher order inter-modal transfer nodes (accommodating pedestrians, trains, buses and minibus taxis). Lower order stations should focus at providing a service for the local population residing within walking distance and the neighbourhood. Lower order inter-modal transfer facilities should be developed at these stations (accommodating trains, the pedestrians and probably also minibus taxis serving the neighbourhood). The public transport function of the rail line is regarded as a medium-distance service provider (i.e. from Mabopane to Rosslyn) and a longer distance service provider (i.e. from Mabopane to Pretoria central business district);

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82 The Gauteng Spatial Development Framework, in terms of mobility and transport, identified two critical development paths, the one being to improve access to townships and employment opportunities and the other to provide improved infrastructure within the "core economic focus areas". The last mentioned necessitates increased construction of road and rail facilities (APS Plan Africa, 1999)
Diagram 14: Proposed business development centre

Proposed business development centre

Universities
Skills academies
Technical colleges
Technikons
Training institutions

NGO's
Tertiary training and education centres

Financial institution

National government departments

Business development consultants

Research and development centres

Provincial government departments

Representative business institutions

Department of Labour
Department of Constitutional Development

Department of Economic Affairs and Finance
Department of Development Planning and Local Government

Banks, Societies, Donor agencies.

NBI
Get Ahead

Human Resources
Job opportunities

Unemployed
Retrenchments
Students

Business chambers
Greater Pretoria Business and Agriculture Centre
Respective Industrial associations

Job creation and economic growth
an activity spine should be developed next to the rail line. Zonings between the rail line and the activity spine should preferably be oriented towards business and even light industrial development (representing job creation). The first row of erven on the opposite side, should also accommodate businesses, but higher density residential developments integrated with businesses could also be allowed. The row of erven behind the first row should be used for higher order residential developments. Minor business activities should also be allowed;

- a lower order mobility route could be provided to enable short to medium distance movement as well as to link neighbourhoods with each other (refer to Diagram 15 below for a schematic illustration); and

- lower density residential developments should be made possible beyond the lower order mobility route (refer to Diagram 15 below for a schematic illustration).

Diagram 15: Proposed Integrated Land-use and Public Transport model
To enable the establishment of the possible concept proposed above, the City of Tshwane Metropolitan Municipality will have to formulate a number of policies and programmes to enable the development of such a concept. The policies and programmes should be focused at:

- enabling budgeting for infrastructure provision, such as the construction of roads and the inter-modal transfer facilities;
- pre-determined and approved zonings, automatically allocated land-use rights at either sides of the activity spine;
- promoting an efficient and affordable public transport system;
- the establishment of public and community facilities adjacent to the activity spine, or, inter-modal transfer facilities;
- enabling expropriation to initiate development programmes for higher-density residential developments;
- incentives to promote the required development. Disincentives, such as higher property taxes, higher parking requirements, limited land-use rights and so forth should be investigated and be formulated to prohibit undesired development; and
- promoting inward growth to the area adjacent to the activity spine and controlling outward growth towards the urban edges.

These proposed policies and programmes are supported by Krynauw (Chief Planner: Metropolitan Transport Systems Planning; former Greater Pretoria Metropolitan Council) stating that the increased "... use of controls and incentives...", integrated with "...the provision of public transport investment to support corridor densification...", is actually enabling the development of a much more efficient transportation system for an entire city as well (Krynauw, 2000).

6. Decision criteria for MCDC projects and investments

In the Arizona Trade Corridor an evaluation approach towards testing the "feasibility" of each project/investment (whether public or private) is incorporated. This was done according to specific decision criteria used to create and test feasibility. This approach represents a challenge to find those projects with the best multiplier effects, attracting quicker investment and, therefore, promoting job creation, economic growth and the implementation of set goals and objectives.

Using the identified development corridor perspectives and the theoretical development corridor framework discussed in Chapter Two, a list of potential decision criteria is identified for further investigation. The most prominent development corridor principles applied in the Curitiba Development Corridor approach and the most common principles found among the respective international development corridors, were identified to form the basis of the proposed decision criteria.

The MCDC-project approaches, strategies and projects (see detail in Chapter Three), were also kept in mind during the decision criteria identification process, so as to ensure that the proposed decision criteria are compatible with the implementation of the development concept of the MCDC-project.

83 The constitutional rights of property owners will have to be tested before this proposal is implemented.
As a result, five multi-faceted components were identified as part of which detailed decision/evaluation criteria should be formulated to evaluate any investment from a holistic point of view. These multi-faceted components are illustrated on Diagram 16 and briefly discussed below:

- **Improving directed economic development**: Decision criteria should focus on an assessment of the sectoral economic sectors and the stimulation of those identified sectors which support the determined development vision and the implementation of the economic development targets set for the development of the MCDC area. Decision criteria compiled as part of this component could also have a spatial connotation, as it could differentiate between the development of different economic sectors at preferred locations in the corridor area, as depicted by the comparative advantages found in that respective area;

- **Improving the development of an integrated public and private transport system**: Decision criteria to be incorporated as part of this component should focus on the increased use of an integrated public transport system and the decrease of the use of the private vehicle. Special attention should be given to those investments which will enhance modal integration, as well as those which are creating additional economic development opportunities (job creation) at places where inter-modal transfer facilities are developed;

Diagram 16: The proposed five multi-faceted components to form the basis of detailed decision criteria needed to evaluate public and private investments in a development corridor

- **Optimal investment attraction**: This component should incorporate a number of possible decision criteria focuses, such as: will the investment contribute towards filling gaps in the
local production systems and/or the markets, will it stimulate the development of an activity spine, will it support the development of priority economic nodes, will it stimulate SMME-related developments, will it be located at areas which are close to public transport systems and will it be located close to public facilities or will it create the comparative advantages for public facilities to locate closer to the proposed investment? A number of these focuses could be incorporated, but it is imperative that it is directly related to the implementation of concepts and strategies guiding the development of the MCDC;

- **Promoting sustainable urban integration**: The anticipated decision criteria forming part of this component should incorporate strong elements of spatial issues (such as preventing urban sprawl and promoting densification), economic issues (such as increasing threshold values for economic development opportunities, the public transport system, as well as public facilities and amenities) and environmental issues (such as enhancing sustainable environmental development, conserving sensitive open spaces, beautification and preventing pollution); and

- **Enhancing human resources development**: The decision criteria incorporated into this component should focus on specific criteria to measure the ability of the investment to promote social upliftment (it can include socio-economic measures such as the ability to pay for services used, transport costs, as well as the ability to reduce unemployment). It could also focus on aspects such as the contribution of the investment towards formalising the informal trade sectors, the development of additional skills, or the use of available local skills in the corridor area. Time used for sports and recreation, especially by the economically active population, could also be incorporated in the evaluation process.

The challenge will be to link a financial value/calculation to each identified decision criterion or group of criteria, which can be used to calculate the expected value-adding and multiplier effects of the project and/or investment.

It should, however, be noted that a comprehensive investigation will have to be executed by the City of Tshwane Metropolitan Municipality to identify the appropriate decision criteria, which also comply to the goals, objectives and development strategies compiled for the development of the MCDC.

Once the decision criteria are ready for use, an additional element should be added to the concept to attract investment to the MCDC area. This includes the provision of economic development incentives to those investments, which through the assessment process have shown the highest benefit values. These incentives could include possibilities such as reduced rates and taxes, the subsidisation of expected bulk service contributions and "free" or "cheaper" tickets for its employees to use the public transport system. The format of these incentives should be investigated in depth.

The exact applicability of these decision criteria needs to be tested. It should also form part of a Corridor Management Plan, as proposed in paragraph 2 above. Together, the composition of a Corridor Management Plan and the formulation of decision criteria to evaluate projects resulting from the plan formulation process, could be further analysed and investigated as a possible topic for a Doctoral Thesis.
SECTION C: RECOMMENDATIONS

Change, or the adoption of new strategies, or even learning from other experiences, should not be feared by "project drivers" of projects such as the MCDC-project. Therefore, to improve the MCDC-project and its implementation processes, it is important that a dynamic project process be implemented whereby existing strategies could be strengthened, scrapped and/or new ones added. Given this perspective, the following recommendations are therefore made for further consideration by the City of Tshwane Metropolitan Municipality to enhance the development of the MCDC area at this point in time:

♦ that a new institutional body in the form of a Mayoral Commission, be established;

♦ that the proposed MCDC Development Body be established. The proposed MCDC Development Body could act as a development agent to attract and create investment to focused areas in the MCDC area and thereby provide additional support for the establishment of the development corridor concept;

♦ that a comprehensive Corridor Management Plan, as proposed and deliberated in this chapter, be compiled;

♦ that the obstacles experienced with the integration of the social sectors of the MCDC-project, be addressed through political intervention;

♦ that a system of business development centres be established to assist the proposed MCDC Development Company with the enhancement of economic growth in the MCDC area;

♦ that the proposals for the implementation of an integrated land-use and public transport system for the different MCDC areas be implemented through a set of formulated development policies and programmes;

♦ that a list of decision criteria be formulated for application in the MCDC area to enable project assessment. The results of these assessments should ensure that those projects/investments with the highest multiplier effects be promoted/implemented first. Through this approach, the maximum contribution to the implementation of development corridor principles should be obtained, so as to speed up the establishment of the MCDC; and

♦ that project priorities be assessed in metropolitan context.
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# ANNEXURE A: MCDC – PROJECTS FOR IMPLEMENTATION

## SUPPORT AND IDENTIFIED NEEDS

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>AREA</th>
<th>PROJECT</th>
<th>PROJECT CATEGORY SUPPORT</th>
<th>ID NEEDS</th>
<th>SECTOR</th>
<th>PRIORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCDC/1</td>
<td>Sourpan/ Tswaing</td>
<td>Investigate the feasibility of closing or realigning road D600 so that it does not bisect the nature area.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC/2</td>
<td>Sourpan/ Tswaing</td>
<td>Study to ensure that adequate access to the Tswaing Nature Area is provided.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC/3</td>
<td>Sourpan/ Tswaing</td>
<td>Create craft market opportunities and facilities.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/4</td>
<td>Sourpan/ Tswaing</td>
<td>Market the tourism potential of the area.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/5</td>
<td>Sourpan/ Tswaing</td>
<td>Formulate a strict zoning plan in the vicinity of the museum.</td>
<td>YES</td>
<td>Infrastructure &amp; Land-use</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>MCDC/8</td>
<td>Soshanguve</td>
<td>Upgrade passenger intermodal facility at Mabopane station.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/9</td>
<td>Soshanguve</td>
<td>Investigate the northwards extension of the mobility spine.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/10</td>
<td>Soshanguve</td>
<td>Formalise the activity spine in Soshanguve from a transportation point of view.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/11</td>
<td>Soshanguve</td>
<td>Extend the railway line northwards into Soshanguve.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/12</td>
<td>Soshanguve</td>
<td>Establish new taxi facilities in Soshanguve.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/14</td>
<td>Soshanguve</td>
<td>Compile a detail integrated development plan for Mabopane Station area.</td>
<td>YES</td>
<td>Infrastructure, Economic &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/16</td>
<td>Soshanguve</td>
<td>Link the PWV9 with the N1, north of Pretoria.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC/17</td>
<td>Soshanguve</td>
<td>Build additional primary and secondary schools in Soshanguve according to demand.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC/18</td>
<td>Soshanguve</td>
<td>Assist in building additional crèches and preschools in Soshanguve according to demand.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>NUMBER</td>
<td>AREA</td>
<td>PROJECT</td>
<td>PROJECT CATEGORY</td>
<td>SECTOR</td>
<td>PRIORITY</td>
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</tr>
<tr>
<td>MCDC / 20</td>
<td>Soshanguve</td>
<td>Compile an IDP for the Tertiary Economic Activity Node (Soshanguve Station).</td>
<td>YES</td>
<td>Economic</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 21</td>
<td>Soshanguve</td>
<td>Promote the establishment of services orientated industrial activities.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 22</td>
<td>Soshanguve</td>
<td>Establish support programmes for office development and related activities.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 24</td>
<td>Soshanguve</td>
<td>Develop a fresh produce market.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 25</td>
<td>Soshanguve</td>
<td>Establish Entrepreneurial and Technical Training Facilities at NAFCOC MLDC.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 30</td>
<td>Soshanguve</td>
<td>Establish community centres combined with a medical support centre in KKG where a range of social services could be rendered.</td>
<td>YES</td>
<td>Infrastructure &amp; Human Resources Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 31</td>
<td>Soshanguve</td>
<td>Ensure proper accessibility of centres to the disabled.</td>
<td>YES</td>
<td>Infrastructure &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 34</td>
<td>Soshanguve</td>
<td>Develop adult education centres according to demand.</td>
<td>YES</td>
<td>Infrastructure &amp; Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 35</td>
<td>Soshanguve</td>
<td>Develop a trauma centre and service for abused people.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 36</td>
<td>Soshanguve</td>
<td>Establish centres for informal traders.</td>
<td>YES</td>
<td>Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 39</td>
<td>Soshanguve</td>
<td>Develop an Arts &amp; Crafts Centre.</td>
<td>YES</td>
<td>Infrastructure &amp; Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 41</td>
<td>Soshanguve</td>
<td>Establishment of sports and recreational facilities in Soshanguve area.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 47</td>
<td>Soshanguve</td>
<td>Extend the Rietgat waste water treatment plant.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 49</td>
<td>Soshanguve</td>
<td>Soshanguve: Main outfall sewer.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 50</td>
<td>Soshanguve</td>
<td>Sewerage network: Soshanguve south.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 52</td>
<td>Soshanguve</td>
<td>Extend the Rietgat waste water treatment plan: Soshanguve</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Low</td>
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<tr>
<td>NUMBER</td>
<td>AREA</td>
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<td>PROJECT CATEGORY SUPPORT ID</td>
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<tr>
<td>MCDC / 53</td>
<td>Soshanguve</td>
<td>Soshanguve substation stage 1.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 54</td>
<td>Soshanguve</td>
<td>Establish 132/33 and 132/11 kV substations and provide new powerlines.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 55</td>
<td>Soshanguve</td>
<td>Address the urgent need for training in management and operation of the Soshanguve landfill site.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 56</td>
<td>Soshanguve</td>
<td>Provide a garden refuse facility: NPMLC.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 57</td>
<td>Soshanguve</td>
<td>Soshanguve transfer station.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 58</td>
<td>Soshanguve</td>
<td>Upgrading of Soshanguve cemetery.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>MCDC / 59</td>
<td>KKG</td>
<td>Investigate the intermodal facility at or near the railway station close to road 2758.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 60</td>
<td>KKG</td>
<td>Construction of the K6.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>MCDC / 61</td>
<td>KKG</td>
<td>Construction of the K4.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 64</td>
<td>KKG</td>
<td>Construct a road over rail bridge where the activity spine crosses the Mabopane-Pretoria railway line, between Station A and Road 2758.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 65</td>
<td>KKG</td>
<td>Construct a road over rail bridge where the activity spine crosses the De Wildt-Winternest railway line, between the proposed K6 and K63.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 66</td>
<td>KKG</td>
<td>Determine the feasibility of establishing public transport services along the activity spine.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 67</td>
<td>KKG</td>
<td>Klip-Kruisfontein roads masterplan - Implement construction.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 68</td>
<td>KKG</td>
<td>Compile a development and investment plan for the CBD of the KKG-area.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 69</td>
<td>KKG</td>
<td>Introduce small scale farming in the area surrounding KKG (liaise with DWAF).</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 71</td>
<td>KKG</td>
<td>Build additional primary &amp; high schools in KKG.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>NUMBER</td>
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<tr>
<td>MCDC / 72</td>
<td>KKG</td>
<td>Build library in the area.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 73</td>
<td>KKG</td>
<td>Assist in building additional crèches and preschools in KKG.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 75</td>
<td>KKG</td>
<td>Establish community centres combined with a medical/trauma support centre in KKG where a range of social services could be rendered.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 76</td>
<td>KKG</td>
<td>Build an old age care centre / clinic according to demand.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 77</td>
<td>KKG</td>
<td>Build a 24 hour clinic with a maternity ward and ambulance services.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 78</td>
<td>KKG</td>
<td>Build a veterinary clinic for pets.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 80</td>
<td>KKG</td>
<td>Supply public transport facilities.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 81</td>
<td>KKG</td>
<td>Develop a storm water drainage system.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 83</td>
<td>KKG</td>
<td>Erect robots at the Mabopane/Rosslyn/Soshanguve junction.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 86</td>
<td>KKG</td>
<td>Provide business opportunities for locals as a priority.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 88</td>
<td>KKG</td>
<td>Secure sites for business development.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 89</td>
<td>KKG</td>
<td>Develop a trading centre for informal businesses.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 90</td>
<td>KKG</td>
<td>Facilitate small scale business projects: strategically located &amp; sustainable.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 92</td>
<td>KKG</td>
<td>Facilitate investment in multipurpose shopping centre.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
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<td>NUMBER</td>
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<tr>
<td>MCDC / 93</td>
<td>KKG</td>
<td>Create and/or improve security, safety and protection services and infrastructure in KKG.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 94</td>
<td>KKG</td>
<td>Build a fire station.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 95</td>
<td>KKG</td>
<td>Establish a permitted waste disposal area.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 96</td>
<td>KKG</td>
<td>Introduce a waste disposal system.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 97</td>
<td>KKG</td>
<td>Establishment of sports and recreational facilities in KKG area.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 99</td>
<td>KKG</td>
<td>Build a community hall &amp; parks.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 100</td>
<td>KKG</td>
<td>Build a cemetery.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 101</td>
<td>KKG</td>
<td>Supply temporary water supply during development.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 102</td>
<td>KKG</td>
<td>Ensure proper electricity supply to developing areas.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 103</td>
<td>KKG</td>
<td>Telecommunications and post office.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 104</td>
<td>KKG</td>
<td>Develop affordable sewerage &amp; reticulation infrastructure.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 105</td>
<td>KKG</td>
<td>Develop rent payment offices.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 108</td>
<td>KKG</td>
<td>Waste water treatment plant for Klip-Kruisfontein.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 109</td>
<td>KKG</td>
<td>Outfall sewer pipelines for the Klip-Kruisfontein area.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 110</td>
<td>KKG</td>
<td>Klip-Kruisfontein water supply.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 111</td>
<td>Onderstepoort</td>
<td>Study to address the environmental impact of the transportation infrastructure in the area.</td>
<td>YES</td>
<td>Economic</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>MCDC / 112</td>
<td>Onderstepoort</td>
<td>Urban agriculture project - Onderstepoort land.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 116</td>
<td>Onderstepoort</td>
<td>Create employment opportunities through linkages with nature and tourism.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 117</td>
<td>Onderstepoort</td>
<td>Onderstepoort ( garden- and builders waste).</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Low</td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>MCDC / 118</td>
<td>Rosslyn</td>
<td>Rosslyn industrial area taxi rank.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>MCDC / 120</td>
<td>Rosslyn</td>
<td>Promotion/implementation of lower income housing within Klerksoord and surroundings (high density).</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 121</td>
<td>Rosslyn</td>
<td>Market the Tax Holiday Scheme in conjunction with appropriate land.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 122</td>
<td>Rosslyn</td>
<td>Establish an Automotive Training Section for taxi drivers and others at Skills Academy.</td>
<td>YES</td>
<td>Human Resource</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 123</td>
<td>Rosslyn</td>
<td>Negotiating with industrial land owners of large and unutilised stands to establish high density residential development in the form of small sport villages with an open space network linking them, between industrial buildings and stands.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 124</td>
<td>Rosslyn</td>
<td>Determine the need for English medium schools in Rosslyn.</td>
<td>YES</td>
<td>Human Resource</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 127</td>
<td>Rosslyn</td>
<td>Street children project - training in basic skills.</td>
<td>YES</td>
<td>Human Resource</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 128</td>
<td>Rosslyn</td>
<td>Establishment of community centres combined with a medical support centre in Rosslyn where a range of social services could be rendered.</td>
<td>YES</td>
<td>Human Resource</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 133</td>
<td>Rosslyn</td>
<td>Job creation through inward industrialisation.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 134</td>
<td>Rosslyn</td>
<td>Industrial complex/cluster analysis with emphasis on the motor vehicle industry.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 136</td>
<td>Rosslyn</td>
<td>Vacant or abandoned private property needs tight security to prevent vandalism.</td>
<td>YES</td>
<td>Human Resource</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 137</td>
<td>Rosslyn</td>
<td>Establishment of sports and recreational facilities in Rosslyn area.</td>
<td>YES</td>
<td>Human Resource</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 142</td>
<td>Rosslyn</td>
<td>Klerksoord sewerage network.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 143</td>
<td>Rosslyn</td>
<td>32 kV line: Gomsand to Rosslyn .</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 144</td>
<td>Rosslyn</td>
<td>32 kV line: Rosslyn to Buffalo.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 145</td>
<td>Rosslyn</td>
<td>Upgrade Rosslyn substation.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 146</td>
<td>Rosslyn</td>
<td>Establish a landfill site at Rosslyn.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td>MCDC / 147</td>
<td>Tswaing</td>
<td>Develop the PWV9/PWV2 primary economic corridor node.</td>
<td>YES</td>
<td></td>
<td>Economic, Land-use</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 149</td>
<td>Akasia</td>
<td>Investigate the feasibility of using Wonderboom Airport as a major air transport hub.</td>
<td>YES</td>
<td></td>
<td>Infrastructure &amp; Land-use</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 150</td>
<td>Akasia</td>
<td>Extension of runway: Wonderboom Airport.</td>
<td>YES</td>
<td></td>
<td>Infrastructure</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 152</td>
<td>Akasia</td>
<td>Establishment of taxi facilities in Tswaing (Akasia).</td>
<td>YES</td>
<td></td>
<td>Infrastructure</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 153</td>
<td>Akasia</td>
<td>Compile an investment plan for Akasia CBD.</td>
<td>YES</td>
<td></td>
<td>Economic</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 154</td>
<td>Akasia</td>
<td>Study to ensure adequate access is given to the Tswaing CBD area.</td>
<td>YES</td>
<td></td>
<td>Infrastructure</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 156</td>
<td>Akasia</td>
<td>Investigate and determine locality and feasibility of electronic tradeport.</td>
<td>YES</td>
<td></td>
<td>Economic</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 159</td>
<td>Akasia</td>
<td>Provide infrastructure for high density middle income.</td>
<td>YES</td>
<td></td>
<td>Land-use</td>
<td>Medium</td>
</tr>
<tr>
<td>MCDC / 160</td>
<td>Akasia</td>
<td>Cater for infill development: market such areas.</td>
<td>YES</td>
<td></td>
<td>Land-use</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 163</td>
<td>Akasia</td>
<td>Orchards sewerage network.</td>
<td>YES</td>
<td></td>
<td>Infrastructure</td>
<td>Medium</td>
</tr>
<tr>
<td>MCDC / 167</td>
<td>West Moot</td>
<td>K20 as access street: detail implementation study.</td>
<td>YES</td>
<td></td>
<td>Infrastructure</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 169</td>
<td>West Moot</td>
<td>Change of policy to allow smaller holdings and subdivision smaller than the allowed 0,8656 Ha, for small industries.</td>
<td>YES</td>
<td></td>
<td>Land-use &amp; Economic</td>
<td>Medium</td>
</tr>
<tr>
<td>MCDC / 171</td>
<td>West Moot</td>
<td>Linking/extending the linear business centres of Rachel de Beer/Brits Road/President Steyn Street with office/business uses.</td>
<td>YES</td>
<td></td>
<td>Infrastructure, Economic &amp; Land-use</td>
<td>Medium</td>
</tr>
<tr>
<td>MCDC / 173</td>
<td>West Moot</td>
<td>PWV9 integrated land use framework (extension to the south).</td>
<td>YES</td>
<td></td>
<td>Land-use</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 174</td>
<td>West Moot</td>
<td>Integrated Van der Hoff activity framework plan.</td>
<td>YES</td>
<td></td>
<td>Land-use</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 175</td>
<td>West Moot</td>
<td>Stimulate east-west mixed business development to strengthen linkages with the north-south MCDC.</td>
<td>YES</td>
<td></td>
<td>Land-use &amp; Economic</td>
<td>High</td>
</tr>
<tr>
<td>MCDC / 176</td>
<td>Pretoria West</td>
<td>Promote the development of local economic activities in dormitory areas.</td>
<td>YES</td>
<td></td>
<td>Economic</td>
<td>High</td>
</tr>
<tr>
<td>NUMBER</td>
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<tr>
<td>MCDC / 177</td>
<td>Pretoria West</td>
<td>Investigate the implications of downgrading the status of the N4 west.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 178</td>
<td>Pretoria West</td>
<td>Investigate the implications of tolling the PWV9 within the study area.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 179</td>
<td>Pretoria West</td>
<td>Provide an additional railway station for Atteridgeville.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 180</td>
<td>Pretoria West</td>
<td>Establishment of taxi facilities in Atteridgeville.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 182</td>
<td>Pretoria West</td>
<td>Urban agriculture and sport related projects between Church Street and the toll road.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 185</td>
<td>Pretoria West</td>
<td>Establish the lifespan of the Iscor plant and determine alternative scenarios to prevent/minimise impact should the plant close down.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 188</td>
<td>Pretoria West</td>
<td>Determine locality of fresh produce market; feasibility study and construction if positive.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 189</td>
<td>Pretoria West</td>
<td>Expansion of hospital and technical college.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 190</td>
<td>Pretoria West</td>
<td>Develop multi-purpose community centre close to West Fort Hospital.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 192</td>
<td>Pretoria West</td>
<td>Identify small scale farming opportunities.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 193</td>
<td>Pretoria West</td>
<td>Extension of the existing industries in Claremont and Booyzens by appropriate zoning measures.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 194</td>
<td>Pretoria West</td>
<td>Create and/or improve security, safety and protection services and infrastructure in Pretoria West Area.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 195</td>
<td>Pretoria West</td>
<td>Satellite clinics.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 196</td>
<td>Pretoria West</td>
<td>Improve road infrastructure in PTA West. Upgrade and tar existing roads. Widen roads and pavements.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 197</td>
<td>Pretoria West</td>
<td>Improve traffic awareness and erect more robots.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>NUMBER</td>
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<tr>
<td>MCDC /</td>
<td>199</td>
<td>Pretoria West Improve storm water drainage system.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>200</td>
<td>Pretoria West Improve public transport: Develop commuter infrastructure.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>201</td>
<td>Pretoria West Improve railway station.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>204</td>
<td>Pretoria West Develop shopping nodes in Atteridgeville and Lotus Gardens.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>206</td>
<td>Pretoria West Increase fire brigade services.</td>
<td>YES</td>
<td>Human Resource</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>207</td>
<td>Pretoria West Provide more police stations that are community friendly.</td>
<td>YES</td>
<td>Human Resource</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>208</td>
<td>Pretoria West Environmental education centre: education in schools about toxic waste, etc.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>209</td>
<td>Pretoria West Develop parks.</td>
<td>YES</td>
<td>Land-use</td>
<td>Medium</td>
<td></td>
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<tr>
<td>MCDC /</td>
<td>210</td>
<td>Pretoria West Establishment of sports and recreational facilities in Pretoria West Area.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>214</td>
<td>Pretoria West Improve housing, retail complexes, churches, etc. through site proper allocation.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>216</td>
<td>Pretoria West Rental payment offices.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>217</td>
<td>Pretoria West Increase efficiency in the supply of municipal services.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>221</td>
<td>Pretoria West Atteridgeville: handling of waste.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>222</td>
<td>Pretoria West Outfall sewer for Atteridgeville.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>223</td>
<td>Pretoria West Water reservoir west of Atteridgeville.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>224</td>
<td>Pretoria West Water supply to Atteridgeville X8.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>225</td>
<td>Pretoria West Extensions of internal water and sewerage network: Atteridgeville.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC /</td>
<td>226</td>
<td>Pretoria West Water reservoir next to the present Lotus Gardens reservoir.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
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</tr>
<tr>
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<tr>
<td>MCDC / 227</td>
<td>Pretoria West</td>
<td>Establish Saulsville 132/11 kV substation.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 228</td>
<td>Pretoria West</td>
<td>Pretoria West power station: refurbishment of turbine 5.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 230</td>
<td>Laudium</td>
<td>Voortrekkerhoogte IDP.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 232</td>
<td>Laudium</td>
<td>Build day care centre in prominent work areas.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 233</td>
<td>Laudium</td>
<td>Create a mobile library.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 234</td>
<td>Laudium</td>
<td>Assist in providing Adult Basic Education Services at various venues in Laudium.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 235</td>
<td>Laudium</td>
<td>Build primary and Secondary Schools in Heuweloord.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 236</td>
<td>Laudium</td>
<td>Home care network for the aged and disabled.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 238</td>
<td>Laudium</td>
<td>Build old age homes.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 239</td>
<td>Laudium</td>
<td>Rehabilitation centres providing workshops for rehabilitation of drug addicts and alcoholics.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 240</td>
<td>Laudium</td>
<td>Establishment of community centres combined with a medical support centre in Laudium where a range of social services could be rendered.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 241</td>
<td>Laudium</td>
<td>Training centre for volunteers in basic emergency care.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 242</td>
<td>Laudium</td>
<td>Improve usage of Laudium hospital.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 243</td>
<td>Laudium</td>
<td>Provide mobile clinic for the aged.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 245</td>
<td>Laudium</td>
<td>Public transport to major points such as health services, education, workplace, etc.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
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<tr>
<td>MCDC / 246</td>
<td>Laudium</td>
<td>Installation of lights and robots at Skurweberg and 19th Avenue intersection.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 248</td>
<td>Laudium</td>
<td>Investigate measures to improve road safety in Laudium.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 249</td>
<td>Laudium</td>
<td>Need for robots and pedestrian crossings in Laudium.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 250</td>
<td>Laudium</td>
<td>Improved public transport facilities, especially in Laudium.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 251</td>
<td>Laudium</td>
<td>Need for public transport in Laudium.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 252</td>
<td>Laudium</td>
<td>More business opportunities for Laudium residents especially in the White Blocks.</td>
<td>YES</td>
<td>Economic</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 253</td>
<td>Laudium</td>
<td>Development of informal business facilities with toilet facilities.</td>
<td>YES</td>
<td>Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 254</td>
<td>Witwatersrand</td>
<td>IDP for the Heuweloord node.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 255</td>
<td>Laudium</td>
<td>Investigate the demand to create and/or improve security, safety and protection services and infrastructure in the Laudium area.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 256</td>
<td>Laudium</td>
<td>Informal settlement pose a major threat to security.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 257</td>
<td>Laudium</td>
<td>Visible policing needed.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 258</td>
<td>Laudium</td>
<td>Fire brigade needed.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 259</td>
<td>Laudium</td>
<td>Safety and security issue due to uncut grass.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 260</td>
<td>Laudium</td>
<td>Need for waste disposal sites.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 261</td>
<td>Laudium</td>
<td>Cleaning projects with community participation.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 262</td>
<td>Laudium</td>
<td>Landscaping the entire area with trees, flowers, parks, etc; need for parks.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
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<tr>
<td>MCDC / 264</td>
<td>Laudium</td>
<td>Establishment of sports and recreational facilities in the Laudium area.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 265</td>
<td>Laudium</td>
<td>Develop sportground, indoor and outdoor facilities.</td>
<td>YES</td>
<td>Human Resource Development &amp; Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 267</td>
<td>Laudium</td>
<td>Need for parks in Claudius.</td>
<td>YES</td>
<td>Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 269</td>
<td>Laudium</td>
<td>Provision of housing (complete structure with electricity and plumbing).</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 271</td>
<td>Laudium</td>
<td>Support for families of the unemployed.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCDC / 272</td>
<td>Laudium</td>
<td>Upgrade housing stock towards ownership a) redesign of the 4-unit family flats b) upgrading of the White Block area (problems with higher densities to be addressed).</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 276</td>
<td>Laudium</td>
<td>Lack of proper refuse removal service.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 279</td>
<td>Laudium</td>
<td>Upgrade Claudius 132/11 kV substation.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 282</td>
<td>Sunderland Ridge</td>
<td>Housing Project aimed at labour force.</td>
<td>YES</td>
<td>Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 283</td>
<td>Sunderland Ridge</td>
<td>Small Scale Farming: Feasibility Study / Investigate groundwater conditions. Possibility of agri-village.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 284</td>
<td>Sunderland Ridge</td>
<td>Efficient and affordable water supply system to small scale farmers.</td>
<td>YES</td>
<td>Infrastructure &amp; Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 286</td>
<td>Sunderland Ridge</td>
<td>Laboratory extensions: Sunderland Ridge treatment works.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 287</td>
<td>Sunderland Ridge</td>
<td>Site investigation - Module 4 Sunderland treatment works.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 289</td>
<td>Sunderland Ridge</td>
<td>Promote new industrialsation in the area with linkages to agro-activities, Samrand and Midrand industries.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
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<tr>
<td>MCDC / 290</td>
<td>Hennops River Nature Area</td>
<td>Study addressing the environmental impact of the transportation infrastructure in the Hennops Nature Area.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 291</td>
<td>Hennops River Nature Area</td>
<td>Small scale farming: Feasibility study / Investigate groundwater conditions. Possibility of agri-village.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 293</td>
<td>Hennops River Nature Area</td>
<td>Zwartkop Park: Investigate possibility of extending/privatisation of conference facilities within the National Defence Force managed Park. Possible multi-functional use of the terrain.</td>
<td>YES</td>
<td>Land-use &amp; Economic</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 294</td>
<td>Hennops River Nature Area</td>
<td>Formulate an Open Space Policy.</td>
<td>YES</td>
<td>Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 299</td>
<td>Witwatersrand</td>
<td>Establishment of taxi facilities in Centurion.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 311</td>
<td>Witwatersrand</td>
<td>132 kV improvements - Centurion, NPMLC, CCP.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>MCDC / 312</td>
<td>Witwatersrand</td>
<td>132 kV extensions - Centurion, NPMLC, CCP.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 313</td>
<td>Witwatersrand</td>
<td>Establish a landfill site at Knoppieslaagte (South of Centurion).</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 314</td>
<td>Witwatersrand</td>
<td>Garden refuse facility: Centurion.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 315</td>
<td>Witwatersrand</td>
<td>Centurion transfer station</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 317</td>
<td>MCDC</td>
<td>Involve public sector in preferential treatment agreements with respect to local entrepreneurs.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 318</td>
<td>MCDC</td>
<td>Involve females in the economy.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 319</td>
<td>MCDC</td>
<td>Analyse and stratify the housing need (monitor housing need, create and maintain a data bank).</td>
<td>YES</td>
<td>Land-use</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 320</td>
<td>MCDC</td>
<td>Develop a pilot high-rise housing scheme a) involve employers in assisting with housing finance b) implementation of higher density housing project: incentives risk management.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 326</td>
<td>MCDC</td>
<td>Establish an Industrial Development and Promotion Office.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 327</td>
<td>MCDC</td>
<td>Identify and promote industrial clusters.</td>
<td>YES</td>
<td>Economic</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 342</td>
<td>MCDC</td>
<td>Office development closer to lower income areas.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>MCDC / 343</td>
<td>MCDC</td>
<td>Mix land-use development policy for MCDC.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 345</td>
<td>MCDC</td>
<td>Establishing or upgrading taxi stops along the off - ramps of the PWV9 route to Midrand, Pretoria West, Akasia and Soshanguve as marketplaces for produce, consumer goods and manufacturing sectors of the informal community.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 347</td>
<td>MCDC</td>
<td>Extending the public transport of the Pretoria City Council Bus service, in conjunction with other Councils, from the Pretoria CBD to Akasia, Midrand and most areas in Centurion.</td>
<td>YES</td>
<td>Land-use</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 350</td>
<td>Rosslyn</td>
<td>Second Satellite Taxi Training Centre on the complex of the Skills Academy Training Centre in Rosslyn.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 352</td>
<td>MCDC</td>
<td>A study to establish the demand for new and additional Pre-school educational facilities and/or the need to upgrade existing facilities within the total MCDC area.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 359</td>
<td>MCDC</td>
<td>Mobile clinics for the aged.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 360</td>
<td>MCDC</td>
<td>Investigate the demand to create and/or improve safety and protection services and infrastructure throughout the total MCDC area.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 361</td>
<td>MCDC</td>
<td>Develop a trauma centre and service for abused people.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 362</td>
<td>MCDC</td>
<td>Undertake an investigation to establish the need for additional old age homes within the MCDC (especially Soshanguve, KKG and Atteridgeville).</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 363</td>
<td>MCDC</td>
<td>Undertake an investigation to establish the need for additional pension payout points within the MCDC.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 364</td>
<td>MCDC</td>
<td>Establish police stations in Klip- and Kruisfontein and other fast growing areas.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>NUMBER</td>
<td>AREA</td>
<td>PROJECT</td>
<td>PROJECT CATEGORY SUPPORT ID NEEDS</td>
<td>SECTOR</td>
<td>PRIORITY</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>MCDC / 365</td>
<td>MCDC</td>
<td>Investigate the demand to create and/or improve safety and security services and infrastructure the total MCDC area.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 367</td>
<td>MCDC</td>
<td>A study to establish the demand for new and additional classrooms and school facilities and/or the need to upgrade existing facilities within the total MCDC area.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 368</td>
<td>MCDC</td>
<td>Undertake an analysis of the condition of existing schools to identify the need for upgrading existing educational facilities.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 370</td>
<td>MCDC</td>
<td>A detailed analysis of the need for ABET services and infrastructure should be undertaken as a joint effort with the private sector and used as a basis for planning activities. The possibility of utilising existing schools should be investigated.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 373</td>
<td>MCDC</td>
<td>Analysis of demographic and crime statistics, to establish priority demand for additional police stations and security services.</td>
<td>YES</td>
<td>Human Resource Development</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 377</td>
<td>MCDC</td>
<td>Detailed transportation model (EMME/2) for the MCDC.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 387</td>
<td>MCDC</td>
<td>Invest in more effective rail transport links.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 388</td>
<td>MCDC</td>
<td>Implementation of through ticketing system.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 392</td>
<td>MCDC</td>
<td>Investigation into stated preference for transport modes within the MCDC.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 396</td>
<td>MCDC</td>
<td>Traffic and pedestrian safety system within the MCDC.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 397</td>
<td>MCDC</td>
<td>Study addressing the environmental impact of the transportation infrastructure within the MCDC.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>MCDC / 398</td>
<td>MCDC</td>
<td>Establish an integrated public passenger transport time table within the MCDC.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>NUMBER</td>
<td>AREA</td>
<td>PROJECT</td>
<td>SUPPORT CATEGORY</td>
<td>SECTOR</td>
<td>PRIORITY</td>
<td></td>
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</tr>
<tr>
<td>MCDC / 400</td>
<td>MCDC</td>
<td>Comprehensive network analyses to assess the impact of corridor development on electrical infrastructure.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 401</td>
<td>Pretoria-West</td>
<td>Upgrading of Kwagga infeed station.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 402</td>
<td>Pretoria-West</td>
<td>Upgrading of existing electrical infrastructure to cater for the additional load due to the corridor development.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 403</td>
<td>Akasia</td>
<td>Upgrade Buffel infeed station.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 404</td>
<td>Akasia</td>
<td>Establish Rietgat 132/11kV substation and provide new powerlines.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 405</td>
<td>Soshanguve</td>
<td>Establish K1 132/11kV substations and provide new powerlines.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 406</td>
<td>Soshanguve</td>
<td>Establish K2 132/11kV substations and provide new powerlines.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 407</td>
<td>Soshanguve</td>
<td>Establish K3 132/11kV substations and provide new powerlines.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 408</td>
<td>Witwatersrand</td>
<td>Upgrade Njala infeed station and establish Groenkloof 132/11 kV substation, as well as providing new powerlines.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 409</td>
<td>MCDC</td>
<td>Identify and preserve areas suitable for landfill.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 410</td>
<td>MCDC</td>
<td>Toxic Waste Disposal Site.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 411</td>
<td>MCDC</td>
<td>Identify suitable land for cemeteries.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 412</td>
<td>MCDC</td>
<td>Master Planning of Solid Waste Management.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 413</td>
<td>MCDC</td>
<td>GPMC master planning: cemeteries.</td>
<td>YES</td>
<td>Infrastructure</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>MCDC / 414</td>
<td>MCDC</td>
<td>Introduce a programme on environmental education and awareness.</td>
<td>YES</td>
<td>Infrastructure &amp; Land-use</td>
<td>Medium</td>
<td></td>
</tr>
</tbody>
</table>
ANNEXURE B

Copies of media articles on the MCDC-project
Corridor link mooted

Anton Fisher

A multimillion-rand high-density development corridor linking Pretoria with Johannesburg is on the cards and could result in a major boost for the city's economy.

However, a major sticking point could be the controversy of the PWV9 toll road which would form the southern part of the development corridor but which has been put on hold by the Gauteng province following protests by residents.

The development corridor, which is still being investigated, would run from Soshanguve through Pretoria West as far as Randburg, with the Mabopane highway as its spine. A number of "fast-track" development projects in areas such as Mabopane and Soshanguve would form part of the long-term planning.

Transport Minister Mac Maharaj said at a media briefing yesterday the project was part of four major metropolitan corridors being planned around the country.

According to Mr Maharaj, the RDP provided R60-million for the initial feasibility studies for the four projects, with the one in the Western Cape at a more advanced stage.

Principles

Department of Transport official Theo Maeder said: "The principles behind the Pretoria-Johannesburg corridor are similar to the Gauteng-Maputo corridor."

"The idea is to create the environment for the private sector to invest money and to redesign our cities."

"The initial study is being conducted under the auspices of the Greater Pretoria Metropolitan Council (GPMC) which has also contributed about R200 000 towards the project."

According to GPMC officials, the development corridor would not simply be a transport corridor but would be an attempt to stimulate economic development, job-creation and housing.

Officials, who did not want to be named, said the development corridor was still at the "concept stage" but that certain obvious "fast-track" developments would be started.

These would include projects to upgrade infrastructure, provide housing and create jobs in the northern areas of Klipkrugfontein, Soshanguve and Mabopane which would be the starting point of the corridor.

From there the corridor would run through Klerksdorp to Atteridgeville, Lotus Gardens and then end, as far the GPMC jurisdiction is concerned, at Suiderland Ridge.

The PWV9 toll road would then continue the corridor.

However, recent protests by residents forced the provincial legislature to call for an environmental impact study (EIA) and announce plans to consult with residents before further decisions were made.

Full capacity

Residents have suggested that four roads, Randrand should be upgraded to their full design capacity instead of driving a single six-lane highway through the region to alleviate congestion on the Ben Schoeman highway.

Council officials said the development corridor and its link to the PWV9 toll road was likely to be discussed on Friday when the GPMC hosts a development summit in the city.
Planned corridor ‘will boost western areas’

Ailton Fisher
Political Correspondent

City areas that have stagnated in recent years, including the western part of the central business district, are in for a windfall from the planned Mabopane-Centurion development corridor.

The boon for other areas such as Rosslyn and Kirkney as well was confirmed yesterday by Louis Potgieter, executive director of land use and planning of the Greater Pretoria Metropolitan Council (GPMC).

He said the “corridor of opportunities” was being envisaged as a flagship project of the GPMC for the region.

It would represent a high-density development linkage between Mabopane/Soshanguve and the R28 freeway to Krugersdorp and would have a wide-ranging impact on all aspects of development over the entire area covered by the corridor.

“The GPMC has already set a process in place to determine a Strategic Development Framework for greater Pretoria,” Dr Potgieter said.

A Development Summit which will attempt to finalise the strategic framework is to be held in the city tomorrow.

The Mabopane-Centurion corridor would “give credence to the participation of the private sector and local communities with local government in planning the development of the region”.

While engaging in strategic planning, “fast-track” implementation would simultaneously be activated in areas where community needs had been identified and technical feasibility had been established.

On Tuesday Transport Minister Mac Maharaj first disclosed plans to develop a Pretoria-Johannesburg metropolitan corridor to link the two cities.

It is believed that the controversial FWV9 provincial toll road was put on hold by the Gauteng legislature after protests from residents that it could form the southern part of the development corridor.

Residents have suggested that four roads through Midrand should be upgraded to their full design capacity instead of driving a single six-lane highway through the area to alleviate traffic congestion on the Ben Schoeman highway.
Planne vir korridor 'n eerste vir Suid-Afrika

DIE beplande ontwikkelingskorridor tussen Centurion en Mabopane is 'n eerste vir Suid-Afrika en 'n voorbeeld vir die res van die land.

'So het mnr. Sicelo Shiceka, Gauteng se LUR van ontwikkelingsbepaling, en plaaslike regering, oor die projek van die metropolitaanse-raad (MR) van Pretoria gesê.

'n Verslag, oor die projek is onlangs op 'n vergadering van die MR oor-weg.

Die projek behels onder meer die bou van 'n pad tussen die twee gebiede om ontwikkeling in die gebied aan te help. Veral inwoners van die Soshangwe-omgewing behoort daarby baat te vind.

Die raad sal ook 'n verskeidenheid van projekte van stapel laat loop om ontwikkeling in die strook aan te moedig.

'n Verslag sal opgestel word om kort- en langtermyn-ontwikkelingsmoontlikhede in die korridor te skets. Kriteria, redes en prioriteite van moontlike projekte sal ook in 'n verslag opgeneem word. Hop sal as hoofmaatsaam geld.

Wanneer 'n verdere verslag met besonderhede oor ontwikkeling skryf word, sal dit in aanbou wees.
Huge plan for housing, business and tourism is taking shape

60 km growth strip for city's west side

Kim Helfrich
Staff Reporter

A multimillion-rand development corridor to the west of Pretoria is planned to breathe new life into the region's economy and upgrade previously disadvantaged communities.

The Mabopane-Centurion Corridor Development will provide a north-south link stretching from Tshwane to Centurion and will incorporate Akasia, Rooslyn, Klerksdorp, Kliprivier, Pretoria West, Pretoria Industrial Township, Atteridgeville, Sunderland Ridge and the south-western agricultural/rural area of Centurion.

To date the project has been financed by a R2-million planning grant from Deputy President Thabo Mbeki's office, issued as part of the RDP.

The project leader and controller, the Greater Pretoria Metropolitan Council, has provided R200 000 in the current financial year, with R300 000 earmarked for next year.

"We are talking big numbers with this development, possibly R1 000-million," said metro council chief executive officer Dr Lucas Botha during a workshop on the development at Swartkop yesterday.

"Using the proposed PWV9 road as a spine to link residential, commercial and industrial elements the corridor will, in time, become a thriving, bustling area housing people, the places they work at and also provide for recreation and tourism," he said.

Business plan

Following yesterday's workshop the metro council team, working in conjunction with its consultants, will start to prepare more formal development plans with a view to presenting a business plan for at least a portion of the corridor at an international investment conference scheduled for mid-1997.

"It's early days but I would like to see a five-year time frame on the first stages of the Mabopane-Centurion Corridor Development. This, to my mind, is a reasonable time and if one waits longer one starts to lose ground," Dr Botha said.

The proposed development will be 60 km long and about 10 km wide and was described as an economic subregion of Gauteng at the workshop. It includes an area of North-West province but the major portion of the corridor is in Gauteng - the country's most prosperous and economically active province.

Delegates to the workshop were also told Greater Pretoria had the lowest unemployment rate of the total South African labour force, according to 1991 statistics, and also registered the highest rate for formal employment in Gauteng in 1995, according to Development Bank of South Africa figures.

Research undertaken for the Mabopane-Centurion corridor has brought to light the availability of land which can house an additional 225 000 people. The current estimated population of the corridor is 860 000, expected to grow to 1.8 million by 2010.

"There is a massive need for housing thousands of people within the corridor and surrounds, especially in Soshanguve, Atteridgeville and Mabopane," said consultant Dr Judee Oberholzer, adding the Pretoria metropolitan structure was "not efficient, a consequence of past urbanisation policies".
MCDC plan taken a step forward

Kim Halfrich
STAFF REPORTER

Five basic criteria, to make the western side of Greater Pretoria an economically viable — and livable — entity have been put forward.

At the second think-tank within a month to make the proposed Mabopane-Centurion Development Corridor (MCDC) a reality within five years, about 80 participants, representing local authorities, government and provincial administrations, considered a mission statement to make the development corridor an attractive proposition to both local and offshore investors, while at the same time providing an improved quality of life to previously disadvantaged communities in the area.

The corridor development proposed by the Greater Pretoria Metropolitan Council (GPMC) will stretch from Tswaneng in the north to Centurion in the south and will add measurably to both Greater Pretoria’s and Gauteng’s economy.

Among the criteria submitted to the workshop were the enabling of local communities, concentrated urban development, economic growth centres in the 60 km-long corridor, regional interaction on a transport and land use basis and accessibility to both labour and markets.

Conference

"We want to have the nuts and bolts of the corridor development in position by early next year with a view to an international investment conference scheduled for the middle of the year," said Hendrik Kleynhans of the GPMC.

Feedback from the workshop held at the beginning of this month was all positive with comments along the lines of "socio-economic, physical and environmental developments".

"The corridor should be viewed as a tool to engender integrated development in the region, an understanding of the realities and urban dynamics at work to optimise urban activity to maximum benefit of the communities in the best interest of the wider area" and "the best opportunity for growth and investment in the north-west sector of Gauteng".

To date the ambitious project has been funded by a R2-million planning grant from Deputy President Thabo Mbeki’s office, with R200 000 coming from the GPMC, which has earmarked another R300 000 for the next financial year.
There is a freshness about the Mabopane-Centurion Corridor that makes one think that, whatever may be going wrong elsewhere, here someone is certainly getting things right in the new South Africa.

It stretches from Zoutpan in the north, along the PWV9 Highway, through Pretoria to Centurion (the former Verwoerdburg) in the south. Unlike the Maputo Corridor, which stretches from Witbank to Maputo in Mozambique, it is not a rework of an existing idea, but something new and fresh intended to marry the rich south, which has much of SA's industry, with the poor north, which has a wealth of labour, largely unemployed.

To marry the rich south with the poor north

The driving force behind the project is the Greater Pretoria Metropolitan Council which, to date, has spent R1.2bn on infrastructure. If it succeeds it will create both employment and a wider spread of job opportunities. It has been designed so that its components will complement each other. The aim is to create job opportunities close to where people live.

Zoutpan in the north, site of the Tswaing meteorite crater, is unde-
A mix of economic nodes, dormitory areas and agriculture

A number of major international companies have already invested in Greater Pretoria, which has 700 manufacturing companies and 2.5% of total national business investment. But more is needed. The area employs only 5% of the country's workforce and contributes only 13% to the GDP.

The city and its surrounds has become a vital cog in SA's automotive manufacturing industry, with 40% of SA's motor manufacturers in its confines. Mercedes Benz of SA's head office is in Pretoria and there is talk of it making a substantial investment in the area. BNIW, which also makes Land-Rovers, has a plant there and is in the throes of investing an additional R1bn. All its right-hand drive Three Series cars will be made there, Mitsubishi, Ford and Mazda products are also made in the area by Samcor and Nissan makes its own cars there, and Fiat Unos.

SA's steel giant Iscor started in Pretoria and still operates a major plant there. Pretoria Portland Cement, the country's largest cement manufacturer, operates a major plant on the outskirts of the city and SA Breweries Pretoria brewery is one of the largest in the southern hemisphere.

The corridor's potential has already attracted investors from the Middle East and the far East, and businessmen from Singapore are looking for joint ventures, and horticulturalists from Korea are investigating the possibilities of growing fresh flowers there for export. The GPMC has already hosted several trade delegations, and is expecting many more.

Businessmen from Singapore and horticulturalists from Korea

The GPMC says the focus now is to open up the north. The building of roads and the provision of piped water has already started. The next phase will be to persuade entrepreneurs to invest in factories and small businesses.

People are already being trained for urban farming. This is a form of agriculture that had always been around — it's an intensified form of growing vegetables in the backyard — but demonstrated its potential when many lost their jobs during sanctions and found the only way to feed themselves and their families was to grow their own vegetables. Some grew enough to sell to others, which alerted the corridor developers to the business possibilities of this form of agriculture. It will make plots of ground available which, if worked properly, should ensure an adequate living for those who work them. The project will take years to develop and will eventually link up with the Maputo Corridor, branch out into Bronkhorstspruit and KwaNdebele and link up with the Northern Province.

This may be pure speculation, but some years ago an unofficial study done on the future of airports in what is now Gauteng concluded that by about 2020 short take-off and landing (STOL) aircraft will become vitally important, because Pretoria and Johannesburg will be one city, stretching all the way down to Vereeniging on the Vaal River.
Unlocking area's economic potential

**The Project**

Being managed and co-ordinated by the Greater Pretoria Metropolitan Council (GPMC) the Mabopane Centurion Development Corridor (MCDC) is a joint planning exercise between all tiers of government, with involvement of the relevant communities and the private sector.

The planning is being done for an area stretching from Mabopane/Soshanguve in the north (with Tswaing as the most Northern tourist node) up to Centurion (the west to south western parts) in the south, with as a basic aim the regeneration/revitalisation of the western half of Pretoria by making use of the development corridor concept.

**Aim of the Project**

* To promote the sustainable growth opportunities in the MCDC
* To address the social needs in the western part of Greater Pretoria
* To regenerate, reconstruct and revitalise the area into a sustainable development corridor

**Problems Include**

* Negativity around the PWV 9 by-pases and all current major land use activities south of the Schurweberg, especially those in Centurion such as their CBD area.

**DEVELOPMENT CORRIDOR**

* Availability of finances for implementation
* Large backlogs that also need to be addressed
* More co-ordination is necessary
* Lack of wheelers and dealers to set up joint venture projects
* Lack of innovative thinking
* Differences in opinions regarding priorities
* Difficulty experienced to involve representatives of Northwest
* Economic growth trends of the Province and metropolitan Pretoria are presently directed to a large extent away from the MCDC in an easterly and south-easterly direction.
* The large area south of the Schurweberg is underlain by dolomite and will have a direct influence on the ability of these areas to accommodate urban growth in future.
* The proposed alignment of PWV-9 by-pases and all current major land use activities south of the Schurweberg, especially those in Centurion such as their CBD area.

**Successes Include**

* Support for the project received thus far from government institutions, communities and the private sector.
* Commitment to make the project a success.
* The level of community involvement and the ongoing increasing thereof.
* The general progress made with the project since it officially started in May 1996.
* The amount of funding allocated by the GPMC for implementation projects allocated to areas within the MCDC at the present financial year.
* The vast existing development and investment opportunities.
* Joint venture discussions with private sector investors and their keenness to investigate such an opportunity.

**Problems Include**

* Negativity around the PWV 9 by-pases and all current major land use activities south of the Schurweberg, especially those in Centurion such as their CBD area.
R1-m boost for crater museum

The Tswaing Crater Museum north-west of Pretoria is to get a financial boost totalling R1-million. This was announced by outgoing Minister of Arts, Culture, Science and Technology Dr Ben Ngubane.

Addressing delegates, including Unesco members at an international symposium on culture, communication and development, organised by the Human Sciences Research Council (HSRC), he said development of the crater museum was a special cultural project.

"The meteorite crater will be turned into a site museum and will conserve documents, research and interpret the natural and cultural heritage of the site in a holistic way."

Dr Ngubane announced that renovations at the Robben Island prison would be finalised this week.

His department would manage and supervise development which he predicted would become “a major tourist attraction”.

Sarafina II

Also under the spotlight at the symposium was Sarafina II and perceptions of the role of the SABC-TV as a multicultural and multilingual broadcaster.

Professor Temple Hauptfleisch of the University of Stellenbosch said the Sarafina II saga had done immense harm to cultural development - particularly theatre development.

"The saga leads the public to question the efficacy of theatre as a means of communication."

Judy Berstein, a sociologist at the University of Port Elizabeth, said preliminary survey results indicated serious negative consequences for the future of SABC-TV.

Dr Ngubane takes up a new provincial appointment as MEC for finance and agriculture in KwaZulu-Natal to-day. - Staff Reporter
Insette oor korridorplan ingewag

Eugene Yssel

Pretoriëners het tot 7 Julie tyd om kommentaar te lewer op die geïntegreerde ontwikkelingsraamwerk van die Mabopane-Centurion-ontwikkelingskorridor.

Volgens die metroraad sal die projek lei tot die vestiging van 45 000 huishoudings in die Klip- en Kruisfonteinegebied en daarmee saam 71 000 werkgeleenthede oor die volgende veertien jaar bied.

Die konsepdokument is afgehandel na uitgebreide gesprekke met en insette van 'n wye reeks organisasies en instellings.

Organisasies wat insette gelever het, is onder meer die Soshanguve-inwonersvereniging, welsynorganisasies, smousverenigings, bouers, gemeenskappolisiëringsoomsels, die WNNR, die verskillende metropolitaanse rade in Gauteng, politieke organisasies en omgewingsforums.

Die korridor sal van Mabopane en Soshanguve in die noorde deur Akasia en Pretoria-Wes tot by Centurion en uiteindelik tot by die Samrand-ontwikkeling strek.

Insette en kommentaar kan aan die direksoriaat van grondgebruik en -beplanning gerig word by Posbus 6338, Pretoria 0001. Die konsepdokument kan besigig word in die metroraad se kantore wêreldwyd op die vierde verdieping van die H.B. Phillipsgebou op die hoek van Bosman- en Schoemanstraat.
Plans for corridor completed

THE draft document of the Integrated Development Framework for the Mabopane-Centurion Development Corridor has been completed and the public can now give comments before the final document is drafted.

A spokesperson for the Greater Pretoria Metropolitan Council says the document outlines the different dimensions of the development accompanying the corridor.

The draft document was compiled after discussions with among others the Soshanguve Resident Association, social and welfare organisations, hawker associations, builders, community policing forums and political organisations.

The corridor will stretch from Mabopane and Soshanguve in the north through Acacia and Pretoria West up to Centurion. The project will bring housing as well as job opportunities to many people. Approximately 45 000 households will be established in the Klip and Kruisfontein areas and it is envisaged that this will be coupled with the creation of 71 000 jobs over 14 years.

Members of the public can give input on the draft document until July 7.

It should be send to the Directorate of Land Use and Planning, PO Box 6338, Pretoria, 0001.
Framework on corridor available for comment

Elize Doman

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Members of the community can give inputs on the draft document until July 7. Comments should be send to the Directorate of Land Use and Planning at PO Box 6338, Pretoria, 0001.
The disadvantaged set to break through class barrier

City project clears way for opportunities

Pretoria is launching a Development Project which is the first of its kind on this scale in South Africa.

This project is aimed at empowering the disempowered and disinfomed with survival information.

This will enable disadvantaged people to break through the socio-economic class barrier.

The statement "information equals power" could not be closer to the truth in modern society, where critical information is owned and controlled by those in power.

Today it is no less true than it was centuries ago. The only way disempowered people can escape this is by having access to quality information. This is what the initiative is all about.

All agents, organisations, institutions, levels of government, non-governmental organisations, community-based organisations and development forums concerned about the flow of information are partners in this initiative.

Business and local government has forged a partnership called the Human Development Initiative, with its main objective to facilitate the development of people in Pretoria through the facilitation of information flow.

Its primary function is to enhance communication between all stakeholders participating in the project.

The Internet Project is just one of the projects aimed at improving the flow of information to disempowered members of our society.

The initiative's main objective is to ensure that any member of society can at any given time access quality information.

The council is using state-of-the-art electronic technology to make information available to people and organisations locally and internationally through the Internet.

Their task is to source data from various information providers and make it easily available to the ordinary citizen.

This information will reside in a "digital library". This is a term used for information in various computers irrespective of place. The information can originate from various resources, but it is pooled in the "digital library". This makes information easily accessible, searchable and locatable.

The establishment of the "digital library" is part of a local government program of establishing community support centres in various disadvantaged areas.

The purpose of this initiative is to unlock the area's economic and social potential through the structured utilisation of its development and investment opportunities.

This part of Greater Pretoria has a local population of almost 86 000 and an even larger regional population adjacent which can, according to existing research, increase to more than 1.8-million by the year 2000.

The Greater Pretoria Metropolitan Council (GPMC) and the Office of the Deputy President (Department of Transport) are financing this joint venture planning project as part of the redevelopment of the western part of Pretoria.

The GPMC, being the project manager, intends to invest more than R125-million this financial year (1996/1997) by implementing projects within the corridor. The planning of the Mapolane-Centurion Development Corridor is still in an early stage. If you are interested in participating in this project and would like more information, visit their exhibition stalls at the...
PRESS RELEASE

TO: Sidwell Medupe, 804 1184
FROM: Page Boikanyo-GPMC Communication Section
DATE: 19.06.1997

The GPMC is pleased to announce the completion of the draft document of the Integrated Development Framework for the Mabopane-Centurion Development Corridor.

This document which outlines the different dimensions of development accompanying the corridor, is an outcome of extensive discussions and inputs made by a wide-range of organisations and institutions. These included among others: the Soshanguve Residents Association, Social and Welfare Organisations, Hawkers Associations, Builders, Community Policing Forums, CSIR, the different Metropolitan Local Councils in the Gauteng Province, Political Organisations, Environmental Forums and so forth.

The corridor will stretch from Mabopane and Soshanguve in the North, proceed through Akasia and Pretoria West to Centurion and ultimately to the Samrand Development. The project will bring with it housing as well as job opportunities. In this regard 45 000 households will be established in the Klip and Kruisfontein area only and this is likely to be coupled with the creation of 71 000 jobs over a period of 14 years. Undoubtedly, a project of this magnitude is bound to generate economic growth for Greater Pretoria and its inhabitants.

Now that the draft of this important project has been completed, the Greater Pretoria Metropolitan Council wishes to invite inputs from members of the public with the aim of finally completing the Integrated Development Framework document. The closing date for contributions from the public is 7th July 1997. These should be forwarded to the GPMC, Directorate of Land Use and Planning, P.O Box 6338, Pretoria, 0001. The draft copy of the document could be consulted at the GPMC, (4th Floor Room 415) H.B Phillips Building, Cnr. Bosman and Schoeman, Pretoria.

Enquiries:
Hendrik Kleynhans
Tel (012) 323 9351 / 325 4880
A major development initiative is being planned to unlock the Greater Pretoria area's economic and social potential through the structured utilisation of its development and investment opportunities. This initiative is to inject an estimated R1.8 million into the regional economy and increase its 860,000 population by close to 1.8 million by the year 2010.

The Greater Pretoria Metropolitan Council (GPMB), the Department of Transport (DPT) and the Office of the Deputy President (DP) of the newly developed project of the Western Corridor, is implementing projects within the corridor.

The planning of the project is in an early stage. The project aims to integrate the corridor, reduce the environmental impact, provide for sustainable development, and enhance the quality of life. The project is expected to create over 1,000 jobs and generate a significant amount of economic activity in the area.

Describe your interest in the Mabopane-Centurion Development Corridor:

______________

Details

NAME: ____________________________
INITIALS: ________________________

ORGANISATION: ___________________

POSTAL ADDRESS: __________________
CODE: ____________________________

STREET ADDRESS: __________________
CODE: ____________________________

TELEPHONE: ( ) ____________________
FAX: ( ) __________________________

Describe your interest in the Mabopane-Centurion Development Corridor:
The Mabopane-Centurion Development Corridor, being the "Corridor of Opportunities", will provide a north-south link stretching from Mabopane and Soshanguve in the north, through Rosslyn, Akasia and Pretoria West to Centurion, Midrand and the Samrand development in the south.

The planned development will focus on four key areas:-

- Investment
- Transport infrastructure and accessibility
- Human resource development
- Sustainable environmental development

In order to sustain relatively high economic growth rates in the MCDC over the next 10 to 15 years, the following key strategies will be promoted:-

- Employment through industrialisation
- Skills development programmes
- Optimal resource utilisation
- Infrastructure and urban development
- Integrated environmental management

The PWV-9, being the identified regional access-spine will link the existing and planned industrial, warehousing and trade centres, housing developments, regional sports and national tourism facilities to each other.

The Mabopane-Centurion Development Corridor will be intersected by the high priority Maputo Development Corridor along an east-west link (linking Rustenburg with Maputo).

The anticipated economic spin-offs as well as social and physical benefits that will occur at the intersection of these two corridors, coupled with potential incentives in the corridors, will create investment and development opportunities.
**PWV 9 FREEWAY**

**APRIL 1997**

**INTRODUCTION**

Johannesburg and Pretoria, two large conurbations, situated 60 km apart, and belonging to the hub of economic activity in South Africa, is an ideal situation for cross-pollination and development. It will happen, planned or not planned. Fortunately, following the new legislation, Land Development Objectives are being compiled by metropolitan, local and provincial authorities to ensure that development is planned to be of maximum benefit to the majority of the people, and that the best use is made of the land available. The spinal cords and catalysts of such modern developments are the main road communication links.

**STATUS QUO**

The main existing road link, the N1, is already congested at peak periods, even though it was recently widened from four to six lanes. Development is taking place along its entire length, traffic congestion can only worsen and journey times increase. The current peak hour will become the peak two hours and the peak three and four hours until the road is congested the whole day unless capacity is increased. The R21, running past the Johannesburg International Airport, assists by providing a partially eastern route in the sector for traffic finding that route convenient. This R21 freeway can be widened from four to six lanes to increase capacity and it can also be extended on the PWV 13 route to link into the N3 south of Johannesburg near Heidelberg.

However, on the western side there is no freeway to accommodate major through traffic.

**TRAFFIC**

Traffic in the Pretoria-Johannesburg corridor is at present of the order of 140 000 vehicles per day and it is growing on average at about 4% per year, with some existing sections of the PWV 9 route having a 13% growth rate.

It has been forecast, that should the PWV 9 freeway be built by the year 2000, the traffic on it will be:

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Forecast (vehicles per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>30 000 to 40 000</td>
</tr>
<tr>
<td>2010</td>
<td>50 000 to 60 000</td>
</tr>
<tr>
<td>2030</td>
<td>80 000 to 95 000</td>
</tr>
</tbody>
</table>

Furthermore, as other freeways such as the N1 and the R21 become increasingly congested, more traffic will divert to the PWV 9. Traffic on the N1 is already at the 70 000 to 85 000 vehicles per day level as compared with the N1’s capacity of about 80 000 vehicles per day.

**THE PWV 9 FREEWAY**

PWV 9 is part of the Gauteng Provincial Road Planning Network. It is a north-south freeway to the west of the N1. It connects northern Pretoria, Pretoria West, Centurion, Kyalami-Midrand, and Sandton-Randburg over a total distance of approximately 60 km.

It thus provides a spinal cord for a development corridor from Mabopane-Soshanguve in Pretoria north to Sandton in the south. The route commences in the south at the N1 at Fourways and goes northwards crossing the R28 (Krugersdorp freeway) at 15.8 km and the N4 near Quagga Toll Plaza at 33.5 km and links with the nine kilometres of constructed PWV 9 road south of Rosslyn at 39.3 km. Then there is approximately 11 km north of Rosslyn to Mabopane-Soshanguve still to be built to a standard higher than the present two lane road facility.
COST

Most of the land needed for the sections north of the N4 and south of the R28 has been acquired, but an appreciable amount of land acquisition is still required between the N4 and the R28. Due to the heavy cutting in rock through the Suiderberg, north of the N4, the road construction of this section of road will be very expensive and therefore various options are still under consideration.

The total cost of the remaining land acquisition and the road construction of PWV 9 is of the order of R760 million. Finding a sum of this order from normal and traditional sources will prove to be very difficult due to other demands for funding. Therefore a user pay approach has to be considered if the project is not to be delayed beyond an acceptable time period.

FINANCE

Toll financing of the PWV 9 is viable provided the other freeways in the Pretoria-Johannesburg road transport corridor are also tolled and a suitable toll strategy developed for the corridor. Toll tariffs can then be kept at acceptable levels and be sufficient for assured viability of the project.

PROJECT ADVANTAGES

- It will help resolve road traffic congestion between Pretoria and Johannesburg.
- The provision of PWV 9 will trigger and permit tremendous development and growth.
- Population in the PWV 9 corridor is expected to grow from 400 000 in 1991 to 2.5 million in 2030.
- Job opportunities should increase from 120 000 in 1991 to 300 000 in 2030.
- Potential retail floor area should increase by 300 000 m² by 2030, i.e. three developments similar to Midrand.
- Three major industrial areas should be established by 2030.
- Land values should increase by at least R1 250 million, which is more than the cost of the toll road.
- Rosslyn should become a regional industrial area.
- There should be a revival of the Kirkney/Andeon industrial area.
- The Sunderland Ridge industrial area in Centurion should expand markedly.
- The intersection of the R28 and PWV 9 should stimulate growth in the area and develop so that retail shopping, offices, industries and commercial enterprises would be accommodated. This area should then interact with Samrand to the east and Lanseria to the west.
- The building of PWV 9 should increase the rate of growth of places such as Kyalami Park.

CONCLUSION

The PWV 9 will help resolve road traffic congestion between Pretoria and Johannesburg and provide a western freeway in the transport corridor.

From a land-use perspective the PWV 9 could serve as a development corridor along which mixed land-use nodes can be established together with high density residential areas and could act as a vehicle for economic development in general.

From a Reconstruction and Development point of view it will open up new areas of job opportunities because of the improved accessibility to the Witwatersrand area and improve the standard of living for many people.
GPMC:
MOVING ALONG THE CORRIDOR OF DEVELOPMENT

After recognising the western part of Greater Pretoria as a strategically important area with redevelopment and investment opportunities, the National RDP, the National Department of Transport, the Greater Pretoria Metropolitan Council and the other three Metropolitan Local Councils (NPMLC, CCP, TCC), initiated the development programme known as the Mabopane - Centurion Development Corridor Project.

Other important stakeholders are the private sector and the relevant communities.

In January of 1996, an amount of R2.2 million has been injected to kick-start the planning process. The GPMC, which is assuming the role of the project manager and co-ordinator views the MCDC Project as part of its overall objective to redress the social disparities which exist in the area through urban reconstruction. The planned corridor, coupled with a diversity of other supporting development projects, should unlock the economical potential of this unexplored area. The strategic importance of the planned corridor was underlined by the MEC for Development Planning and Local Government, Mr Sello Shicke, when he described it as the first of its kind in the history of South Africa.

Stretching from Soshangwe, but specific the Mabopane railway station in the north, proceeding through Atasla and Pretoria West to Centurion, the 60 kilometres long corridor will end up in the new Samrand, which can be considered as an extension of the Midrand high-tech development axis. Development in the south of South Africa's fastest growing cities and housing some of the country's high-technology industries as well as the head offices of many of South Africa's leading organisations.

As noted by the MCDC Project Manager, Hendrik Kleyhans, what is being planned is not a single and ordinary corridor, but an integrated economic venture entailing several dimensions of development. For example, in consonance with the Metro's objective, which is to enhance the lifestyles of the residents of this city, the corridor brings with it opportunities of housing. In this regard, 45 000 households will for example be established in the Klip and Kruisfontein area only. Meaning that more than 220 000 additional people situated along the corridor will be housed. The implementation of this aspect of the plan should to some extent reduce the problem of accommodation facing our government.
Making Pretoria an economically competitive city that could be attractive to potential investors is one of the GPMC's objectives. This stems from the fact that a vibrant economy in the area is bound to effect positively on the lifestyles of its inhabitants. As part of its strategy to fulfill this goal, the GPMC is currently undertaking a wide-range of development projects and among these is to investigate a proposed plan to upgrade the Wonderboom Airport. The upgrading and development of this facility has become imperative to meet the requirements of the rapidly expanding global air travel and air cargo market.

STRATEGIC LOCATION

The Mabopane-Centurion Development Corridor would be situated on the western edge of the airport and would form a very important link to the central part of Gauteng. It would also link the airport to Rosslyn which already has a major component of the infrastructure required for light industrial development. As such the airport can play a significant role to reach the goal of creating 71 000 jobs in the MCDC by the year 2010.

The strategic situation of the airport at the crossing of the planned Gaborone - Maputo Corridor is crucial as this corridor is so designed to form a link from Botswana to the harbour facilities of Maputo in Mozambique. It is no doubt that the movement to be caused by the access to the harbour facilities would be a tremendous boost for economical development in the Greater Pretoria Metropolitan Area. What is important to note is that the airport development will not be phased out in isolation i.e. without the required road infrastructure.

ECONOMIC ADVANTAGES

Undoubtedly, the improvement of the Wonderboom Airport could bring with it some wide-ranging business opportunities for potential investors, entrepreneurs as well as for the residents of Greater Pretoria. For example, the project will generate many jobs as was the case when in 1995 Johannesburg International Airport employed 15 000 people. Actually more jobs than anticipated could be created especially in the light of the industries that are likely to emerge in this area as a result of this development. It is said that over the past two years the Pretoria region has experienced growth rates of above 5% per annum. However, with the impact the upgrading of the airport could have on the economic activity, this growth rate has the potential to experience some acceleration. It is therefore, reasonable to state that this proposed modern facility could transform Pretoria into one of the great African Metropolitan cities it is destined to become.

We'd like to hear from you!

Contributions, comments and photographs for possible inclusion in the MCDC News may be sent to:
MCDC News, P O Box 6338, Pretoria, 0001
Newsletter co-ordinator: Hannelle M Theron
Contact person (articles): Page Boikanyo
Tel: (012) 325-4880 / 325-9351
Fax (012) 328-5137
The Tswaing Crater Museum, which is the first enviro museum in South Africa is located 40 km from Pretoria, on the Onderstepoort road. Surrounding the crater are the communities of Winterveld, Kromkul, Mothla, Soshanguve, Kwa Ratslepane and Nuwe Eersterust.

The Tswaing area is part of the Mabopane-Centurion Development Corridor. Like the MCDC, the Tswaing Crater Museum Project is aimed at small business development as well as human resource development.

ECONOMIC SPIN OFFS

According to the Chairperson of the Tswaing Planning Committee, Mr J J Basson, the promotion of the arts and crafts industries in the area is likely to stimulate business development with restaurants, accommodation, farming, and environmental education facilities emerging and developing into business entities. This should without doubt contribute positively to the development of tourism in the area. To add to this, the draft business plan of Tswaing estimates that the project will be self sustaining within three years after the development and commissioning of all the zones.

It is said that an industry claiming to be in the hospitality business can find that its products planning and marketing strategies are laid to waste through bad service and a hostile reception from local residents.

To the contrary, the communities at Tswaing view the establishment of tourism industry in the area as an opportunity. Hence, a tourism subcommittee has been established to identify potential tourism products in the communities, it is hoped that the products will be developed for the tourism industry. The development of Tswaing Crater Museum as a community-based ecotourism project and an integrated part of the Soshanguve-Centurion Corridor will contribute to the implementation of the corridor's mission and the RDP.

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Every effort has been made to ensure that the information contained in this publication is accurate. Neither the GFMC nor the publishers accept legal responsibility for any incorrect information published. The views expressed in this publication are not necessarily those of the GFMC or the publishers.

This publication is available on request in any of the official languages.
GREATER ECONOMIC PROSPECTS FOR GREATER PRETORIA

The strategic importance of the development of the area known as Lotus Gardens was identified by the Pretoria City Council and the private sector. This site which is located directly north of Atteridgeville and approximately 10 km west of the Pretoria Central Business District (CBD), is bordered by the proposed FW9 to the East and the N4 to the South.

The private sector initiative took the form of multilateral discussions, culminating in the informal establishment of a development forum consisting of Newco and Grinaker Projects. Other private sector developers expressed interest to participate in the development process after the primary services have been installed.

Pursuant to the establishment of the informal consortium of private developers, the Council was approached with a view to forming a joint venture for the further development of the Lotus Gardens area.

EXISTING HOUSING NEED

The existing housing need mainly represent the housing backlog within Atteridgeville, and this is estimated at 17 000 units.

Detailed information in respect of the actual housing backlog and the associated financial capacities of the beneficiaries will be obtained once the collated information from the provincial waiting list (housing) is made available to the development consortium and the Council. Due to the strategic location of the site and its proximity to employment opportunities, it is anticipated that housing backlogs from areas as far afield as Soshangue and Mabopane will be relevant.

LAND DEVELOPMENT OBJECTIVES.

In the draft Land Development Objectives compiled by the Pretoria City Council a number of "Strategic Development Areas" were identified within the Greater Pretoria Metropolitan area of jurisdiction and Lotus Garden is situated within such a development priority area. The proposed development will take cognisance of the importance of the proposed Mabopane-Centurion Development Corridor because it requires access to the identified corridor for the development of the adjacent land to its fullest potential.

In a drive to further consolidate the proposed plans for the Mabopane-Centurion Development Corridor, the local and provincial governments intend to ensure that the planning of proposed and existing roads within the corridor be reinforced with integrated land use planning, emphasising the existing commercial nature of the corridor. The draft corridor study recognises the strategic importance of the development of the afore-mentioned site. It is envisaged that a total of ±70 hectares will be provided for business opportunities and ±30 hectares will accommodate social facilities in the area.

SOSHANGUVE URBAN FARMING PROJECT

In pursuance of the overall strategic goal of the GPMC aimed at improving the living conditions of deprived communities, the SMME's division of the Directorate for Economic Development at the GPMC has embarked on a project of urban farming in the Soshangue area. On the basis of the findings of a study into the development of such a project, the Metropolitan Council has voted in an amount of R400 000 to kick-start the project, whilst the Tshwane Metropolitan Local Council donated 10 hectares of land for the implementation of this programme.

The objective of the project is to create a capacity within the local community to develop an economically viable and sustainable urban farming project. Specific attention will be given to the optimum utilisation of the resources present on the site. However, the land will be used in such a way that the environment is preserved. The production options as laid out in the study suggests that the focus is on high quality vegetable and broiler production. This is corroborated by the fact that broiler production in the area is a very viable option because of the great need for locally produced broiler.

In an effort to ensure maximum input as well as to enhance the relationship between Government, private sector and the community, a stakeholder mobilisation process which is almost nearing its completion is currently taking place and it is believed that this made way to the official launch of the project in July.

The project will be conducted on commercial basis and it is expected to create hundreds of job opportunities as a start. It is further expected to serve as a training unit for chicken farmers in the surrounding areas as well as an advice centre specifically for urban agriculture and its management. The Soshangue Training Centre is expected to play an important role in this regard. Possible sponsors who are keen to venture in the economic empowerment of the previously disadvantaged communities are likely to be attracted by this potential source of economic growth.