

MANAGING SUSTAINABLE DEVELOPMENT IN THE CITY OF TSHWANE

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TABLE OF CONTENTS

ABSTRACTS	(i)-(ii)
SUMMARY	(iii)-(iv)
ACKNOWLEDGMENTS	(v)
	PAGE
CHAPTER 1	
1. INTRODUCTION	1
1.1 The Research Framework	1-5
1.2 The origin of the concept sustainable development: Summary	6-9
1.3 Development and sustainable development defined	9-14
1.4 Common elements of the different definitions of sustainable development	15
1.5 Critique of the definition approaches/definitions of sustainable development	15-16
1.6 Own definition of sustainable development	16-17
1.7 Research, objective, motivation and the research design	18-19
1.8 Legislation and policies as interventions to achieve sustainable development in cities in South Africa	19-28
1.9 Non-compliance with legislation and policies as interventions to achieve sustainable development	28
1.10 Hypothesis	28
1.11 Research approach and methodology	28
1.11.1 Literature review	29
1.11.2 Empirical approach	29
1.11.3 The normative approach	29
1.11.4 The evaluation approach	29-30
1.12 The structure of the thesis	30

1.13	Management	30-31
1.14	Sustainable development	31
1.15	The City of Tshwane Metropolitan Municipality	31-33
1.16	Key aspects of metropolitan government and the establishment of the City of Tshwane Metropolitan Municipality	33-34
	1.16.1 Definition and characteristics of a metropolitan area	34-36
	1.16.2 Goals of Metropolitanisation	36-37
	1.16.3 Systems and methods of Metropolitanisation	37-41
1.17	The establishment of the City of Tshwane Metropolitan Municipality	41-46
	1.17.1 The Speaker	46-47
	1.17.2 The Executive Mayor	47-48
	1.17.3 Members of the Mayoral Committee for the City of Tshwane Metropolitan Municipality	48-50
	1.17.4 The administrative structure of the City of Tshwane Metropolitan Municipality adopted at the Council Meeting of 12 December 2000	50-59
1.18	Conclusion	59-63
1.19	Bibliography	64-66
CHAPTER 2: DEVELOPMENT THEORIES AND PRACTICE AS TOOLS FOR MANAGING SUSTAINABLE DEVELOPMENT		67
2.1	Management	68-77
2.2	Public Management Environment	77-81
	2.2.1 The economic dimension	81
	2.2.2 The technological dimension	81
	2.2.3 Socio-cultural dimension	81-82
	2.2.4 The political-legal dimension	82
	2.2.5 International dimension	82-84
	2.2.6 The task environment	85
	2.2.7 Internal environment	85
	2.2.8 The inclusion of the environmental factor/dimension	85-87
2.3	Public Management	87-89
2.4	Development	90

2.5	Theories of economic development	91
	2.5.1 The thinking of the 1950s and early 1960's	91-92
	2.5.2 Neo-classical structural change model	93-95
	2.5.3 International dependence model	95-108
2.6	Social development	108-110
2.7	Sustainable development	110-112
2.8	Managing sustainable development	112-114
2.9	Conclusion	114-116
2.10	Bibliography	117

CHAPTER 3: EMPLOYMENT OF GENERIC FUNCTIONS OF PUBLIC ADMINISTRATION FOR PURPOSES OF MANAGING SUSTAINABLE DEVELOPMENT 118-122

3.1	Administration	122-131
	3.1.1 Policy	131-134
	3.1.2 Finance	134-137
	3.1.3 Organising	138-140
	3.1.4 Personnel Administration	140-143
	3.1.5 Procedures and methods	143-147
	3.1.6 Control	147-150
	3.1.7 Management	150-156
	3.1.8 Broad guidelines as provided by the functions of Administration and the basic values governing Public Administration to manage sustainable development	157-162
	3.1.9 Public Management Model	163-160
3.2	Conclusion	166
3.3	Bibliography	167-169

CHAPTER 4: URBAN DEVELOPMENT PLANNING AS A TOOL FOR MANAGING SUSTAINABLE DEVELOPMENT 170-179

4.1	Spatial Planning Component	179
	4.1.1 The principle of sustainability	179-180
	4.1.2 The principle of equality	180

4.1.3	The principle of efficiency	180
4.1.4	The principle of integration	181
4.1.5	The principle of fair and good governance	181-182
4.2	Spatial development framework as component of the Integrated development plan	182-186
4.3	Synergistic relationship between components of sustainable development	186
4.4	Layout planning process	186-193
4.5	Sustainable environmental management plan component	193-195
4.6	Efficient financial plan as a component of Sustainable Development	195
4.7	Sustainable economic development as a component of sustainable development	196-198
4.8	Effective employment of development legislation and policies including public administrative functions as component of sustainable development	198
4.9	Political stability and political will as component of Sustainable development	198-199
4.10	Sustainable land transport plan as a component of sustainable development	199-200
4.11	General principles for transport planning and its relationship with land development	200-204
4.12	Effective land-use management system as a component of sustainable development	204-213
4.13	Conclusion	213
4.14	Bibliography	214-215
CHAPTER 5: MANAGING SUSTAINABLE DEVELOPMENT THROUGH THE INTEGRATED DEVELOPMENT PLAN, PARTNERSHIP AND THE LOCAL AGENDA 21		216-219
5.1	Integrated development planning and sustainable development: analysis	220-226

5.2	Services provision mechanisms options	226-227
5.2.1	Service Contract	228
5.2.2	Management Contract	228
5.2.3	Lease	228
5.2.4	Build/Operator/Transfer (BOT)	229
5.2.5	Concession	229-233
5.3	The City of Tshwane integrated development planning process	234-238
5.3.1	The encouragement of economic growth and development in order to make the City of Tshwane's economy globally complete and more focused (SFA1)	238-241
5.3.2	The establishment of new local governance structures to ensure democratic, responsible and equitable governance, as well as efficient and effective service delivery (SFA2)	241-245
5.3.3	The management of physical development so as to compact and integrate the City, as well as to improve the quality and liveability of the urban and rural environment (SFA3)	245-248
5.3.4	Ensuring community well-being by addressing poverty and making essential services and facilities available, accessible and affordable (SFA4)	248-250
5.3.5	Ensuring a safe and secure environment by making Community safety services available and accessible (SFA5)	250-251
5.3.6	The promotion and strengthening of Tshwane's national Status as the sole capital city of South Africa (SFA6)	251-253
5.3.7	Building Tshwane's international image and reputation as the African centre of excellence (SFA7)	253-254
5.3.8	Caring for natural and cultural resources by preserving, utilising and enhancing them (SFA8)	254-255
5.4	Strategic Map	255-257
5.5	Implementation Framework	258-261
5.6	An Integrated development framework for the strategic direction of the city: Proposal for the City of Tshwane	261-274
5.6.1	Local Agenda 21 in County Durham: United Kingdom	275-278
5.6.2	Towards a Local Sustainable Strategy; City of Ingolstadt: Germany	278-279

5.6.3	From Vision to Action: Sweden's National report to the World Summit on Sustainable Development: Johannesburg 2002	279-281
5.6.4	Local Agenda 21 adds value to integrated development planning	281-284
5.7	Building an Integrated and viable city: An interview with the Chief Planner for the City of Tshwane	284-290
5.8	Restructuring rationale	290-291
5.9	Restructuring aim	291
5.10	Restructuring principle	291
5.11	Spatial restructuring direction	292
5.12	Restructuring elements of the spatial planning concept	292
5.13	Strategic interventions	292-293
5.14	Assessment of the City of Tshwane integrated development planning process	293-294
5.15	Conclusion	294-295
5.16	Bibliography	296
CHAPTER 6: DEVELOPING A SUSTAINABLE CITY		297-298
6.1	Background	298-300
6.2	Sustainable urban form	301-305
6.3	The City of Tshwane urban form	305-306
6.3.1	Spatial patterns	306-324
6.4	International experience	324-328
6.4.1	Indicators of sustainability from San Francisco	329-333
6.4.2	Sustainable community indicators from sustainable Seattle	333-336
6.4.3	Summary	336

6.5	Sustainable development indicators	336-338
6.5.1	Types of indicators	339-340
6.5.2	Performance indicators	340-342
6.5.3	Critique of indicators	342-343
6.5.4	International experience	343-349
6.5.5	South African experience	349-350
6.5.6	Recommended international sustainable development and performance Indicators	350-354
6.7	Conclusion	355
6.8	Bibliography	356-358

CHAPTER 7: MANAGING SUSTAINABLE DEVELOPMENT THROUGH LEGISLATION: WITH REFERENCE TO THE CITY OF TSHWANE METROPOLITAN MUNICIPALITY: CONCLUSIONS AND RECOMMENDATIONS 359-360

7.1	Developmental legislation and policies as interventions for managing sustainable development in Tshwane	360-364
7.1.1	Land – Use	364-366
7.1.2	Transportation	366
7.1.3	Economic Development	366-368
7.1.4	Agriculture	368-370
7.1.5	Manufacturing	370
7.1.6	Mineral and Mining	370-371
7.1.7	Social Services and Housing	371-372
7.1.8	Human Resources Development	372-375
7.1.9	Population and Development	375-376
7.1.10	Health Services	376-377
7.1.11	Disaster Management	377-378
7.1.12	Partnerships	378-379
7.2	Conclusions	379-389
7.3	Recommendations	390-391
7.4	Bibliography	392-394

(i)

ABSTRACT

MANAGING SUSTAINABLE DEVELOPMENT IN THE CITY OF TSHWANE

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Since the first Conference on sustainable development in 1972, the United Nations Conference on the Human Environment (Stockholm Conference), and the introduction of the World Conservation Strategy in 1980, which was the first attempt to reconcile ecological and economic concerns and approaches, and other conferences and commissions such as the World Commission on Environment and Development (Brundtland Report: 1987), which issued a strong statement that environment and development are inseparable and recommended that sustainability should become the key concept in development; the United Nations Conference on Environment and Development (the Rio Earth Summit ; 1992) which produced Agenda 21; and the World Summit on Sustainable Development: 2002, [Rio + 10]), not a single country or city has ever claimed to have attained sustainable development. Is sustainable development a myth or reality?

The relationship between economic development and environmental degradation was first placed on the international agenda in 1972, at the United Nations Conference on Human Environment. The World Commission on Environment and Development, established in 1983 by the General Assembly, brought about a new understanding and a sense of urgency regarding the need for a new kind of development, one that would ensure economic well-being for present and future generations while protecting the environmental resources on which all developments would depend.

The World Commission on Environment and Development defined sustainable development as development that meets the needs of the present generation without compromising the ability of the future generations to meet their own needs. This definition has also been embraced by the South African White Paper on Environmental Management for South Africa (1998), and other legislation and policies on sustainable development and environmental issues.

Since the definition was presented in 1987, numerous other definitions were formulated, with the result that to date there is no commonly accepted definition of sustainable development.

South Africa, as a member of the international community, also facing environmental resources degradation, has developed legislation and a host of policies as interventions to ensure sustainable development in the country. Municipalities in particular, have been entrusted with the responsibility by specific legislation, policies and programmes to manage sustainable development in their areas of jurisdiction.

Despite numerous such interventions, cities in South Africa have remained spatially distorted; fragmented; inefficient; and incoherent. This may confirm the notion that sustainable development in South African cities is a myth more than a reality.

Summary

Municipalities in South Africa have been entrusted with developmental responsibilities by legislation, government programs and policies. These sets of legislation, programs and policies further serve as interventions to promote and ensure Sustainable Cities in South Africa. The concern, however, is that despite numerous interventions, cities in South Africa, remain fragmented, spatially distorted, inefficient and incoherent.

The research attempts to find a solution to the concern and the question whether sustainable development in cities in South Africa is a myth or a reality. The City of Tshwane Metropolitan Municipality serves here as a city for the purpose of the study, particularly because it meets all the characteristics that define a metropolitan area, goals, and can also serve to define the systems and methods of metropolitisation.

Although there is no universally accepted definition of sustainable development, a strategic application and employment of the key concepts that emanate from the process of managing sustainable development in cities, namely, management, sustainable development and the urban form, as informed by theories and practices, appear to be the approach with the potential to address the above-mentioned concern.

The application and employment of management tasks with skills, competency and professionalism including administrative functions and principles, the definition and design of sustainable development processes that are commensurate with the city's capacity, that are best suited to its circumstances, and are in line with its priorities, objectives, indicators and targets, as well as the restructuring of the city into a conducive urban form that would enable sustainable development to happen, is the route towards the promotion of sustainable development in cities in South Africa.

The research taps into development theories and practices as tools for managing sustainable development. This includes the employment of the generic functions of public administration. From development theories and practices a broad perspective and in-depth understanding of the key concepts of development, their meaning and implications in managing sustainable development, are presented.

Legislation, policies and government development programmes such as urban development frameworks, management of sustainable development through the integrated development planning and the local agenda 21 processes and partnerships are discussed as interventions aimed at guiding and informing sustainable development in cities in South Africa.

Legislation further provides comprehensive definitions of sustainable development, not only for a municipality, but for the country as a whole. The advantage of these many definitions of sustainable development is the fact that municipalities have the freedom to develop their own municipality or city-specific definition of sustainable development as well as adding other core components of sustainable development that suit their circumstances.

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CHAPTER 1

1. INTRODUCTION

Chapter 1 is a broad introduction to this research document. It deals with the following issues, namely, the research framework; the origin of the concept sustainable development; the common elements of the different definitions of sustainable development; the critique of sustainable development; own definition of sustainable development; the research problem, objective, motivation, and the research design; legislation and policies as interventions to achieve sustainable development in cities in South Africa; non-compliance with legislation and policies as intervention to achieve sustainable development; the hypothesis of the research; the research approach and methodology; the structure of the thesis; the City of Tshwane as the study area; and key aspects of metropolitan government and the establishment of the City of Tshwane. The Chapter is ended with a conclusion.

Sustainable development is an easy concept to define but difficult to employ and manage. To this end, questions such as the following are relevant: Is sustainable development in South Africa cities a myth or a reality? What constitutes a sustainable city? What are appropriate sustainable development and performance indicators for measuring, monitoring and evaluating the performance and the sustainability of cities?

1.1 The research framework

The research framework covers the concept, the context and the operation of sustainable development within a public administration and public management paradigm as used within municipality setting. The concepts of sustainable development, public administration, and public management are discussed further in Chapters 2 and 3 infra.

For the purpose of this research, sustainable development is discussed within the municipality setting and thus within a public administration and a public management environment at the municipality level. Although there is no universally accepted definition of sustainable development Houghton (1994:1-5), a widely used definition refers to

sustainable development as development that meets the needs of the present generation without compromising the ability of the future generations to meet their own needs (The World Commission on Environment and Development - also known as Brundtland Report, 1987).

The operationalisation and the realisation of this concept are viewed as the integration of sustainable development components that include economic, social, and environmental components Urquhart and Atkinson (2002:17).

The challenges that face municipalities as the organs of state would be to employ public administration and public management as activities, to realize sustainable development within their areas of jurisdiction.

However, the researcher argues that sustainable development in the municipality setting, particularly in cities in South Africa is more of a myth than a reality, that is, sustainable development as defined by the Brundtland report 1987 is not achievable in cities in South Africa. This argument is borne out by the fact that sustainable development as defined by the Brundtland report 1987 and as a widely used definition is a status that cannot be achieved. It is merely an inspiring vision to which one can only aspire. It would be advisable, therefore, that each municipality defines its own sustainable development processes including sustainable development indicators.

Although it is not the intention of this thesis to research the concepts public administration and public management paradigm as such, it is imperative to define these two concepts to provide and clarify the context within which sustainable development is managed.

There are numerous definitions of public administration as an activity. Rosenbloom and Kravchuk (2002:4-5) cite the following as some of the most serious and influential efforts made to define public administration:

- (i) public administration as the action part of government, the means by which the purpose and goals of government are realised;
- (ii) public administration as a field mainly concerned with the means for implementing political values;

- (iii) public administration as identified with the executive branch of government;
- (iv) the process of public administration is viewed as consisting of the actions involved in effecting the intent or desire of a government, that is the continuously active, business part of government, concerned with carrying out the law, as made by legislative bodies and interpreted by the courts, through the processes of organization and management; and
- (v) public administration as a cooperative group effort in a public setting where public administration covers all three branches, namely, executive, legislative, and judicial; and their interrelationships; and
- (vi) public administration as having an important role in the political process as public administration is seen as being different in significant ways from private groups and individuals; and as closely associated with numerous private groups and individuals.

The challenge that emerges from these varying definitions is what conclusion should be drawn if one intends to employ the concept to achieve sustainable development within a municipality setting. Rosenbloom and Kravchuk's conclusion is that all the definitions are helpful, that public administration does involve activity, it is concerned with politics and policy-making, it tends to be concentrated in the executive branch of government, it does differ from private administration, and it is concerned with implementing the law. Public administration, according to Rosenbloom and Kravchuk (200:5) the use of managerial, political, and legal theories and processes to fulfill legislative, executive, and judicial mandates for the provision of governmental regulatory and service functions.

This approach to public administration suggests therefore that there can be no fixed and final definition of the concept public administration, but that what may be fixed is what public administration in a particular context, should imply. This also makes public administration a never ending activity which challenges public administration practitioners to continually question existing public administration theories and models, not as an arm-chair critique, but as a desire to search for new knowledge and best practices built on existing knowledge.

To further strengthen this view, Schwella et al (1996:5) define public administration as that system of structures and processes operating within a particular society as an environment, with the objective of facilitating the appropriate, legal and legitimate governmental policies and the effective, efficient and productive execution of the formulated policies. Public administration operates therefore in a society as an environment, and this environment (society) is not fixed or static. This implies that public administration will continually be impacted upon and be influenced by these environments and justifies the fact that public administration theories and models cannot be applied as fixed tools.

The public management paradigm is better understood and applied if the concept of paradigm is also properly defined and well understood. Managing sustainable development within the public management paradigm demands therefore that a better comprehension of different views and opinions of different authors and writers of the concept sustainable development and public management paradigm should be held. The concept paradigm refers to the discovery of knowledge in the natural sciences Bellone (1980:2-3). It is defined as an overarching set of accepted, and most of the time unquestioned, beliefs that are jointly held by researchers and practitioners in a discipline. A paradigm is also characterized by symbolic generalisation, shared commitments to a specific set of beliefs by members of the discipline, and shared values. It can be safely said that a paradigm applies equally to public management.

Within the concept of paradigm, Van der Waldt and Du Toit (1999:13-14), raise two important viewpoints, namely:

- (i) the viewpoint that public management is an integral part of public administration;
and
- (ii) the viewpoint that public management and public administration are synonymous.

According to the concrete and operational approach of Fox, Schwella and Wissink (in Van der Waldt and Du Toit (1999:13), public administration as an activity consists of a system of structures and processes operating within a particular environment with the objective of facilitating the formulation and efficient execution of government policy. This definition emphasizes the importance of the environmental context, politics, policy formulation, policy execution, and management Van der Waldt and Du Toit (1999:13). Hence, public administration as an activity, and public administration as the discipline, has broader scope than public management. According to this viewpoint, public

management is therefore only a part of public administration Van der Waldt and Du Toit, (1999:13). Public management should, however, not be limited to the generic administrative functions of organizing, controlling, personnel provision, work methods and procedures, policy-making and financing (Van der Waldt and Du Toit, 1999:14).

Fox, Shwella and Wissink (1991:2) hold the viewpoint that if public administration were to be reduced to public management it would disregard the dynamic context and political nature of public management.

Wissink (1992:18) suggests that public management as part of public administration, seen in general, is the skill of converting resources such as material, labour, capital and information into services and products to satisfy the needs and desires of society and to achieve the aims and objectives of the public sector.

In contrast to the above-mentioned viewpoint on public administration and public management, Cloete (1993:61) as quoted by Van der Waldt and Du Toit (1999:14) is of the opinion that the activities performed to establish and operate public institutions should be known as public administration or public management. According to Van der Waldt and Du Toit, Cloete does not consider public management to be part of public administration but as synonymous with it.

The opinion held by the researcher is that public management is an integral part of public administration, and that the two concepts are not synonymous. This viewpoint is informed by the fact that in a practical public work situation, public administration and public management functions are not executed differently by different sets of managers. In the practical work situation of the public manager these two systems form a functionally integrated whole.

Public administrative functions include policy-making, personnel provision, organizing, control, work methods and procedures and financing, while public management functions include planning, organizing, leading, control, and coordinating Van der Waldt and Du Toit (1999:14). These functions can only be employed simultaneously as a functionally integrated whole.

1.2 The origin of the concept sustainable development: a summary

The origin of the concept sustainable development is crucial to providing answers to these questions as well as locating the application of the sustainable development concept in its rightful place in institutions.

It has been reported that in the first decades of the United Nations, environmental concerns rarely appeared on the international agenda United Nations (2000:193). Initially the related work of the United Nations emphasized natural resources exploration and utilization. While seeking to ensure that developing countries, in particular, would be able to maintain control over their own natural resource, little attention was paid to developed countries as possible causes of environmental degradation.

Attempts to address natural resources protection emerged during the 1960s. This was done through some agreements regarding marine pollution, especially oil spills. Increasing evidence of the deterioration of the environment on a global scale since 1970 has resulted in escalating alarm in the international community over the impact of development on the ecology of the planet and on human well-being. The United Nations, as a leading advocate for environmental concerns, and leading proponent of “sustainable development” has acknowledged this United Nations (2000:193).

Further attempts to address this escalating alarm over such an impact on the ecology has lead to the discovery of a relationship between economic development and environmental degradation. This relationship was first placed on the international agenda in 1972, at the United Nations Conference on the Human Environment, held in Stockholm United Nations (2000:193). After the conference, governments set up the United Nations Environment Programme (UNEP), which today continues to act as the leading global environmental agency. In 1973, the United Nations set up the Sudano-Sahelian Office (UNSO) to spearhead efforts to reverse the spread of desertification in West Africa. Action, however, was slow to integrate environmental concerns into national economic planning and decision-making United Nations (2000:193). Overall, the environment has continued to deteriorate and problems such as global warming, ozone depletion and water pollution has grown more serious, while the destruction of natural resources has accelerated at an alarming rate United Nations (2000:193).

According to the United Nations (2000:193) the 1980s witnessed landmark negotiations among member states on environmental issues, including treaties protecting the ozone layer and controlling the movement of toxic waste.

The World Commission on Environment and Development, established in 1983 by the United Nations General Assembly, brought about a new understanding and sense of urgency to the need for a new kind of development – a development that would ensure economic well-being for present and future generations while protecting the environmental resources on which all development depends. The Commission's 1987 report to the General Assembly put forward the concept of *sustainable development* as an alternative approach to one simply based on unconstrained economic growth (UN, 2000:193).

The United Nations (2000:193) further reports that after considering the report, the General Assembly called for the United Nations Conference on Environment and Development. At the Conference (UNCED) (Rio de Janeiro, 1992) also known as the Earth Summit, the world's nations agreed on an approach to a development that would protect the environment while ensuring economic and social development, and laid the foundation for a global partnership between developing and industrialized countries, based on common but differentiated needs and responsibilities, to ensure a healthy future for the planet United Nations (2000:193).

The issue however, is not about the successes of the conference in terms of attendance, and agreements and partnerships made, but the implementation and enforcement of such agreements and partnership arrangements reached at the conference. It would appear that attempts to address this concern have been unsuccessful.

The Summit adopted Agenda 21, a plan of action for addressing both environment and development goals in the 21st century, the Rio Declaration on Environment and Development, which defines the rights and responsibilities of states and the statement of Forest Principles, which enforces guidelines for the sustainable management of forests worldwide. The assembly's world leaders also signed the conventions on climate change and on biological diversity United Nations (2000:193). As mentioned, the weakness of these agreements is the lack of enforceability, the implementation process, the evaluation process and indicators.

The Rio declaration, amongst other things, states that the scientific uncertainty should not delay measures to prevent environmental degradation where there are threats of serious or irreversible damage; that eradicating poverty, reducing disparities in global living standards are “indispensable” for sustainable development; and that the developed countries should acknowledge their responsibility and that they should be in international pursuit of sustainable development in view of the pressures their societies place on a global environment and on the technologies and financial resources they command Grubb et al (1993:127). This, however, remains a broad statement not directed at any specific countries. It is doubtful whether any country has paid attention to these broad statements.

The Summit called for several major initiatives in other key areas of sustainable development. These included a global conference on small islands’ developing stages, a convention on desertification, and an agreement on highly migratory and dwindling fish stocks Osborn et al (1998:1-7).

The General Assembly in 1997 held a special session (Earth Summit + 5) on the implementation of Agenda 21. Member states grappled with differences among them on how to finance sustainable development globally, but emphasized that putting Sgenda 21 into practice was more urgent than ever. The session’s final document recommended measures to this end, including adopting legally binding targets to reduce emission of greenhouse gases leading to climate change, moving more forcefully towards sustainable patterns of energy production, its distribution and use, and focusing on poverty eradication as a prerequisite for sustainable development. It was at this special session that the President Thabo Mbeki affirmed South Africa’s commitment and dedication to the sustainable development concept and the implementation of Agenda 21 United Nations (2000:193).

The 10-year follow-up to the Earth Summit was held in 2002 in South Africa (WSSD2002). The Summit delivered declarations and commitments such as the Johannesburg Declaration on Sustainable development; The Johannesburg Plan of Implementation; The Johannesburg Call; The Local Government Declaration; and The Declaration on Sustainable Development by the African Mayors. A summary of these declarations or key outcomes is included in the list below.

The Summit reaffirmed sustainable development as a centre of the international agenda and gave new impetus to global action to fight poverty; the understanding of sustainable development was broadened and strengthened as a result of the Summit, particularly the important linkages between poverty, the environment and the use of natural resources; governments agreed to and reaffirmed a wide range of concrete commitments and targets for action to effect implementation of sustainable development objectives; energy and sanitation issues were critical elements of the negotiations and outcomes to a greater degree than in the previous international meetings on sustainable development. Globally, support for the establishment of a world solitary fund for the eradication of poverty was a positive step forward; the views of civil society were given prominence at the Summit in recognition of the role of civil society in implementing the outcomes and promoting partnership initiatives; the concept of partnerships between governments, business and civil society was given a boost by the Summit and the Plan of Implementation (that is, The Johannesburg Plan of Implementation); and the New Partnership for African's Development (NEPAD) Behrens et al (2003:51).

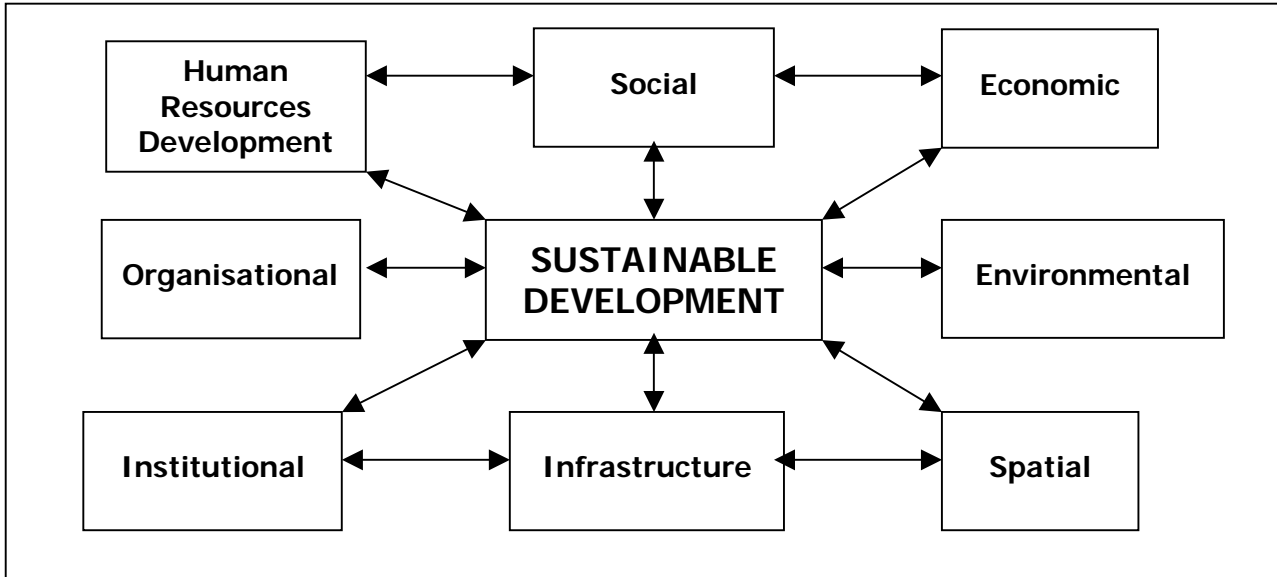
It is important to note that these key Summit outcomes do not suggest that sustainable development has been achieved. Also, agreements, plans and partnerships do not suggest that sustainable development as defined by the Brundtland Report, 1987 has been or will be attained.

The WSSD2002 declarations like the 1992 United Nations Conference on Environment and Development outcomes such as Agenda 21 lack the elements of compliance and enforceability and remain broad statements and guidelines. The two decades of deliberations on the concept sustainable development remained nothing more than an educational and information sharing event rather than producing concrete products.

1.3 Development and sustainable development defined

Development is defined by the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) as sustainable development and that it includes integrated social, economic, environmental, spatial, infra structure, institutions, organisations, human resources development aimed at improving the quality of life of communities with specific reference to the poor and the disadvantaged sections of the community, and ensuring that development serves present and future generations. Schematically this may be illustrated as shown below.

Figure 1. SUSTAINABLE DEVELOPMENT AS DEFINED BY THE LOCAL GOVERNMENT: MUNICIPAL SYSTEMS ACT, 2000 [ACT 32 OF 2000]

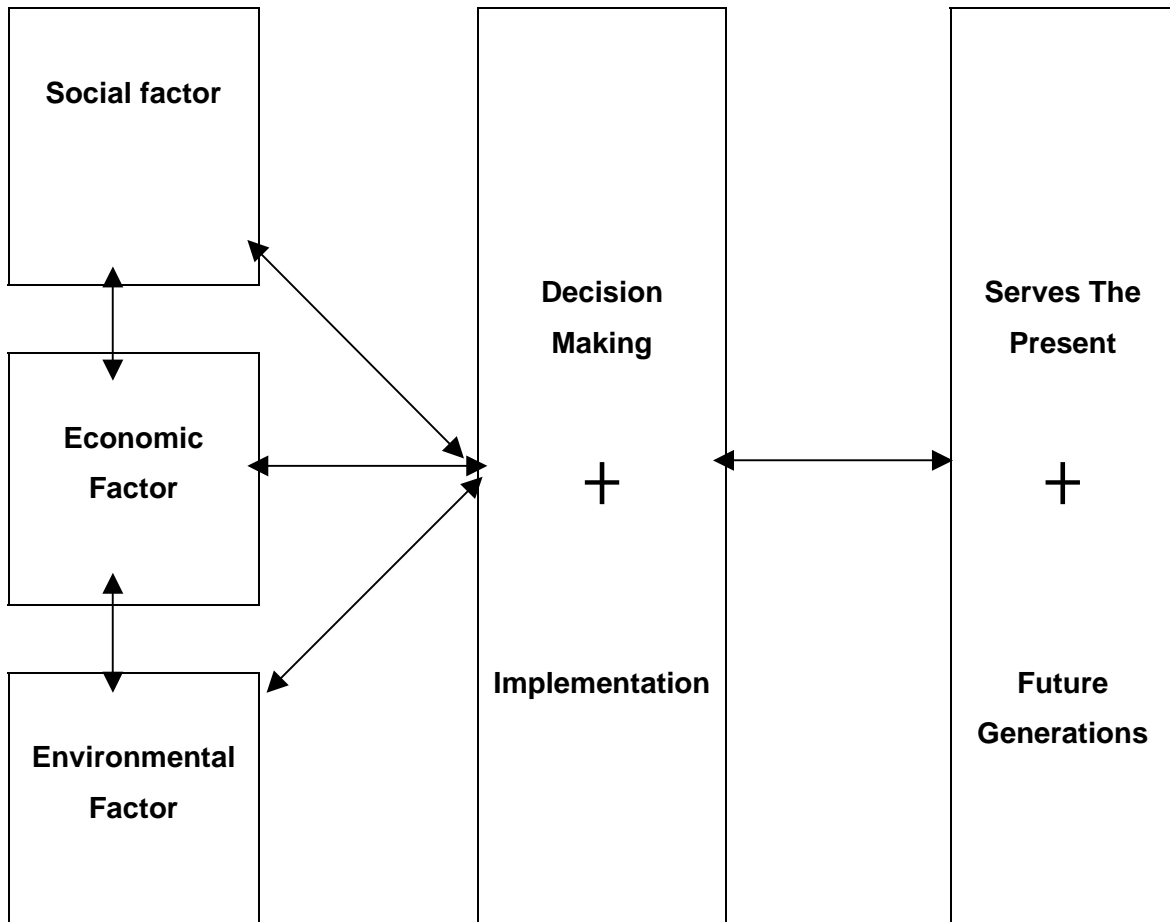


Source: Adapted Local Government: Municipal Systems Act, 2000 (ACT 32 of 2000)

Sustainable development is in turn defined by the National Environmental Management Act, 1998 (Act 107 of 1989) as the integration of social, economic, and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations.

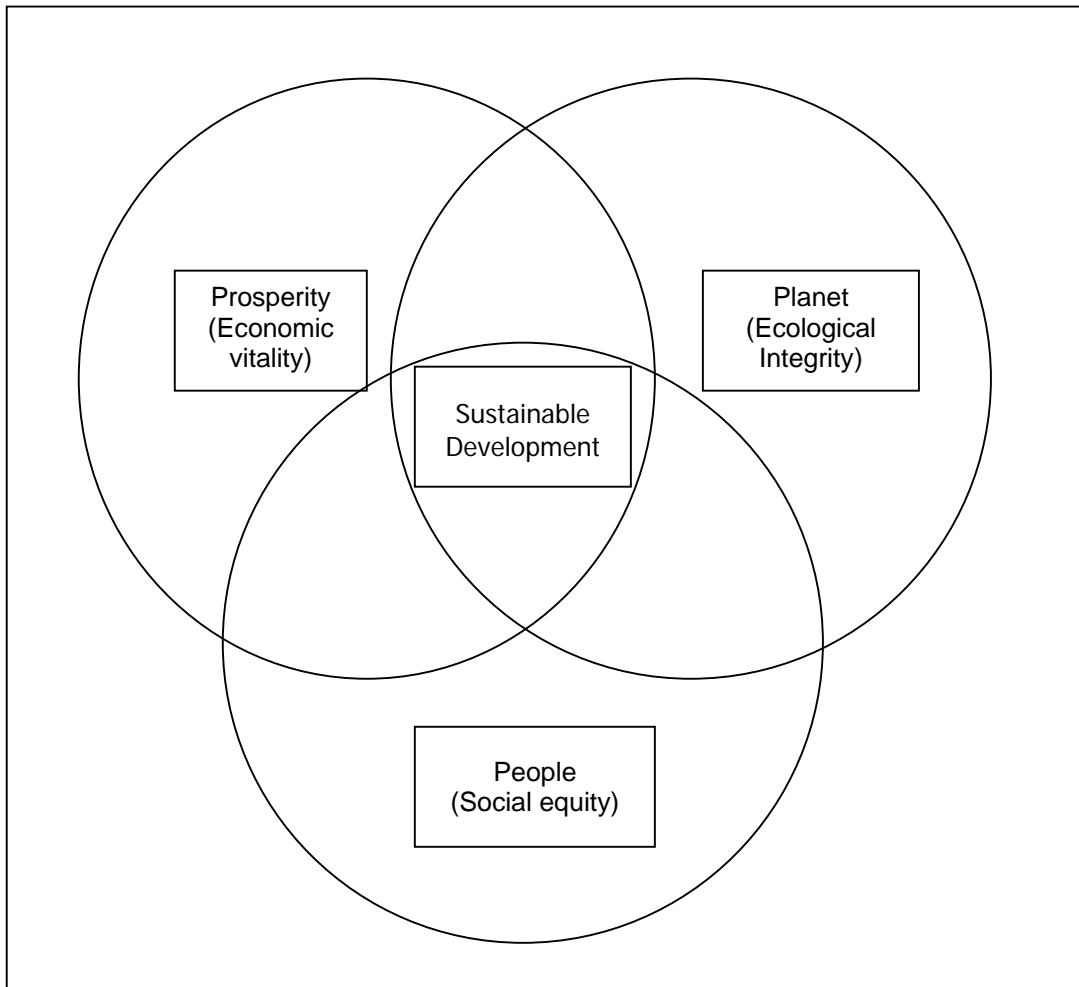
The World Commission on Environment and Development also known as the Brundtland Commission, (Brundtland Report, 1978), also cites this definition. The Report refers to the integration of three elements of development, namely, the planet (ecological integrity), people (social equity) and prosperity (economic vitality). Diagrammatically this definition could be illustrated as indicated below.

Figure 2. SUSTAINABLE DEVELOPMENT AS DEFINED BY THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 [ACT 107 OF 1998]



Source: Adapted national environmental management Act, 1998 (Act 107 of 1998)

Figure 3. SUSTAINABLE DEVELOPMENT AS DEFINED BY THE BRUNDTLAND COMMISSION, 1978.

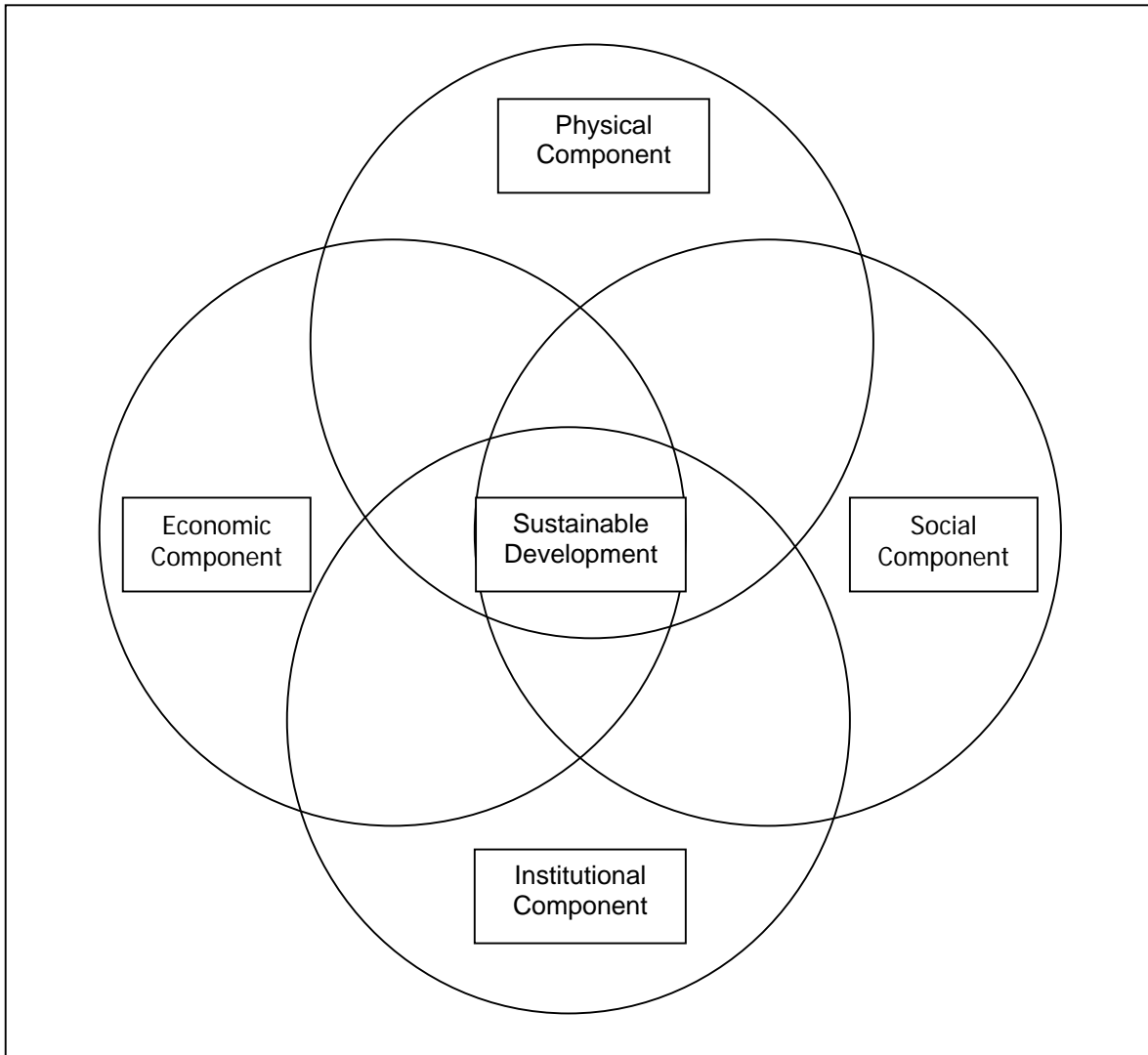


Source: Urquhart and Atkinson (2000:18)

The International Council for Local Environment Initiatives (ICLEI) uses the following definition which is focused specifically at the services provision at local level, namely, that sustainable development is development that delivers basic environmental, social and economic services to all residents of a community without threatening the validity of the natural built and social systems upon which the delivery of these systems depends. Without questioning the correctness of the definition, a question can be posed as to whether there could be different definitions at different levels, namely at local, provincial and national levels. If that is so, how will conflicting approaches and initiatives be addressed and who should address them?

The Development Facilitation Act, 1995 (Act 67 of 1995) defines development as an integration of four components, namely, economic, social, physical and institutional components. The integration of these components may be represented as indicated below.

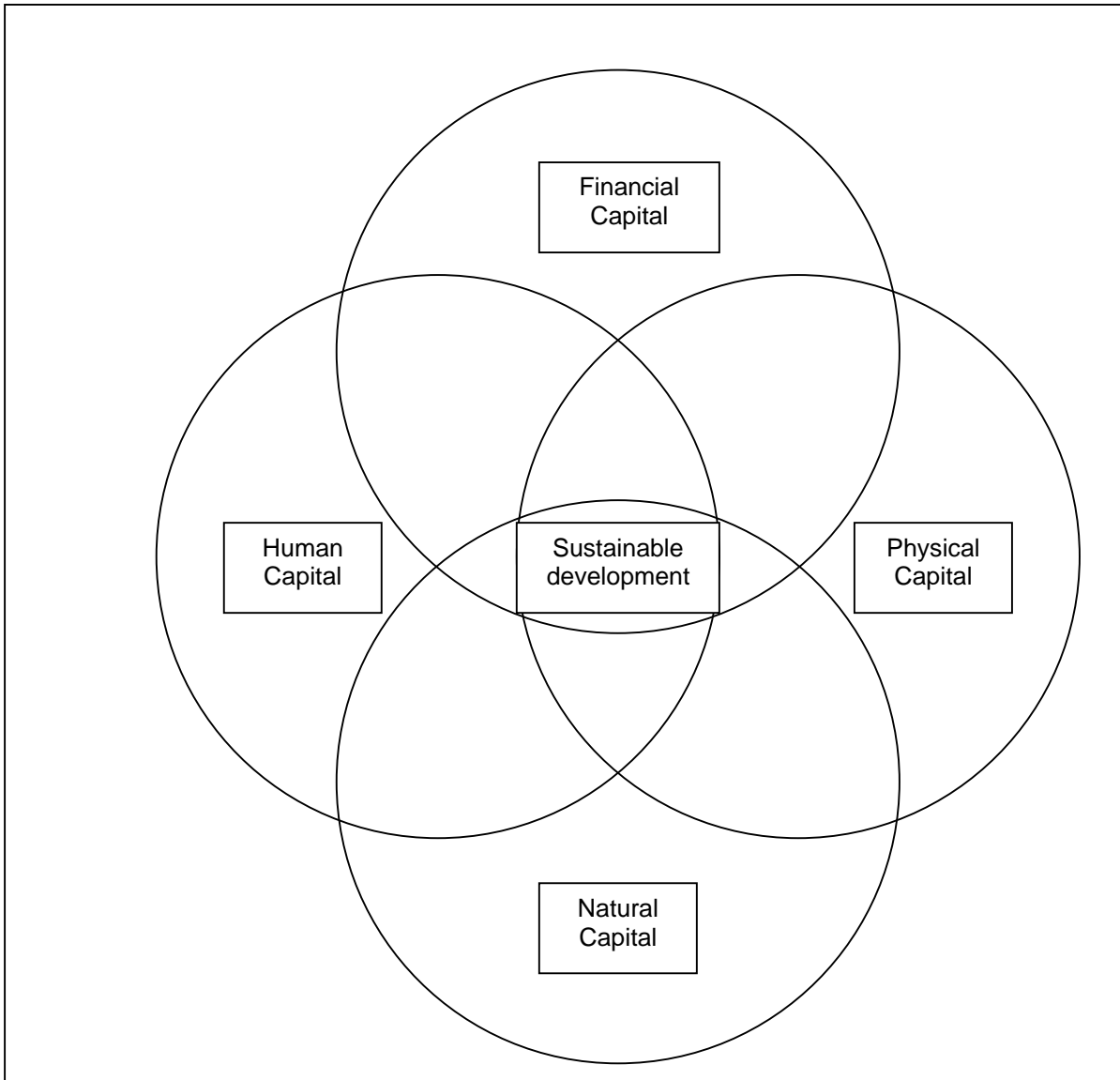
Figure 4. SUSTAINABLE DEVELOPMENT AS DEFINED BY THE DEVELOPMENT FACILITATION ACT, 1995 [ACT 67 OF 1995]



(Source: Adapted development facilitation Act, 1995 [Act 67 of 1995])

The World Bank defines sustainable development as a multi-dimensional concept that combines five perspectives, all of which are key to making development sustainable. The perspectives referred to are, financial capital, the physical capital, the natural capital, the human capital and the social capital. Sustainable development as defined by the World Bank may be illustrated as indicated in the figure below.

Figure 5. SUSTAINABLE DEVELOPMENT AS DEFINED BY THE WORLD BANK



(Source: Adapted from World Bank development in the 21st century, 2001)

It is important to note that there is no commonly accepted single definition of sustainable development. Pearce, Markandya and Barbier (1989) in an appendix to their book, *Blueprint for Green Economy*, quote twenty-four separate definitions of sustainable development. These definitions confirm the inference that sustainable development is not an easy concept to be defined. The integration of the components referred to in figures 1, 2, 3 and 4 above on the other hand present the complicated nature of sustainable development and the difficulties of managing it.

1.4 Common elements of the different definitions of sustainable development

For the purpose of this study, any difference to factors, components and to aspects as contained in the different definitions of sustainable development will mean elements of sustainable development. Each of the definitions in section 2.2.2 above consists of a number of elements. Urguhart and Atkinson (2002:17) mention three elements as contained in the 1987 Report of the World Commission on Environment and Development, namely, economic (vitality), ecological (integrity), and social (or equity) elements. The National Environmental Management Act 1998 (Act 107 of 1998) mentions three elements that have to be integrated into a decision making process to realize sustainable development, namely social, economic and environmental elements. The Development Facilitation Act 1995 (Act 67 of 1995) talks of four elements, namely, the social, economic, physical and the institutional elements, while the Local Government Municipal Systems Act 2000 (Act 32 of 2000) refers to the integration of the social, economic, human resources, organization, environmental, institutional, spatial and the infrastructure to achieve sustainable development. Elliot (1994:4), Tolba (1987:3), Fitzgerald *et al* (1995: 2-4) and Todaro (2000: 18) mention requirements and objectives in their definitions which sustainable development must achieve. When examined these requirements actually constitute the elements referred to by other authors and legislation mentioned above.

1.5 Critique of the different approaches/definitions of sustainable development

The numerous definitions of sustainable development raise a number of issues. Three of these issues are briefly referred to below, namely, the definitions encourage institutions and individuals to continue to define the concept the way they find it suitable for their purpose and their own needs. This unguided approach may undermine the current widely used definition of sustainable development (development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Urguhart and Atkinson (2002:17), suggest implementation through the integration of three elements, namely, social, economic and environmental elements. If, however, the numerous definitions result in development that meets the needs of the present without compromising the ability of the future generations to meet their own needs and other benefits incidental thereto, then more different critical definitions should be encouraged.

The second issue worth mentioning involves all the definitions of sustainable development (and its elements) referred to above. The literature on the sustainable development, does not show clearly, how the integration of these core elements would actually result in development that would in fact meet the needs of the present without compromising the ability of future generations to meet their own needs. It would appear that a redefinition of this concept or a much clearer definition, or definitions may address this particular issue.

The third issue is the perception that the concept of sustainable development is couched in a vision, “a thing or an idea perceived vividly in the imagination, a statement like foresight” (Oxford Dictionary and Thesaurus; 1995:757). It has an inbuilt driving force, but not likely to be achieved, not in the foreseeable future. If these perceived signs hold, one would be suspicious of any country or city or nation claiming to have achieved sustainable development. Cities that are referred to in section 2.3 claim only success for the process they have embarked upon to pursue sustainable development, and not sustainable development as an outcome.

1.6 Own definition of sustainable development

The definition of sustainable development formulated below is proposed largely for municipality settings.

Municipalities in South Africa are compelled by legislation to develop and to manage their areas of jurisdiction in a sustainable manner. The legislation that specifically aims to direct municipalities to ensure a sustainable and development approach to service delivery includes, the Constitution of the Republic of South Africa Act 1996 (Act 108 for 1996), in particular the section on the Bill of Rights and the objectives of local government; the National Environmental Management Act 1998 (Act 107 of 1998); the White Paper on Environmental Management Policy: 1999; the White Paper on Local Government: 1998; and the White Paper on Spatial Planning and Land Use Management: 2001. It is important to mention that these pieces of legislation will continually be emended and/or repealed and new ones introduced as and when the need arises.

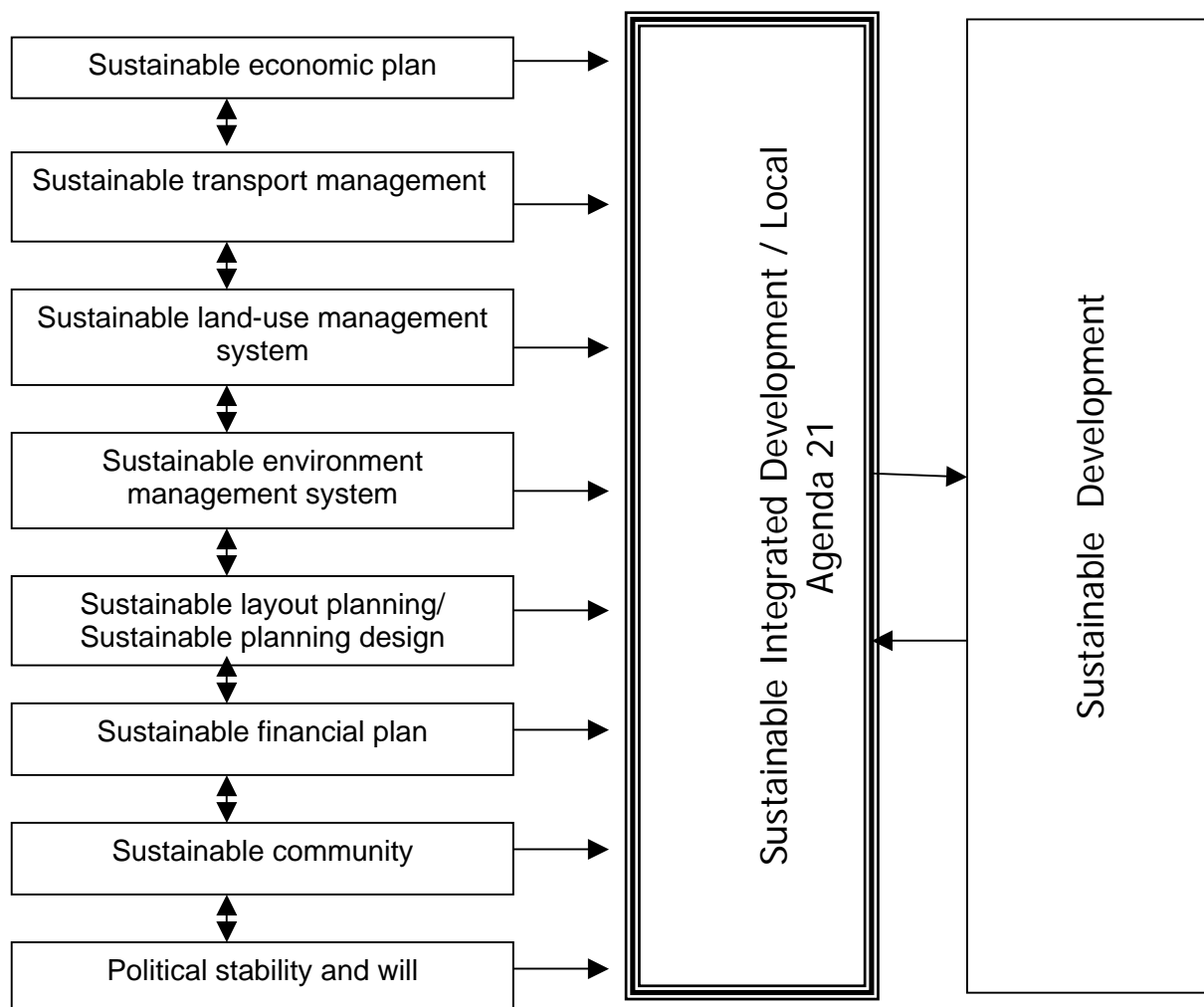
The proposed definition, therefore, is largely informed, guided and shaped by policies and legislation and views of all authors referred to, in particular the views of Todaro (2000:18). It is also able to inform service delivery at the municipal level.

For the purpose of this study sustainable development, therefore, is defined as the short-medium- and long-term balancing of all development systems, process and strategic

development plans. This includes a sustainable economic development plan; sustainable settlement plan; sustainable development plan; sustainable environmental management plan; sustainable community plan; political stability and political will; strategic spatial development framework; and a financial development framework, into decision-making and implementation through the integrated development process/local Agenda 21. All of these are aimed at increasing and widening the distribution of basic life sustaining goods and services such as food, shelter, health and protection; raising levels of living, reducing unemployment levels, reducing the percentage of the population living below poverty line, better education, and paying greater attention to cultural and humanistic values, all of which will serve not only to enhance material well-being, but also generate greater individual self-esteem; and expanding the range of economic and social choices available to individuals and communities by freeing them from servitude and dependency, not only in relation to other people and nations, but also in relation to the forces of ignorance and human misery.

Diagrammatically these elements can be summarised as follows:

Figure 6. SUSTAINABLE DEVELOPMENT: OWN DEFINITION



Source: Adapted from Local Government Municipal Systems Act, 2000 (Act 32 of 2000)

1.7 Research problem, objective, motivation and the research design

The research problem, objective and motivation stem from the complex nature of sustainable development in terms of definition and application. The definitions of sustainable development do not clearly correspond with the outcomes it intends to achieve.

Since the first Earth Summit on sustainable development in 1972 (the United Nations Conference on the Human Environment: Stockholm Conference) presenting the first international attempt to change the unsustainable economic growth path, and other international conferences that followed, namely, the World Conservation Strategy in 1980, which was the first attempt to reconcile ecological and economic concerns and approaches; the World Commission on Environment and Development (Brundtland Report, 1987). This is where the first strong statement on the inseparability of environment and development was made, and sustainable development was regarded as the key concept for sustainable development; the United Nations Conference on Environment and Development (Rio Earth Summit:1992), which produced Agenda 21(an action plan for global sustainable development); Warning of Humanity in 1993, where 1600 scientists warned that no more than a few decades remain to avert vast human misery and irretrievable environmental destruction; the United Nations Conference for Human Settlements (Habitat II) in 1996, which produced the Habitat Agenda (an action plan for sustainable human settlements; the United Nations General Assembly Special Session (Rio +5), which reviewed progress made since the Rio Conference in 1992; the Earth Charter in 2000, which unanimously agreed on the principles for sustainable development to guide and judge actions of individuals, business, and governments; and the World Summit on Sustainable Development in 2002 (the United Nations General Assembly Special Session: 10 year Review of Agenda 21 (Rio +10)); not a single country/city, not even from the first world countries, has ever reported or claimed to have achieved sustainable development. This is motivation for the research where we may establish the reason why countries/cities are not attaining sustainable development.

The thesis evaluates and assesses the role and the influence of government interventions to deliver sustainable cities by municipalities in South Africa. The duty and the responsibility to manage sustainable development has been entrusted to

municipalities by legislation and by policies. The City of Tshwane Metropolitan Municipality is used in this report as a reference to illustrate the complexity of managing sustainable development.

Despite government interventions such as legislation and policies, integrated development planning, urban development strategies, Agenda 21, Local Agenda 21, spatial development frameworks at all three spheres of government and strategic development initiatives, many cities in South Africa remain fragmented and spatially distorted. Sustainable development has been mooted as an umbrella intervention that has the capacity to integrate all components of development to deliver integrated, functioning viable and sustainable cities. Is this a myth or a reality?

1.8 Legislation and policies as interventions to achieve sustainable development in cities in South Africa

Municipalities are at the heart of the development process in South Africa. The Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) and the local government legislation entrust municipalities with the responsibilities and powers to plan and to manage development in their areas of jurisdiction through an integrated development process.

It is crucial to refer at the outset to some important legislation and policies that define and guide development in municipalities in South Africa. It is important to note, however, that policies and legislation are not static, they are amended and replaced as and when circumstances demand.

The Development Facilitation Act 1995 (Act 67 of 1995) contains general principles for land development, which direct development by the municipalities at the local government level. These principles including the social, economic, physical and institutional factors as components of development, provided by the Development Facilitation Act, 1995 Act 108 of 1995).

The interventions include the demand for the preparation of a land development objective by a municipality. The land development objectives deal with how people will gain access to basic services, contain objectives relating to urban and rural space and form;

how poorer areas will be integrated into the area of the Municipality as whole; how the environment will be used in a sustainable manner; how transportation will be provided; how bulk infrastructures for the purpose of land development will be provided; what densities there should be in settlement; how land development should be co-ordinated with others authorities, how land use should be controlled; and how natural resources should be optimally used.

The land development objectives also contain strategies on how to optimise the involvement of sectors of the economy, particularly financial institutions and developers in land development; how to obtain finances for land development and how to build adequate administration and institutional capacity to deal with land development in the area.

To further facilitate the provisions of the Development Facilitation Act 1995(Act 67 of 1995), the Local Government Transition Act, 1993(Act 209 of 1993) read together with the Local Government Transition Act Second Amendment Act, 1996 (Act 97 of 1996) provide that municipalities must draw up integrated development plans for their areas of jurisdiction. The integrated development plan is defined as a plan aimed at the integrated development and management of the area of jurisdiction of the municipality conceded in terms of its powers and duties.

The integrated development planning process as an intervention must include the following plans, namely, land use planning; infrastructure planning; transport planning; the promotion of integrated socio-economic development; financial planning in accordance with the integrated development plan; and capital programmes which include investment programmes for municipal infrastructure.

It may be inferred that municipal legislation and policies aimed at promoting and managing development largely direct the compilation of land development objectives and the integration development plans by the municipalities. Together, the land development objectives and the integrated development plans form a strategic development framework for the municipality to employ.

In addition the development principles outlined by the White Paper on Reconstruction and Development, 23 November 1994 (1954 of 1994), the Development facilitation Act, 1995 (Act 67 of 1995); the White Paper on South African Land Policy, April 1997;

Department of Land Affairs and Agriculture; the Housing Act 1997 (Act 107 of 1997); and the Housing White Paper, 23 December 1994 (1376 of 1994) direct that all Law, Policies and administrative practices affecting development should make provision for urban and rural land development, facilitate the development of both formal and informal, existing and new settlement, discourage land invasions without ignoring the reality and history of informal land development processes; and promote efficient and integrated land development that among other things integrates rural and urban areas, poor and rich areas, black and white areas in towns and cities, and different land use areas; integrates the social, economic physical and institutional aspects of land development.

These principles illustrate clearly the intentions of legislation to inform, guide and shape development in municipalities. The importance of legislation in this regard is linking these principles with the implementation requirements so all provisions of the legislation have to be implemented. The Municipalities therefore have the obligation to implement all provisions of the legislation including those guiding development.

Other principles provided by the Development facilitation Act, 1995 (Act 67 of 1995); the White Paper on South African Land Policy; April 1994: Department of Land Affairs and Agriculture; the Housing Act 1997 (Act 107 of 1997) and the Housing White Paper: 23 December 1994 (1376 of 1994) includes the promotion of sustainable development. They cite that within the fiscal, institutional and administrative means, municipalities must establish viable committees; meet basic needs of all citizens in an affordable way, protect the environment and ensure the safe use of land.

Sustainable development as a people-centred process of change depends for its ultimate success on the capacity of people to manage the process through a variety of critical steps and phases within the limits of an institutional and value framework that will guarantee meaningful and lasting improvement of quality of life for all in a peaceful, stable and well-governed environment Scheepers (2000:8).

Taking into account development as a people-centred process it is clear that the right to development has been entrenched in both the international law and the South African legislation and policies. The right to development is therefore accepted as a right in International Law and is part of the law of present-day South Africa Scheepers (2000:16). It has been recorded that development became part of the International Law

when the United Nations adopted the Declaration of Right to Development in 1986 (United Nations General Assembly Resolution 41/128 of 4 December 1986). The Declaration establishes the right to development as an inalienable human right with people as central subjects of that right.

The United Nations General Assembly Resolution of 34/46 of 1979 states that the right to development is a human right and the equality of opportunity for development is much a prerogative of nations as individuals within nations (Report of the Secretary General E/CN-4/1334/1979.)

The Report of the United Nations Secretary General E/CN - 1334/ 1979 cites the right to development is based on the principles of the realisation of human beings being the subjects and not the objects of development; development requiring the satisfaction of both material and non-material base needs; respect for human rights being fundamental to the development process; the need for every person to participate fully in shaping his or her own reality; equality and non-discrimination as an essential prerequisite for development; and achievement of a degree of individual and collective self-reliance as an integral part of the development process. Scheepers indicates that modern paradigm of human development focuses on rights as a means of development rather than as an end in themselves and that the paradigm is based on values such as integrity, autonomy, participation and self-reliance Scheepers (2000:16).

In practice this means that the individual is both the subject and beneficiary of the development process. Accordingly the state has an obligation to advance the human development of its nationals Scheepers (2000:17).

The United Nations' Covenant on Economic, Culture and Social Rights further links the right to development to an adequate standard of living and to the continuous improving of living conditions, while the United Nations' Declaration on the Right to Development confirms the right to development by supporting and promoting the idea of linking development and individual human rights, and the idea that it is the responsibility of government to see to it that human rights are protected and honoured Scheepers (2000:17).

The Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996) does not explicitly mention a right to development, but recognises and protects the right to human

dignity, equality, democracy, equity and justice. These rights are all part of the right to development. Therefore, it cannot be denied that the right to development forms part of the law of South Africa Scheepers (2000:17).

It may be construed, therefore, that the Constitution of the Republic of South Africa Act 1996 (Act, 108 of 1996) aims at entrenching human rights to further the development of human beings. In achieving this aim the basic values of the right to development are given legal effect Scheepers (2000:17).

The pre-amble to the Constitution of the Republic of South Africa Act 1996, (Act 108 of 1996) issues a mandate to the elected representatives to improve the quality of life of all citizens, to free the potential of each person and to build a united and a democratic South Africa that is able to take its rightful place as a sovereign state in the family of nations. The preamble clearly reflects the values on which the right to development are based. The mandate of the elected representatives, therefore, is to take care of the development of South Africa and its people.

The White Paper on population Development of April 1998 states that sustainable human development is a central theme and organising principle of the population development policy. The policy identifies the right to development as an inalienable and universal human right and one of the guiding principles of government policy. It emphasises the principle that people are the central subjects of the right to development.

The Housing Act 1997 (Act 107 of 1997) sets out general housing principles that must form the backdrop of municipal actions. It also provides for every municipality within the integrated development planning process to take reasonable and necessary steps to ensure that all inhabitants of the area are adequately housed, have health conditions and basic services such as water, sanitation, electricity, roads, transport and socio-economic services. The Act (Housing Act 1997, 108 of 1997) is very specific regarding the planning process, namely, that the housing delivery goals must be set, land must be well designed for housing purposes, housing development must be well designed for housing purpose, housing development must be manned, co-ordinated and well managed, while bulk engineering services revenue-generating services are provided. These requirements form a basis for sustainable development not only in housing but in all other components of development, namely, the physical, social, economic and institutional components of the Development Facilitation Act 1995 (Act 67 of 1995).

The White Paper on the Development and Promotion of Tourism in South Africa, 1996: Department of Environmental Affairs and Tourism, cites that municipalities should provide an enabling environment for tourism that then should be used as a development instrument for the empowerment of previously marginalised communities - and especially women - in those communities. Tourism should be private sector-driven and effective community involvement should form the basis of tourism growth, while there should be an establishment of co-operation and close partner-ships among key stakeholders. The support for economic, social and environmental goals of the municipality are mentioned as important elements of development in the White paper (Development and Promotion of Tourism in South Africa White paper: 1996, Development of Environmental Affairs and Tourism).

The Education White paper of 15 March 1995 (196 of 1996) on the Development of Education emphasises a new developmental approach to Education by introducing new structures in education which should create the conditions for developing coherent, integrated, flexible systems that will advance the improvement in educational quality and ensure an equitable, efficient, qualitatively sound and financially sustainable systems for all the learners.

Education is one of the core components of development. It is important to structure it in such a way that it responds and answers to the demands of development components namely the physical component, social component, economic component and institutional component Development Facilitation Act, 1995 (Act 67 of 1995)).

Further, the municipalities have been directed to initiate, plan, co-ordinate, facilitate, promote and enable appropriate housing development; create and maintain an environment that is conducive to housing development that is economically and also socially viable; provide bulk engineering services; plan and manage land-use and development and assist with the identification of informal settlements' needs. These directives aim to ensure that communities have access to adequate housing, environment that is conducive to health and safety, efficient and economical access to services like water, sanitation, electricity, transport and roads.

The National Land Transport Interim Arrangement Act 1998 (Act 45 of 1998) aims to promote efficient and effective public transport and prioritise it over private transport; optimise scarce resources for the provision of transport, promote sustainable

infrastructure investment and integrate transport functions with other functions such as land-use and economic development. It also plans to produce a transport plan in the framework agreed upon for the development planning process of the municipality.

The Water Services Act, 1997 (Act 108 of 1997) and the Water Supply and Sanitation White Paper, November 1994: Department of Water Affairs and Forestry states that the provision of water and sanitation must be facilitated in conjunction with other development sectors, that funding should be allocated to those people in the community that have access or inadequate access to water and sanitation services; that water and sanitation provision must promote education and training, job creation and local democracy; and that environmental protection must be considered.

The White Paper for Social Welfare: 8 August 1997 (108 of 1997) states that all provided services that aid communities must be sustainable and financially viable; that Municipalities must create the conditions which will facilitate the achievement of every citizen's right to social welfare and security; that municipalities must be transparent and accountable and ensure that services are easily accessible for all people in the municipalities so that all people have equal opportunity to participate in the services provided for municipalities to comply within these requirements an integrated development plan is required.

The White paper for Social Welfare: 8 August 1997 (108 of 1997), outlined above defines and facilitates development by the municipalities. Community participation and private sector involvement in the provision of services by the municipalities, which are encouraged and which are important elements of development by the White paper for Social Welfare: 8 August 1997 (108 of 1997).

The Local Government Municipal systems Act 2000 (Act 32 of 2000) refers to development as a process including integrated social, environmental, spatial, infrastructural, institutional and human resources upliftment of a community aimed at improving the quality of life of its residents with specific reference to the poor and other disadvantaged sections of the community.

Development is defined as a process by which the members of society increase their personal and institutional capacities to mobilise and manage resources to reproduce sustainable and justly distributed improvements in their quality of life consistent with their own aspirations Korten (1990:67).

The following five distinct elements distinguished by Esman (1991: 25) illustrate and confirm that development has to be people-centred and sustainable if it has to succeed Meyer et al (1995:11-12).

- (i) An increase in human capacity that makes improvements possible for all members of society.
- (ii) Empowerment of all members of a society to participate and to make their aspiration effective in the process of change.
- (iii) The use of increased capacities to extend the material base for a better life in a sustainable way.
- (iv) The fair distribution of the fruits of economic expansion.
- (v) The endogenous nature of the process in which distinctive qualities of each society are expressed in its institutions and practices.

From the above description of development it may be gleaned that development is about improving the capacity of people and the capabilities, empowerment of people to improve participation, a fairer distribution of the fruits of development, and the endogeneity of the process. It is also about expanding the material base for development. The issue at stake is not whether growth is necessary but rather what type of growth is needed.

People should confront the management challenges with this type of view of development Meyer et al (1995: 12).

Development forms the core of this thesis and will be defined throughout the chapters. It is important to highlight at the outset that development in the Gauteng Province, especially at the local government level is today largely informed, guided, controlled and directed by legislation. However, it is not totally in the hands of the legislation as it may sound, but it could be defined mildly as Government-led, private sector driven and community-based. In other words, Government structures through legislation ought to provide the infrastructure and create a climate conducive to attracting private sector

involvement and participation. Development, however, has to be people-centred and have the vision to accommodate communities in the form of programmes, projects and ownership.

The Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) mandates local government to:

- (i) Provide democratic and accountable government for communities;
- (ii) Ensure the provision of service to communities in a sustainable manner;
- (iii) Promote social and economic development;
- (iv) Promote a safe and healthy environment; and
- (v) Encourage the involvement of communities and community organisations in the matter of local government.

It may be said with some degree of certainty that the above-mentioned mandates provide broad guidelines and a climate for the promotion of development as a function of municipal councils. In addition the local government must also promote the Bill of Rights, which reflects the nation's values about human dignity, equality and freedom and which upholds the principles of democracy enshrined in the Constitution.

Within the framework of the Constitution of the Republic of South Africa, 108 of 1996, and the White Paper on Local government: 3 March 1998 (423 of 1998) is the basis on which a new developmental local government system is established, which is purported and committed to working with the citizens, groups and communities to create sustainable human settlement, aimed at providing a decent quality of life and meeting the social, economy and material needs of communities, in a holistic way, while the Local Government Transition Act Second Amendment Act, 1996 (Act 97 of 1996) and the Development Facilitation Act, 1995 (Act 67 of 1995) provide for the establishment of an integrated development plan process for purposes of development and efficient and effective service delivery.

The white paper on local government: 13 March 1998 (423 of 1998) further places accountability on municipalities for ensuring the provision of quality services which are affordable and accessible by putting in place organisational and financial systems which support sustainability. In this regard that includes financial viability and environmental sustainability, taking into account the economic and social impact of Service provision;

ensuring and promoting the competitiveness of local commerce and industry; and democratic values and principles enshrined in the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996). The democratic values and principles referred to in this regard point to democratic values of equality of human dignity and the right to life, a healthy environment, housing, health care, food, water and social security and education. Development, therefore, would be incomplete if it excluded these democratic values and principles.

1.9 Non-compliance with legislation and policies as interventions to achieve sustainable development

Non-compliance with legislation and policies as interventions to achieve sustainable development has become a dilemma and a major obstacle at municipal level to manage sustainable development. The absence of compliance indicators and mechanisms to enforce the provisions of legislation and policies reduce the intentions of legislation and policies as intervention to realise sustainable development to mere broad guidelines, which may be ignored or employed as and when the municipalities find it necessary.

1.10 Hypothesis

Sustainable Development in cities in South Africa, as defined by the Brundtland Report: 1987 (development which meets the needs of the present generations without compromising the needs of the future generations to meet their own needs) is more of a myth than reality.

What is achievable in cities in South Africa, through development, is the improvement of the state of human well-being in the short-, medium- and long-term.

1.11 Research approach and methodology

This thesis is a literature study but adopts empirical, normative and evaluative approaches. In other words, it is practical research work and it further establishes what ought to be done, evaluates the situation and suggests or proposes lines of action or solutions. A brief discussion of these approaches is essential to further clarify the research approach and methodology.

1.11.1 Literature review

The thesis is actually guided and informed by research work already done, experiences and findings made on the management of sustainable development; the development approach as perceived by the Gauteng Provincial Government as set out in the relevant legislation, for example, the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996), and the White Paper on Local Government, March 1998; the Development Facilitation Act, 1995 (Act 67 of 1995) and the Local Government: Municipal systems Act 2000 (Act 32 of 2000).

1.11.2 Empirical approach

The thesis fuses sustainable development theories and practise, it relates to the management of development within a specific area, namely, the City of Tshwane area, as managed by the City of Tshwane metropolitan municipality. It is about a real life, the community of the City of Tshwane metropolitan area determining their own destiny in terms of development, participating, owning and managing such development to ensure the sustainability thereof.

1.11.3 The normative approach

The thesis also suggests what ought to be ideal management of a sustainable development, what development ought to entail and what ought to be a sustainable development.

1.11.4 Evaluative approach

Evaluation of the following is made to ensure an informed conclusion drawn on:

Findings and experiences presented in literature and the development guidelines and directives provided by the legislation in the Gauteng Province and the National Government on development at local government level, as carried out by municipalities.

The practical development processes and management thereof within the City of Tshwane area is employed by the City of Tshwane Metropolitan Municipality. Broad guidelines on the management of sustainable development are presented in the last chapter; in the form

of recommendations and conclusions. This includes a proposed sustainable development framework for the City of Tshwane metropolitan municipality.

1.12 The structure of the thesis

Chapter 1 is the introduction and it opens with some concerns on whether sustainable development is achievable or not. It also covers the objective and motivation of the research approach, methodology, hypothesis and the structure of the thesis and then outlines key aspects of a metropolitan government and the establishment of the City of Tshwane Metropolitan Municipality to provide a framework for the research work.

Chapter 2 discusses development theories and practices and also defines key concepts employed in the thesis. Chapter 3 discusses urban development planning as a tool for managing sustainable development. Chapter 4 explains the integrated development plan as a legislative requirement to manage development by municipalities, in particular as employed by the City of Tshwane Metropolitan Municipality.

Chapter 5 deals with the relevance of generic functions of public administration and their roles in managing sustainable development in government organs, while Chapter 6 deals with the process of developing a sustainable city.

Chapter 7, which is the final chapter, consolidates all key sustainable development interventions raised in chapters 1-6, and presents recommendations and conclusions in relation to the hypothesis.

The thesis is built on three major concepts, namely, management, sustainable development and the City of Tshwane as a study area. The linkage between these concepts forms the core of this report.

1.13 Management

Management is defined generally as a process or series of activities that give the necessary direction to an enterprise's resources so that its objectives can be achieved as productively as possible in the environment in which it functions Smit and Cronje

(1992:6). It consists of the general environment, the task environment, management of resources and the management tasks or functions and is regarded in this research as an intervention to facilitate sustainable development. Management, as a concept, will therefore not be discussed and analysed in this report. What will be raised is whether management is an appropriate instrument to facilitate sustainable development.

Practitioners of sustainable development have a duty to be familiar with the application and implication of the integration of these environments. Omission of one or some of these environments in the process of managing sustainable development may cause a shortfall and inefficiencies in the management process.

1.14 Sustainable development

Sustainable development is the outcome of an integration of a host of components or elements. The welding together and trade-offs between these elements need to be managed in such a manner that expected outcomes are achieved. The expected outcome in this case will be the creation of a sustainable city.

1.15 The City of Tshwane Metropolitan Municipality

An appropriate organisational structure is a prerequisite for a goal-directed sustainable development management process. The integration of sustainable development elements and its components requires an appropriate organisational structure that would enable and allow an integration process.

Methods of organising need to be tested against sustainable development management process. The following are some of the methods of organising (Van der Waldt *et al* (1999: 193-196):

- (i) Organisation charts

Organisation charts are simple graphs indicating the lines of authority in an institution. Responsible divisions are clearly indicated through the division of work; the lines of authority between managers and subordinates are clear; the

type of work done is indicated; grouped work segments indicate the basis of the division of the institution's activities; and management levels are indicated according to hierarchy.

As sustainable development demands an integrated approach, it is important to establish whether the organisational chart allows for an integrated approach. If it does not, it will be advisable to consider other methods of organising.

(ii) Line structures

Line structures are said to be the simplest form of a feedback or a report structure. Usually the person reports to only one supervisor or manager in the institution. Every manager is responsible for a certain number of subordinates. The person in the line position is usually a specialist in his/her specific field and supports the manager with expert advice.

Line structure may or may not be an appropriate structure with which to manage sustainable development. An assessment needs to be conducted to establish its suitability.

(iii) Functional organisation

The functional system takes the simple line structure one step further to the level of specialisation and departmentalisation. Individuals who perform the same activities are grouped into departments. Some of the characteristics of a functional organisation is that it encourages the development of expertise; it requires little internal co-ordination; it distinguishes tasks according to the skills needed; it encourages conflict about prioritisation; it discourages the development of managers; and it is indicated also that it is not suitable for an unstable environment and for public institutions. Municipalities have the duty to establish if the functional organisation is appropriate for the purpose of managing sustainable development in their particular situation or not.

(iv) Divisional organisational structure

The characteristic of a divisional structure is that functions are divided into various areas each with their own divisions. Each division has its own production,

marketing, financial and personnel managers, who report to general managers in their areas, this is also referred to as the support services. Divisional organisational structure can only be appropriate for managing sustainable development if it allows integration of sustainable development elements and its components.

(v) Matrix organisational structure

Matrix structures are said to be slightly more complicated than other systems, and that they have been designed for use in institutions concentrating on project work. They offer expertise for functional organisation when it is required for a limited period only. Personnel are placed in temporary project teams, but still report to their functional heads of department. These project teams last until their tasks are complete and then they dissolve. Permanent structures are avoided, since personnel return to their original function once the project team's task has been completed. The disadvantages of a Matrix organizational system are that co-ordination and planning are complicated, effective control is difficult to maintain, it results in high costs, and that a high level of internal inspection and action is necessary.

1.16 Key aspects of a metropolitan government and the establishment of the City of Tshwane Metropolitan Municipality

Although a Metropolitan Government is a worldwide phenomenon, on the African continent it is peculiar to South Africa. The report and recommendations of the investigating committee into a system of local government for South Africa, on key aspects of metropolitan government chaired by Prof. C.Thornhill in 1991 is discussed briefly below to provide background information on the metropolitan issues in South Africa. This will be followed by the process followed when the City of Tshwane Metropolitan Municipality was established. The Report deals with:

- (i) The definition and characteristics of a metropolitan area;
- (ii) The goals of metropolitisation; and
- (iii) The systems and methods of metropolitisation.

This will help to establish whether metropolitan government in South Africa meets the universal features of metropolitan government.

1.16.1 Definition and characteristics of a metropolitan area

Both the report and recommendations of the investigating committee into a system of local government for South Africa on key aspects of metropolitan government, chaired by Professor C. Thornhill, released in October 1991, Craythorne (1993:40-42) describe a metropolitan area as a:

- (i) Central or core city surrounded by a number of independent satellite local authorities and smaller, highly dependent communities, or an area containing two or more cities which are relatively equal in size,
- (ii) An area of varying intensities of employment where there is an intensive movement of people, goods and services between different parts of the metropolitan area,
- (iii) An area should be a range of choices in respect of goods and services; and
- (iv) An area that is a functional unit.

A metropolitan area should be extensively developed with residential premises covering the whole social spectrum and certainly more than one central business district and a number of industrial areas carrying on numerous and varying industrial activities, possibly with two or three industries being the main support base of the industrial sector.

The area should be densely populated, and the population should reflect a range of social and economic classes. Another important characteristic of a metropolitan area worth mentioning is that such areas do not normally include rural areas, and it is crucial to note also that there is a distinct difference between a metropolitan area and a region as defined by the now abolished Regional Services Councils Act, 1985 (Act 109 of 1985).

A metropolitan local government is different from a regional service council in that the latter is a "regional" type of local authority created to obtain joint decision-making and the redistribution of particular sources of revenue. The former is an extension of local government, established intensely populated area and highly urbanised areas to obtain co-ordinated action regarding services required by urbanised communities living in established local authorities Craythorne (1993:40-43).

The characteristics of a metropolitan area can therefore generally be defined as an area which is highly developed, densely populated and generally considered as being separate from nearby rural areas and which is a significant economic unit offering a wide range of employment opportunities, goals and services.

Section 1(i)(vii) of the Local Government Transition Act, 1993 (Act 209 of 1993) defines metropolitan area as an area:

- Comprising the area of jurisdiction of multiple local governments;
- Which is densely populated and has an intense movement of people, goods and services within the area;
- Which is extensively developed or urbanised and has more than one central business district, industrial area and concentration of employment; and
- Which, economically, forms a functional unit comprising various smaller units, which are interdependent economically and in respect of services.

The Local Government: Demarcation Act, 1998. (Act 27 of 1998) provides criteria for determining boundaries of Local Government which also categorise local governments into types and categories local government which is a conurbation featuring (i) areas of high population density; (ii) an intense movement of people goods and services; (iii) extensive industrial areas; (iv) multiple business districts and industrial areas; (v) a centre of economic activity with a complex and diverse economy; and (vi) a single area for which integrated development social and economic linkages exist between its constituents units.

A metropolitan municipality is by its definition and responsibilities referred to above as developmental. It can be deduced that any metropolitan municipality

that meets all elements of its definition and executes its powers and duties successfully will to a very large extent realise its developmental plans, provided of course, that other components of this developmental dimension, namely, physical, socio-economic and institutional components are also achieved.

1.16.2 Goals of metropolitanisation

The goals of metropolitanisation referred to by both Craythorne (1993: 41) and the investigating committee into a system of local government for South Africa on key aspects of metropolitan government form the foundation of the powers, duties and functions of the metropolitan government. The investigating committee discusses in particular the South African situation and cites that the primary goals of metropolitanisation in relation to South Africa should be as listed below.

- To cope with the largely uncoordinated and fragmented growth of large densely populated urban areas by managing and delivering those goods and services that are best provided and delivered on a wider scale than can be done by individual local authorities and in so doing, to promote growth and prosperity of a metropolitan area.
- To act as a developmental arm, which channels resources obtained locally and from higher levels of government into the improvement of the quality of life of the residents of the area, and to bring fragmented communities together to seek co-operation and thereby to act as a mechanism for co-operation.

The goals of metropolitanisation summarised by Craythorne (1993:41) are:

1. To provide effective means for dealing with a lack of co-ordination and dealing with the effects of fragmentation;
2. To deliver those public goods and services which should be provided and delivered on area-wide basis;
3. To act as a development arm in dealing with the improvement of disadvantaged areas; and
4. To achieve economies of scale, and to manage a redistributive and allocative process.

The goals of metropolitanisation put much emphasis on the delivery of area-wide services and development of disadvantaged area. This thesis discusses the management of sustainable development in the metropolitan government in relation to the goals of metropolitanisation and the powers, duties and functions of the

metropolitan government, specifically managing sustainable development of the City of Tshwane Metropolitan Municipality within its area of jurisdiction.

1.16.3 Systems and methods of metropolitanisation

The report and recommendations of the investigating committee into a system of local government for South Africa on key aspects of metropolitanisation 1991, chaired by Professor C. Thornhill discusses several methods and systems of metropolitan as section. Different countries that had their culture, traditions, values and political and constitutional arrangements accord with the key aspects of metropolitanisation mostly adopted these systems and methods.

Advantages and disadvantages of the identified systems and methods are briefly outlined below as discussed in the report and recommendations (Report on Recommendations of the Investigating Committee into a System of Local Government for South Africa, 1991).

Although Metropolitan Local Government in South Africa are established in terms of legislation it is crucial that politicians, officials and communities and all other stakeholders are made aware of advantages and disadvantages of identified and different systems and methods of metropolitanisation. This knowledge is important for decision-making and or any development planning and development strategy.

(i) Co-operative agreements (regionalisation)

Under this method the local authorities in a given area decide voluntarily and by agreement to co-operate in dealing with specific metropolitan issues or problems, which they perceive as requiring joint action. There is no metropolitan council that is formed, but each participating body nominates one or more members to serve on a joint forum. Technical working groups of officials are sometimes formed to advise the joint forum. The joint forum does not always have final decision-making powers, and where it does not, the participating bodies must ratify each decision. The advantages of these methods according to Barlow (1991:23) are that such inter-municipal agreements can reduce slipovers and increase the spatial scale of public service provisions. Moreover, they present an attractive strategy to those

politicians and officials who oppose consolidation since municipal autonomy and identity are preserved.

Other advantages include the fact that the agreements are based on local consensus, they avoid the involvement of higher levels of government and allow local representatives room to solve their own problems.

The major flaw in this strategy, however, is its voluntary aspect where the parties are highly selective about the services in which they are willing to co-operate. This resultant strategy also tends to be slow, inefficient and for the fact that it is a voluntary arrangement, it lacks democracy and accountability, is not underpinned by statutory powers, duties and functions, fails to guarantee co-operated actions or promote growth and development, and lastly, it can be used for ulterior motives and by its nature it is subject to abuse.

(ii) Council of governments

The system of council of governments is a confederal solution to metropolitan problems. The principle of the structure is that a council of governments structure consisting of representatives of the local authorities in an area is established to deal with a specific problem for example, regional land-use planning Barlow (1991:22).

Decisions are taken according to a majority vote. In essence this system is a compromise between having and not having a metropolitan government. In some ways it contains characteristics of regional services councils.

The advantages include the fact that it can reduce problems related to efficiency and effectiveness since the size and configuration of authorities may be tailored to functional requirements. To this end, it can ensure co-operation between participating bodies only on those issues, which visibly

require action on a wide scale. The system however, tends to distance functions from the electorate and from community control, and it increases functional fragmentation, making co-ordination between functions more

difficult. Although the system ensures co-operation, potential for further conflict between the parties participating in the confederation exists.

The Council of Governments approach is an example of the metropolitan council alternative and represents one of the mildest forms of the metropolitan experiments. In the strictest legal service, the Council of Governments is not really a metropolitan government, but rather represents associations of Local governments acting in concert on selected issues. The idea is based on voluntary co-operation between local government representatives in metropolitan areas to help solve area-wide problems.

(iii) Amalgamation

Amalgamation is suited to an area where there is a large city and an adjoining region. In terms of amalgamation the city and its adjoining region amalgamate to form one local government for the combined area. This approach is strictly speaking not the creation of a metropolitan government it is rather, appropriate for the design of an organisational and financial organisation, the creation of one local government for a city and a region Zimmerman (1968:219-227).

The advantages are that it is democratic if the combined council is elected and it promotes rationality in terms of organisation and the use of resources. Disadvantages include the fact that as it was designed to meet the specific needs in a part of the United States of America and it may not be applied to other countries. As the voting power of the city is likely to be larger than the voting power in the more sparsely populated region, it weights power in favour of the city.

(iv) Incorporation (one level)

Incorporation amounts effectively to the abolition of all existing local authorities and incorporating them into a new, and much larger, one level metropolitan government. This was done in South Africa when the separate municipalities of Green and Sea Point, Cape Town, Woodstock and Salt River, Mowbray, Rondebosch and Claremont were all abolished

and incorporated into a new city of Cape Town. The incorporation method leads to a single monolithic local authority, which is responsible, both for large scale and local services Horan et al (1977:xii). The advantages of this system are that it amasses economic resources; it satisfies democratic ideals; and it meets the call for one city and one tax base. The disadvantages of this system are that It can lead to problems of remoteness and accountability; it leads to confusion between local and metropolitan issues that there is a tendency to prescribe to neighbourhoods in respect of matters such as town planning or community facilities; and finally in certain circumstances it can be expensive and may result in cumbersome procedures to solve minor local issues.

(v) Two-level federation

This is referred to as a system that is most commonly thought of when metropolitisation is at issue. Under the two-level federation system the powers, duties and functions of local government are divided into two categories, namely, those best done at the local level; and those which for reasons of efficiency or effectiveness should be exercised or performed by a metropolitan government Barlow (1991:23). The establishment of a two-tier structure of the Government has numerous advantages, for example, slipovers and boundary problems are reduced and scale of advantage can be gained by means of an area-wide government, yet small-scale democracy and community control can be retained and local needs met by lower tier units of Government. In other words area-wide functions are delegated to area-wide government while purely local functions remain with the local units there by creating a two-tier system Zimmerman (1968:182).

This implies that the two-level federation is likely to be politically acceptable to most parties and groups; is rational in concept and enables decisive action to be taken for urgent social and developmental issues if the necessary income is made available; it facilitates devolution; it is democratic; it achieves the goals of rationalisation and economies of scale; and it fits in with the concept of voter-control and accountability.

The disadvantages include the fact that because it focuses on social and developmental issues it could make a greater demand on the country's financial resources; that unless carefully structured it can lead to a loss of autonomy by the primary local authorities; and it requires a measure of re-demarcation, particularly of the core city, so as to achieve a balance of power in the metropolitan area.

Craythorne (1993: 42) also discusses what he refers to as the main systems and methods of metropolitisation. These main systems or methods include the amalgamation (super city) in which all jurisdictions are combined into a single system consisting of two levels in terms of which there is a metropolitan council and a primary level of strong and viable local authorities with their own sources of income and responsible for all functions and services not entrusted to the metropolitan council.

Craythorne (1993:42) further suggests that a metropolitan council would also have its own sources of income and would be responsible for a relatively smaller range of important functions related to the needs of the metropolitan area.

Furthermore, there would be enhanced local democracy because there would be elections for both the primary and the metropolitan councils, and the city/regional amalgamation, which amounts to a city and a combining region Craythorne (1993:42).

It is believed that with a combination of some elements of these systems and methods it may be possible to establish a system of metropolitan government suitable for a specific area or region.

1.17 Establishment of the City of Tshwane Metropolitan Municipality

The City of Tshwane Metropolitan Municipality was established in terms of Chapter 7 of the Constitution of the Republic of South Africa, Act 1996 (Act 108 of 1996). Section 151 of the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996) outlines the

status of municipalities and provides that the local sphere government must be established for the whole of the territory of the Republic; that the executive and legislative

authority of a municipality has the right to govern on its own initiative, the local government affairs of its community, subject to national and provincial legislation, as provided in the Constitution, and that the national and provincial legislation, as provided in the Constitution, and that the national or a provincial government may not compromise or impede a municipality's ability or right to exercise its powers or perform its functions.

The Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996) states further that a municipality must structure and manage its administrative and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community and participate in national and provincial development programmes.

The legal nature and rights and duties of municipalities are set out in sections 2, 3, 4 and 5 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000). A municipality is referred to in section 2 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) as an organ of state within the local sphere of government exercising legislative and executive authority within an area determined in terms of the Local Government: Municipal Demarcation Act, 1998 (Act 27 of 1998). The municipality, in terms of this section, consists of the political structures and administration and the community, and functions in its area in accordance with the political, statutory and other relationships between its political structures, political-office-bearers and administration and its community.

The community is regarded as part of the municipality. This legislative arrangement confirms development as a people-centred driven process and emphasises the fact that municipalities are developmental in nature and approach.

The Council of a municipality has been entrusted with the rights and duties by Section 4 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) to govern on its own initiative the local government affairs of the local community, within its financial and administrative capacity exercise its executive and legislative authority and to use the resources in the best interests of the local community, provide without favour or prejudice, democratic and accountable government; encourage the involvement of the local community; strive to ensure that municipalities are provided to the local community in a financially and environmentally sustainable manner. It should also consult the

community about the level, quality and range and impact of municipal services; give members of the local community equitable access to the municipal services to which they are entitled, promote and undertake development in the municipality area; promote a safe and health environment in the municipality area; and contribute, together with other organs of state to the progressive realisation of the fundamental rights contained in Sections 24, 25, 26, 27 and 29 of the Constitution of the Republic of South Africa Act, 2000 (Act 108 of 1996).

Section 5 of the Local Government provides the rights and duties of members of the local community as broad guidelines and directives in the Municipal Systems Act, 2000 (Act 32 of 2000). Members of the local community, in terms of this section, have the right, through mechanisms and in accordance with recognised procedures and processes laid down by the municipality, to be informed of decisions of the municipal council affecting their rights and property; to regular disclosure of the state of affairs of the municipality including its finance, to the use and enjoyment of public facilities, and have access to municipal services which the municipality provides. It is important to note, however, that members of the local community do not only have the rights to engage in municipal affairs, but that they also have duties.

When they exercise their rights members of the local community have the duty to observe the mechanisms, processes and procedures of the municipality; where applicable they have the duty to promptly pay service fees, surcharges of fees, rates on property and other taxes, levies and duties imposed by the municipality. They should also respect the municipal rights of other members of the local community; allow municipal officials reasonable access to their property for the performance of municipal functions; and comply with by-laws of the municipality applicable to them.

It is important to note that legislation has shaped municipalities as developmental in nature and went into details to define how the municipalities and make them developmental duties and obligations. It may be inferred that direct legislation shapes and guides development entrusted to municipalities. The integrated development plan is one of the strategic tools to ensure development at the local government level and many municipalities must manage development (Chapter 5) of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000). The establishment of municipalities, their status and developmental duties are constitutional instructions, which have to be carried out by those entrusted with the responsibilities.

It is important too, to note that the Constitution of the Republic Act 1996 (Act 108 of 1996) does not only establish municipalities but it also sets out details on how the municipalities must be structured. Section 155 cites the following categories of municipalities, namely:

- (i) Category A: A municipality that has an exclusive municipal executive and authority in its area;
- (ii) Category B: A municipality that shares its municipal executive and legislative authority in its area with a category C municipality within whose area it falls; and
- (iii) Category C: A municipality that has municipal executive and legislative authority in its area that includes more than one municipality.

The City of Tshwane Metropolitan Municipality was established as a category A municipality in terms of the provisions of Section 12 of the Local Government Municipal Structures Act 1998 (Act 117 of 1998). The Local Government Municipal Structures Act, 1998 (Act 117 of 1998) read together with section 14 empowers the members of the Executive Council (MEC) for local government to disestablish existing municipalities in each municipal areas as demarcated by the Demarcation Board in terms of the provisions of the Local Government: Municipal Demarcation Act, 1998 (Act 27 of 1998).

On the establishment of the City of Tshwane Metropolitan Municipality, 6 December 2000, which was the declaration of the elections, the following municipalities were disestablished to form the City of Tshwane Metropolitan Municipality:

- (a) Greater Pretoria Metropolitan Council established by Premier's Proclamation No 38. Dated 08 December 1994;
- (b) City Council of Pretoria established by Premier's Proclamation No 38 dated 08 December 1994;
- (c) Town Council of Centurion established by Premier's Proclamation No 38 dated 08 December 1994;
- (d) Northern Pretoria Metropolitan Substructure established by Premier's Proclamation No. 4 dated January 1995;
- (e) Hammanskraal Local Area Committee established by Premier's Proclamation No. 4 dated January 1995;

- (f) Eastern Gauteng Services Council established by Premier’s Proclamation No. 4 dated 1 January 1995;
- (g) Pienaarsrivier Transitional Representative Council established by Premier’s Proclamation No. 4 dated 01 January 1995;
- (h) Crocodile River Transitional Council established by Premier’s Proclamation No. 5 dated 01 January 1995;
- (i) Western Gauteng Services Council established by Premier’s Proclamation No. 5 dated 01 January 1995;
- (j) Winterveld Transitional Representative Council established by Proclamation No 83 dated 12 September 1995;
- (k) Themba Transitional Representative Council established by Proclamation No. 85 dated 12 September 1995;
- (l) Mabopane Transitional Representative Council established by Proclamation No. 85 dated 12 September 1995;
- (m) Ga-Rankuwa Transitional Representative Council established by Proclamation No. 74 dated 12 September 1995; and
- (n) Eastern District Council established by Proclamation No. 90 dated 26 October 1995.

The City of Tshwane Metropolitan Municipality consists of 76 wards demarcated in terms of the Local Government Demarcation Act, 1998 (Act 27 of 1998), with 152 Councillors of whom 76 are proportional representatives elected for a political party and the other 76 Councillors are Ward Councillors, elected by the community of Tshwane Metropolitan area. The allocation of seats per political party, per the 2000 local government election results, declared on 6 December 2000 are as follows below.

ALLOCATION OF SEATS: THE CITY OF TSHWANE METROPOLITAN MUNICIPALITY

RECORDING OF THE DETERMINATION OF THE RESULTS OF AN ELECTION IN TERMS OF THE SECTION 64(B) OF THE LOCAL GOVERNMENT: MUNICIPAL ELECTORAL ACT, 2000 (ACT NO. 27 OF 2000)	
ELECTION DATE	5 DECEMBER 2000
PROVINCE	GAUTENG
MUNICIPALITY	THE CITY OF TSHWANE METROPOLITAN MUNICIPALITY

NOTE: IN WARDS WHERE THE WARD ELECTION IS ONLY CONTESTED BY A CANDIDATE FROM ONE PARTY, THE VOTES WON BY THAT PARTY IN THE WARD ARE DOUBLED.

PARTIES	TOTAL VALID VOTES	% TOTAL VOTES	TOTAL SEATS CALCULATED	NUMBER OF WARD SEATS ALLOCATED	NUMBER OF PR LIST SEATS CALCULATED	% TOTAL SEATS WON
AFRICAN CHRISTIAN DEMOCRATIC PARTY	18 530	2.23	3	0	3	1.97
AFRICAN NATIONAL CONGRESS	467 907	56.38	86	48	38	56.58
ASCORA	2637	0.32	1	0	1	0.66
AZANIAN PEOPLE'S ORGANISATION	1908	0.23	0	0	0	0
CHRISTEN PROTESTANTE PARTY VAN SUIDER AFRIKA	1387	0.17	0	0	0	0
DEMOCRATIC ALLIANCE/ DEMOKRATIESE ALLIANSIE	290 338	34.98	54	27	27	35.53
INKATHA FREEDOM PARTY	3055	0.37	1	0	1	0.66
PAN AFRICANIST CONGRESS OF AZANIA	8763	1.06	2	0	2	1.32
UNITED CHRISTIAN DEMOCRATIC PARTY	6724	0.81	1	0	1	0.66
UNITED DEMOCRATIC MOVEMENT	4254	0.51	1	0	1	0.66
VISION-VISIE 2000	12554	1.51	2	0	2	1.32

1.17.1 The Speaker

Section 37 of the Local Government has entrusted the Speaker of the Municipality with the following functions in the Municipal Structures Act, 1998 (Act 117 of 1998). The Speaker:

- (a) Presides at meeting of the Council;

- (b) Performs any other functions as may be delegated to the speaker in terms of Section 32 of the Local Government: Municipal Structures Act 1998, (Act 117 of 1998);
- (c) Must ensure that the Council meets at least quarterly;
- (d) Must maintain order during meetings;
- (e) Must ensure compliance in the Council and Council Committees with the Code of Conduct for Councillors; and
- (f) Must ensure that Council meetings are conducted in accordance with the rules and orders of Council.

1.17.2 The Executive Mayor

Section 55 of the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998) entrusts the Executive Mayor with specific accountability and responsibilities where an executive mayor is entitled to receive reports from committees of the municipal council and to forward these reports together with a recommendation to the council when the matter cannot be disposed of by the executive mayor. In terms of the executive mayor's delegated powers, the executive mayor must identify the needs of the municipality; and review and evaluate those needs in order of priority. The incumbent should recommend to the municipal council strategies, programmes and services to address priority needs through the integrated development plan, and the estimates of revenue and expenditure, taking into account any applicable national and provincial developments plans; and recommend or determine the best way, including through partnerships and other approaches, to deliver those strategies, programmes and services to the maximum benefit of the community.

The executive mayor, in performing the duties of office, must also identify and develop criteria in terms of which progress in the implementation of the strategies, programmes and services referred to in subsection (2)(c) can be evaluated. These include key performance indicators that are specific to the municipality and common to local government in general, evaluate progress against the key performance indicators; review the performance of the municipality in order to improve the following:

- (a) The economy, efficiency and effectiveness of the municipality;
- (b) The efficiency of credit control and revenue and debt collection services; and

- (c) The implementation of the municipality's bylaws; monitor the management of the municipality's administration in accordance with the directions of the municipal council; oversee the provision of services to communities in the municipality in a sustainable manner; perform such duties and exercise such powers as the council may delegate to the executive mayor in terms of Section 32; annually report on the involvement of communities and community organisations in the affairs of the municipality; and ensure that regard is given to public views and reports on the effect of consultation on the decisions of the Council.

In addition, the Executive Mayor must perform a ceremonial role as the municipal council may determine, and the Executive Mayor must report to the municipal council on all decisions taken by him or her.

The municipality may also establish one or more committees for the effective and efficient performance of any of its powers (Section 79 of the Local Government: Municipal Structures Act 1998 (Act 117 Of 2000)). If such a committee or committees are established, then the municipality must determine the functions of such a committee or committees, and delegate powers and duties so decided, appoint the chairperson and if necessary authorise the committee or committees to co-opt advisory members who are not members of the Council within the limits determined by the municipality.

The Municipality may also in terms of Section 80 of the Local Government: Structures Act 1998, (Act 117 of 2000) appoint a committee of Councillors to assist the executive mayor in execution of his/her duties.

1.17.3 Members of the Mayoral Committee for the City of Tshwane Metropolitan Municipality

In terms of Section 60 of the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998), if a municipality has more than nine members, its executive

mayors must appoint a Mayoral Committee from among the councillor's to assist the Executive Mayor, by delegating specific responsibilities to each Member of the Committee. The Executive Mayor of the City of Tshwane Metropolitan Municipality announced 10 members of the Mayoral Committee and entrusted them the following portfolios including services attached to each portfolio.

PORTFOLIO	SERVICES
(a) Social Development	<ul style="list-style-type: none"> • Community Development services • Community Health Services • Sport Development • Housing Services • Public Participation • Youth • Gender
(b) Community Safety	<ul style="list-style-type: none"> • Emergency Services • Disaster Management • Municipal Police Services
(c) Electricity	<ul style="list-style-type: none"> • Generation (bulk) • Primary Distribution (Bulk) • Secondary Distribution: South • Secondary Distribution: North • Secondary Distribution: Central • Secondary Distribution: New Areas
(d) Roads and Storm-water	<ul style="list-style-type: none"> • Infrastructure Provision • Traffic Systems Management • Maintenance Provision • Support Services
(e) Environmental Management	<ul style="list-style-type: none"> • Waste Management • Parks & Recreation • Environmental Planning, Policies & Principles • Environmental Programmes • Environmental Monitoring
(f) Water and Sanitation	<ul style="list-style-type: none"> • Water Acquisition & Purification • Bulk Water Supply & Storage • Water Distribution • Sewerage Treatment

(g) Economic Development	<ul style="list-style-type: none"> • Local Economic Development • Spatial Development • Integrated Transport Planning • Public Transport • Tourism • Bus Services • Marketing • Fresh Produce Market
(h) Corporate Services	<ul style="list-style-type: none"> • Legal Services • Secretarial Services • Internal Communication • Corporate Admin • Procurement • Fleet Management • Property Administration
(i) Finance	<ul style="list-style-type: none"> • Financial Management • Accounting • Debtor Management (Credit Control) • Treasury Management
(j) Human Resources	<ul style="list-style-type: none"> • Resource Utilisation • Organisational Development & Training • Labour Relations • Staffing & Affirmative Action • Remuneration and Benefits • Occupational Health & Safety

The Mayoral Committee's respective portfolios have been designed in such a manner that they are linked to the administrative component and form the administrative structure of the City of Tshwane Municipality depicted below in (iv).

1.17.4 The administrative structure of the City Of Tshwane Metropolitan Municipality adopted at a Council meeting of 12 December 2000

Development is defined as a process of improving the equality of all human lives. This process reflects three equality important aspects, namely:

- (a) Consumption level of food, medical services, education through relevant growth processes;
- (b) Creating conditions conducive to the growth of people's self-esteem through the establishment of social, political and economic systems and institutions which promote human dignity and respect; and
- (c) Increasing people's freedom to choose by increasing the range of their choices, for example, increasing varieties of consumer goods and services Todaro (1985:580). This definition emphasises a people-centred approach, participation and involvement.

Section 16 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) re-enforces the definition by providing clear directions to the municipalities that a municipality must develop a culture of municipal governance that complements formal representative government with a system of participatory governance, and must for this purpose encourage and create conditions for the local community to participate in the affairs of the municipalities including in the preparation, implementation and review of its integrated development plan. There would also be the establishment, implementation and review of its performance management system; the monitoring and review of its performance including the outcomes and impact of such performance; the preparation of its budget; and strategic decisions relating to the provision of municipal services.

A municipality must also contribute to building the local community to enable it to participate in the affairs of the municipality and councillor's and staff to foster community participation. The municipality must also make provision on its budget to ensure the development of a culture of community participation.

To ensure that development happens through community participation and involvement, Section 17 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) provides mechanisms, processes and procedures for community participation in the affairs of the municipality these include participation through political structures as set out by the provisions of the Local Government: Municipal Structures, Act. 1998 (Act 17 of 1998).

In terms of Section of the Local Government: Municipal Structures Act, 1998 (Act 17 of 1998) the City of Tshwane Metropolitan Municipality became the successor - in law, with effect from 6 December 2000 - of the disestablished municipalities in respect of all the administrative and other records falling within the area of the Tshwane municipality.

The City of Tshwane Metropolitan Municipality was on the day of its establishment entrusted with the powers and functions in terms of Section 83 of the Local Government: Municipal Structures Act, 1998 (Act 17 Of 1998) read together with sections 156 and 229 of the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996).

Section 83 of the Local Government: Municipal Structures Act, 1996 (Act 27 of 1998) provides that a municipality has the functions and powers assigned to it in terms of Sections 156 an 229 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996). Also, that the municipality must seek to achieve the integrated, sustainable and development of its area as a whole by ensuring integrated development planning for the area; promote bulk infra-structural development and promote the equitable distribution of resources to ensure and appropriate levels of municipal services within the area.

These powers and functions are developmental in nature. This means that not only are municipalities established through legislation, but they are also entrusted with developmental responsibilities by the legislation as well.

Section 156 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) states that a municipality has executive authority in respect of and has the right to administer the local government matters listed in Part B of Schedule 4 and Part B of Schedule 5 and any other matters assigned to Part A by National and Provincial legislation.

Parts A of Schedule 4 and Part B of Schedule 5 list the following functions as the competency of Municipalities: Local Government Matters in Part B of Schedule 4 and Part b of Schedule 5.

PART B SCHEDULE 4

Air pollution
Building regulations
Childcare facilities
Electricity and gas reticulation
Fire fighting services
Local tourism
Municipal planning
Municipal health services
Municipal public transport
Municipal public works only in respect of the needs of municipalities in the discharge of their responsibilities to administer functions specifically assigned to them under this Constitution or any other law
Pontoons, ferries, jetties, piers and harbours, excluding the regulation of international and national shipping and matters related thereto
Stormwater management systems in built-up areas
Trading regulations
Water and sanitation services limited to probable water supply systems and domestic water-waste and sewerage disposal systems.

PART B SCHEDULE 5

Beaches and amusement facilities
Billboards and the display of advertisements in public places
Cemeteries, funeral parlours and crematoria
Cleansing
Control of public nuisances
Control of undertakings that sell liquor to the public
Facilities for the accommodation, care and burial of animals
Fencing and fences
Licensing of dogs
Licensing and control of undertakings that sell food to public
Local amenities
Local sport facilities
Markets

CONTINUED...

Municipal abattoirs

Municipal parks and recreations

Municipal Roads

Noise pollution

Pounds

Public places

Refuse removal, refuse dumps and solid waste disposal

Street trading

Street lighting

Traffic and parking

These functions have to be carried out in terms of the developmental duties of municipalities set out in Section 153 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996), which directs that a municipality must structure and manage its administration and budgeting and planning processes specifically to give priority to the basic needs of the community and to promote the social and economic development of the community as well as to participate in national and provincial development programmes.

Municipalities are expected to undertake developmentally oriented planning so as to ensure that they strive to achieve the objective of local government, to give effect to their developmental duties and to assist in national and provincial organs of state in the progressive realisation of the fundamental human rights as set out in Sections 152, 153 and Chapter 2 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996).

The objective of local government are mentioned as to provide democratic and accountable government for local communities; to ensure the provision of services to communities in a sustainable manner; to promote social and economic development; to promote safe and healthy environments and to encourage the involvement of communities and community organisations in matters of local governments. The developmental duties of municipalities are that municipalities must structure and manage

their administration and budgeting and planning processes to give priority to the basic needs of the community, as well as to promote the social and economic development of the community and participate in national and provincial development programmes.

It is evident that development managed by municipalities is informed by legislation. Section 21 of the local government: Municipal Systems Act, 2000 (Act 32 of 2000) further provides that the planning undertaken by the municipalities must be aligned with and complement the development plans and strategies of other affected municipalities, organs of state, of the province within which the municipalities are located and national organs of state so as to give effect to the principles of co-operative government contained in Section 41 of the constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) .

The development plans for municipalities are designed in terms of the provisions of legislation. Chapter 5 of the Local Government; Municipal Systems Act 2000 (Act 32 of 2000) sets out in detail the integrated development Plan, the contents of the integrated development, the process of planning, drafting, adopting and review of the integrated development plan, the provincial supervision and the status of the integrated development plan. To ensure the success of the integrated development plan the Local Government: Municipal Systems Act 2000 (Act 32 of 2000) in Chapter 6 puts in place a performance management system that will monitor and evaluate the successes and shortfalls of the integrated development plan of significance with legislation informing and guide development in municipalities so that the legislation does not only provide broad guidelines on the integrated development plan but it goes into details to set out how the plan should be drafted and implemented, including what the plan should contain, who should be accountable and who should be entrusted with the responsibility to develop the plan and implement it.

The principles of co-operative government contained in Section 41 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) which the integrated development plan must strive to achieve are constitutional obligations and include the fact that all spheres of government and all organs of state within each sphere needs to preserve the peace, the national unity and the individuality of the Republic, co-operate with one another in mutual trust and good faith by fostering friendly relations, assist and support one another; inform one another of, and consult one another and adhere to agreed procedures.

It may be construed that principles of co-operative government do not only promote co-operation between the three spheres of government, but they also provide guidelines and obligations for integrated development planning processes.

Section 22 of the Local Government: Municipal Systems Act 2000 (Act 32 of 2000) provides a clear process on the adoption of an integrated development plan by the municipalities where each municipal council must, within a prescribed period after the start of its election term, adopt a single inclusive plan for the development of the municipality which links, integrates and co-ordinates plans and proposals for the development of the municipality; aligns the resources and capacity of the municipality. For the implementation of the plan it forms the policy framework and a general basis on which annual budgets should be based, ensures that it is compatible with national and provincial development planning requirements binding on the municipality. The adoption of the integrated development is provided in such a manner that they become statutory requirements that municipalities have to meet.

The content of the integrated development plan to be adopted by the municipalities set out core components of the plan, that the integrated development plan must reflect the municipality with special emphasis on the municipality's most critical development and transformation needs; an assessment of the existing level of development in the municipality, which must include an identification of communities which do not have access to basic municipal services; the council's development priorities and objectives for its elected term, including its internal transformation needs and its development strategies which must be aligned with any national or provincial Sectoral Planning requirements. There should also be a spatial development framework which must include the provision of basic guidelines for land use management system for the municipality; the council's operational strategies, a financial plan - which must included a budget projection for at least the next three years - and the core components of the municipality's performance management system.

The core components of the municipality's performance management system outlined in 04/01/2005 16:41 Chapter 6 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) include, setting appropriate key performance indicators as a yardstick for measuring performance with regard to the municipality's development objectives set out in the integrated development plan, to set performance targets with regard to each of the development objectives, to monitor and measure at least once per year as part of the municipality's internal audit process, performance with regard to each of the development

objectives against the key performance indicators and to set targets. They also need to take steps to improve performance with regard to development objectives where performance targets have not been met and establish a process for regular internal reporting to the Council and specific structure and functionaries of the municipalities; and external reporting to the public and appropriate national and provincial organs of state.

The process for planning, drafting of the integrated development plan and review is also prescribed by the legislation. Section 24 and 25 of the Local Government: Municipal System Act 2000 (Act 32 of 2000) provides that each municipality council must adopt a process set out in writing to guide the planning, drafting, adoption and review of its development plan within a prescribed period after the start of the election term. In other words after the election the municipality must determine a period within which to draft, adopt and review of the integrated development plan. This is a statutory requirement, with which each municipal council must comply.

The legislation does not leave development to the prerogative of the municipal council but further empowers and mandates members of the executive committee (MEC) for the local government in the province to monitor the process and procedures followed by the municipality to guide the planning, drafting, adoption and review of its integrated development plan; assist a municipality with the planning, drafting, adoption and review of its development plan should the need arises. They should also facilitate the co-ordination and alignment of the integrated development plans of different municipalities including those of district municipalities and local municipalities within its area and the integrated development plan of a municipality with the plans, strategies and programmes of National and Provincial organs of state and take any appropriate steps to resolve disputes or differences in connection with the planning, drafting adoption or review of the integrated development plan between a municipality and communities, residents or ratepayers in the municipality and between different municipalities.

Municipalities are further compelled by legislation to submit a copy of their adopted integrated development plan to the MEC within 30 days of the adoption of such an integrated development plan for approval. Development managed by municipalities is therefore guided and informed by legislation and includes the development of the integrated development plan and its monitoring.

Section 25 of the Local Government: Municipal Systems Act 2000 (Act 32 of 2000) prescribes the content of this development plan. It is stipulated that the municipality's integrated development plan must assist the municipal council to identify and define its development needs. Priorities and objectives and process must also include a programme for the drafting of the integrated development plan and determine methods

and procedures to provide for consultation with communities, residents and ratepayers on their development needs and priorities, participation by communities, residents and ratepayers in the municipality in the drafting process and the review of the integrated development plan; and the identification of other role-players to be consulted in the drafting process, including other organs of state.

It is recommended by the legislation that the adoption process must further identify all planning requirements binding the municipality in terms of national and provincial legislation; and deal with any other matters that may be prescribed by the Minister for Provincial and Local Government as set out in terms of Section 34 of the Local Government; Municipal Systems Act 2000 (Act 32 of 2000).

The legislation guiding and shaping development by municipalities further provides the monitoring and evaluation mechanisms for the municipals. Section 38 of the Local Government: Municipal Systems Act 2000 (Act 32 of 2000) states that a municipality must administer its affairs in an economic effective, efficient and accountable manner, and must for this purpose establish a performance management system commensurate with its resources and best suited to its circumstances that is in line with the objectives indicators and targets contained in its integrated development plan and promote a culture of performance management among its structures and functionaries and in its administration as directed by legislation.

It is further directed that the municipalities must set appropriate key performance indicators as a yardstick for measuring performance with regard to the municipality's development objectives as set out in its integrated development plan; and set performance targets with regard to each of its development objectives; monitor and measure at least once per year as part of the internal auditing processes, of its development objectives against the key performance indicators and targets; take steps to improve performance indicators and targets; take steps to improve performance with

regard to development objectives where performance targets are not met and establish internal and external reporting processes to the public, national and provincial organs of state.

1.18 Conclusion

Municipalities throughout the world have been designed with a purpose in mind. The major purpose of municipalities is the promotion of the general welfare of the community through the delivery of municipal services. In South Africa, municipalities are created and established in terms of legislation and entrusted with powers and duties, which are statutory requirements.

The three spheres of government, namely, the National, Provincial and Local Government, are linked together through legislation. The Constitution of the Republic of South Africa Act 1996, (Act 108 of 1996) provides that in the Republic of South Africa, Government is constituted as National Provincial and Local Sphere of Government both of which are distinctive. All spheres of government and all organs of state within each sphere must, however, co-operate with one another in mutual trust and good faith by fostering friendly relations, assisting and supporting one another, informing one another of, and consulting one another on matters of common interest and co-ordinate their actions and legislation with one another (Chapter 3 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996)).

Development is a National, Provincial and local issue, and is therefore of interest to all spheres and organs of state. This implies therefore that policies and legislation intended to promote sustainable development have to be co-ordinated and implemented jointly.

It is crucial to note that South Africa has one government made up of three spheres and that this division allows for co-operative government (Chapter 3 of the constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996)). The three spheres of government are further structured in such a manner that National Government has a supervisory responsibility on the provincial administration and the Provincial government in turn has supervisory responsibility on local government. This arrangement allows for National Policies and legislation to influence, direct and inform both the Provincial and local government policies and legislation. The provincial policies and legislation in turn influence local government policies legislation (bylaws).

Development at the municipal level can therefore be informed and directed by both National and Provincial policies and legislation. Both the Minister for Provincial and Local government and the MEC (Member of Executive committee) for Local government have the power to take corrective measures should a municipality fail to develop and implement its integrated development plan (Local government; Municipality System Act, 2000 (Act 32 of 2000)).

Co-operative government directives have become an important statutory mechanism to promote an integrated development planning process. Through a cooperative government process, the functional areas of concurrent National and Provincial legislative competency and the functional areas of exclusive provincial legislative competency, set out in Schedules 4 and 5 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996), which include the functions and duties of local government can be linked in such a manner that integrated development plans for municipalities are jointly developed and managed by all three spheres of government where the legislation allows for such joint initiatives.

For each of the functions entrusted to a municipality in terms of schedules 4 and 5 of the Constitution of the Republic of the Republic of South African Act, 1996 (Act 108 of 1996) an enabling developmental legislation and policy or policies exist. It is therefore feasible to cluster all municipal functions into four development components, namely, social, economic institutional and physical components as outlined by Development facilitation Act, 1995 (Act 67 of 1995) and make them part of the core components of the integrated development planning process.

Both the White Paper on Local Government (13 March 1998) and the Constitutional of the Republic of South Africa Act, 1996 (Act 108 of 1996) entrust municipalities with developmental responsibilities.

Councilors and officials of municipalities, therefore, have the responsibility and the duty to ensure, facilitate and promote integrated development in their areas of jurisdiction and further manage such developments in a sustainable manner. The communities should be empowered in terms of the relevant legislation and policies and these include the provisions of the White Paper on Population Policy, April 1998 (human resource development) and the Local Government Municipal Systems Act, 2000 (Act 32 of 2000),

the White Paper for Social Services 1997, the Housing Act, 1997 (Act 107 of 1997), the White Paper on Environmental Management, May 1998 and constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996).

The City of Tshwane Metropolitan Municipality established and approved an organisational structure for purposes of developing, managing and implementing its integrated development plan. The organisational structure comprises committees that hold meetings, workshops and discussions with stakeholders.

The Committees were used as a reference for purposes of information collection and as a vehicle to obtain community and stakeholder input for the research. The organisational structure is discussed in Chapter 4, Pages 123 to 125 Section 4.1.3.

The City of Tshwane Council consists of two components, namely, the political component, made up of politicians and the administrative component made up of officials. In addition the City of Tshwane established ward councillors made up of stakeholders and community members. Ward councillors chair the ward committees. Their major function is to identify community needs, consolidate proposals, make suggestions and report to Council as outlined by the local Government: Structures Act, 1996 (Act 117 of 1996) as Amended. Both components and the ward committees formed important structures for purpose of consultation and information for the research.

The communities must further be encouraged to participate in matters of local government and participate in the development and management of an integrated development planning process in their municipalities. Communities have the legal right and the opportunities in terms of the provisions of the Local Government Systems Act, 2000 (Act 32 of 2000) to participate in the development processes of their municipalities and to demand information and progress reports and challenge their municipalities if their developmental needs and expectations are not addressed. One of the important vehicles to facilitate community participation and involvement is the ward committee. Non-governmental organisations and forums are some of the vehicles that can be employed to ensure community participation and involvement in matters of local government.

Section 24 of the Local Government Municipal: Systems Act, 2000 (Act 32 of 2000) provides that the planning undertaken by a municipality must be aligned with and complement the development plans and strategies of other affected municipalities and

other organs of state so as to give effect to the principles of co-operative government contained in section 41 of the Constitution of the Republic of South Africa Act (Act 108 of 1996). Section 41 states that municipalities must participate in National and Provincial development programmes as required in section 153(b) of the Constitution of the Republic of South Africa Act, 1996(Act 108 of 1996). Similarly if municipalities are required to comply with planning requirements in terms of National Planning legislation,

the responsible organs of state must align the implementation of their legislation with the municipality's relevant legislation and policies, and that in the implementation process, such organs of state must consult with the municipalities and take reasonable steps to assist the municipalities to meet their time limit in terms of developing their integrated development plans.

Section 24(4) of the Local Government Municipal System Act 2000 (Act 32 of 2000) further directs that an organ of state initiating national or provincial legislation requiring municipalities to comply with planning requirements, must consult with organized Local Government before the legislation is introduced in Parliament or a Provincial Legislation or in the case of subordinate legislation, before that legislation is enacted.

Both the Local Government, Municipal Systems Act, 2000 (Act 32 of 2000) and the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) create a conducive climate for an integrated development plan that is national, provincial and local government owned and managed. Such an approach allows for integrated planning on a larger scale and includes transport, the environment, land-use, spatial development frameworks and economic development to happen at all spheres of government and to be linked and co-ordinated to ensure an efficient and effective sustainable development.

It can be confirmed, based on the principles of co-operative government, that development planning in South Africa is largely informed and guided by legislation. Where necessary legislation can be amended to ensure alignment of programmes and plans to give effect to the implementation of an effective integrated development plan, as required the Local Government, Municipal Systems Act, 2000 (Act 32 of 2000).

The consultation and cooperation suggested by the Local Government, Municipal Systems Act 2000 (Act 32 of 2000) and the Organized Local Government Act, 1997 (Act 52 of 1997) may lead to the establishment of consultative structures, forums and communities. If this happens, it is important to note that lessons learned from the

systems and methods of metroplitanisation, will be via the co-operative agreements, councils of governments, amalgamation, in co-operation and the two-level-federation. Although the consultative structures, forums and committees may not necessarily take the form of the systems and methods of metropolitan, the manner in which they are organized and managed can take the characteristics of one, two or more of the systems and methods of Metroplitanisation (Section 1.6.3 of Chapter 1).

It can be confirmed already at this stage that existing development legislation and policies at all three spheres of government create a conducive framework within which an integrated development planning processes can take place. It needs to be pointed out, however, that the implementation and enforcement of legislation and policies is not receiving adequate attention.

Measures and steps need to be taken against relevant sections of the three spheres of government who fail to develop and implement integrated development plans and programmes, and such corrective measures need to be clarified through legislation and policies.

Future research and literature need to emphasise the need to develop and produce sustainable development practitioners. An in-depth understanding and knowledge of the components of sustainable development and their integration process is crucial to sustainable development management.

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CHAPTER 2

DEVELOPMENT THEORIES AND PRACTICE AS TOOLS FOR MANAGING SUSTAINABLE DEVELOPMENT

A theory is defined as a number of statements, including scientific laws, which have a systematic relationship with one another and which are empirically verifiable so that it is therefore a foundation for meaningful deliberation on the basis of which phenomena can be explained Kotze and Van Wyk (1986:186).

This chapter discusses development theories and practices as tools for managing sustainable development. The theories and practices discussed provide findings on sustainable development issues and challenges including lessons learned and they are discussed in relation to the key concepts emanating from the theme of this research, namely, management, development, sustainable development and managing sustainable development.

It is, however, not the intention and purpose of this chapter to study, research and analyse development theories and practices, but to refer to a few theories and practices as a set of tools relevant for understanding development issues, problems, limitations, successes, benefits and failures.

It was indicated in Chapter One that this thesis adopted, among others, a normative approach in development, that is, contributions which deal with development not in terms of how it actually takes place but rather how it should take place: how it "ought to" rather than "is". The importance of such normative approaches is that they focus on the content of development rather than the form. A few theories discussed briefly below are normative in approach and serve to illustrate what development 'ought to be', instead of what 'is'.

2.1 MANAGEMENT

There are probably as many definitions of management as there are books on the subject, [Griffin, 1990:5]. Although this might be true it is important for the purpose of this thesis to present a few relevant definitions of the concept management.

The definition of management stems from its purpose, which is to combine, allocate, co-ordinate and deploy resources or inputs in such a way that the institution's goals are realised as productively as possible. To achieve this, the following management tasks have been agreed upon largely by various writers on the subject of management. These are, namely, planning, organising, leading, and formulated goals and plans. The authors, however, warn that managers should not act in isolation and only give orders, but that they should collaborate with their superiors, equals and subordinates, with individuals and groups, to attain the goals of the institution. It is important to note that taking the lead, that is getting and keeping management activities going, motivating and influencing personnel, as well as communication with and among personnel has a profound effect on the climate prevailing in an institution.

Based on the above, Smit and Cronjé (1992:14-15) have come to the conclusion that management refers to a process or a series of activities that give the necessary direction to an institution's resources so that its objectives can be achieved as productively as possible in the environment in which it functions.

The above definition of management also refers to the environment within which management takes place. This refers to environmental forces that to a large degree shape management's thoughts. These environments may be divided into internal and external environments. Smit and Cronjé (1992:14-15) refer to social, economic, technological and political forces as the main forces responsible for the status of management and present them diagrammatically as set out below.

It may be inferred with a degree of certainty that for purposes of managing sustainable development, it is crucial that a management system is created and implemented. Management tasks referred to above are important guidelines for such a management system.

According to Marx in Kroon (1995:7), management is a process whereby people in leading positions utilize human and other resources as efficiently as possible in order to provide certain product or services, with the aim of fulfilling particular needs and achieving the stated goals of the institution.

Kroon (1993:3) in turn states that management may be considered one of the most important human activities because that is the task of all managers at all levels in all enterprises and institutions. The principles of management are applied by all managers in the performance of their duties to create circumstances in which people can co-operate to achieve stated goals.

Robins (1984:15) suggests that management is both an art and a science. An effective manager may be regarded as a scientist who performs his or her task with scientific objectivity. The practice of management is largely an art since a good manager needs vision, knowledge of the theory of management, and good communication skills. Also the successful application of the theory in practice is one of the greatest challenges facing managers.

In the public sector, married to the challenges facing managers in the successful application of the theory, are challenges facing managers in the successful application of legislation and policies.

The fires of change have swept through South Africa, as they have throughout the world, rendering inappropriate old ways of doing things and old organizational forms, structures and processes Schutte et al (1999:xi).

The development challenges facing South Africa require accountable and effective public managers who are able to read and redesign organizations for strategic development tasks. Development challenges have thus become human resource challenges, and debates around the major task of capacity building are now focused on a national reconstruction and development programme, which defines human resource development as a process in which the citizens of a nation acquire and develop the knowledge and skills necessary for occupational task and for other social cultural, intellectual and political roles that are part and parcel of a vibrant democratic society Schutte et al (1999:xi)

For the Reconstruction and Development programme (RDP) to be realized, the South African public service requires well-trained persons with a proactive, problem-solving orientation and attitude. People who are capable of analyzing, reflecting, deciding and, most importantly, acting appropriately. Universities and Technikons need to guarantee that their public management graduates go out into this new world equipped with skills to improve organizational performance for the development goals of this society (Schutte et al., (1999:xi). One of the tools with the potential to enable Universities and Technikons to realize this challenge is to have the development legislation and policies consolidated and declared as an independent discipline.

Schutte et al (1999:xi) support the need to test new grounds, thinking and views if development is to succeed. They state that current South African thinking in the public administration field is that the theory and practice is undergoing a paradigm shift away from the logical-positivist world view which had until recently gone unchallenged, towards a more value orientated and contextual approach. New disciplines could show the way towards solution.

South African society is in a process of transformation and in transition between the familiar past and a new, democratic dispensation. Public officials, therefore, find themselves in the midst of this transition process, confronted by principles and philosophies of the past and new value system of the present Van der Waldt and Du Toit (1999). At all levels of government in South Africa policy is determined by legislators and it is up to public officials to implement this.

The local government: Municipal systems Act, 2000 (Act 32 of 2000) proposes that municipalities must develop a vision for the long-term development of the municipalities. Such vision must put emphasis on the municipality's most critical developmental and internal transformation needs, and that the vision must be realistic and must create a gap between current reality and the critical development and internal transformation needs. Clear directives are provided on how an integrated development plan of a municipality must be developed. Management theories cannot therefore escape the legislative and policies influences. Legislation and policies are gradually becoming as important as theories. Development

legislation and policies are there for guiding, regulating, promoting, informing and shaping development needs so that a clearer development direction in the country is provided. There is no doubt that legislation and policies have the capacity to direct the development of the country. The next step, however, is to establish grounds to declare development legislation and policy as an independent discipline.

Legislation and policies have the capacity to influence management thought, and management situation. Smit and Cronje (1992:275) indicate that a manager has to be a psychologist, a socialist, an anthropologist and a political scientist all at the same time. That, as a psychologist the manager has to know how different individuals learn, what motivates them, what makes up their personalities, how they perceive things, and how people function in groups. As a sociologist the manager must know how the values, attitudes and behaviour of various groups differ, while as a political scientist he or she must understand the important role of power in institutions.

Cloete (1994: 64-86) explains the rules of conduct as principles of public administration that originate from three broad categories, namely, guidelines from the body politic, guidelines from community values and prescribed guidelines. It is important to note that all rules of conduct as principles of public administration have been directly or indirectly legislated. Guidelines from the body politic include those below.

- (i) Political supremacy, that means that legislators are the political heads of public institutions and therefore have authority over the actions of officials and that the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) is the sovereign authority in the country; of interest of course is the relationship between the Constitution, which is the sovereign authority, and the theories in terms of government responsibilities, duties and powers. In the case of development, for example, it is quite clear that development theories will be influenced to a degree by government powers and duties.
- (ii) Public accountability, which includes the public responsibility of the legislative, judicial and executive authorities with regard to service delivery and conduct which is in the public interest has been legislated through the

Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) and other Acts, such as the Public Services Act, 1997 (act 103 of 1997).

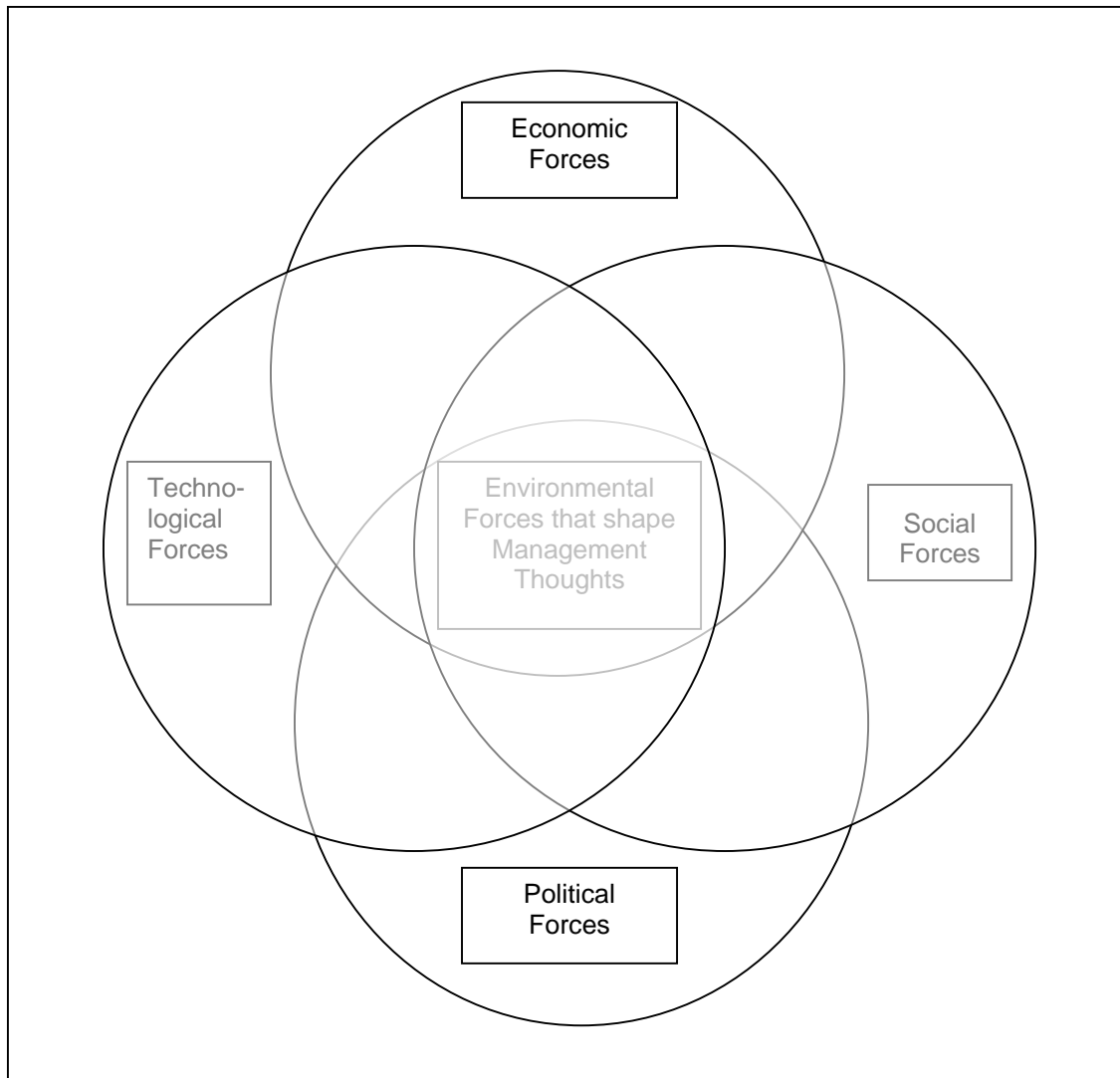
- (iii) Tenets of democracy, which imply that those who govern must not abuse the power vested in them in their personal interest or in the interest of one population group only, and that deliberations and consultations with the community must take place. Community participation has become one of the core components of integrated development planning.

The Local Government: Municipal systems Act, 2000 (Act 32 of 2000) provides that a municipality must develop a culture of municipal governance that complements formal representative government with a system of participatory governance and must for this purpose encourage and create conditions for a local community to participate in the affairs of the municipality.

Development legislation and policies as a discipline can accommodate legislated management principles and largely direct management theories philosophies and practices. Development processes need to be well planned, well organised and leadership needs to be put in place while some control measures also need to be exercised to ensure that both the plan and the organisation - including leadership - are processed as intended.

Management is further shaped by environmental forces that are also components of sustainable development, namely, economic forces, social forces, political forces and technological forces. This may be depicted diagrammatically.

Figure 2.1 Environmental forces that shape management thoughts



Source - Adapted from Smit and Cronje (1992:14-15)

In South Africa the social and political changes or forces led to changes in the rights of workers, namely, the right to form trade unions, to form Bargaining Councils, minimum wages, strikes and numerous other changes that influenced management theories concerning among others, negotiations, labour relations and leadership. The Labour Relations Act 1996, (Act, 66 1997) and the new local government system are some of the outcomes that emanated from the political forces which in turn have had a direct influence on management. It is crucial, therefore, also to make room for these forces when managing development. A management system may be one of the most important elements in managing sustainable development that needs to be integrated with other components of sustainable development.

The economic forces such as inflation, competition, growth and interest rates, influence management thinking in different ways, for example, in their planning, their environmental scanning and their organisational design.

Technology also influences management in planning and the design of organisational structures. The influences of socio-economic and technological forces are equally important for purposes of designing a management system that would ensure sustainable development.

Griffin (1984:6) defines management from the viewpoint of systems theory, which suggests that institutions utilise four basic kinds of inputs or resources from their environments, namely, human, monetary, physical and information. Here human resources would include managerial talent and labour; monetary resources would refer to financial capital used by the organisation to finance both ongoing and long-term operations; physical resources would include raw materials, office and production and controlling Smit and Cronje (1992:4-5). The management tasks are described briefly by Smit and Cronje as indicated below.

(a) Planning

It is referred to as the management activity that determines the institution's mission and goals, and it includes identifying ways of attaining the goals as well as the resources needed for the task. It also entails determining the future position of the institution and guidelines or plans needed to reach that position.

(b) Organising

Organising is viewed as a second step in the management process after planning that is, once the goals and plans have been determined, then management can allocate human resources, financial resources and physical resources to the relevant departments or sections. Duties have to be defined and procedures fixed in order to attain the goals. Organising, therefore, involves developing a framework or an organisational structure to indicate how personnel, materials and finance should be deployed to achieve the goals.

(c) Leading

Leading refers to giving orders to human resources of the institution and motivating them in such a way that their action is in accordance with the plan of action and with policies.

(d) Controlling

The final phase of management is controlling. 'Controlling means monitoring organisational processes toward goal attainment. As the organisation moves toward its goal, management must monitor this progress. It must make sure that the organisation is performing in such a way as to arrive at its destination at the appointed time.

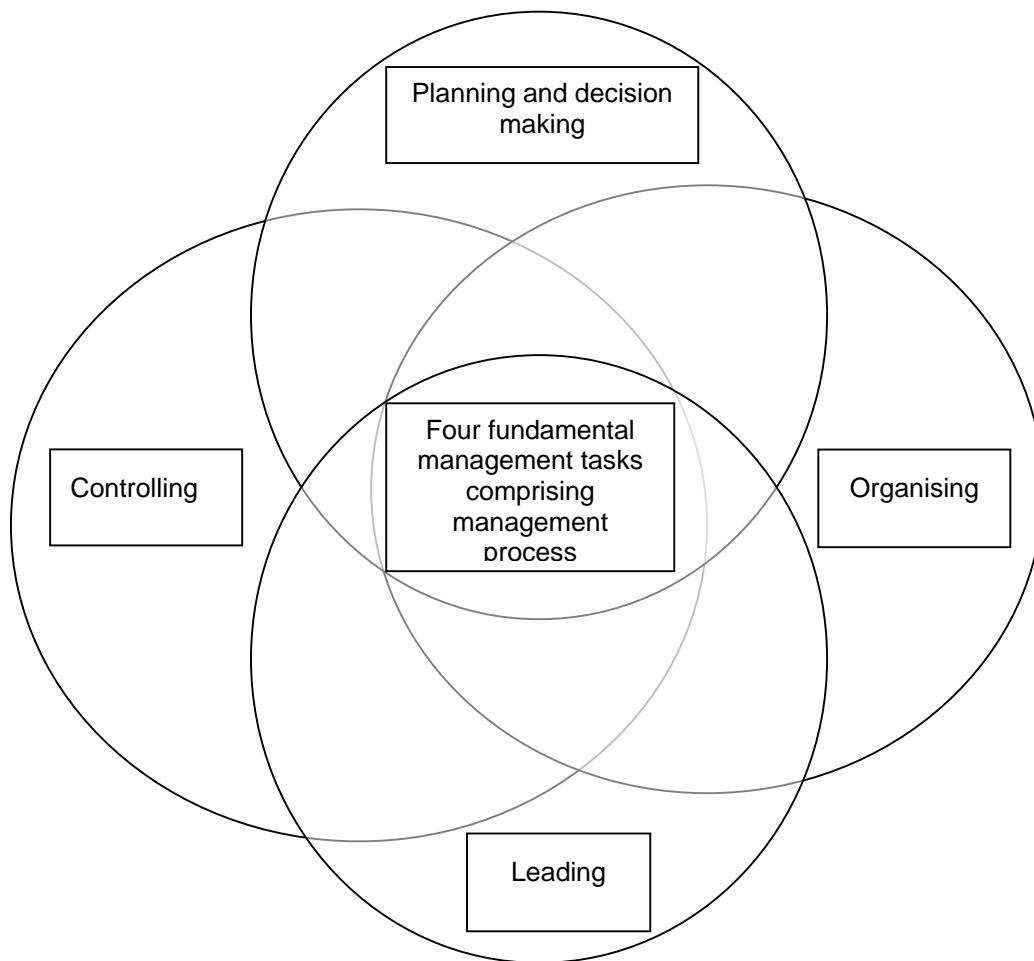
'Controlling' therefore means that managers should ensure that the institution is on the right track in the attainment of its goals. The aim of 'controlling', according to Smit and Cronjé, is to check that performance and action conforms to plans to attain those predetermined goals. 'Controlling' therefore also enables management to identify and rectify any deviations from the plans and at the same time it is obliged to continually revise its goals and plans.

Stemming from the systems theory, Griffin (1990:6) defines management as a set of activities, including planning and decision making, organising, leading and controlling, directed at an institution's human, financial physical and information resources with the aim of achieving institutional goals in an efficient and effective manner. Efficient in this case refers to using resources wisely and without unnecessary waste, while effective means doing the right things.

The four major management tasks are also referred to in this definition. Griffin (1990:9) sees planning as the determination of an institution's goals and deciding how best to achieve them. In essence decision making is referred to as part of the planning process that involves selecting a course of action from a set of alternatives; organising means grouping activities and resources in a logical fashion. Leading, on the other hand, refers to that set of processes used to get members of the institution to work together to further the interests of the institution.

The four management tasks, also referred to as management activities, further elucidate the nature of management processes and this is presented diagrammatically as set out below.

Figure 2.2 DEFINITIONS OF THE FOUR FUNDAMENTAL MANAGEMENT TASKS COMPRISING THE MANAGEMENT PROCESS



Source - Adapted from Griffin (1990:9)

The four management tasks interact in their application and they are mutually inclusive, this means that in each task/activity the other three tasks/activities are found, for example: planning will involve some control measures, grouping of similar activities and members involved have to be motivated to work in the best interests of the institution concerned.

The same applies in respect of controlling, leading and organising Smit and Cronje (1992:6).

Griffin also refers to the fact that institutions operate in an environment and are influenced by the environment or environmental factors or forces, these environmental forces or factors further influence and shape the status of management.

2.2 PUBLIC MANAGEMENT ENVIRONMENT

How does Public Management Environment respond to sustainable development challenges? Or, how do the public management components and environments (Figures 2.3 and 2.4) integrate with the components of sustainable development (Figures 1.1, 1.2, 1.3, and 1.4)?

The inability by municipalities to harmonise and to integrate these components can harm the planned and intended outcomes, lead to stagnation, whether unplanned or unintended and have costly results.

The integrated development planning process and the local Agenda 21 are handy interventions to guide and direct the sustainable development process and to integrate all key components of the process. Formulating appropriate and applicable sustainable development indicators to measure and assess the outcome of the integration process in this regard is key to this exercise.

The environment is a critical factor that must be understood in order to recognise its influence on public institutions, which include municipalities. Management has the responsibility of monitoring the environment and planning effectively in response to circumstances so that the institution can adapt to change in the environment Schutte et al (1999:86).

A constant interaction between the public institution and the environment largely determines the institution's organisational form and functioning. Management must, therefore, be aware of all internal and external forces, opportunities and

threats that affect the public institution. It is confronted with a choice between stagnation or a dynamic adjustment in order to survive.

The Development Facilitation Act 1995, (Act 67 of 1995) refers to social, economic, physical and institutional factors as components of development. The relationship between the public management environment and development is illustrated by the following matrix model adapted from Kroon (1995:56).

Figure 2.3 MATRIX MODEL SHOWING ENVIRONMENTAL CHANGES AND TRENDS AT THREE PUBLIC MANAGEMENT ENVIRONMENT LEVELS

ENVIRONMENTAL CHANGES AND TRENDS			
FACTORS	MACRO ENVIRONMENT (A)	INTERMEDIATE ENVIRONMENT (B)	MICRO ENVIRONMENT (C)
(1) Regulatory (Political / legal)	<ul style="list-style-type: none"> • Political systems • Stability • Legislation • Institutions 	<ul style="list-style-type: none"> • Regional systems • Ordinances • External regulators • Institutions 	<ul style="list-style-type: none"> • Institutional structure • Policy/Internal regulators • Management • Management methods and approaches
(2) Socio-cultural	<ul style="list-style-type: none"> • Public opinion • Demographics • Norms and values • Religion and culture • Education • Health 	<ul style="list-style-type: none"> • Public opinion • Demographics • Norms and values • Religion and culture • Education • Health 	<ul style="list-style-type: none"> • Institutional culture/internal views • Staff / labour • Social responsibility • Image-building
(3) Economic	<ul style="list-style-type: none"> • Economic system • Growth rate • Inflation • Exchange rate • Interest rates • Money supply • Gold price 	<ul style="list-style-type: none"> • Suppliers • Consumer public • Intermediaries • Regulators • Ethical guidelines and norms • Opportunities and threats 	<ul style="list-style-type: none"> • Productivity and effectiveness • Financial management • Assets management • Products and service management
(4) Technological	<ul style="list-style-type: none"> • Research • Inventions • New products • New methods • New processes. 	<ul style="list-style-type: none"> • Research • Inventions • New products • New methods • New processes. 	<ul style="list-style-type: none"> • Asset function • Computers • Product and service supply process

Source - Adapted from Kroon (1995:56)

In terms of the Development Facilitation Act 1995, (Act 67 of 1995) the institutional component includes the regulator, political legal and technological factors, while the physical components include the physical infrastructure and services such as water and sanitation, electricity, environmental management, land-use management, transportation infrastructure, spatial planning and general city planning and urban and rural restructuring. It is important to note that in terms of the Development Facilitation Act, 1995 (Act 67 of 1995) the development components are statutory guidelines for purposes of developing and designing an integrated development plan, especially for the municipalities.

The fact that the public management environments as illustrated in the matrix model above, can be grouped and arranged in such a manner that they are included in the development component, can lead one to conclude that the public management environments can also be employed as key guidelines for purposes of formulating an integrated development plan and city development strategy for municipalities.

The development legislation and policies as discipline can therefore include public management environments. The public management environment consists of macro or general environment, intermediate environment and micro-environment.

The macro or general environment, as designed by Schwella (1983:58), consists of the cultural, political, legal, economic, social and technological environments; while the intermediate environment refers to the operational or task environment of the institution, and it consists of consumers of services and/or products, that is, the community; suppliers of resources, competitions for limited resources and intermediaries that perform certain functions to provide a form of linkage between macro and micro-environment. The micro-environment includes all internal processes, activities and functions carried out within an institution. Core components of this environment include the institution's vision, mission, goals, strategies internal regulators and resources Schutte et al (199:93).

The public environment can easily be adapted to a practical situation, legislated or adapted through bylaws and decisions by municipalities to direct, inform and guide development and the design of an integrated development plan. The above

environmental forces are discussed briefly below in relation to a local government situation. These environmental forces are divided into the general environment of the institution that involves those non-specific dimensions and in an institution's surroundings that might affect its activities. It consists of five dimensions, namely, economic, technological, socio-cultural, political-legal and international dimensions, the task environment and the internal environment. These dimensions further interact with each other and also influence the institution and management as a whole. The influence of these dimensions, to a large degree, will have the same effect in the private sector and in the public sector. The general environment as mentioned above involves the following as listed below.

2.2.1 The economic dimension

The concept of economics refers to the study of how people earn their daily bread Heilbroner (1990:2). It also refers to the science of dealing with the production and distribution of material wealth Oxford English Dictionary (1970:2).

This economic dimension also refers to the overall health of the economic system in which the institution operates. Economic factors of special importance to an institution include inflation, interest rates, unemployment and the demand. These factors are crucial for development planning and strategies.

2.2.2 The technological dimension

This is a set of processes and systems used by institutions to convert resources into products or services. It is important for planning purposes to know the level of technology within the area planned for development.

2.2.3 Socio-cultural dimension

To define the socio-cultural environment, we have to answer the question: How do people create a harmonious existence and how do they all benefit from a particular association with one another? Coertze (1960:92) states that people are social beings. To gain benefits such as health services, sport and recreation, water, electricity, welfare services, safety and security, people are prepared to subject their personal patterns of behaviour and preferences to the requirements made by the group. According to Du Toit (1999:116) the socio-cultural dimension refers to the customs, mores, values and demographic characteristics of the society in

which the institution function. The socio-cultural processes determine the products, services and standards of conduct that society is likely to value.

The influence of communities on development plans and strategies cannot be ignored. Community participation is crucial and should form part of the development process.

2.2.4 The political-legal dimension

Fox and Meyer (1995:98) define politics as the process of decisions on who receives what, where and how. Fox, Schwella and Wissink (1991:19) state that it is the basis of a political ideology. It can be inferred that politics relates not only to the constitutional power struggle, which is aimed at the composition of government, but that it also relates to the struggle concerning the allocation of the position of authority within social groups, in, for example, political parties and interested groups. Politics therefore becomes an important element to be taken into account when developing strategies and plans for development purposes.

It refers further to the government regulations of institutions and the general relationship between institutions and government. The political-legal dimension is important for three basic reasons, namely, that it imposes certain legal constraints on institutions; the extent to which it is pro or anti-institution significantly influences management policy, and finally its stability is an important element in long-term planning.

2.2.5 International dimension

This refers to the extent to which an institution is involved in or is affected and influenced by institutions in other countries. This is of course also important for development planning. The local development strategies have to take into account international development issues and strategies that impact on local issues, such as environmental, social, and economic issues.

2.2.6 The task environment

This means those specific institutions or groups that are likely to affect the institution. The task environment involves competitors, customers, suppliers, regulators, labour unions, partners and owners. These various task environments are discussed below as they apply to a local authority or municipality.

(a) Competitors

This refers to institutions that compete for resources. The competitors of metropolitan council could include other metropolitan councils in the same province, the metropolitan local councils within the metropolitan council area and within the province. Other competitors could include parastatals such as Eskom, Rand Water Board or the Provincial Government.

(b) Customers

This refers to individuals or other institutions that pay money to acquire the institution's products or services. The customers in metropolitan councils are the metropolitan community, the rate-payers associations, non-governmental organisations, community based organisations and civic organisations. Also the metropolitan local councils within the metropolitan council area that have to pay levies for the provision of bulk services.

(c) Suppliers

This involves institutions that provide resources for other institutions. For the metropolitan council these will include its creditors who supply resources, the technical advisers and contractors. For purposes of development, suppliers form part of stakeholders. Supply may have to adjust to the new demands evolving from development plans and strategies. New user-friendly, means of production may be required for specific projects that require the use of local labour. It may be said with a degree of certainty that suppliers can influence development as stakeholders.

(d) Regulators

These are units that have the potential to control, regulate or otherwise influence the institution's policies and practices. These regulators may be divided into two categories, namely, regulatory agencies, that is, those created by government, and the interest groups formed by their own individual members to attempt to influence the institution and management.

The regulators for metropolitan council could therefore include the national government departments, the provincial government departments, the rat

payers associations, the non-governmental organisations, the community-based organisations and civic organisations.

(e) Labour

This refers to trade union workers and other organised labour.

Development may require reorganisation. This will undoubtedly have an impact on the workforce. The support of the labour movements and structures is crucial for the success of development plans and strategies. It is important therefore to include labour as stakeholder in development process.

(f) Owners

Owners in respect of a Metropolitan Council include the electorates and the Councillors. By virtue of their responsibility the owners have to keep pace within developmental demands and objectives for purposes of proactive management actions. Establishment of community-based-organisations and planning zone forums as required by the Development Facilitation Act, 1995 (Act 67 of 1995), by the Local Government. The promoting and building community participation is but one example of the influence of owners on the management of sustainable development at local Government level.

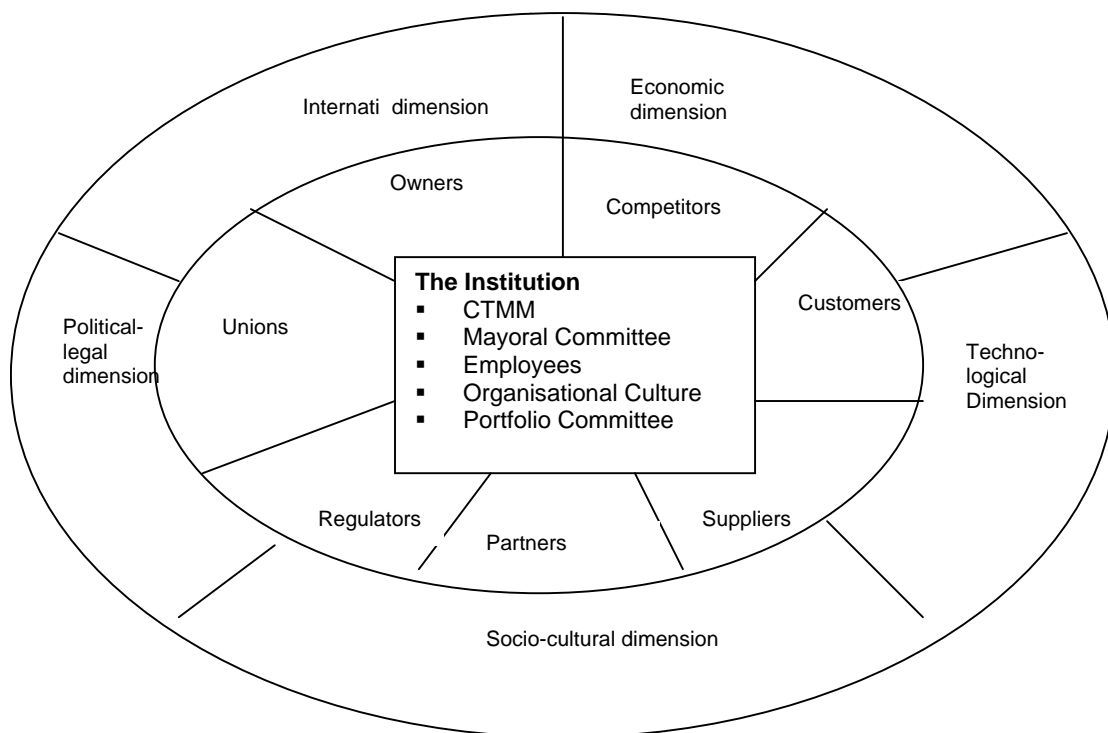
(g) Partners

This refers to two or more institutions working together in a joint venture or in similar arrangements. In a Metropolitan Council such a situation would include the primary local authorities within the boundaries of the Metropolitan Council, some government and Provincial Governments, the private sector and parastatal institutions such as Eskom, Water Boards, HSRC and some educational institutions. The Constitution of the Republic of South Africa Act, 1996 [Act 108 of 1996] and the White Paper on Local Government, March 1988 put emphasis on the implementation of municipal services partnership and the public private partnership concepts to promote developmental local government. Partnerships are one of the elements that need to be explored for purposes of managing sustainable development.

2.2.7 Internal environment

The internal environment refers to the general conditions and forces within an institution and include the Board of Directors which could be equated to the Executive Mayor and the Mayoral Committee, the Portfolio Committee and Top Management in a Metropolitan Council, as well as the employees and the organisational culture. Schematically public environments can also be illustrated as follows Griffin (1990:79-93):

Figure 2.4 PUBLIC MANAGEMENT ENVIRONMENTS: ADAPTED TO THE CITY OF TSHWANE



Source - Adapted from Griffin (1990:79-93)

2.2.8 The inclusion of the environmental factor/dimension in figures 2.3 and 2.4 supra.

Flowing from the above diagrams (figures 2.3 and 2.4) it can be inferred that the Inclusion of the environmental factor (as one of the three core components of sustainable development referred to in 1.3 supra) and its macro, intermediate and micro Environments Kroon (1995:56), or the environmental dimension Griffin (1990:79-93), in the diagrams will create what can be referred to as the

sustainable development environment. This environment can to a large degree inform sustainable development from the macro-level to the micro-level.

The Longman Modern English dictionary defines the words 'manager' and 'management' as follows: Manager means to exercise control over; to handle, to manipulate; to influence [someone] so that one does as one wishes; to use economically and with forethought; to succeed in accomplishing or handling, but with difficulty; 'Management' refers to managing or being managed.

Hanekom and Thornhill (1986, 5-6) state that in an English dictionary the words "management" and "manager" are defined as follows:

Manager [is] one whose office it is to manage a business establishment or a public institution, [and] management [is] the action or manner of managing, the application of skill or care in the manipulation, use, treatment, or control [of things or persons] or in the conduct [of an enterprise, operation etc.]. They also translated the Dutch dictionary which defines the two words as management official [manager] [is] an official who manages, [and] management [is] the management, the leading [guidance] and arranging of affairs and persons, control and rule. This same dictionary describes leading as managing, to direct in a specific direction.

Hanekom and Thornhill further found that an Afrikaans dictionary gives the following definitions of the words concerned:

that 'management' means to give direction, lead, control, govern, rule-over, whilst a 'manager' is an official who manages or controls, a person who has in his hands the general leadership of an enterprise or of a division, a supervisory person.

From the dictionaries these two authors conclude that there is no clarity as to the meaning of the words 'management' and 'manager'. They suggest that to obtain clarity one should look for characteristics common to the various definitions and to consider the views held by different writers on the subject management.

Cloete (1994:220) claims that in the literature on management in general and the management of specialised fields of work such as public administration, business economics and education, many definitions of management will be found. However, that the definitions usually state that the phenomenon known as

management consists of a number of functions, also referred to as activities or tasks.

It would appear that there is a general agreement that these activities or management tasks include planning and decision-making; leading; organising and controlling. Further those activities are directed at the efficient and effective utilisation of the institution's resources, namely, human, financial, physical and information resources to achieve a goal.

2.3 Public Management

The conclusion drawn by Hanekom and Thornhill (1986:11-12) is that the contention that public administration lacks management orientation is without any foundation. They further explain that analysis of the definitions in dictionaries and those put forward by writers, and of the functions performed by leading public officials, reveal a relationship between administration and management, and hence also between public administration and management. In other words public administration involves the administrative functions, namely policy-making, organising, financing, personnel administration and control while management involves the utilisation of resources, that is, planning and decision-making; organising, leading (directing) and controlling of human, financial, physical and information resources to achieve the institution's goal in an efficient and effective manner.

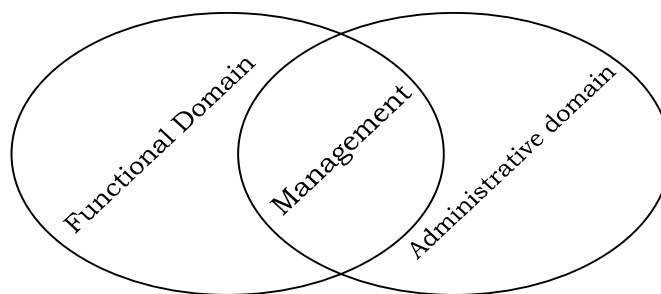
Cloete (1994:220) further suggests that public administration consists of a number of main function groups, namely the generic administrative functions each of which has two dimensions, namely (a) the conceptual (initiatory and innovative) and directive dimension and (b) the management dimension. This confirms the findings that there is a relationship between management and public administration.

The above mentioned relationship between public administration and public management is further defined by Botes et al., (1992: 187) that administration consists of two main domains, namely, the Functional domain and the Administrative domain, and that these domains are linked by management, that is management is the link between the functional and administrative domains, by and through which each functional plan of action is brought to fruition by means of administrative processes. Diagrammatically this relationship is described below.

Organisational structures divide workers into levels. Officials entrusted with managerial responsibilities are normally divided into strategic managers, that is, those responsible to develop and implement the vision and mission of the organisation, and the goal-managers that is, those responsible for specific tasks, for example, budget control, which is actually a functional responsibility.

Management of sustainable development largely requires the employment of different levels of managers to develop and implement the vision and mission as well as the implementation of plans and strategies.

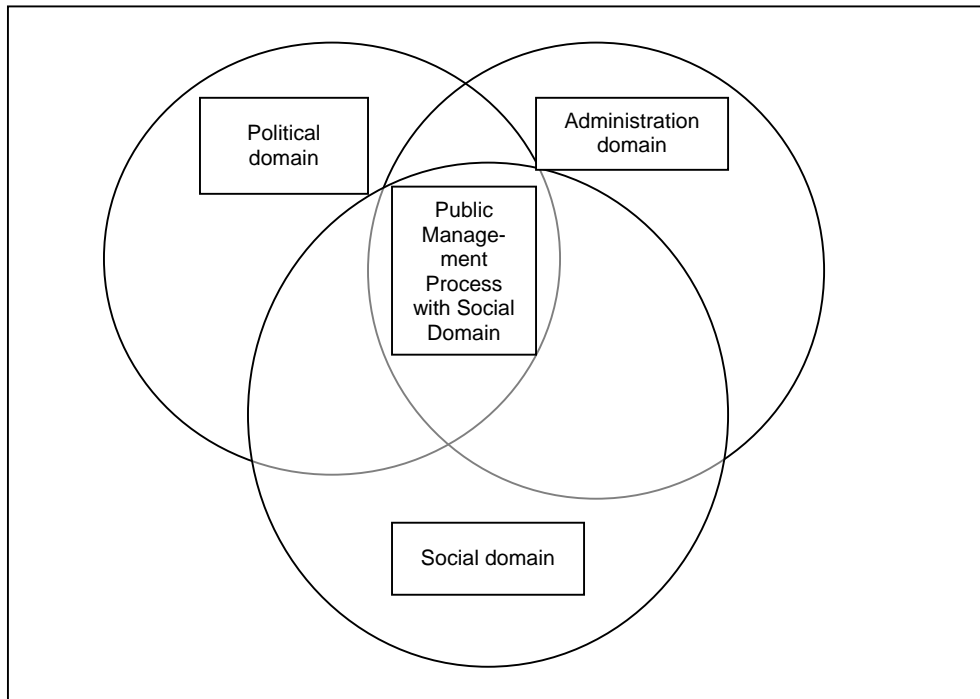
Figure 2.5 THE ROLE OF PUBLIC MANAGEMENT



Source: Botes et al (1992:187)

The inclusion of people in matters of government adds a third and fourth domains in the public management process, namely the Social Domain and the Political Domain{Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996) and this can be illustrated as indicated below.

Figure 2.6 CONVENTIONAL PUBLIC MANAGEMENT PROCESS WITH SOCIAL DOMAIN



Source - Adapted from the Constitution of the Republic of South Africa Act, 1996 [Act 108 of 1996]

It is important for purposes of achieving sustainable development to weld together the domains of public management with the components of sustainable development as cited in Figures 1.1, 1.2, 1.3 and 1.4.

Management and its application should be viewed in terms of its environments, tasks and the purpose. It can be deduced with some certainty that management is therefore influenced by its environments and that includes internal as well as external environments. Management tasks of planning, organising, leading and controlling are employed within and are also influenced by these environments.

It is important that any person involved in the management of any situation is familiar and is aware of the influences of the environments on management itself and respective management tasks, as well as the purpose of managing such situations. The definition of this concept becomes crucial, because managing sustainable development involves management principles as defined and discussed above.

2.4 DEVELOPMENT

Development is not an easy concept to define. Bjorn Hettne (1990:1-2) confirms this by suggesting that there can be no fixed and final definition of development, only suggestions of what development should imply in particular contexts. Thus to a large extent development is contextually defined, and should be an open-ended concept, to be constantly redefined as our understanding of the process deepens, and as new problems to be solved by development emerge. Theorising about development, thus, is a never-ending task.

Hettne (1990:2) cites further that there exists no single, generally accepted, development theory which attempts to integrate different social science approaches to the development problem, and that development theory is more concerned with change than is typically the case with conventional social science disciplines such as economics, sociology or political science, trapped as they still are in functionalism and comparative statistics. He views development as involving structural transformation which implies cultural, political, social and economic changes and that development is by definition interdisciplinary, drawing on, but also questioning, many theoretical and methodological assumptions in both Marxist and non-Marxist social science. Some development theories discussed below will help in providing a new definition of development and the approach to manage sustainable development.

It will be pointed out below why development should not only be viewed purely as an economic phenomenon, and that it should not only encompass the material and financial side of people, but that, it should be viewed as a multidimensional process involving the reorganisation and reorientation of an entire economic and social system. In addition to improvements in incomes and outputs, development, typically should involve radical changes in institutional, social, and administrative structures as well as in popular attitudes as well as customs and beliefs Todaro, (1985:61-62).

Basically, it is not possible to separate economic phenomena from non-economic phenomena when dealing with real world development, for example, social development cannot be separated from economic development, and for the purposes of achieving sustainable development, this should include environmental development.

2.5 THEORIES OF ECONOMIC DEVELOPMENT

The following three alternative theories of development are referred to briefly below to support the above-mentioned argument and give some background to the definition of development. The theories also assist and position developers not to repeat the mistakes of the past and allow themselves to be trapped in wrong beliefs and perceptions. A continued questioning of existing theories and practices should not be seen as arm-chair criticism, but as a search for new knowledge and best practices built on existing knowledge and findings.

2.5.1 The thinking of the 1950s and the early 1960s

The thinking of the 1950's and early 1960's focused mainly on the concept of stages of economic growth in which the process of development pass. This was primarily an economic theory of development in which the quantity and mixture of saving, investment and foreign aid were all that was necessary to enable third world nations to proceed along an economic growth path that historically had been followed by the more developed countries Todaro (2000:79). Development was thus viewed as synonymous with rapid aggregate economic growth.

It was argued that the advanced countries had all passed through the “take-off into self-sustaining growth” and the underdeveloped countries that were still in either the traditional society or the “pre-conditions” stage had only to follow a certain set of rules of development to take off in their turn into self-sustaining economic growth Todaro (2000:79).

The stages of development referred to were:

- [i] The traditional society;
- [ii] The pre-takeoff society;
- [iii] Takeoff;
- [iv] The road to maturity; and
- [v] The mass consumption society.

According to the linear stages theory, the economic prerequisites for a take-off are created during the second stage, and many of the characteristics of the traditional society are then removed Todaro (2000 :79-80). It is argued that at this stage

agricultural productivity increases rapidly and a more effective infrastructure is created, society also develops a new mentality as well as new class. It is stated that the third stage that is the takeoff, is most crucial for further development, it further argues that it is during this stage that the last obstacles to economic development are removed. It has been identified that the most characteristic sign of the take-off stage is that the share net investment and saving in national income rises from five percent to ten percent or more resulting in a process of industrialisation where certain sectors assume a leading role. The modern technology is then disseminated from the leading sector while the economy moves towards the stages of maturity and mass consumption Todaro (2000:79-80).

Unfortunately, it has been discovered that the tricks of development embodied in the theory of stages of growth did not always work. It has been established that the most basic reason why they did not work was not because more saving and investment was not a necessary condition for accelerated rates of economic growth but rather because it was not a sufficient condition. The stage theory failed to recognise the fact that development is not merely a matter of removing obstacles and supplying missing components like capital, foreign exchange, skill and management tasks, but it involves also social issues. It was also because of numerous failures and the growing disenchantment with this strictly economic theory of development that a new approach emerged, one that attempted to combine economic and institutional factors into social systems models of international development and underdevelopment Todaro (2000:79-80).

Sustainable development suggests the integration of more components of sustainable development such as economic, social, decision-making, institution, and physical elements Development Facilitation Act 1995 [Act 67 of 1995]), (the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996)), (the National Environmental Management Act 1998 [Act 107 of 1998]) and (A Pathway to Sustainability for South Africa: Local Agenda 21: 2001). Furthermore sustainable development does not view development as a movement from the rural areas or agricultural activities to industrial activities or urban areas, but as an integration of sustainable development components, irrespective of whether it is in the rural areas or urban areas. The level of development will in this case be determined by factors such as capacity, affordability and the current level of development Todaro (2000:79-80).

2.5.2 Neo-classical structural change models

The theory of structural change focuses on the mechanism by which underdeveloped economies transform their domestic economic structures from a heavy emphasis on traditional subsistence agriculture to a more modern, more urbanised and more industrially diverse manufacturing and service economy (Todaro (2000:79-84)). The neo-classical structural change models employ the tools of neo-classical price and resource allocation theory and modern econometrics to describe how this transformation process takes place. These tools will not be discussed here except to mention that one of the best known early theoretical models of development that focused on the structural transformation of a primarily subsistence economy was the Lewis theory of development. In this model the underdevelopment economy consists of two sectors (Todaro (2000:84 - 88)) as indicated below.

- [a] A traditional overpopulated rural subsistence sector characterised by zero marginal labour productivity - a situation that permitted Lewis to classify this labour as “surplus” in the sense that it can be withdrawn from the agricultural sector without any loss of output.
- [b] A high-productivity modern urban industrial sector into which labour from the subsistence sector is gradually transferred. The theory assumes that the “surplus” labour is transferred to the highly productive modern urban industrial sector resulting in high rates of industrial investment and growth. This model has some shortfalls in the sense that there could be full employment in both the rural areas as well as in the urban areas, and if this situation occurs the transfer assumption will not apply.
- [c] The other shortfall is that the profits may be reinvested in more sophisticated labour-saving capital equipment rather than just duplicating the existing capital as the Lewis model assumed. This will also defeat the transfer assumption.

Todaro (2000: 84-88) concludes that when taking into account the labour-saving bias of most technological transfer, the existence of substantial capital flight, the widespread non-existence of rural surplus labour, and the tendency for modern sector wages to rise rapidly even where substantial open unemployment exists, then the Lewis two-sector model, while extremely valuable as an early conceptual portrayal of the development process of sectoral interaction and structural change,

requires considerable modification in assumption and analysis to fit the reality of contemporary Third World Nations.

The other neo-classical structural change model worth mentioning is the structural change and patterns of development. The patterns of development analysis of structural change focuses on the sequential process through which the economic, industrial and institutional structure of an underdevelopment economy is transformed over time to permit new industries to replace traditional agriculture as the engine of economic growth Todaro (2000:84:88). In contrast to the Lewis model and the original stage view of development, referred to above, patterns of development perceived savings and investment as necessary but not sufficient conditions for economic growth. The patterns of development analysis believe that in addition to the accumulation of capital, both physical and human, a set of interrelated changes in the economic structure of a country are required for the transition from a traditional to a modern economic system. These structural changes involve virtually all economic functions including the transformation of production and changes in the composition of consumer demand, international trade and resource use as well as changes in socio-economic factors such as urbanisation and the growth and distribution of a country's population Todaro (2000:87-89).

The emphasis is also placed on both domestic and international constraints on development. The domestic constraints, according to this analysis, include economic constraints such as a country's resource endowment and its physical and population size as well as institutional constraints such as government policies and objectives. The international constraints on development on the other hand is said to include access to external capital, technology and international trade. The analysis provides that differences among developing countries in their level of development are largely ascribed to these domestic and international constraints Todaro (2000:87-89).

It is further concluded that it is actually the international constraints that make the transition of currently developing countries differ from that of the now industrialised countries, to the extent that developing countries have access to the opportunities presented by the industrial countries as sources of capital, technology and manufactured imports as well as markets.

The major hypothesis of the structuralist model is that development is an identifiable process of growth and changes those features that are similar in all countries. The model does not recognise that differences can arise among countries in the pace and exact pattern of development which depends on their circumstances, and factors such as the country's resources endowment and size, its government's policies and objectives, the availability of external capital and technology, and the international trade environment.

It has been established, however, that the pace and pattern of development can vary according to both domestic and international factors, many of which lie outside the control of an individual developing nation. Yet, despite this variation, structural change analyses argue that one can identify certain patterns occurring in almost all countries during the development process. They further agree that these patterns may be affected by the choice of development policies pursued by the less developed country governments as well as the international trade and foreign assistance policies of developed nations.

2.5.3 INTERNATIONAL DEPENDENCE MODELS

The disenchantment among Third World intellectuals with both the stages and the structural change models lead to the support of international dependence models.

Essentially, international dependence models view Third World countries as beset by institutional, political and economic rigidities both domestic and international and caught up in a dependence and domestic relationship on rich countries Todaro (1985:78-80).

The international dependence models that are discussed briefly below are based on two major streams of thought, namely the neo-colonial dependence model and the false paradigm model.

(a) The Neo-Colonial dependence model

The neo-colonial dependence model is said to be an indirect outgrowth of Marxist thinking. It attributes the existence and continuance of Third World underdevelopment primarily to the historical evolution of a highly unequal

international capitalist system of rich country and poor country relationships and that whether because rich nations are intentionally exploitative or unintentionally neglectful, the co-existence of rich and poor nations in an international system dominated by such unequal power relationships between the developed countries and the less developed countries renders attempts by poor nations to be self-reliant and independent in their development efforts difficult and sometimes even impossible Todaro (1985:78). In short, the neo-Marxist, neo-colonial view of underdevelopment attributes a large part of the Third World's continuing and worsening poverty to the existence and policies of the industrial capitalist countries and their extensions in the form of small but powerful elite in the less developed countries. The neo-colonial dependence model proposes therefore that major restructuring of the world capitalist system is required to free dependent Third World nations from the direct and indirect economic control of their First World and domestic oppressors Todaro (2000:87-89).

Dos Santos, cited by Todaro (2000:87) makes the following statement with regard to the international dependence school of thought: "underdevelopment, far from constituting a state of backwardness prior to capitalism, is rather a consequence and a particular form of capitalist development known as dependent capitalism". Todaro (2000:91-92) refers to dependence as a conditioning situation in which the economics of one group of countries are conditioned by the development and expansion of others. In this regard a relationship of interdependence between two or more economies or between such economies and the world trading system becomes a dependent relationship when some countries can expand through self impulsion while others being in a dependent position can only expand as a reflection of the expansion of the dominant countries, which may have positive or negative effects on their immediate development. Dos Santos further cites that in either case, the basic situation of dependence causes these countries to be both backward and exploited, that dominant countries are endowed with technological, commercial, capital and socio-political predominance over dependent countries, the form of this predominance varying according to the particular historical moment Todaro (2000:92).

The neo-colonial dependence model is therefore of the opinion that if dependency is reduced, development in the less developed countries is possible and can be achieved.

(b) The false paradigm model

The false paradigm model attributes Third World underdevelopment to faulty and inappropriate advice provided by well-meaning but often unformed international “expert” advisors from developed countries assistance agencies and multinational donors organisations. The false paradigm model cites further that these experts offer sophisticated concepts, elegant theoretical structures and complex econometric models of development that often lead to inappropriate or incorrect policies. These policies are because of institutional factors such as the highly unequal ownership of land and other property rights, disproportionate control by local elite's over domestic and international financial assets, and every unequal access to credit, serve the vested interests of existing power groups, both domestic and international Todaro (2000:92-93).

According to this argument, leading university intellectuals, trade unionists, future high-level government economists, and other civil servants all get their training in developed country institutions where they are unwittingly served an unhealthy dose of alien concepts and elegant but inapplicable theoretical models, having little or no really useful knowledge to enable them to come to grips in an effective way with real development problems. In a university economics course, for example, false or irrelevant Western concepts and models are taught while in government policy discussions too, emphasis is placed on attempts to measure capital/output ratios to increase savings and investment ratios, or to maximise Gross National Product (GNP) growth rates. As a result, desirable institutional and structural reforms are neglected or given only cursory attention. This argument will be referred to in the next chapters Todaro (2000:93).

Todaro (2000:93) suggests that the conclusions and implications drawn from the neo-colonial dependence model and the false paradigm model are that whatever their ideological differences, both models reject the exclusive emphasis on traditional Western economic models designed to accelerate the

growth of GNP as the principal index of development. They question the validity. Lewis-type two-sector models of modernisation and industrialisation in the light of their unreal assumptions. These models further reject the belief that well-defined empirical patterns of development exist and that this should be pursued by the poor countries on the periphery of the world economy. Instead, dependency and false paradigm theories place more emphasis on international power imbalances and on needed fundamental economic, political, and institutional reforms, both domestic and world-wide. In extreme cases the models call for the outright expropriation of privately owned assets in the expectation that public assets ownership and control will be a more effective means to help eradicate absolute poverty, provide expanded employment opportunities, lessen income inequalities, and raise the general levels of living including health, education, and cultural enrichment of the masses of people Todaro (2000:93).

While few radical neo-Marxists would even go so far as to say that economic growth and structural change does not matter, the majority of thoughtful observers recognise that the most effective way to deal with these diverse social problems is to accelerate the pace of economic growth through domestic and international reforms accompanied by a judicious mixture of both public and private economic activity. Todaro (2000:93) finally suggests that the ultimate goal is to generate rapid economic growth while altering its character so that all segments of the Third World populations can participate in and benefit from its realisation.

However difficult it might be to provide a universally accepted definition of the concept of development, development theories and the model referred to above provide a broad background on which an acceptable definition can be formulated.

For the purpose of this research a new definition of sustainable development which views development as a state of human well-being is regarded as the most acceptable and relevant definition. To this end, it is important firstly to briefly examine the traditional economic measures; the new economic view of development; the core values of development; and the objectives of development outlined by Todaro (1985:83-88).

(c) The traditional economic measures

In economic terms development has traditionally meant the capacity of a national economy, whose initial economic condition has been more or less static for a long time, to generate and sustain an annual increase in its Gross National Product (GNP) rates.

An alternative common economic index of development has been the use of rates of growth of per capita GNP taking into account the ability of a nation to expand its

output at a rate faster than the growth rate of its population. The levels and rates of growth of real per capita GNP, that is, monetary growth of GNP per capita minus the rate of inflation, were normally used to measure in a broad sense the overall economic well-being of a population, that is, how much of real goods and services are available for consumption and investment for the average citizen Todaro (2000:97).

According to Todaro (2000 :97) it has been established that economic development in the past has also been typically seen in terms of the planned alteration of the structure of production and employment so that agriculture's share of both declines, whereas that of the manufacturing and service industries increases. Development strategies, therefore, have usually focused on rapid industrialisation, often at the expense of agriculture and rural development. Finally, these principal economic measures of development have often been supplemented by casual reference to non-economic social indicators such as gains in literacy, schooling/education, health conditions and services, and provision of housing (2000:97-99).

On the whole, however, development in the 1960s and 1970s was generally seen as an economic phenomenon, in which rapid gains in overall and per capita GNP growth would "trickle down" to the masses in the form of jobs and other economic opportunities or create the necessary conditions for wider distribution of the economic and social benefits of growth. Problems of poverty, unemployment and income distributions were of secondary importance (Todaro, 2000:97- 99).

(i) The new economical view of development

It is recorded that the 1970s witnessed a remarkable change in public and private perceptions about the ultimate nature of economic activity. In both rich and poor countries there was a growing disillusionment with the idea that the relentless pursuit of growth was the principal economic objective of society. In the developed countries, the major emphasis shifted towards more concern for the “quality of life” Todaro (2000:14-15).

It is reported further, according to Todaro (2000:14-15) that in the poor countries, the main concern focused on the question of growth versus income distribution. Many Third World countries that had experienced relatively high rates of economic growth by historical standards in the 1960`s began to realise that such growth had brought little in the way of significant benefit to the poor. For those hundreds of millions of people in Africa, Asia and Latin America their levels of living remained unchanged. Rates of rural and urban employment and underemployment were on the rise. The distribution of income became less equitable with each passing year.

The breaking point was also when many people felt that rapid economic growth had failed to eliminate or even reduce absolute and widespread poverty, which remained a fact of economic life in all third world nations. In both the developing and developed worlds the call for “dethronement of GNP” as the major objective of economic activity was widely heard. In it’s place concern for the problems of poverty and equality became the major theme of the second development decade Todaro 1985 (137-139). In short, Todaro (1985:137-139) points out that the 1950s and 1960s experience signalled that something was wrong with the narrow definition of development viewed in terms of GNP growth rates. Then it was realised that despite the fact the Third World nations had achieved the overall growth targets, the levels of living of the masses of people remained for the most part unchanged. An increasing number of economists and policy makers were alarmed at significant and widespread absolute poverty, inequitable income distributions and rising unemployment. As a result, the economic development of the 1970s came to be redefined in terms of the reduction or

elimination of poverty, in-equality, and unemployment within the context of a growing economy.

Economics is actually viewed by Todaro (2000:11) as a social science. That it is concerned with human beings and the social system by which they organise their activities to satisfy basic material needs, such as food, shelter and clothing as well as non-material wants, such as education, knowledge and spiritual fulfilment.

Unlike physical science, the social science of economics can claim neither scientific law nor universal truths. In economics there can only be tendencies and even these tendencies are subject to greater variations in different countries and cultures and at different times. Todaro (2000:11) points out that many so called general economic models are in fact based on a set of implicit assumptions about human behaviour and economic relationships that may have little or no connection with realities of developing economies. Their generality and objectivity may be more assumed. It implies further that economic investigations and analysis cannot be simply be lifted out of their institutional, social and political context especially when one must deal with human dilemmas of hunger, poverty and ill- health that plague so much of the world's population.

To this end it may be inferred that economics as a social science demands continuous research, analysis, evaluation of facts and examination and testing of findings. It will not be correct, therefore, to accept one economic model as more relevant than the other without qualification, that is, without taking into account the fact that many general economic models are based on a set of implicit assumptions about human behaviour and that economics cannot claim scientific law or universal truths.

A fusion of economic, social, physical and institutional components will add more value to economic development research and analysis. This fusion makes economics a social science and rejects the view that economics is an independent component of development.

Todaro (2000:8) indicates that in addition to being concerned with the efficient allocation of existing scarce productive resources and with their sustained growth over time, development economics must also deal with their sustained growth over time. It must also deal with the economic, social, political and institutional mechanisms, both public and private necessary to bring about rapid and large-scale improvements in levels of living for the masses of poverty-stricken, malnourished and illiterate people.

The economic, social, political and institutional mechanisms are referred to by the Development Facilitation Act, 1995 (Act 67 of 1995) as components of development and they form major pillars of an integrated development planning. These mechanisms are also referred to as environmental forces that shape management thoughts. Smit and Cronje (1992:14-15) suggest they also influence institutions and organisations.

For the purpose of development it can be inferred that the economic, social, political and institutional components present very important forces for shaping development. Other forces are international and technological forces. Development must, therefore, be conceived of as a multi-dimensional process involving major changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of absolute poverty (Todaro (1985:85)).

Development must therefore, in essence, represent the whole gamut of change by which the entire social system moves away from a condition of life widely perceived as unsatisfactory toward a situation or condition of life regarded as materially and spiritually better. This definition of development is supported by at least three basic components or core values of development.

(ii) Core values of development

There are at least three basic components or core values, which could serve as a conceptual basis and offer practical guidelines for understanding the “inner” meaning of development. These core values are life-sustenance, self-esteem and freedom, representing common goals sought

by all individuals and societies. The components relate to fundamental human needs that find expression in all societies and cultural values at all times Todaro (1985:86-87). They are discussed briefly below.

- **Life sustenance: the ability to provide basic needs**

Todaro (1985:86-87) claims that all people have certain basic needs without which life would be impossible. This life sustaining basic human needs include food, shelter, health and protection. When any of these basic needs are absent or in short supply it can be stated without reservation that a condition of absolute underdevelopment exists, according to this argument, a basic function of all economic activity is therefore, to provide as many people as possible with the means of overcoming the helplessness and misery arising from a lack of food, shelter, health and protection. To this end it may also be asserted, therefore, that economic development is a necessary condition for the improvement in the quality of life that is part of development. It can also be argued, therefore, that without sustained and continual growth at the individual as well as at the societal level, the realisations of development will not be totally achieved. It should be pointed out that rising capital income, the elimination of absolute poverty, greater employment opportunities and lessening income opportunities constitute the necessary but not the sufficient conditions for development.

- **Self-esteem: to be a person**

A second universal component of the good life cited by Todaro (2000:17), is self-esteem, that is, a sense of worth and self-respect, of not being used as a tool by others for their own ends. It is reasonable to assume that all peoples and societies seek some basic form of self-esteem, namely, authenticity, identity, dignity, respect, honour and recognition. Self-esteem therefore forms an important component of development.

- **Freedom from servitude: to be able to choose**

A third and final universal value suggested to constitute the meaning of development is the concept of freedom. Freedom here should not be understood in the political or ideological sense, but in the more fundamental sense of freedom or emancipation from alienating material conditions of life and from social servitude to nature, ignorance, other people, misery,

institutions and dogmatic beliefs. Freedom in this sense involves the expanded range of choices for societies and their members Todaro (2000: 17-18). The relationship between economic growth and freedom from servitude is emphasised not on the basis that wealth increases happiness, but it increases the range of choices Todaro (1985:87).

Development can therefore be viewed not only as an economic phenomenon. This view is further supported by the objectives of development discussed briefly below.

(d) Objectives of development

From the above discussion it can be concluded that development is both physical as well as a state of mind in which society, through some combination of social, economic and institutional processes, can secure the means to obtain a better life Todaro (2000:18). The following three objectives of development in all societies have been identified, namely:

- (i) to increase the availability and widen the distribution of basic life sustaining goods and services as food, shelter, health and protection;
- (ii) to raise levels of living, in addition to higher income, to include the provision of more jobs, better education and pay, greater attention to cultural and humanistic values, all of which will serve not only to enhance material well-being, but also to generate greater individual self-esteem; and
- (iii) to expand the range of economic and social choice available to nations by freeing them from servitude and dependence not only in relation to other people and nation-states but also to the forces of ignorance and human misery.

Development, therefore, fulfils both concrete and “abstract” human needs. It is not, primarily, a process through which the fiscal needs of people are met, but it means that while people strive towards a concrete object, for example, the establishment of a clinic or school, at the same time they reach “abstract” goals that they may not even have thought of, namely, self-reliance, self-sufficiency and human dignity. These “abstract” gains are the enduring and

permanent results of development that enable people to help themselves
Todaro (2000:18-19).

Todaro (2000:18-19) claims that the most critical characteristic of development is that it is also a learning process. Through every step taken to realise an objective, people learn to take each subsequent step in order to improve and to do better in the next project. By gaining in the ability to reach a certain objective, they also gain in self-sufficiency. Their reliance on external resources to reach an objective diminishes and when they become self-reliant, and there are also gains in human dignity Todaro (2000:19).

Development can only be a learning process if the people really participate Swanepoel (1989:2-4). The new approach to development therefore, defies it as a process of improving the equality of all human lives. According to Todaro (2000:17) this process reflects three equally important aspects, namely:

- (i) greater consumer intake of food, medical services, education, etc., through relevant growth processes;
- (ii) creating conditions conducive to the growth of people's self-esteem through the establishments of social, political and economic systems and institutions which promote human dignity and respect; and
- (iii) increasing people's freedom to choose by increasing the range of their choices, for example, increasing varieties of consumer goods and services, Todaro, (1985:580).

The above descriptions address the question: "What is development?" Further questions that deserve answers are: for whom is development, by whom should development be achieved and how should development be realised. Conyers and Hills (1984:21) point out that one of the problems faced when considering the nature of development is that people's views depend on the situation in which they are placed, and that most, although not all of the discussion on development emanates from three main interest groups namely:

- [i] Governments, non-government organisations and individuals in the Third World;
- [ii] International agencies such as the various United Nations Agencies and the World Bank; and lastly
- [iii] Academics from the Developed World.

Conyers and Hills (1984:21) further point out that these three groups tend to differ in their views of development. They indicate that the most unfortunate situation is that most of the published materials on development are produced by the last two groups, namely, the International Agencies such as the various United Nations Agencies and World Bank, and Academics from developed World, and not by the people from the Third World. If this deduction holds water, it is true that the consequence may be that views expressed in much of the literature on development may be somewhat biased or distorted.

Conyers and Hills (1984:21) also discuss the development policies of Third World Nations as well as the view of academics in the developed world, and point out that for many years it was assumed that the state of development to which under-developed nations should aspire was not or less synonymous with the type of society which existed in the developed nations. Rostow (1960:20) describes this society as a “High Mass consumption” society. It was assumed that development needs a high national income, accompanied by a magnet economy and a “specialised” society, in which most people work not to meet their own immediate consumption needs, but to produce particular goods and services needed by others and purchased in cash. In other words development was seen in terms of the structure and growth of the national economy and degree of development was most often measured in terms of national income. The two most common indicators of development were per capita income (namely national income divided by the size of the population) and the average annual rate of growth in the national income.

This concept of development, according to Conyers and Hills (1984:20-25) persisted more or less unquestioned in both developed and under developed

nations and in international development agencies, until the mid-1960. By then, however, it emerged that people were beginning to question whether the concept of a “high mass consumption” society was really the goal to which developing countries should aspire.

One of the most obvious reasons for the change in attitude was that it became increasingly evident that most developing countries could not achieve this goal. Another important reason was that it was realised by many people that this concept of development, measured primarily according to economic criteria, was often accompanied by a variety of social and political problems including the breakdown of traditional social and political institutions which in turn resulted in increased crime, deprivation and dependency, new types of health problems, environmental problems and increasing inequalities between individuals, groups and regions. Other issues that raised questions were economic problems such as unemployment and inflation.

A view that conceived development as a state of human well-being rather than the state of the national economy was expressed in a statement known as the Cocoyoc Declaration, which was adopted by participants at a seminar organised by the United Nations Council on Trade and Development (UNCTAD) and the United Nations Environment Programme (UNEP) in Cocoyoc, Mexico, in 1974. The Declaration stated:

“Our first concern is to redefine the whole purpose of development. This should not be to develop things but to develop man. Human beings have basic needs: food, shelter, clothing, health and education. Any process of growth that does not lead to their fulfilment, or even worse, disrupt them is a travesty of the idea of development“ Cocoyoc Declaration, cited in Conyers and Hills (1992:27-28).

The general support to “man-centred” development is because it is associated with increasing levels of concern about the non-economic aspect of development, that is, development conceived and measured not only in economic terms but also in terms of social well-being, political structures and the quality of the physical environment.

The new concepts of development are thus characterised by relatively less concern with the quality of production or output, material needs or monetary gain and more concern with the general quality of human life and the natural environment.

The use of indicators such as per capita income or the rate of growth of national income are thus no longer the only measures of development. Other measures or indicators include life expectancy, standards of health or literacy, access to various social or public services, freedom of speech, the degree of popular participation in government or decision-making, unemployment etc, Conyers and Hills (1992:24– 29).

One of the manifestations of the concept of “man-centred” development is a concern with the distribution of the benefits of development. In other words, the degree of inequality, that encompasses inequality between individuals or social groups and inequality between regions Conyers and Hills (1992: 29).

While economic progress is an essential component, it is not the only component. Development is not purely an economic phenomenon. In an ultimate sense, it must encompass more than the material and financial side of people’s lives. Development should be perceived as a multidimensional process involving the re-organisation and reorientation of entire economic and social systems.

In addition to improvements in incomes and output, it typically involves radical changes in institutions, social, and administrative structures as well as in popular attitudes and in many cases, even customs and beliefs.

2.6 SOCIAL DEVELOPMENT

Midgley (1995:25) defines social development as a process of planned social change designed to promote the well being of the population as a whole in conjunction with a dynamic process of economic development.

Social development's most distinctive feature, therefore, is its attempt to link social and economic efforts, seeking to integrate social and economic processes, viewing both elements as integral facets of a dynamic process of development. Social and economic development is seen as forming two sides of a coin, where social development cannot take place without economic development, and economic development is said to be meaningless unless it is accompanied by improvements in social welfare for the population as a whole.

The origin and goals of social development outlined by Midgley (1960:25) further provides the definition of development, that is, development is referred to as people-centred or human-centred, but, that it has to be integrated with economic development processes, normally referred to as socio-economic development.

Social development goals include the achievement of a process of personal growth and self-actualisation, social justice and peace, human rights, political participation and social integration in social development, cultural rights and respect for the beliefs of others.

Social development as defined by Midgley further involves the adoption of policies that would facilitate cultural expression and create opportunities for people to enjoy their cultural heritage. Midgley also sees social development involving social planning and human services programmes by authorities and stakeholders aimed at addressing pressing unmet needs of the poorest groups which consist of basic survival needs such as those for nutrition, safe drinking water and shelter. Those are not necessary for bare survival but regarded as social rights which society guarantees for all citizens and include the need for education, health care and social security. Other needs mentioned include non-material needs such as the need to participate in the political process, to be protected against discrimination and to have equal opportunities for advancement.

By definition social development accords with the three aspects of development referred to above, namely, that development is a process of improving the equality of all human lives, which [i] rouses people's living levels, for example, their incomes and consumption levels of food, medical services, education, etc. through relevant economic growth processes; [ii] creates conditions conducive to the growth of

people's self-esteem through the establishment of social, political and economic systems and institutions which promote human dignity and respect, and [iii] increases people's freedom to choose by enlarging the range of their choices, for example, increasing varieties of consumer goals and services.

These definitions will be referred to at a later stage in this report when the strategic development framework of the City of Tshwane Metropolitan Municipality is discussed.

2.7 SUSTAINABLE DEVELOPMENT

Allen cited by Elliot refers to sustainable development as development that is likely to achieve lasting satisfaction of human needs and improvement of the quality of human life Elliot (1994:3).

The World Commission on Environment and Development, 1987:
LUCN/UEP/WWF, 1991 states that making development sustainable means moving beyond a narrow, albeit important, concern with economic growth per se, to considerations relating to the quality of that growth, that is, ensuring that people's basic needs are being met, that the resource base is conserved, that there is a sustainable population level, that environment and cross-sectional concerns are integrated into decision-making processes, and that communities are empowered.

Sustainable development is further defined as a pattern of development that permits future generations to live at least as well as the current generation Todaro (2000:766). Sustainable development, therefore, is concerned with improving the overall quality of life as well as satisfying human needs; it implies self-reliant and cost-effective development, facilitating access to health, shelter, clean water and food, and finally it implies the need for people-centred initiatives Fitzgerald et al 1995:2-4). Tolba also cited by Elliot (1994:3) states that in broad terms the concept sustainable development encompasses:

- (a) Help for the very poor because they are left with no option other than to destroy their environment;
- (b) The idea of self-reliant development within natural resource constraints;

- (c) The idea of cost-effective development using differing economic criteria to the traditional approach, that is to say, development should not degrade environmental quality, nor should it reduce productivity in the long-term;
- (d) Issues, including health control, appropriate technologies, food self-reliance, clean water and shelter for all; and
- (e) The notion that people-centred initiatives are needed means that human beings are the resources in the concept Elliot (1994:3).

Population and development, that is where development has to address population growth as well, need to be part of broader development policies. Core issues and necessary conditions for sustainable development identified by the World Commission on Environment and Development in 1987, which are referred to in the discussion above include: the fact that an area or country under development need to know its population carrying capacity, that is, the ability of the resource base to support and provide for the needs of humans without becoming depleted. Development strategies have to deal with the combination of population growth, eco-systems, health and access to resources, food security, energy, industry and the urban challenges, that is, the provision of essential services, social disorders, urbanisation, need for development, limited resources and inadequate services.

The Commission also identified the following requirements to pursuit sustainable development, namely:

- (a) A political system that secures effective citizen participation in decision-making;
- (b) An economic system that provides solutions for tensions arising from disharmonious development;
- (c) A production system that respects the obligation to preserve the ecological base for development;
- (d) A technological system that fosters sustainable patterns of trade and finance;
- (e) An international system that fosters sustainable patterns of trade and finance; and
- (f) An administrative system that is flexible and has the capacity for self-correction Elliot (1994:4).

The above, to a large extent, provides guidelines and indicators for managing sustainable development. These guidelines may assist developers not to repeat mistakes of the past.

2.8 MANAGING SUSTAINABLE DEVELOPMENT

Managing sustainable development when viewed in respect of the definition of management, sustainability and development discussed above, would imply that management functions of planning and decision-making, organising, leading, and controlling have to be employed to achieve sustainable development.

Development defined above, as involving socio-economic, political and physical environmental forces have to be planned, organised, lead and controlled. Aspects of sustainability also have to be built in to ensure that not only development is attained but also sustainable development is achieved.

At the heart of managing sustainable development, lies development planning. Planning was defined above as determination of goals and deciding how best to achieve them or as a continuous process that involves decisions, or choices about alternative ways of using available resources with the aim of achieving particular goals at some time in the future Conyers and Hills (1984:62).

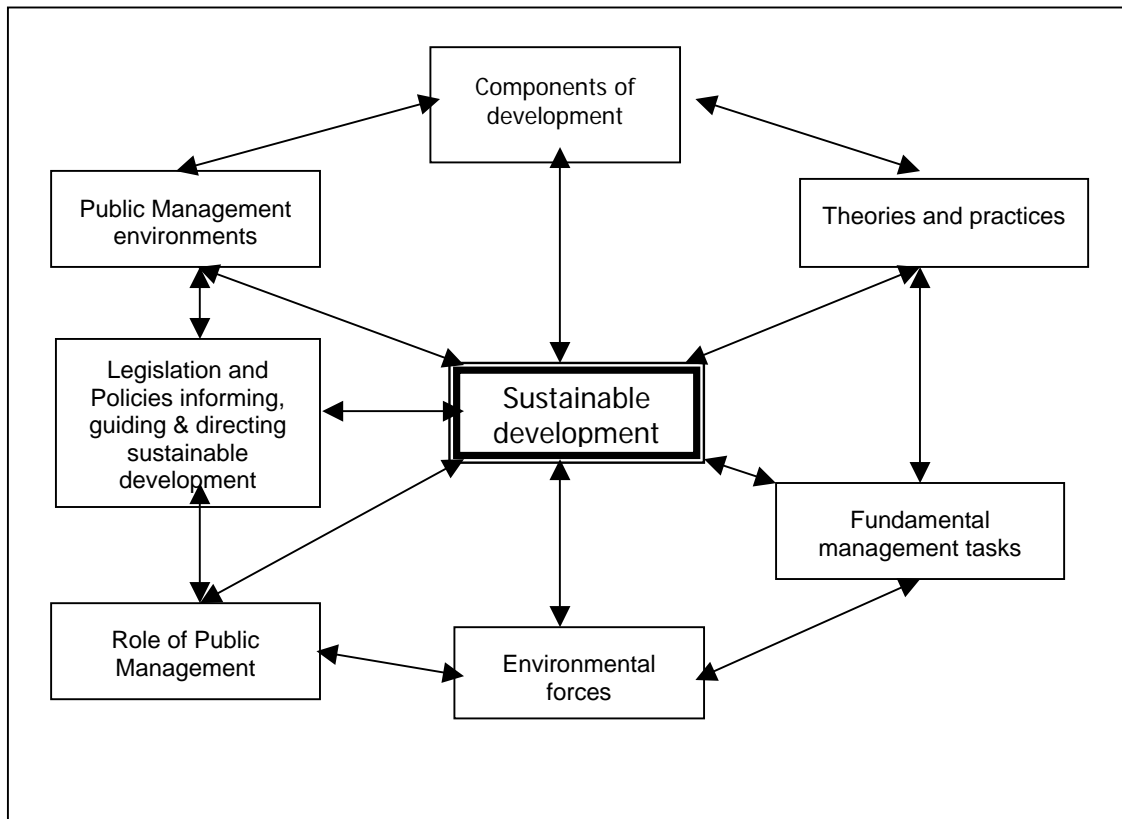
Development planning, which began as an offshoot of economics concerned primarily with trying to influence the rate of growth and structure of the national economy, has now become a much wider-ranging activity concerned with all aspects of social, economic, political and environmental change and overlapping into physical planning. Planning should, therefore, not be approached as the preparation of ambitious or idealistic plan documents for fixed periods of time, but as a continuous process closely related to the formulation of policies and the implementation of plan proposals Conyers and Hills (1984: 62-63).

Conyers and Hills (1984: 62-63) further suggest that development planners should work closely with politicians, administrations and with the general public and planning process and should not only include the preparation of plans but also the monitoring and evaluation of progress during implementation and that plans should be continuously reviewed, revised and extended where necessary.

The planning process, in essence, will include relevant leadership and appropriate structures or institutions, for example, the government structures, the private sector and non-government structures. Control measures are also essential to ensure that implementation stays on track. This means that development planning should be regarded as a wide-ranging activity, encompassing all efforts to control, direct, influence and monitor the process of development.

It is important to note that the application and operationalisation of all public management environments, environmental forces, theories and practices, the fundamental management tasks and the components of development, with a purpose to realise and achieve sustainable development, are directly or indirectly influenced, informed and directed by legislation and policies and that they are mutually inclusive and interactive in nature. Diagrammatically such mutual exclusivity and interactivity may be illustrated as shown below.

Figure 2.7 : INCLUSIVE AND INTERACTIVE NATURE OF SUSTAINABLE DEVELOPMENT BROAD COMPONENTS



Source: Adapted from Living Cities Development Framework, 1997.

The diagram above illustrates the potential to authenticate and declare development legislation and policies as independent disciplines. The diagram further indicates possible core components of the discipline.

2.9 CONCLUSION

The topic of this thesis, namely, managing sustainable development in the Tshwane Metropolitan Council area, consists of four key concepts, namely, management, sustainable, development and the study area (or Municipality).

The management tasks that have to be performed to achieve management goals were identified as planning, decision-making, organising, leading and controlling of resources in an efficient and effective manner. To achieve sustainable development means, therefore, that management tasks have to be effectively and efficiently performed.

The concept of development was first approached from an economic point of view. The theories of development and practices were presented to give a background to the evolution of the concept that eventually lead to the understanding of development as not only an economic phenomenon but as encompassing socio-economic, political and physical aspects, that development is human-centred and is about people and not only about products and services. The definition of development outlined by Todaro (2000:16) encompasses almost all aspects of the new definition and approach to development, that is, that development should be viewed as a multidimensional process involving the re-organisational process and reorientation of an entire economic and social system, that in addition to improvements in incomes and outputs, development involves radical changes in institutional, social, and administrative structures as well as in popular attitudes and possibly in customs and beliefs.

Development is incomplete if it lacks sustainability. Sustainability means that development should be about the people themselves, that they should determine their destiny, be self-reliant and take the responsibility to develop themselves while the government structures provide support and facilitation services.

The people themselves must be involved, committed and be responsible to take forward the process of improving the quality of their lives, raise their level of living, for example, improving incomes by creating jobs themselves, improving and where necessary changing their patterns as consumers of food, medical services and education. Through relevant economic growth processes, they must be involved and participate in creating conditions conducive to the growth of their self-esteem, through the establishment of social, political and economic systems and institutions which would promote their dignity and respect and increase their freedom to choose by enlarging the range of their choices, for example, increasing varieties of consumer goods and services. This approach to development does not only define what development is, but also for whom is development, who must drive the development process and how must it be driven? Therefore, if people could involve themselves in the provision of health services, participate in the provision of education, establish, improve and maintain an infrastructure and services, participate in decision-making through different structures as stakeholders, then development can be achieved. It should also be pointed out that development has to be managed by legitimate structures such as the government structures and the

well-defined and legitimate non-governmental structures as well as by organised individuals such as the private sector and trade unions and civic associations and would include both pressure and interest groups.

Social science, unlike physical science cannot claim scientific laws or universal truths. In development there can only be tendencies that may be subject to greater variations in different countries and cultures and at different times.

Many general development models are based on sets of implicit assumptions about human behaviour that may have little or no connection with the realities of development processes.

It is logical, therefore, that continued research on development models are conducted, in order that tendencies may be formulated and assumptions are made regarding how to accommodate new evidence, findings and research on development models and theories.

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CHAPTER 3

EMPLOYMENT OF THE GENERIC FUNCTIONS OF PUBLIC ADMINISTRATION AND PUBLIC MANAGEMENT FUNCTIONS AS TOOLS FOR MANAGING SUSTAINABLE DEVELOPMENT

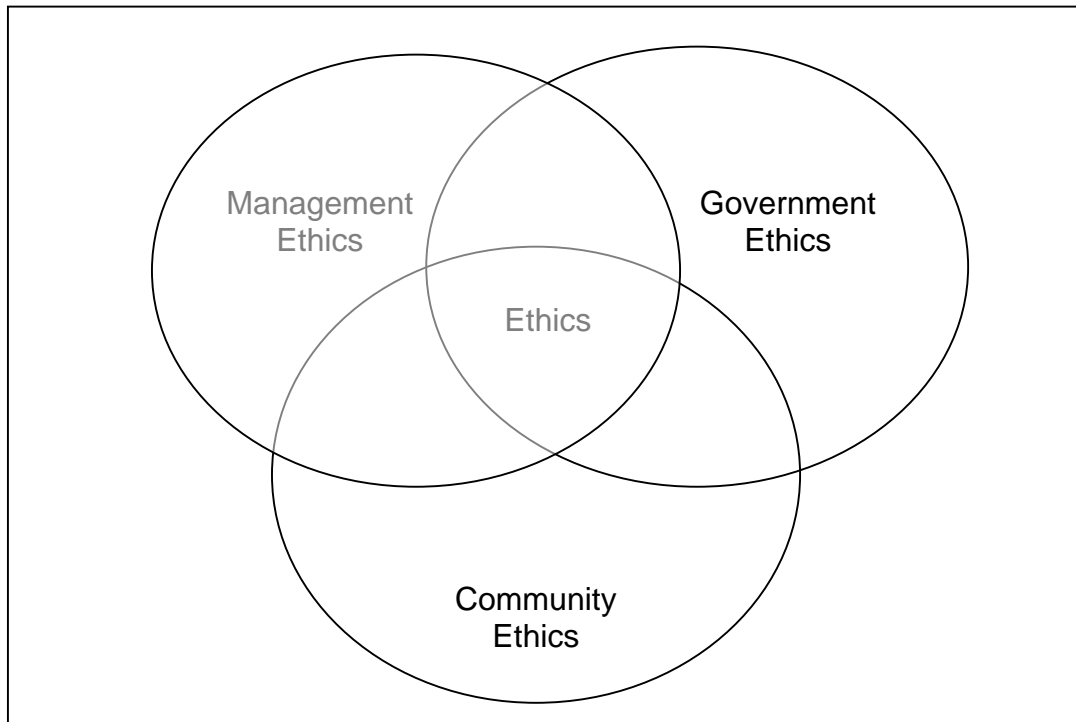
Major challenges facing municipalities include the application of the public management functions and generic functions of public administration and related processes to achieve sustainable cities, and the development of applicable indicators to measure and monitor the development processes.

The many definitions of sustainable development make the employment of these generic functions complex and challenging. Chapter 3 reiterates the crucial role played by the generic functions of public administration in government structures. In this case however it is with reference to sustainable development.

Managing sustainable development involves not only the integration of sustainable development components and the management tasks, but also the employment of the generic functions of public administration including the principles of administration, outlined also in the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996). These include management ethics, which involves three interdependent ethics, namely, the management ethics, the government ethics and the community ethics. The interdependency of these ethics is built around the fact that individuals, public officials and managers are part of the community and are influenced by community ethics; that they also work in public institutions and are consequently influenced by government ethics Van der Walddt and Du Toit (1999:40-41).

This can be illustrated diagrammatically as follows:

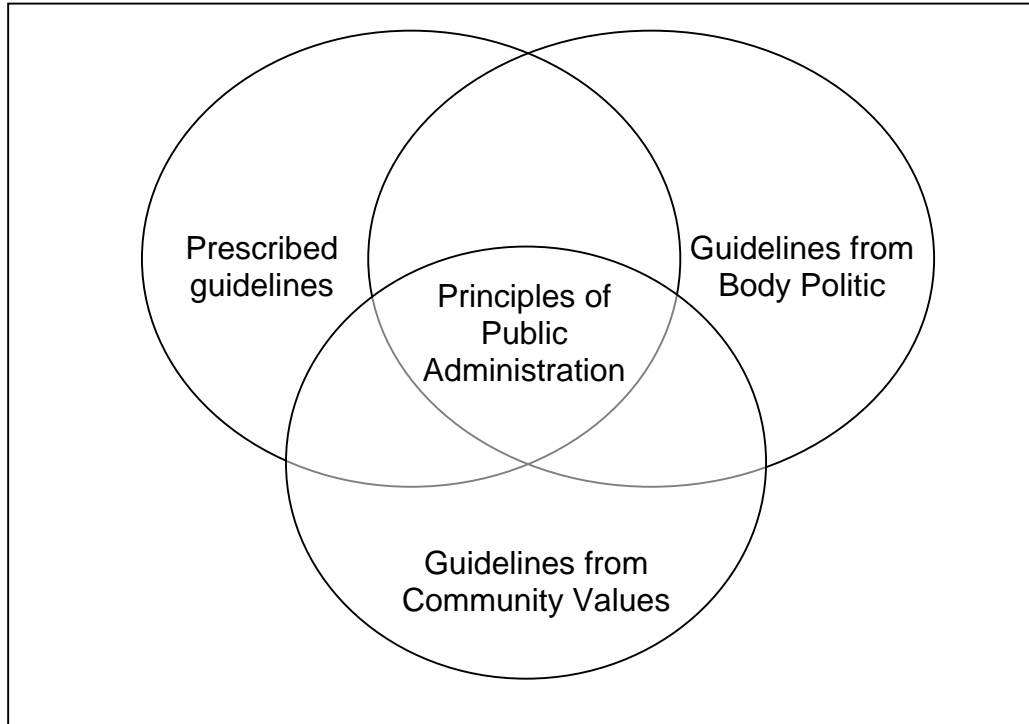
Figure 3.1 THE INTERDEPENDENCE OF THE THREE ETHICS



Source - Adapted from Van der Waldt and Du Toit (1999:41)

These ethics are also referred to as the principles of public administration, namely, guidelines emanating from the body politic, emanating from community values and from prescribed guidelines Cloete (1994:64-86). These principles may also be represented in diagrammatic form as indicated below.

Figure 3.2 THE PRINCIPLES OF PUBLIC ADMINISTRATION



Source - Adapted from Cloete (1994: 64-86)

Public administration is defined as a broad spectrum combination of practice and theory which aims to promote public policy making which is sensitive to the needs and aspiration of society, cultivate a greater understanding of the relationship between government and governed society, and establish managerial practices directed at efficiency, effectiveness and a sensitivity to people's innermost needs Du Toit and Van Der Walldt (1997:61). Public administration, therefore, refers to the study of various processes and specific functional activities of government institutions that must operate within a particular environment in order to improve the general welfare of society by providing products and services to it. These processes refer to policy, organising, financing, staffing, procedures and methods, control and management Botes et al (1992:187). These will be discussed in detail later in this chapter.

The purpose of this chapter, however, is not to discuss Public administration *per se*, but to illustrate the importance of public administration processes as tools to manage government institutions, including the management of sustainable development within municipalities.

Section 195 [1] of Chapter 10 of the Constitution of the Republic of South Africa Act, 1996 [Act 108 of 1996] provides some basic values and principles governing public administration, namely, that public administration must be governed by the democratic values and principles enshrined in the Constitution, including the following principles:

- a) That a high standard of professional ethics must be promoted and maintained;
- b) That efficient, economic and effective use of resources must be promoted;
- c) That public administration must be development-oriented;
- d) That services must be provided impartially, fairly, equitably and without bias;
- e) That people's need must be responded to, and the public must be encouraged to participate in policy-making;
- f) That public administration must be accountable;
- g) That transparency must be fostered by providing the public with timely, accessible and accurate information;
- h) That good human resource management and career-development practices, to maximise human potential, must be cultivated; and
- i) That public administration must be broadly representative of the South African people, with employment and personnel management practises based on ability, objectivity, fairness and the need to redress the imbalances of the past to achieve broad representation.

The Constitution of the Republic of South Africa Act, 1996 [Act 108 of 1996] sets out in Section 195[2] that the principles referred to above should apply to the administration of every sphere of government, organs of state and public enterprises.

The Municipalities that constitute the third sphere of government are compelled by the provisions of the Constitution of the Republic of South Africa Act, 1996 [Act 108 of 1996] to engage with the above mentioned principles in all their activities including the developmental responsibilities.

As indicated in Chapter One, development in local government today is largely informed and guided by legislation, as a result the relevance of the generic functions of public administration and the principles of public administration cannot be ignored.

This chapter makes a point of the fact that local government as a sphere of government is bound to employ administration as an enabling tool to achieve its ultimate objective which is to promote the general welfare of the community it serves.

Section 153[i][a] of the Constitution of the Republic of South Africa Act 1996 [Act 108 of 1996] states that a municipality must structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community. This section provides basic directives to local government to effect management and administration to provide services that would address basic needs, for example, water, health, sanitation and a clean environment.

3.1 ADMINISTRATION

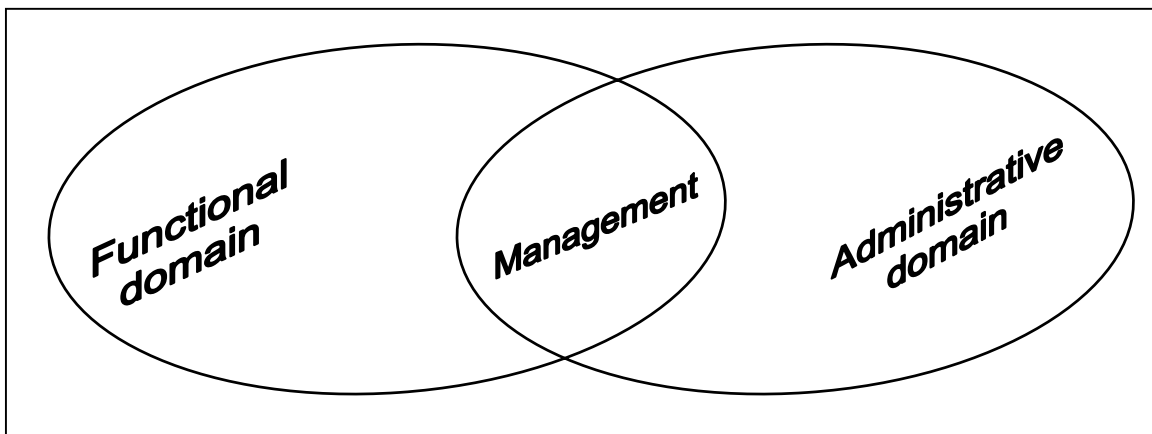
As mentioned in the research framework (section 1.1), the researcher maintains the view that public management is an integral part of public administration, and that the two concepts are not synonymous, but that they operate as a functionally integrated whole.

The use of the generic functions of public administration to manage sustainable development does include, therefore, the public management functions of planning, organising, leading and controlling.

Administration in the public sector is referred to as the vitality behind the pursuit of the object of an institution. It is further viewed as the institutional tool by which departments or institutions are sustained. Without the administration of funds, staff, policy and procedures the institution would ultimately disintegrate Botes et al (1992:187).

The generic functions of public administration have been defined as policy, organising, financing, staffing, procedure and control and rendering accounts Cloete (1995:91-205). In addition to the above six generic functions of public administration Cloete refers to public management as part of public administration Cloete (1994:220). Botes et al (1992:187) also refer to public administration as having seven generic functions, which include management, and illustrate that diagrammatically below.

FIGURE 3.3 The role of Public Management



Source – Botes et al (1992:187)

The use of the seven generic functions of public administration referred to above in the management of sustainable development will be discussed below in relation to the management of development within the City of Tshwane Metropolitan Municipality area. Cloete (1995:205-220) proposes that the generic functions of public administration are mutually inclusive, meaning that in each of the functions the other functions are found, for example, within financing there will be policy, organising, staffing, procedures, control and management.

The use of such generic functions within public administration as a tool for managing sustainable development should be seen in the light of the goals of sustainable development, the components of sustainable development as well as elements and aspects of sustainable development.

As defined and discussed in Chapter 2, sustainable development is referred to as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. As such it requires the promotion of values that encourage standards of consuming that are within bounds of the ecologically possible and to which all could reasonably aspire (WCED, 1987). The concept sustainable development has been introduced into the environment debate as an expression of the interdependence between the three systems identified as being basic to development, namely, the economic system, the social system and the bio=physiological system.

The Development Facilitation Act, 1995 (Act 67 of 1995) refers to these systems as components of integrated development planning, namely, social, economic, institutional and physical components.

The external environments of public administration are listed as political, social, economic, technological, legal and cultural environments Van der Waldt and Du Toit (1999:104).

The components discussed in Chapter 2, include a sustainable economic development plan, a sustainable settlement plan, a sustainable transport system, a sustainable environmental management plan, a sustainable social development political stability and a politically sustainable layout plan with a sustainable layout infrastructure, efficient land use management system, sustainable finance management plan and effective employment of development legislation and policies including administrative principles.

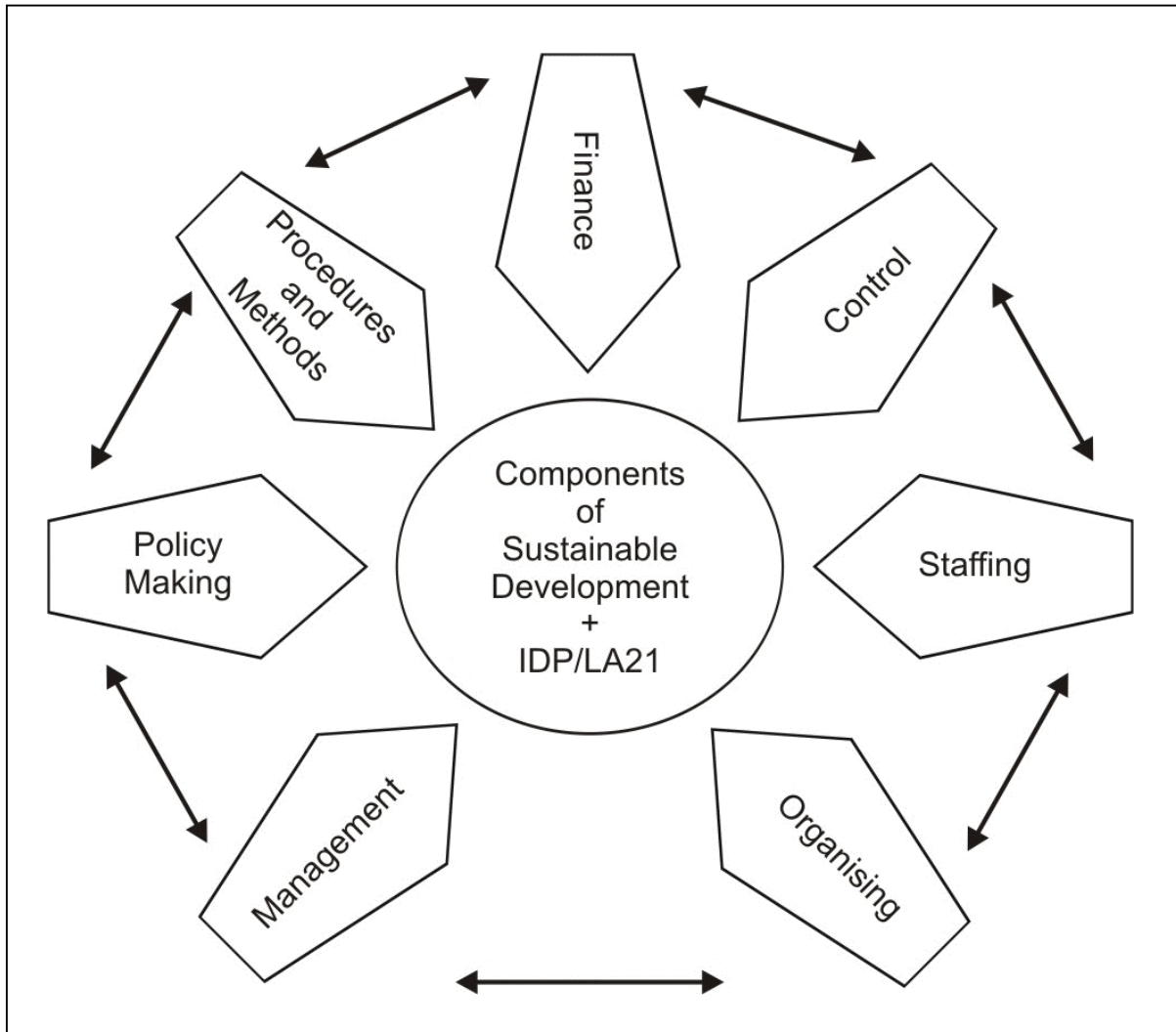
To weld together all the components of sustainable development and elements the use employment of administrative functions is required. Without a policy, staff, finance procedures and methods, management and control, sustainable development will not take place.

It is important to note that there are already existing National and Provincial policies, legislation and programmes that are designed to direct and inform sustainable development, such as the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996), and the National Environmental Management Act 1998 (Act 107 of 1998). Personnel management for example, is being regulated largely by the Labour Relations Act (Act 66 of 1998).

Management skills and know-how to deal with all policies and legislation in respect of the generic functions of administration is of cardinal importance.

So it is important to understand the various components of sustainable development that include social, economic, technological, cultural, physical and institutional as they apply to administration and as they form the elements of sustainable development. The relationship may be illustrated schematically as outlined below.

Figure 3.4 GENERIC FUNCTION OF PUBLIC ADMINISTRATION WELDING TOGETHER COMPONENTS OF SUSTAINABLE DEVELOPMENT AND THE IDP/ LA21.



Source - Adapted from Cloete (1994: 64-86)

The role of public administration is an enabler to formulate components of sustainable development and to activate them. Sustainable developments require constant feedback to ensure constant activation and functioning of these components and elements of sustainable development. Sustainable development requires the synchronisation of all components of sustainable developments through able mechanisms such as the generic functions of administration. It is crucial also to understand sustainable development in relation to what

development entails and what the objectives of development area. Development has been defined in Chapters 1 and 2 as the whole gamut of change by which the entire social system moves away from a condition of life widely perceived as unsatisfactory towards a condition of life regarded as materially and spiritually better. Development, therefore, is both physical and a state of mind in which society, through some combination of social, physical, economic, environmental and institutional processes can secure the means to obtain a better life.

In order to implement development by government organ, administration is required. To bring absolute change by which the entire social system moves away from a condition of life widely perceived as unsatisfactory, toward a situation or condition of life regarded as materially and spiritually better requires a clear policy, finance qualified personnel, procedure and methods, control mechanisms and management. To synchronise and integrate social, economic, physical, environmental and institutional processes need policies, finance, personnel, procedures and methods control and management. It can be said, therefore, that the generic functions of administration enable development to take place.

Development was referred to in Chapter 2 as consisting of four generally acceptable objectives namely:

- (i) To increase the availability and widen the distribution of basic life sustaining goods and services such as food, shelter, health and protection;
- (ii) To raise levels of living including a higher income, the provision of more jobs, better education and greater attention to cultural and humanistic values, all of which will serve not only to enhance material well-being but also to generate greater individual self esteem; and
- (iii) To expand the range of economic and social available to nations by freeing them from servitude and dependence, not only in relation to other people and nation states but also to the forces of ignorance and human misery.

The three objectives of administration as referred to above need to be activated, processed and implemented to give effect to development. An important enabler here is administration. The governmental institution cannot develop and implement development strategies and plans without policy, finance, personnel, procedures and methods, management and control.

These generic functions of administration do not only apply to development, but to sustainable development as well. The goals of sustainable development clearly illustrate the importance of the generic functions of public administration as tools for managing sustainable development. The goals include conservation-balanced development, environmental quality, social equality and political participation. The relationships between the generic functions of public administration and the goals of sustainable development are referred to below.

(i) Conservation

Sustainable development involves the efficient use of non-renewable energy and mineral resources through higher productivity, recycling, development of alternative technology and substitution wherever these are possible and not environmentally harmful. It also means maintenance of bio-diversity and its potential. It requires economic valuation of natural capital assets regarded as free goods. The conservation goal ensures the environmentally efficient use of land and other resources. Conservation as a goal of sustainable development as defined remains a statement until it is activated through the activators and enablers such as policy, staff, finance, procedures and methods, management and control. Clear policies need to be formulated, qualified staff needs to be appointed to implement policies and legislation procedures and methods to ensure that there is enough finance for conservation purposes. This will ensure that control measures are implemented and that all plans and processes are in place and are achieving their objectives.

(ii) Balanced development

These goals are concerned with the use of physical resources and their impact on the built environment. Resource conservation requires

patterns of development that minimise energy consumption, promote the re-use of buildings and prevent the waste of valuable natural resources. This goal actually aims at achieving an appropriate balance between the built and the natural environment. The layout of infrastructure planning as a component of sustainable development links well with this goal. The application of the generic functions of public administration enables the implementation of this goal and without policy, finance, staff, procedures and method, management and control mechanisms this goal will not be achieved.

(iii) Environmental quality

At the very least, environmental quality means that processes that degrade or pollute the environment must be avoided. Environmental quality also aims to improve and enhance environmental quality in those areas already degraded or grossly polluted.

The Government's environmental policy seeks to unite the people of South Africa to work towards a society where all people have sufficient food, clean air and water, decent homes and green spaces in their neighbourhood thereby enabling them to live in spiritual, cultural and physical harmony with their natural surroundings. This policy actually defines what environmental quality entails, and like the conservation and balanced development goals, this goal cannot be achieved unless the generic functions of administration are applied.

(iv) Social quality

A pattern of inequality has developed over time and it intensifies pressure on the environment from the high per capita demands of the rich and struggle for survival of the poor. The conflicts that arise are the major obstacle to cooperation. Greater equality will not in itself achieve sustainability since under present economic systems, both wealth and poverty degrade the environment, but greater equality will remove the sources of conflict and is a pre-condition for political co-operation and commitment.

(v) Political participation

This goal aims to change values and attitudes by encouraging the increase of participation in political decision-making at all level. Change cannot simply be ordained from above - it must be also be stimulated from below.

The Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) the Local Government: Municipal systems Act, 2000 (Act 32 of 2000); the Local Government Municipal structures Act, (Act 117 of 1998) and the Development Facilitation Act, 1995 (Act 67 of 1995) are some of the legislations and policies that make community participation in all matters of government, a statutory requirement.

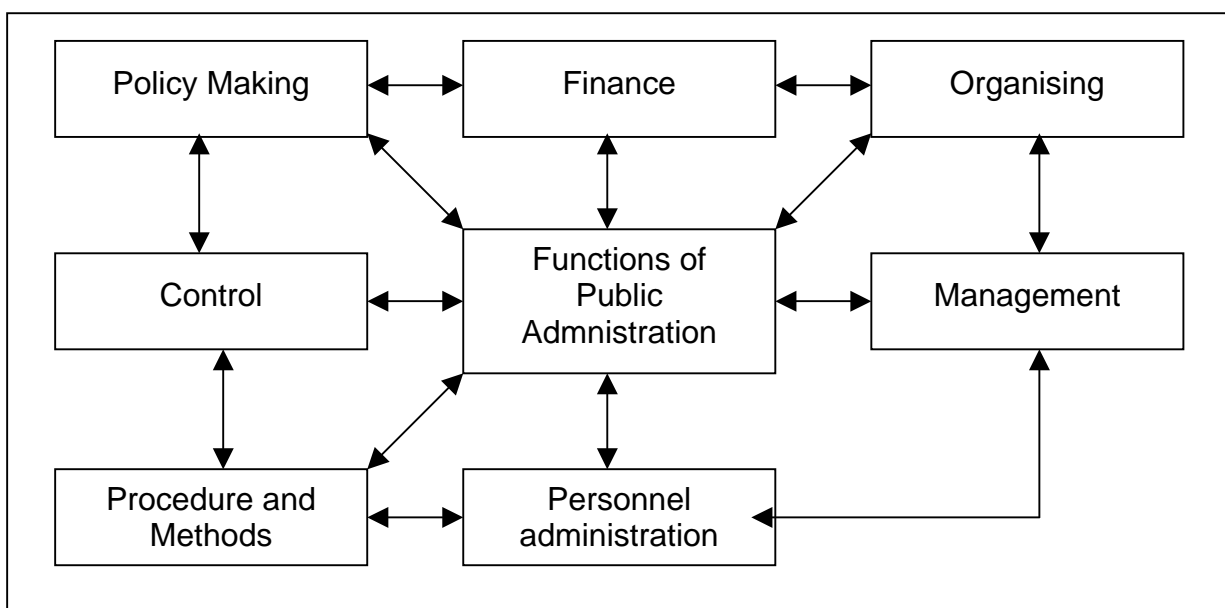
One of the fundamental intentions of these legislations and policies is to encourage and to enable non-governmental organisations, community based organisations and individual stakeholders to promote development ideas and to mobilise support. Participation suggests further that dispersal of power from the Central Government and Provincial Government to local level has the potential to encourage innovation, responsibility and support for policies and programmes for sustainable development. What is lacking in these legislations and policies is enforcement and evaluation of their joint impact.

The generic functions of public administration namely, policy, finance, procedures and methods, management and control are necessary to activate programmes, plans and policies to promote community participation. It is worth noting that without the employment of the generic functions of public administration the integration of components of sustainable development will not be possible.

Based on the role of the generic function of public administration it can be inferred that such a function of public administration activates and welds together all components. Aspects of sustainable development including goals, programmes, policies and the general principles which direct that spatial planning, land use management and land development as components of sustainable development, must be sustainable, equal, efficient, integrated and be based on form and good governance.

It is important to note that the generic functions of public administration are also crucial to design and guide spatial planning, land-use management and land development processes and decision-making with regard to spatial planning, land use management and land development. The generic functions of public administration as a mechanism to weld together components of sustainable development are illustrated diagrammatically below.

Figure 3.5 The generic functions of public administration



Source - Adapted from Cloete (1994:64-86)

3.1.1 Policy

There can be little doubt that the lack of suitable environmental policy has been one of the major causes of Africa's, and a large part of the developing world's, limited success in bringing about sustainable development Meyer et al (1995:11). Meyer et al., suggest that much effort has been devoted to the reform and restructuring of the public sector in Africa in management techniques, modern technologies and training of personnel, but very little attention has been given to policy analyses and formulation. As a result development has often been confronted with development projects and programmes which are structured within a policy vacuum. In addition

inconsistencies in policies and execution of development programmes have often led to failure and that social development and economic policies have been disconnected, which has led to early development failures Meyer et al (1995:11).

Meyer et al (1995:11) conclude that policy and development should be informed by one's understanding of the meaning of development. Their findings reveal that many of the development mistakes in Africa have been as a result of well-meaning, but ill-informed views on development. Throughout these chapters attempts are made to provide as many definitions of development as possible with a view to address the above-mentioned limitation.

Policy is referred to as the statement of intent. It provides answers to the questions, what should be done, how it should be done, when it should be done, where it should be done, by whom it should be done, for who it should be done and at what cost. Cloete (1992:104) and Fox (1991:30) refer to policy-making as a set of complex events determining what actions can be taken, the effects of the actions on social conditions and how such actions can be changed to produce desirable outcomes.

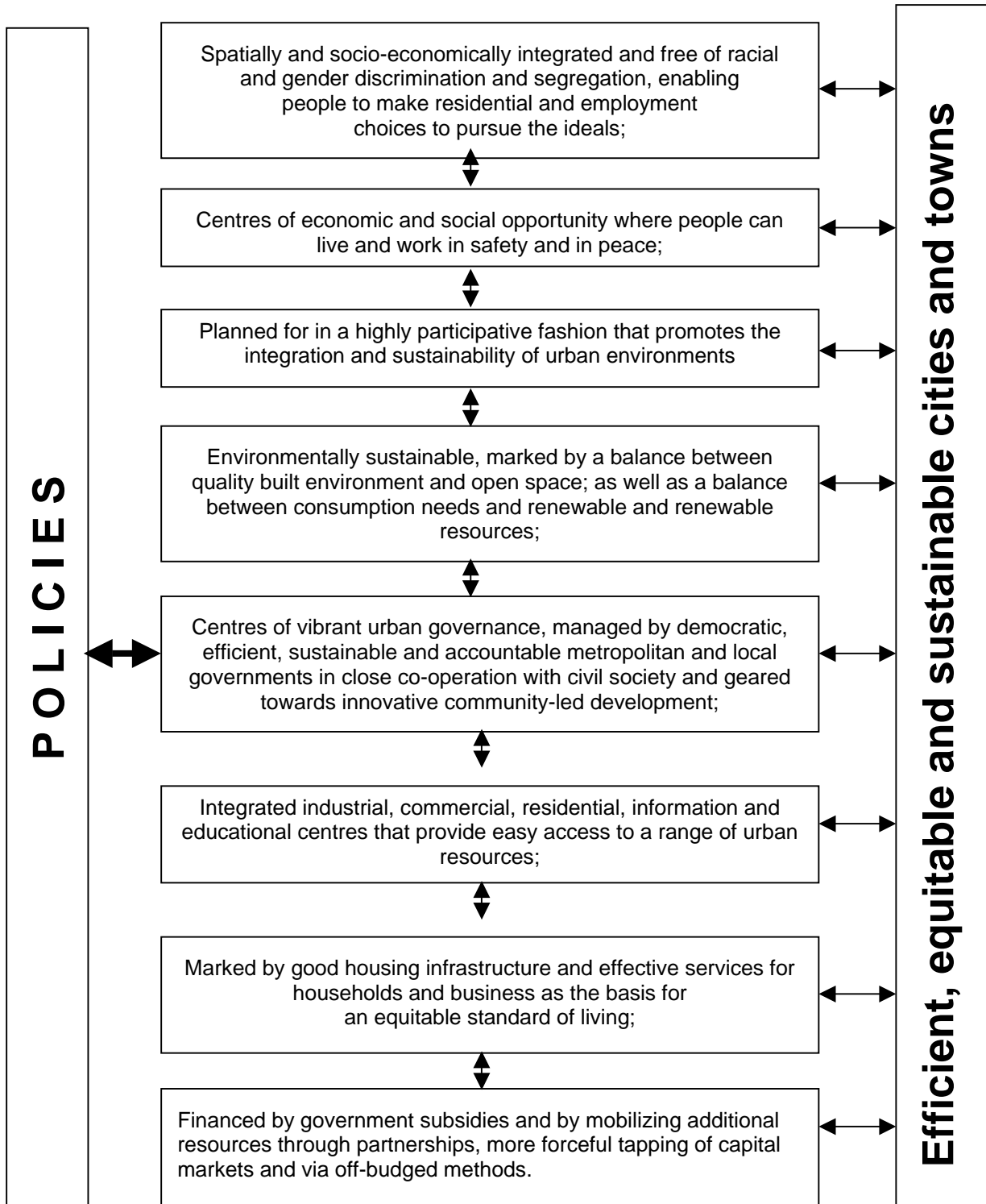
Botes et al (1992:191-192) suggest that when attempting to set up policy on a specific matter, one must consider the following questions listed below.

- [i] What must be done to attain the defined goals?
- [ii] Who must all be involved in achieving the aim?
- [iii] When must the various programmes of the policy be implemented?
- [iv] Where must all the activities be performed?
- [v] How must the programme be initiated?
- [vi] Why must this specific policy be followed?

They further state that no public action can be initiated without the necessary legal authorisation from a statutory body. So each of the above aspects must be approved or authorised by a legal government body or a statutory body.

For the purpose of managing sustainable development, policies have to be developed in respect of components of sustainable development of integrated development planning processes as indicated in the Local Agenda 21 and policy on sustainable development as the outcome. This process can be illustrated diagrammatically.

Figure 3: 6 Policies for managing sustainable development



Source : Adapted from Botes et al (1992:2000)

The Tshwane Metropolitan Council's policy on the development of a strategic development framework was a statutory requirement, set out in the Development Facilitation Act, 1995 [Act 67 of 1995], which compels Local Government to develop a land development objectives, also referred to as the integrated development plan.

Development in the Tshwane Metropolitan Council area, therefore, is regulated by a policy that is based on legislation (Council resolution of February 1996). The Gauteng Province further made a regulation that set out guidelines on how an integrated development plan should be developed. The Tshwane Metropolitan Council policy, referred to above answered all questions raised by policy.

- [i] *What has to be done:* integrated development plans or Land development objectives.
- [ii] *Who should do it:* the Tshwane Metropolitan Council; the three Metropolitan Local Councils referred to above and the community including the business sector.
- [iii] *How:* as per the Development facilitation Act 1995 [Act of 1995] provisions.
- [iv] *Where:* within the area of jurisdiction of the Tshwane Metropolitan Council.
- [v] *When:* the integrated development plan has to be revised each financial year.
- [vi] *At what cost:* the integrated development should inform and direct the budget, in other words the plan should be linked to the budgets of the Tshwane Metropolitan Council.

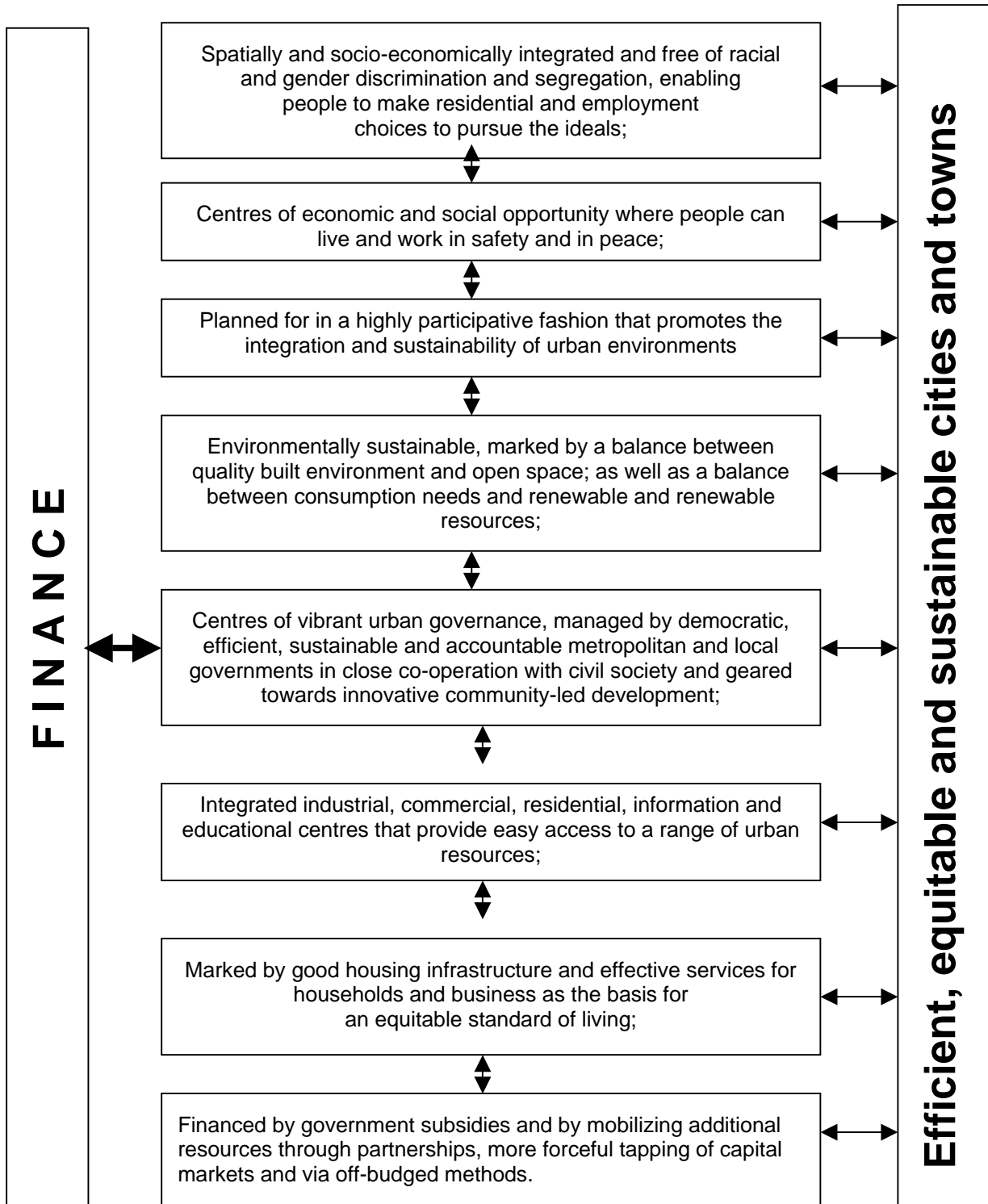
3.1.2 Finance

It is not possible for an institution to function without funds Botes et al (1992:200). Cloete (1995: 145) confirms this view by stating that just as one cannot initiate a business undertaking without money, a public institution also cannot initiate any work without money.

Plans, process, programmes, policies and legislation need to be linked to a finding programme for purposes of implementation. Sustainable development can only be realised if finding is available to fund

programmes, processes, project plans and the implementation of related policies and legislation. The influence of finance on sustainable development can be depicted as illustrated below.

Figure 3:7 Finance for managing sustainable development.



Source - Adapted from Botes et al (1992)

Botes et al (1992:202) refer to salient features of a state budget, which are similar to a budget of a local authority, that is, that the budget is a policy document that provides the necessary policy directives for public action; that it is a working programme, viewed as a working document for all stakeholders: that it is a source of information on the expenditure on each programme; and that it is an instrument of control, which refers to a budget as the authorising document for expenditure and as such serves as an important instrument of control.

Cloete (1992:145-147) proposes basic requirements on the utilisation of public funds. Firstly, that no expenditure can be incurred unless authorisation to this effect has been granted. Secondly that each year a budget has to be compiled and approved by the legislature for specific programmes to be executed. Thirdly, the legislature is expected to bear final responsibility for the manner in which public funds are spent. Fourthly, that the basic tenets and practices of financing the public sector should flow from the guidelines of public administration which include respect for political supremacy, public accountability, tenets of democracy, religious doctrine and value systems, fairness and reasonableness, balanced decisions, thoroughness, probity, economy, effectiveness and efficiency, and the prescribed guidelines which include legal rules/legality, entrenched fundamental rights and codes of ethics which recommend or prescribe guidelines for the conduct of public functionaries.

The Local Municipal Finance Management Act 2003 (Act of 2003) provides broad directions on management of finance by Municipalities. The objective of this Act is to secure transparency, accountability, and sound management of the revenue, expenditure, assets and liabilities of the Local Government Institutions.

The Act further outlines the supervisory functions and powers of the National and Provincial Treasury. The functions and powers include the promotion of the objective of the Act; to monitor the budgets of Municipalities to establish whether they are in consistent with the National Government's Fiscal Policy Framework and Macro-Economic Policy.

The National Treasury may also monitor expenditure and revenue of municipalities to establish whether expenditure and revenue remain within budget; to prescribe uniform treasury norms and standards for municipalities and municipal entities to monitor compliance by municipalities and municipal entities with this Act, and any standards of generally recognised accounting practice and uniform classification systems prescribed in terms of Chapter 11 of the Public Finance Bill 2000. They are also to assist municipalities and municipal entities in building their capacity for efficient, effective and transparent financial management and internal control in any municipality; to intervene by taking appropriate steps, including withholding funds in terms of Section 216 (2) of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) to address a serious or persistent material breach of this Bill by a Municipality or Municipal entity; and to do anything further that is necessary to fulfil its responsibility effectively.

The Minister of Finance may delegate any of the National Treasuries in terms of this Bill to a Provincial Treasury, or to the head of a Provincial Department, as the Minister and the Member of Executive Council for Finance in the Province concerned may decide.

Like the state budget the local government's budgets or financial management have to comply with the above-discussed guidelines. The financial position of the Tshwane Metropolitan Council remain has been under pressure due to historical deficits and low percentage of payment for services. It is a volatile environment in which many influences can negatively impact on the cash flow at the Tshwane Metropolitan Council and the Local Government level.

To enable the City of Tshwane to progressively focus on development, partnership with the private sector will have to be struck in order to fund development programmes and projects. The question that immediately arises is whether the City of Tshwane can afford to fund, targeted developmental programmes and projects in its land development objectives or the integrated development plan?

3.1.3 Organising

Cloete (1992:112) defines organising as the activities or functions involved in creating and maintaining organisational units called institutions. He also states that organising consists of classifying and grouping of functions as well as allocating the group of functions to institutions and workers in an orderly pattern so that everything the workers do will be aimed at achieving predetermined objectives.

Botes et al (1992:230) argue that administration exists wherever two or more people work together in an institution for the purpose of attaining a goal. To define organising they further cite that as soon as people work together in a specific group relationship, it becomes necessary to establish some form of organisational relationship. Steps need to be taken to formalise, systematise and balances the relations between individuals, and those official actions necessary to prescribe these formal relations are called organising.

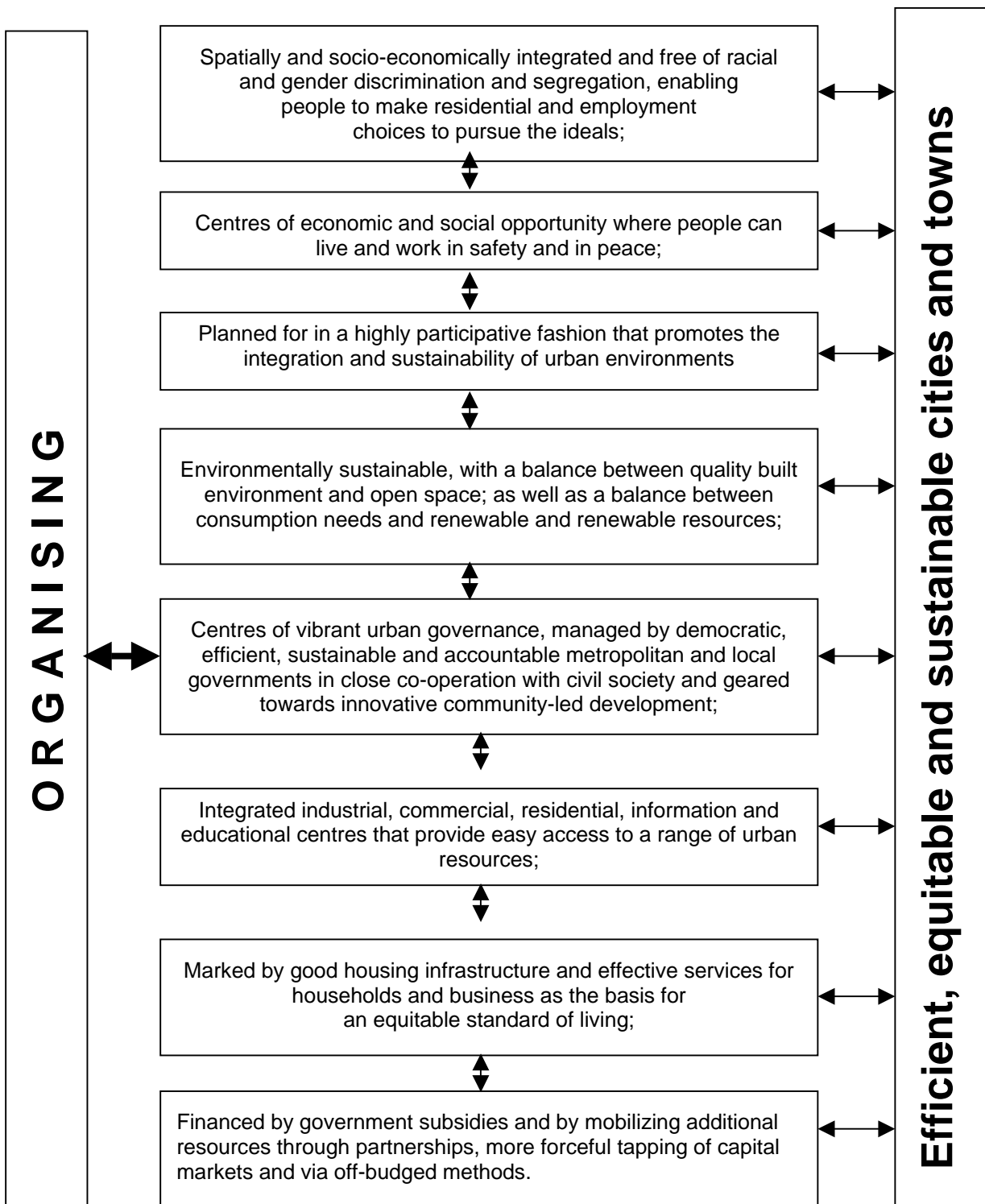
One of the most important organisational theories Botes et al (1992:230) discuss is the classical theory. They open the discussion by saying that all organisational units should pursue an aim, and that the nature of such an aim depends on the type of functions entrusted to them. Classical theory divides organisations into four main groups, namely: grouping according to common function; grouping according to geographical area; grouping according to the specific group clients; and grouping according to product or service. Griffin (1990:4-10) defines organising as both grouping activities and resources in a logical fashion, and organisation also as a group of two or more people working together in structured fashion to attain a set of goals.

Grouping of activities or people and functions in a logical fashion to attain a set of goals is what organising means in respect of the City of Tshwane. Activities and people are grouped in a formal and systematised way with a view to manage sustainable development. The structure developed to

achieve the management of sustainable development is organised according to common functions, geographical areas, specific groups of clients, and according to product or service.

As far as the grouping of activities and people is concerned, Ward Committees have been formed to ensure sustainable development management. The definitions of development discussed in Chapter 1 and 2 above state, among others, that development is about people deciding on their destiny, that development is not only about physical issues but largely about people themselves. It is a multidimensional process involving major changes in social structures, popular attitudes, the reduction of poverty and the acceleration of economic growth. These people need to be organised so as to achieve their goals, such as poverty reduction and sustainable development. Schematically, the effect of organising on sustainable development management is as indicated below.

Figure 5 Organising for managing sustainable development



Source : Adapted from Botes *et a* (1992)

3.1.4 Personnel Administration

Once legislation has been passed to give effect to a specific policy, the organisational arrangements have been completed and money has

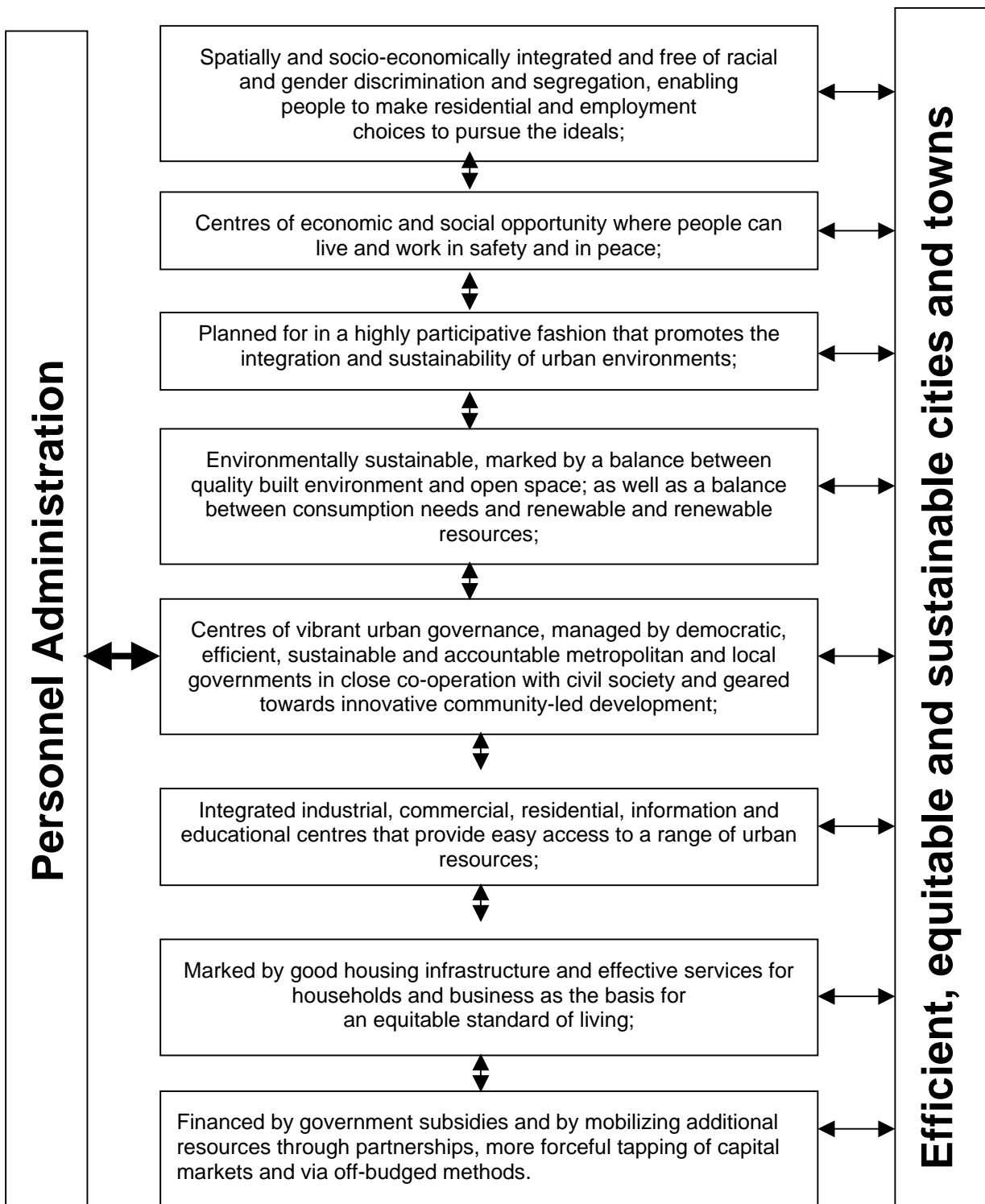
been made available, then personnel can be appointed to put the institution into operation Cloete (1992:151). Personnel administration is about the activities directed at attracting, developing and maintaining an effective work force for the organisation.

Griffin (1990:346) when discussing “Organising” above was essentially concerned with drawing the boxes and lines that configure an organisation. Personnel administration is the process of putting names and faces in the boxes. The policy, also discussed above asks and attempts to provide answers to what must be done, how, by whom, where and at what cost. The other functions of administration, namely, organising, financing, staffing, procedure, control and management largely provide answers asked by the policy.

This Section will not, however, be discussing functional activities of personnel administration such as personnel provision functions, support functions; training and development functions and utilisation functions in detail. However there will be reference made to a few of these functions in relation to the management of sustainable development as it applies to the City of Tshwane.

The success of managing sustainable development depends on the skills, knowledge and experience of responsible and accountable policy makers, managers and workers. The role of personnel administration in managing sustainable development is depicted schematically below.

Figure 3.8 Personnel administration for managing sustainable development



Source - Adapted from Botes et al (1992)

3.1.5 Procedures and methods

Procedures and methods are ways in which officials carry out work in order to give legality and legitimacy to government actions (Botes et al (1992:217)).

After policy has been formulated, the organising and financing functions have been completed and personnel members have been appointed, then work can commence. The organisational arrangements will compel persons to unite efforts in an orderly manner, however, individuals could still hold differing views on how to perform specific tasks.

To ensure that everyone in a specific organisational unit co-operates in attaining policy objectives and does not waste time in the process, it is essential for a specific work procedure to be laid down for each task. This will result in efficient work performance where that work will be done in the shortest time using a minimum amount of labour and at the lowest cost Cloete (1992:174).

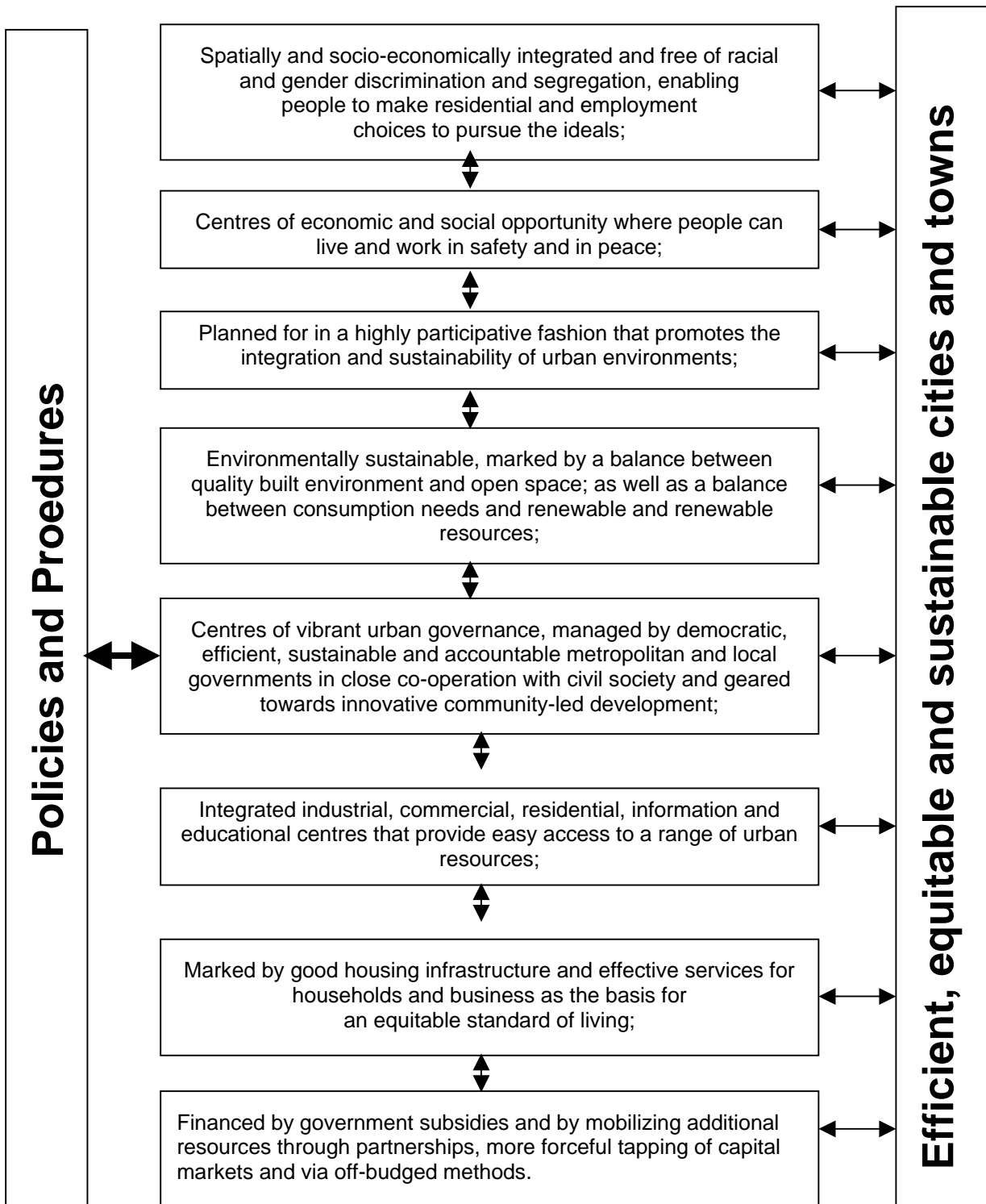
Both Cloete (1992:174) and Botes et al (1992:217) provide further reasons for an organisation to have formal procedures and why they should be revised. The City of Tshwane management's view regarding sustainable development will also be visited briefly. The reasons to have formal and written procedures and methods as well as to revise them regularly as provided by the Cloete (1992:174) and Botes et al (1992:217) include the following:

- (i) To prevent a confusing multiplicity of work procedures, bearing in mind that individual officials serving in a team may each have a different way of doing a particular task;
- (ii) To ensure that clear work assignments are given to individual personnel and/or officials in charge of branches, divisions, sections or offices and other work places;

- (iii) To ensure uniform and integrated action in matters where more than one institution is involved;
- (iv) To ensure that work procedures will be examined and revised in an orderly manner; and
- (v) To ensure that members of the public are kept informed about how to make best use of services and products that public institutions provide.

The procedures and methods in managing sustainable development are illustrated below.

Figure 3.9 Procedures and methods for managing sustainable Development



Source - Adapted from Botes et al (1992:21)

The City of Tshwane has put in place procedures and methods to ensure that development within its area is managed in a sustained way. These procedures and methods which also form part of control measures, include:

- [i] The established ward committees to serve as community development forums;
- [ii] The annual revision of the integrated development plan;
- [iii] The annual budget compilation which informs the integrated development plan; and
- [iv] A performance project management process employed on every capital project identified through the integrated development plan process by the City of Tshwane and the forums.

The City of Tshwane also employs a project management system for its development projects and programmes. Project management is referred to as any series of activities and tasks that:

- [i] Have a specific objective to be completed within certain specifications;
- [ii] Have defined start and end dates;
- [iii] Have funding limits; and
- [iv] Consume resources Kerzner (1995:2-3).

Kerzner also states that project management involves project planning and project monitoring and includes items such as those listed below.

- [i] Project planning which involves the definition of work requirements; definition of quantity and quality of work; and definition of resources needed.
- [ii] Project monitoring which includes tracking progress, comparing actual outcome to predicted outcome, analysing impact; and making adjustments Kerzner (1995:3).

The performance management process and the management model serve both as control measures, as evaluation tools and monitoring mechanisms as well as have a procedures and methods function that ensures sustainable management.

The procedures and methods employed by the City of Tshwane are informed by other generic functions of administration, namely that of policy, staffing, organising and finance referred to above. As noted these functions are mutually inclusive Cloete (1992:174).

3.1.6 Control

Griffin (1992: 12) refers to the controlling as monitoring organisational process toward goal attainment. He also refers to control as the final phase of the management process, that is, as the organisation moves toward its goals, management must monitor its progress, and ensure that the organisation is performing in such a way as to arrive at its destination at the point in time.

Botes et al (1992:248) define control as taking steps in order to stay in control of affairs. Control measures have to be implemented to ensure control is maintained. They further indicate that control implies that political representatives, political office bearers and public officials may be called to account publicly for their actions. Cloete (1992:205) postulates that public sector control is exercised to ensure that there is public account for everything the authorities do or neglect to do. Citizens then know what is being done or not to further their interests.

Smit and Cronjé (1992: 426) refer to control as the final step in the management process and an important link in the cycle of the management process. They also state that control informs management of the following:

- [i] That activities are proceeding according to plan, meaning those existing plans should be continued;
- [ii] That things are not proceeding according to plan and the existing plans should be adjusted; and

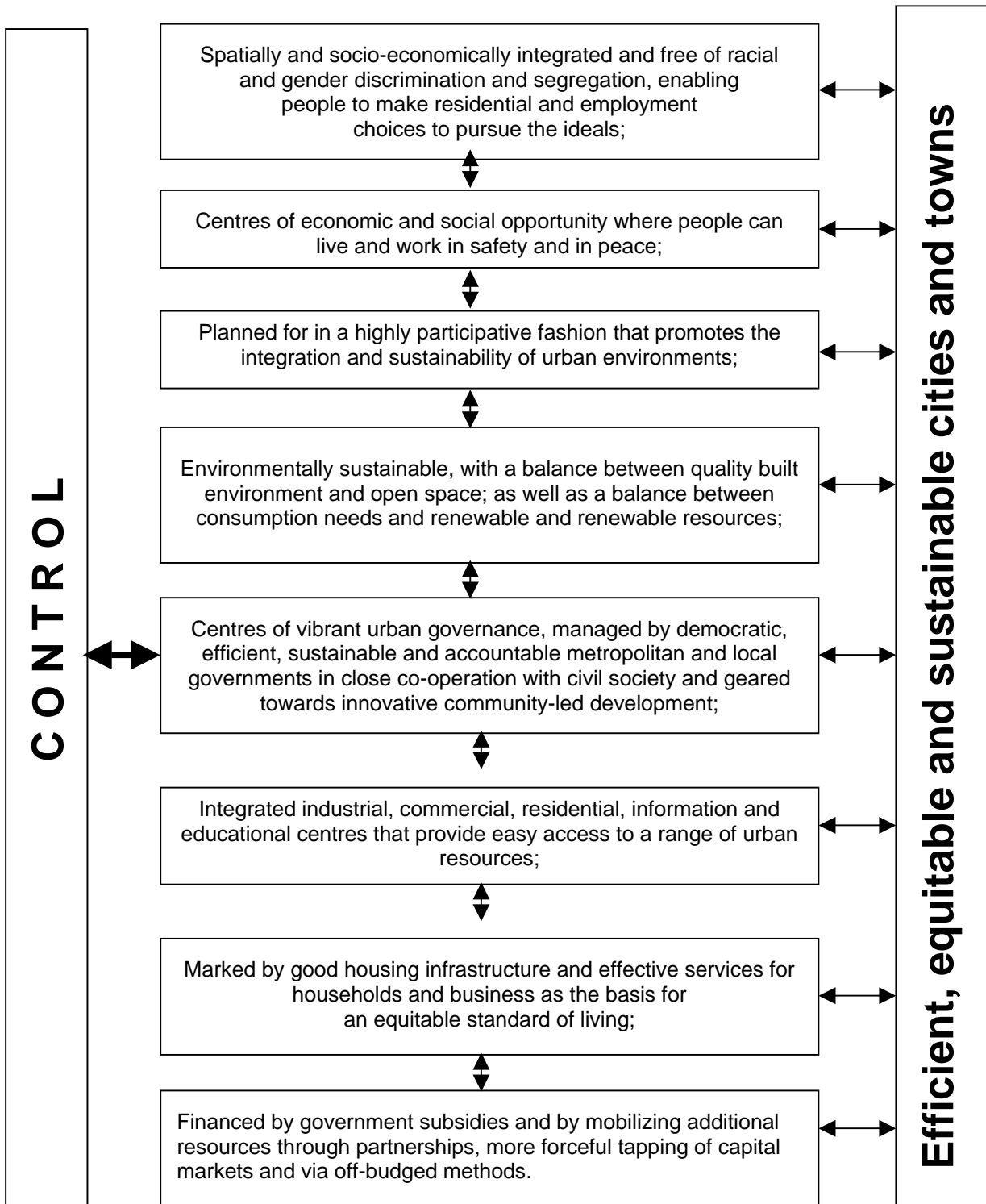
[iii] That situation has changed, so that a new plan must be devised.

Both Cloete (1992:205-207) and Botes et al (1992:248-249) also provide reasons for and the necessity of control and control measures in an institution. These reasons, mostly following Cloete (1992:188-190), state that control:

- [i] Demarcates work environments, physical environments or other environments within which the functionaries have to operate; and
- [ii] Points the way so that the functionaries will individually and collectively pursue their respective goals.

Control for managing sustainable development can be illustrated as follows:

Figure 3.10 Control for managing sustainable development



Source : Adapted from Botes et al (1992:21)

Developments in the City of Tshwane Metropolitan Municipality area is directed and informed by the provisions of the Development Facilitation Act, 1995(Act 67 of 1996) and the Local Government Transition Act Second Amendment Act, 1996 [Act 97 of 1996].

These Acts provide broad control measure including the fact that the integrated development plan shall be developed by each local authority and be revised annually; and further that such integrated development plan will direct and inform the budget of such a local authority.

3.1.7 Management

Management discussed in Chapter 2 is defined as a set of activities including planning and decision making, organising, leading and controlling directed at an organisation's human, financial, physical and information resources, with the aim of achieving organisational goals in an efficient and effective manner (Griffin, 1992:6). Management will therefore not be discussed in detail here because it is discussed adequately in Chapter 2 supra.

The organisational structure of the City of Tshwane have to provide management team that will ensures sustainable development management supported by the organisational structures in the form of development forums.

Development at the municipality level is guided and informed by legislation and policies. Within the framework created by legislation and policies, development still need to be managed in order to achieve what it intends to achieve.

Development management, therefore, becomes an important tool with which to achieve sustainable development.

Development is defined by Todaro (2000:739) as the process of proving the quality of all human lives. The three identified important aspects of development are:

- (i) Raising people's living levels, their income and consumption levels of food medical services, education, through relevant economic growth processes;

- (ii) Creating conditions conducive to the growth of people's self-esteem through the establishment of social, political and economic system and institutions that promote human dignity and respect, and
- (iii) Increasing people's freedom by enlarging the range of their choice variables, as by increasing varieties of consumer goods and services.

Management in the context of a development process entails all the management processes, including planning, organising leading coordinating and control. Management also include the effective use of all available resources. These resources include human, financial, organisational and manufactured resources needed in the development process Van der Waldt and du Toit (1999:307).

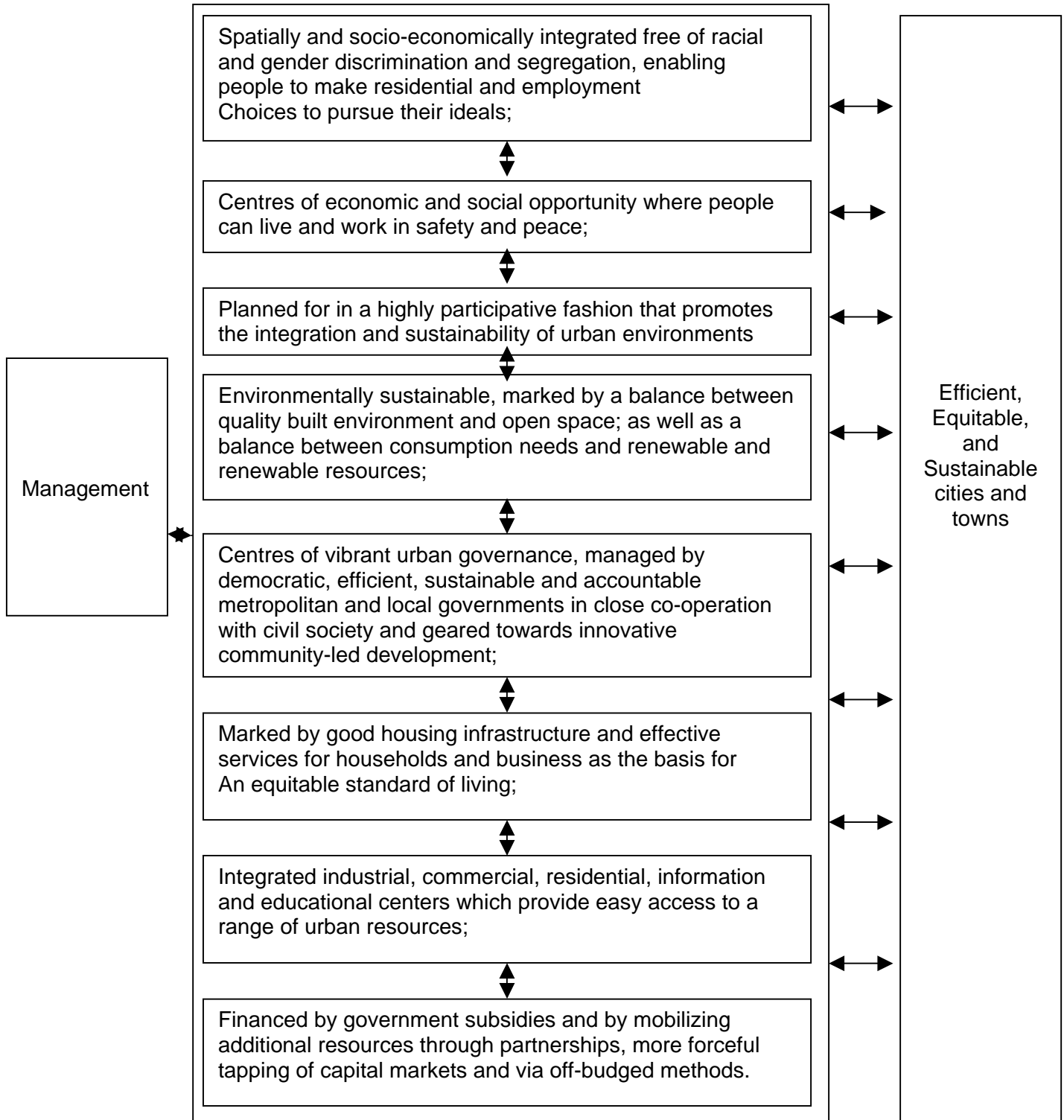
Van der Waldt and du Toit (1999:307-308) conclude from the definition of both development and management that development management entails the management of all activities relating particularly to economic and social system development. Esman (1991:19-20) has identified two approaches to development management, namely:

- (i) The first approach focuses on the development of management skills and organisation when this abilities have been developed, the different institutions in the public sector can carry out the government development activities.
- (i) The second approach emphasises the management of concrete development activates, with the argument that the public sector should concentrate on performance. This means that goods and services must be provided effectively and must obviously meet the needs of the community.

Staudt (1991:29) summaries development management as the sharpening of management skills to be able to deal with complex activities over time and in changing circumstances, the achievement of a nation's development objective's, the implementation of change in society or a community to increase productivity and organisational capacity and improvement of the quality of life of people.

The role of management in managing sustainable development is illustrated below:

Figure 3.11 Management for managing sustainable development



Source : Adapted from Botes et al (1992:182)

Development management is complicated further by the introduction of the concept sustainable. Instead of simply managing development, the world demands sustainable development management.

Sustainable development is referred to as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The definition contains two key concepts, namely, the concept of needs in particular the essential needs of the world's poor, to which overriding priority should be given, and the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs (White Paper on Environmental Policy for South Africa: May 1998).

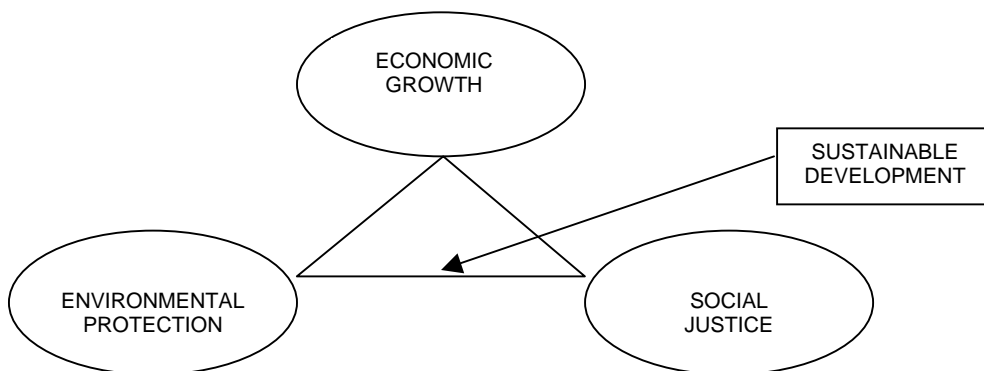
Municipalities face tough decisions about where they stand on protecting the green city, promoting the economically growing city, and advocating social justice.

As mentioned above sustainable development rests on three broad components, namely:

- (i) Economic growth;
- (ii) Environmental protection; and
- (iii) Social justice.

The three components are connected to form a triangle as shown below Scott Campbell (1996).

Figure 3: 12 Three components of Sustainable Development



Source: Scott Campbell (1996)

One of the mechanisms to make viable decision is first of all, to integrate the three pillars through the integrated development planning process. This process involves among others a clear policy, proper organisational arrangements, adequate finance clear procedures and methods and control mechanisms. These generic functions of public administration enable the activation of the integration process and the implementation of other sustainable development components, such as a sustainable economic development plan; a sustainable settlement plan, a sustainable environmental management plan, sustainable social development, a sustainable financial plan and an effective land use management system.

Defining sustainable development as centre of the three components makes sustainable development sounds a very easy task to execute and it not efficient land use management system as a component of sustainable development will for example, face the challenge of integration, economic growth, environmental protection simultaneously spatial integrity for both economic and environmental system and find ways to avoid the land-use manifestations of uneven development, that is housing segregation, unequal property tax of public schools, jobs housing imbalance, spatial imbalance of economic opportunity and unequal access to open space and recreation and services. The generic functions of public administration are one of the mechanisms that can be employed to weld together the three components.

Esman (1991:19-20) points out that the first approach to development is to focus on the development of management skills and organisation. Employment of two general functions of the public administration namely staffing and organising provide an answer to this first approach. Qualified personnel and proper organisational arrangement can provide direction to sustainable development.

Planning as one of the tasks of management must also be understood from a sustainable development point of view. The general purpose of a plan is to facilitate the achievement of an institution's purpose, mission and

objectives Smit & Cronje (1992:88). Planning is therefore aimed at determining future circumstances and identifying the measures needed to realise them.

For purposes of sustainable development, planning in South Africa is informed and guided by legislation and policies. The legislation and policies that direct planning include, the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996); Water Services Act, 1997 (Act 108 of 1997); Physical Planning Act, 1997 (Act 125 of 1991); Housing Act 1997 (Act 107 of 1997); Development facilitation Act; 1995 (Act 67 of 1995); National Environmental Management Act; 1998 (Act 107 of 1998); and Green Paper Developmental Planning, 21 May 1999.

All these legislations and policies promote integrated development planning as an appropriate planning tool to achieve sustainable development.

The challenge that faces government organs responsible for sustainable development, is whether integrated development plans have the potential and ability as organising concepts to promote sustainability principles.

An integrated development plan for sustainable development consists of components or plans that have to ensure sustainability in themselves and these were discussed in Chapter 2 supra. Each of the components needs to be evaluated to assess its sustainability or its effectiveness and impact on the sustainable integrated development plan.

One of the effective evaluation methods of these components would be to assess the component against its purpose and objectives as set out in the relevant legislation and policies. All local authorities, for example, are expected to include a proactive spatial component in their integrated development plans. The primary purpose of the plan should be to move toward the emergence of more integrated, equitable, effective and sustainable settlements. The spatial elements of the plan should:

- (i) Develop a spatial logic which guides private sector investment;
- (ii) Ensure the social, economic and environmental sustainability of the area;
- (iii) Establish priorities in terms of public sector development and sector development;
- (iv) Identify spatial priorities and the places where public private partnership are a possibility; and
- (v) If the proactive spatial component of the spatial plan does not meet these requirements then the component should be revisited and corrective measures taken to ensure that it meets the requirements.

The diagram shows that if the components (or plans) are not sustainable, for example, if Land-use Management plan is not sustainable then integrated development plan will adversely affect sustainable development.

The employment of the generic functions of public administration becomes a crucial means to ensure that sustainable plans are developed. Clear policy on sustainable development, for example, will guide all plans, components and aspects of sustainable development in order to achieve sustainable integrated development plan and eventually sustainable development.

Like planning leadership is one of the tasks of management for the purpose of development, planning at the level of a Municipality is entrusted to the Executive Mayor and the Mayor Committee (Local Government: municipal Systems Act, 2000 (Act 32 of 2000)). The Constitution of the Republic of South Africa Act, 1996, (Act 108 of 1996) entrust local government with the responsibility to take the lead in development. In other words, Municipalities must have among others clear policies on sustainable development for their areas of jurisdiction, the generic functions of public administration, therefore, are crucial for sustainable development.

3.1.8 Broad Guidelines as provided by the generic functions of administration and the basic values governing public administration to manage sustainable development.

The importance of employing the seven generic functions of administration together with basic values and principles governing public administration as provided by Section 195(1) of the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996) to guide and inform the management of development by municipalities, may be illustrated by the application of the directive principles for land use management as set out in the Draft Land Use Management Bill, 2001; Government Gazette 22473, dated 20 July 2001.

The purpose of the directive principles is to guide the passing of provincial legislation, municipal by-laws and sub-ordinate national legislation regulating spatial planning, land use management and land development. The elements of organising, policy-making processes and procedures and methods can easily be detected in this first directive Principle: that the directive principles further aim to guide the implementation of all legislation regulating spatial planning, land use management and land development; the adoption and implementation of all provincial and municipal integrated development plans and generally, all spatial planning, land use management and land development processes; and decisions by all executive organs of state in the national, provincial and local spheres of government.

Further to directive principles, there are general principles which state that spatial planning, land use management and land development must be sustainable, equal, efficient, integrated and be based on firm and good governance. These are indicated below.

(i) The principle of sustainability

The principle of sustainability in this regard means sustainable management and use of resources making up the natural and built environment and this includes the following norms, namely, that

land may be used or developed only in accordance with the law (Section 5 of the Draft Land Use Management Bill, 2001, dated 20 July 2001). This statutory directive support is of the view that development is to a large degree informed and guided by legislation at all spheres of government, where spatial planning and land use management are key to any form of development.

Other norms are that the general interest as reflected in National, Provincial and local policies should enjoy preference over private interests in spatial planning, land use management and land development processes and decisions, that disaster management, including prevention and mitigation should be an integral part of all spatial planning, and land use management and land development is a primary concern in all land use management decisions. Also that the protection of natural environmental and cultural resources should be a primary aim in all spatial planning; that land use management and land development processes and decisions; and that land used for agricultural purposes may only be reallocated to another use where real need exists and prime agricultural land should as far as possible remain available for production.

Applying the principle of sustainability and the generic functions of administration together with the basic values and principles governing public administration to sustainable development management a comprehensive and clear policy guiding and informing development is established.

(ii) The principle of equality

The principle of equality means that everyone affected by spatial planning, land use management and land development processes and decisions should enjoy equal protection and benefits and that no one should be subject to unfair discrimination and this include the norms, that public involvement in spatial planning, land use management and land development processes and decisions

should be inclusive of all persons and communities with an interest in the matter being decided. Further, that planning authorities and land use regulators should ensure that previously disadvantaged communities and areas shares in the benefits and opportunities flowing from land development; and that land use management decisions should be determined taking into account their impact on society as a whole rather than only the narrow interest of those affected (Section 6 of the Draft Land Use Management Bill, 2002, dated 20 July 2001).

It can be inferred here that the generic functions of administration have also been legislated, and have to be complied with.

(iii) The principle of efficiency

The principle of efficiency means that the desired results should be achieved with minimum consumption of resources, that is, the spatial planning, land use management and land development processes and decisions should promote the development of compact human settlement, and low intensity urban sprawl should be combated; the area in which people live and work should be close to each other; and the spatial planning, land use management and land development processes and decisions of contiguous municipalities and provinces should relate positively to each other (Section 7 of the Draft Land Use Management Bill, 2001).

Efficiency is one of the tenants of public administration, it is now a legislated principle that can also be employed to facilitate and guide sustainable development. As a sphere of government local governments are advised to this principle in the daily management of their local government duties and functions.

(iv) The principle of integration

The principle of integration means that the separate and divers elements involved in spatial planning, land use management and land development should be combined and co-ordinated into a

more complete or harmonious whole, that is, the spatial planning, land use management and land development processes and decisions should be co-ordinated and aligned with the policies of other organs of state in any sphere of government. It also means that spatial planning, land use management and land development processes and decisions should promote efficient, functional and integrated settlement; spatial planning, land use management and land development decisions should be guided by the availability of appropriate services and infrastructure; spatial planning, land use management and land development processes and decisions should promote racial integration; and spatial planning, land use management and land development processes and decisions should promote mixed land use development. The principle of integration forms a foundation for integrated development planning, and the approach confirms the inference that development is largely informed, guided and directed by legislation. This inference stems from the fact that the integrated development planning is a statutory requirement that has to be complied with by the municipalities in particular.

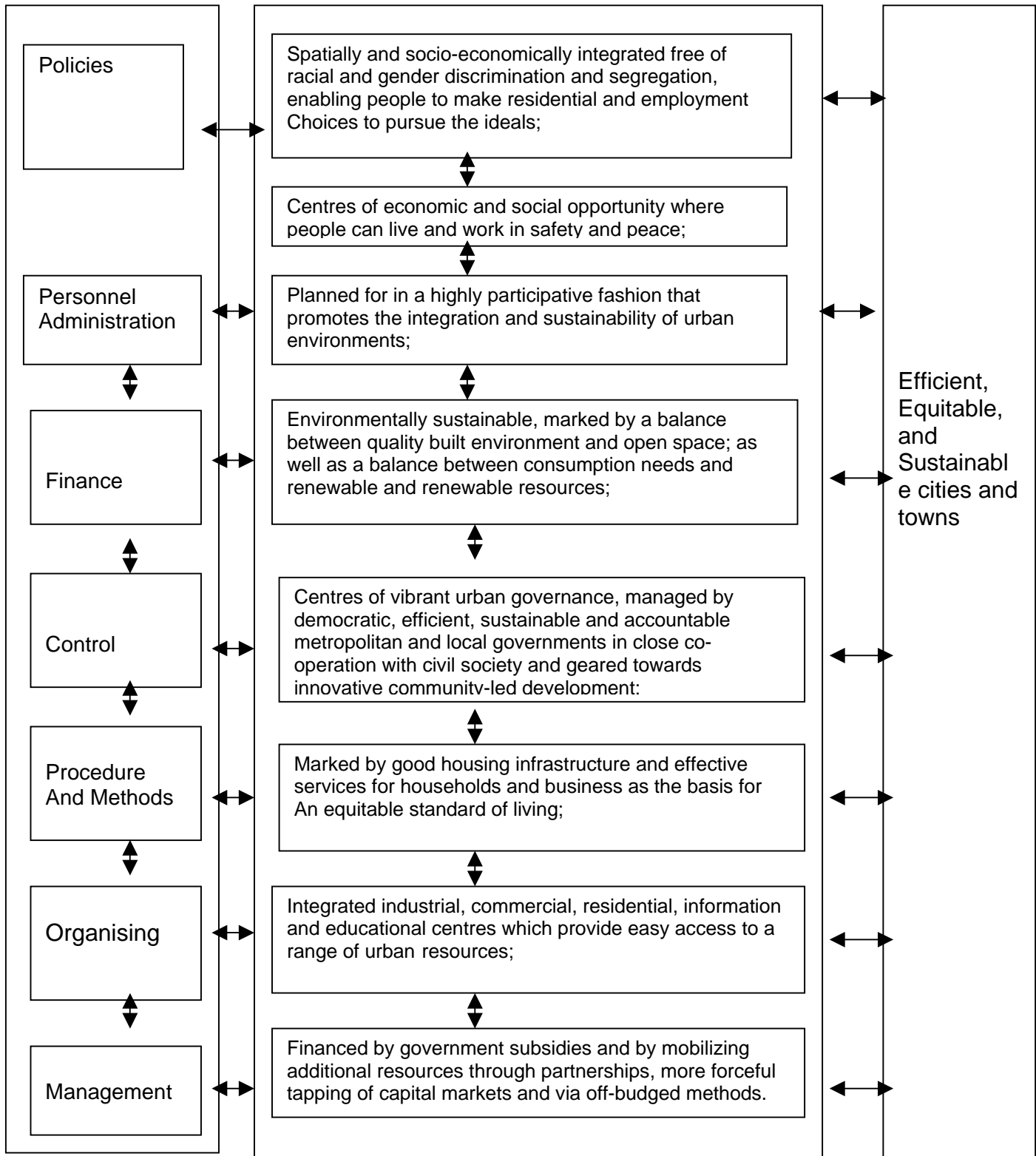
(v) The principle of fair and good governance

The principle of fair and good governance means that spatial planning, land use management and land development should be democratic, participatory and legitimate in nature meaning that, spatial planning, land use management and land development processes and decisions must be lawful, reasonable and procedurally fair, that everyone whose rights are adversely affected by spatial planning, land use management and land development decisions have a right to be given written reasons. It also means that the capacities of affected communities should be enhanced to enable them to comprehend and participate meaningfully in spatial planning, land use management and land development processes affecting them that forums, such as ward committees in the case of municipalities at which land use management and land development decisions are taken should be open to the public;

that names and contact details of officials with whom the public should communicate in matters relating to spatial planning, land use management and land development should be publicised; and that spatial planning, land use management and land development decisions should be taken within pre-determined time frames. The principle of fair and good governance is embraced by the public participation guidelines set out in the Local Government Municipal Systems Act 2000 (Act 32 of 2000) and read together with the objective of local government provided in the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996). All General Principles namely, sustainable, equality, efficiency and norms integration and fair and good governance from conducive and broad guidelines for development and all are legislated.

Functions of Public Administration are mutually inclusive, that is, in each of the functions other functions are found Cloete (1992:182-249) and their role and impact on development processes can be illustrated as indicated below.

Figure 3. 12 Functions of Public Administration for managing sustainable development.



Source: Adapted from Cloete (1992:182-249)

3.1.9 Public management model

Managing sustainable development within public administration and a public management context is a daunting task. It involves a complex functional integration of public administration functions and processes, the management functions and all the management techniques.

The dynamic and changing public administration and public management environments add to the complex nature of the process. The model (figure 13) further illustrates the challenges facing the present and future public managers.

Fox et al., (1991:4-6) present a public management model as discussed in Chapter 2 supra. The model focuses on the environment of public management, the public management functions, public management skills application for public management and supportive technology and techniques. It is within this model that sustainable development has to be managed.

The nature of the management environment allows the model to employ both the open systems approach and the principles of the contingency schools of thought.

The open systems view holds that the analysis of organizational phenomena including management must take into account the ecology of the organization, referring to how well the organization accommodates its outside world Schwella et al (1996:13). The contingency school, stressing an open systems application, emphasizes the contextual situation Schwella et al (1996:13). Schwella et al (1996:13) further point out that this requires theorists and managers to be adaptable, flexible, and ingenious in the decision-making.

The model further accommodates the principles of public managerial approaches for the future. According to Fox et al (1991:319-320) the public management approach for the future will have to be strategic and contingency oriented. This model fits well with the strategic processes to

manage sustainable development, which involves the integration of sustainable development components, which include economic, social, environmental, physical, and institutional components.

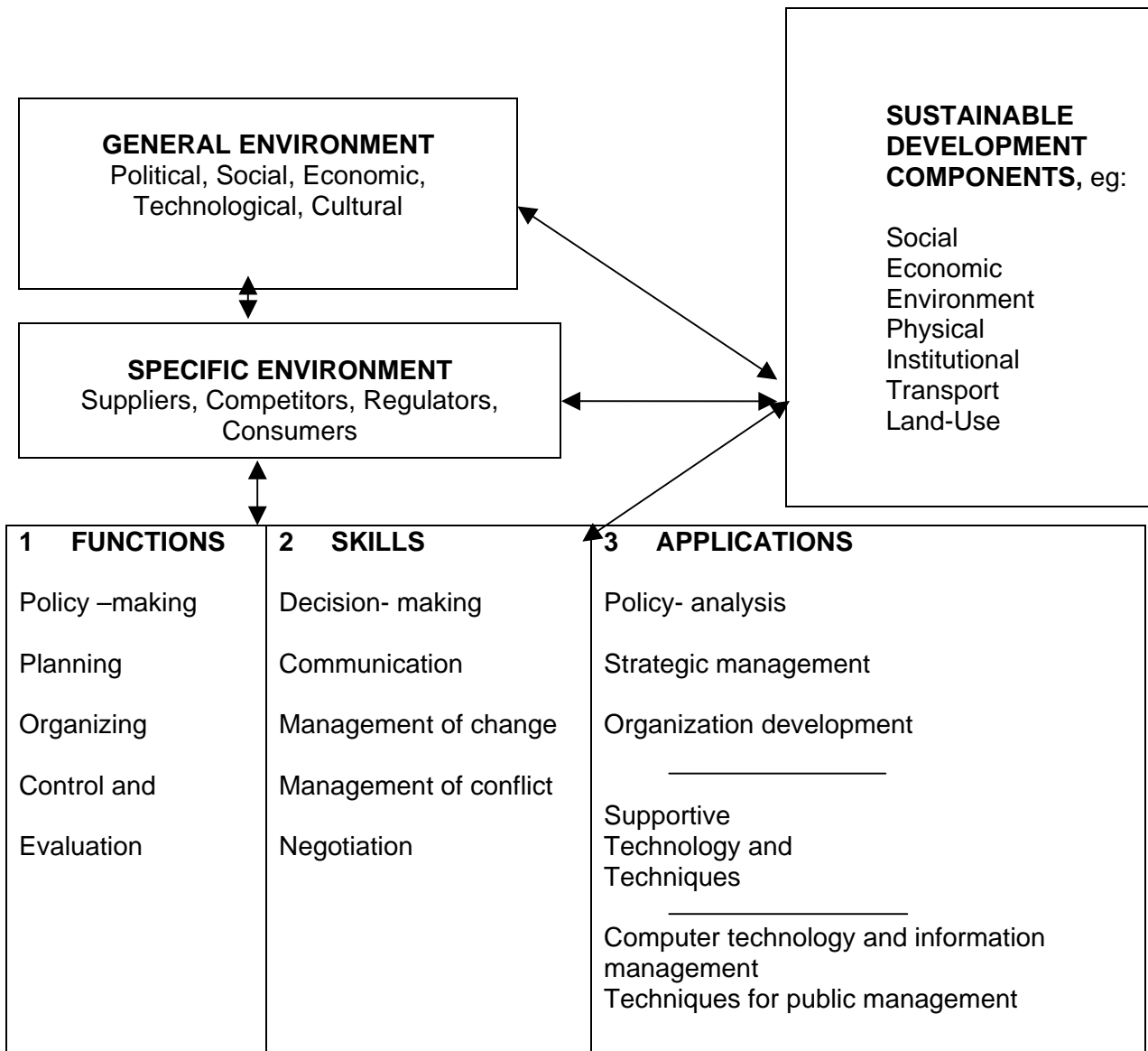
The public management components which are largely the same as the components of sustainable development are discussed briefly below.

According to Fox et al. (1991:4) and Schwella et al. (1996:18-20), the public management environment consists of general and specific components. The general component includes the political, economic, social, cultural, and technological aspects of the environment, while the specific environment includes suppliers, regulators, competitors, and consumers. Fox et al. (1991:5) further state that the public management functions include, policy-making, planning, organizing, leading, and motivation, and control and evaluation; while public management skills include, skills in competent decision-making, constructive negotiation, the successful management of conflict and change and skilful bargaining.

The public management model designed by Fox et al., (1991:4-6) also involves selected applications for public management and supportive technology and techniques. The selected applications for public management engage the functions of policy-making, planning, and organising in terms of policy analysis strategic management and organisation development; while supportive technology and techniques include computer technology and information management, as well as various techniques used in public management.

Schematically, the employment of public administration and public management as tools for managing sustainable development can be illustrated as follows:

Figure 13 - Public management model



Source : Adapted from Fox et al (1991:3-6) and Schwella et al (1996:6-8)

As mentioned in the Research Framework (Chapter 1 supra), the employment of the generic functions of public administration to manage sustainable development also referred to above Cloete (1994:220) should not be interpreted as to suggest that the generic functions of public administration exclude public management. For the purpose of this research, management as discussed in chapters 2 and 3 supra, refers basically to public management and it forms an integral part of public administration.

Some authors and writers do not even refer to the generic functions of public administration in their definitions of public administration. McKenny and Howard (1998:62), for example, point out that, seen as the accomplishment of purpose through the organized efforts of others, public administration comprises activities required (i) to mobilize organizations and human resources (public and private), (ii) to translate policy statements (publicly determined) into programs and projects, (iii) to permit middle level managers to translate ideas into actions that (iv) ultimately enhance the lives of people.

McKenny and Howard (1998:62) are of the view that (i) public administration occurs through both public and private organizational efforts, (ii) is the interaction of varying organizational norms and public processes, (iii) essentially it involves translating ideas into actions, (iv) it features middle level managers exercising discretionary powers, (v) is publicly based upon the presence of accountability, and (vi) it must ultimately be for the enhancement of the quality of human life.

All these many definitions are helpful and guard against attempts by theorists and authors to limit the broad nature of the subject public administration to merely a few viewpoints.

3.2 Conclusion

The seven generic functions of administration, namely policy, finance, staffing, organising, procedures and methods, control and rendering account, and management are relevant to the managing of sustainable development within the City of Tshwane Metropolitan Municipality, because the development in these case is driven by the statutory bodies through relevant legislation. The statutory bodies involved include the Provincial Government, in particular the Department of Development Planning and Local Government and the City of Tshwane Metropolitan.

The discussion above shows clearly that the seven generic functions form the basis and core management and administration tools of all statutory bodies. Without these functions statutory bodies are likely not to operate properly.

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CHAPTER 4

URBAN DEVELOPMENT PLANNING AS A TOOL FOR MANAGING SUSTAINABLE DEVELOPMENT

Chapter 4 introduces urban planning as a tool for managing sustainable development. Attempts are made to capture salient aspects of urban development planning that influence both integrated development planning and sustainable development processes. Other elements of sustainable development as contained in own definition (see Chapter 1 supra) are also explained.

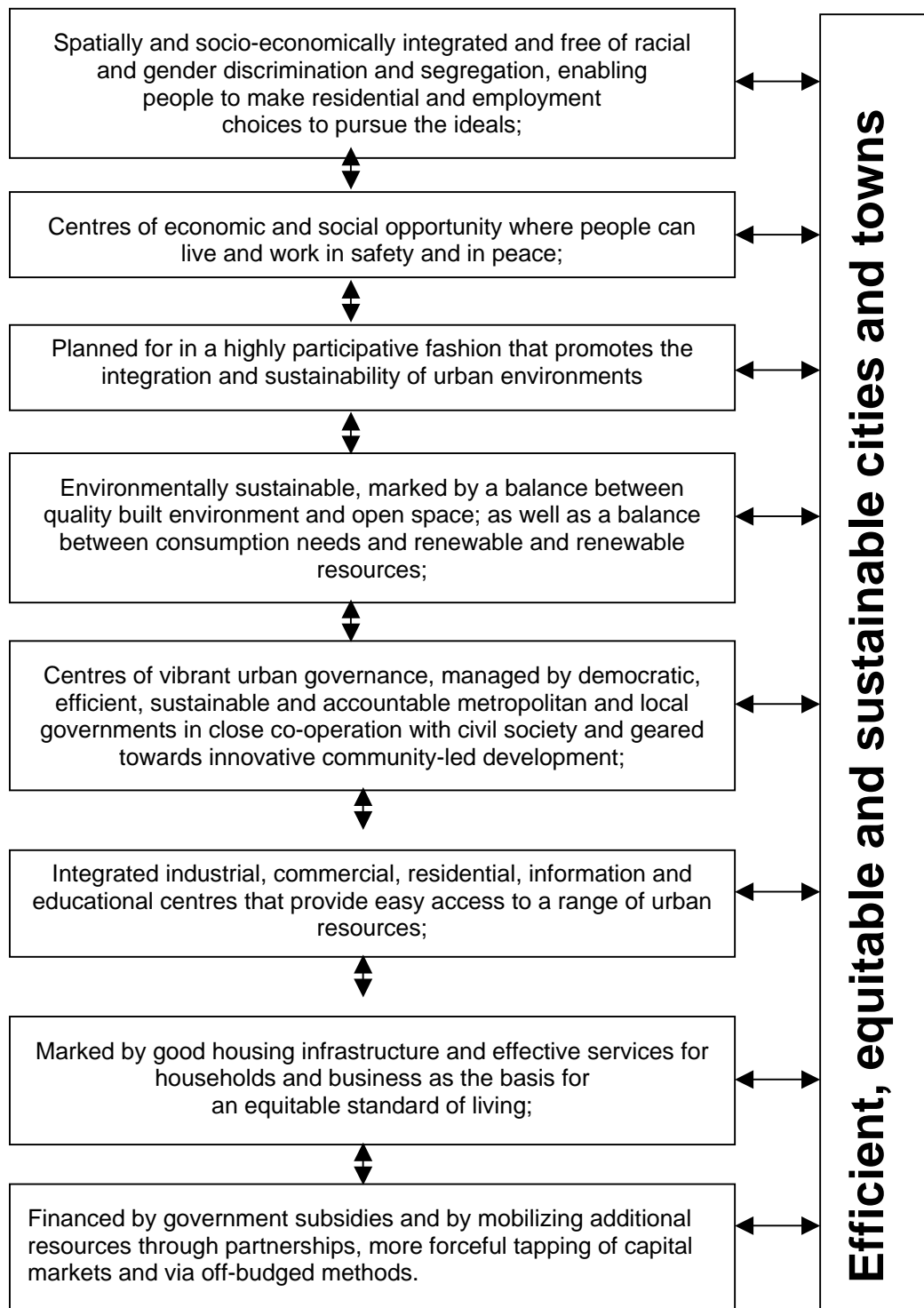
The links between the components of the integrated development plan as outlined by legislation and policies such as the Green Paper on Development and Planning: 22 May 1999; the Development Facilitation Act, 1995 (Act 67 of 1995); the White Paper on Environmental Management Policy for South Africa: May 1998; National Environmental Management Act, 1992 (Act 107 of 1998) and the Reconstruction and Development Programme: 1994 are pointed out and discussed. Other components of the integrated development plan such as the urban restructuring, sustainable settlements planning and design and the Land Use Management are also referred to and their relevance as instruments for managing sustainable development is outlined. The core components of the integrated development plan include, the social, economic, institutional and physical components, which include environmental plan, transport plan, as well as the layout infrastructure.

Urban development planning aims to promote a consistent urban development approach for effective urban reconstruction and development to guide development policies, strategies and actions of all stakeholders in the urban development planning process. It provides guidelines and informs stakeholders of components and programmes aimed at achieving more efficient, equitable and sustainable cities and towns. These, in turn, will enhance the economic and social development of a growing urban population. Sustainable cities and towns are regarded as cities and towns that are:

- (i) spatially and socio-economically integrated, free of racial and gender discrimination and segregation, enabling people to make residential and employment choices to pursue the ideals;
- (ii) centres of economic and social opportunity where people can live and work in safety and in peace; centres of vibrant urban governance, managed by democratic, efficient, sustainable and accountable metropolitan and local governments in close co-operation with civil society and geared towards innovative community-led development;
- (iii) environmentally sustainable, marked by a balance between quality-built environment and open space, as well as a balance between consumption needs and renewable and non-renewable resources;
- (iv) marked by good housing infrastructure and effective services for households and business as the basis for an equitable standard of living;
- (v) planned for in a highly participative fashion that promotes the integration and the sustainability of urban environments;
- (vi) integrated industrial, commercial, residential, information and educational centres which provide easy access to a range of urban resources; and
- (vii) financed by Government subsidies and by mobilising additional resources through partnerships, more forceful tapping of capital markets, and via off-budget methods (Living cities: urban development Framework, 1997: National Department of Housing).

The components of an efficient, equitable and sustainable development as cited above can be illustrated diagrammatically as follows:

Figure 4.1 COMPONENTS OF EFFICIENT, EQUITABLE AND SUSTAINABLE CITIES AND TOWNS



Source: Adapted from living cities -urban development framework (1997:8)

Urban development and urban development planning describe sustainable development within urban areas in terms of the above-mentioned components.

It is assumed that the components of sustainable development, which include social, economic, physical, institutional, cultural, and environmental components, if operationalised and managed in an integrated fashion, can bring about sustainable urban development. This assumption needs to be tested through application of appropriate sustainable development indicators to measure if it delivers development that is largely defined as a process for improving human well-being through a reallocation of resources. This involves some modification of the environment that addresses basic needs, equity, the redistribution of wealth and focuses on the quality of life rather than the quality of economic activity.

Sustainable development is the outcome of a number of sustainable integrated development plans and processes and include:

- (i) a sustainable economic development plan;
- (ii) a sustainable settlement plan;
- (iii) a sustainable transport plan;
- (iv) a sustainable environmental management plan;
- (v) a sustainable community;
- (vi) a political stability and political will;
- (vii) a realistic strategic spatial plan;
- (viii) a sustainable layout plan, with sustainable infrastructure plan;
- (ix) an effective employment of development legislation and policies and administrative principles;
- (x) an effective land use system;
- (xi) a synthesis of all the abovementioned plans to provide a strategic development direction through its proactive or forward planning system; and
- (xii) a land development and management system.

To be more purpose directed, these plans and systems have to be informed and guided by a broad city development framework (Cities Alliance, 2000:1).

The proposed City of Development framework for the City of Tshwane Metropolitan municipality consists of three core components, namely, a City

Development Strategy; Strategic Sectoral City Development Plans; and an Integrated Development Planning and Local Agenda 21 process. A City Development Strategy refers to an action plan for equitable growth in cities and their surrounding regions, developed and sustained through participation, to improve the quality of life for all citizens The Cities Alliance (2000:1).

According to this Cities Alliance, the output of a city development strategy includes a collective city vision and a strategic action plan aimed at policy and institutional reforms, increased economic growth and employment, and implementation and accountability mechanisms to ensure systematic and sustained reduction in urban poverty. Although the Cities Alliance does not highlight problems that go with achieving the output of a city development strategy, it is obvious that community participation processes and policy and institutional reforms are not problem-free.

One of the critical issues that the Cities Alliance alludes to is acknowledgement that there is no universal best practice for the implementation of a city development strategy, that each city needs to recognize and to identify its own opportunities and problems, which may vary considerably according to its location, level of economic, social and institutional development and many other factors Cities Alliance (2000:1).

The Strategic City Development Plans/Systems refer to strategically integrated core components of sustainable development which for the purpose of this research, accommodates issues such as the characteristics of a metropolitan area; goals of metropolitisation and systems and methods of metropolitisation as outlined in Chapter 1 (1.6.1, 1.6.2 and 1.6.3), the development theories and practice as tools for managing sustainable development specifically on issues around management, public management development, theories of economic development, social development, sustainable development, and sustainable development as provided in Chapter 2 (2.1, 2.2, 2.3, 2.4, 2.5 and 2.6 respectively). Also important is the role of generic functions of administration for managing sustainable development in the context of a municipal setting, especially, the role of public management, polity, finance, organising, personnel

administration, procedures and methods, control, and management; urban development planning for managing sustainable development, which puts emphasis on strategic planning issues such as spatial planning, spatial development framework, layout planning process, context analysis and the core components of sustainable development.

The Integrated Development Planning (IDP) process and the Local Agenda 21 process are outlined in Chapter 5, *supra*.

The underlying issue that steers the IDP/LA21 is the participatory system of government. This implies that all issues pertaining to development must not exclude community or citizens input.

To further clarify the meaning of sustainable development it is worthwhile to revisit the Brundtland Report (Our Common Future, World Commission on Environment Development: 1987: United Nations). In this report, sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their needs.

The definition contains three principles that require further definition, namely:

(a) Development

Development implies improvement and progress and it includes socio-economic, institutional and physical issues as well as cultural and material dimensions. Development is defined as a process of improving the equality of all human lives Todaro (1985 : 580). This process reflects three equally important aspects, namely:

- (i) improvement of the level of consumption of food, medical services and education through relevant growth processes;
- (ii) creating conditions conducive to the growth of people's self-esteem through the establishment of social, political and economic systems and institutions which promote human dignity and respect;
- (iii) increasing people's freedom to choose by enlarging the range of their choice variable, for example, varieties of consumer goods and services Todaro (1985:580).

Sustainable development must therefore be based on an integrated and co-ordinated environmental management and co-ordinated environmental management that must promote the environmental health and well-being of the people by addressing:

- (i) people's quality of life and their daily living and working environments;
- (ii) equitable access to land and natural resources;
- (iii) the integration of economic development, social justice and environmental sustainability;
- (iv) more efficient use of energy resources;
- (v) the integration between population dynamics and sustainable development;
- (vi) the sustainable use of social, cultural and natural resources;
- (vii) public participation in environmental governance; and
- (viii) the custodianship of our environment.

(b) Needs

This is defined in the Brundtland Report: 1987 as meeting everyone's basic needs and extending to all the opportunity to satisfy their aspirations for a better life. The White Paper on Reconstruction and Development: 15 November 1994, states that the basic needs of people extend from job creation, land and agrarian reform to housing, water and sanitation, energy supplies, transport, nutrition, health care, the environment, social welfare and security.

To address the needs of people the Constitution of the Republic of South Africa, Act 1996, (Act 108 of 1996), schedules 4 and 5 provide functions and duties that have to be carried out by organs of state to meet these needs. The integrated approach and planning is therefore fundamental if these needs are to be addressed.

(c) The future generation

This involves the notion of stewardship where communities have the moral duty to look after the planet and to hand it over to future generations in good order. This means improving already degraded areas and avoiding

irreversible damage, such as the destruction of species, or imposing risks on the future, for example, forms of toxic or radioactive wastes.

Elliot refers to sustainable development as development that is likely to achieve lasting satisfaction of human needs and improvement of the quality of human life (1994:3).

The World Commission on Environment and Development, 1987:

LUCN/UEP/WWF, 1991 states that making development sustainable means moving beyond a narrow, albeit important, concern with economic growth *per se*, to considerations relating to the quality of that growth, that is, ensuring that peoples' basic needs are being met, that environment and cross-sectional concerns are integrated into decision-making processes, and that communities are empowered.

Sustainable development, therefore, is concerned with improving the overall quality of life as well as satisfying human needs; it implies self-reliant and cost-effective development, facilitating access to health, shelter clean water and food, and finally it implies the need for people centre initiative Fitzgerald et al (1995:2-4).

Elliot proposes that in broad terms the concept of sustainable development encompasses:

- (a) Help for the very poor because they are left with no option other than to destroy their environment;
- (b) The idea of self-reliant development, within natural resource constraints;
- (c) The idea of cost effective development using economic criteria that differ from the traditional approach - development should not degrade environmental quality, nor should it reduce productivity in the long run;
- (d) Issues, including health control, appropriate technologies, food self-reliance, clean water and shelter for all;
- (e) The notion that people-centred initiatives are needed, means that human beings are the resources in the concept;
- (f) Population and development, has to address population growth as well, that is population programmes need to be part of broader development policies; and

- (g) Core issues and necessary conditions for sustainable development identified by the World Commission on Environment and Development in 1987, which are referred to above includes the following: that, an area or country under development needs to know its population carrying capacity, the ability of the resource base to support and provide for the needs of humans without becoming depleted. Development strategies have to also deal with the combination of population growth, eco-system, health and access to resources, including food energy, security, species and the eco-systems industry and urban challenges, namely, the provision of essential services, social disorders, urbanisation, need for development, limited resources and inadequate services.

The following have been identified as requirements to pursue sustainable development, namely:

- (a) A political system that secures effective citizen participation in decision-making;
- (b) An economic system that provides for solutions for the tensions arising from disharmonious development;
- (c) A production system that respects the obligation to preserve the ecological base for development;
- (d) A technological system that fosters sustainable patterns of trade and finance;
- (e) An international system that fosters sustainable patterns of trade and finance, and
- (f) An administrative system that is flexible and has the capacity for self-corrections Elliot (1994:4).

The above discussion provides guidelines and indicators for managing sustainable development. Based on the implications of these three concepts, sustainable development requires to shift from exploitation to conservation; a redistribution of resources from rich to poor; and a withdrawal now from those activities that rob or threaten future generations. These requirements need an integrated approach, planning and processes that in turn require a broad framework within which to

synergise, co-ordinate and synchronise all relevant elements and aspects of sustainable development.

4.1 SPATIAL PLANNING COMPONENT

The Land Use Management Bill: 20 July 2001 sets basic principles that guide spatial planning, land use management and land development in the Republic of South Africa.

The general principle is that spatial planning, land use management and land development must be:

- i) sustainable;
- ii) equal;
- iii) efficient;
- iv) integrated, and
- v) based on fair and good governance.

These five components of the general principle are briefly discussed below to indicate how legislation and policies inform spatial planning.

4.1.1 The principle of sustainability

The principle of sustainability means the sustainable management and use of the resources making up the natural and built environment, and includes the norms listed below.

- (a) Land may be used or developed only in accordance with the law.
- (b) The general interest as reflected in national, provincial and local policies should enjoy preference over private interests in spatial planning, land use management and land development processes and decisions.
- (c) Disaster management, including prevention and mitigation, should be an integral part of all spatial planning, land use management and land development and a primary concern in all land use management decisions.

- (d) The protection of natural, environmental and cultural resources should be a primary aim in all spatial planning, land use management and land development processes and decisions.
- (e) Land used for agricultural purposes may only be reallocated to another use where real need exists, and prime agricultural land should as far as possible remain available for production.

4.1.2 The principle of equality

The principle of sustainability means everyone is affected by spatial planning, land use management and land development processes and decisions should enjoy equal protection and benefits and that no one should be subjected to unfair discrimination, and includes the norms listed below.

- (a) Public involvement in spatial planning, land use management and land development processes and decisions should be inclusive of all persons and communities with any debatable interest in the matter being decided upon officially.
- (b) Planning authorities and land use regulators should ensure that previously disadvantaged communities and areas share in the benefits and opportunities flowing from land development.

4.1.3 The principle of efficiency

The principle of efficiency means that the desired result should be achieved with the minimum consumption of resources, and includes norms listed below.

- (a) Spatial planning, land use management, land development processes and decisions should promote the development of compact human settlements and low intensity urban sprawl should be combated.
- (b) The areas in which people live and work should be close to each other.
- (c) Spatial planning, land use management, land development processes and decisions of contiguous municipalities and provinces should relate positively to each other.

4.1.4 The principle of integration

The principle of integration, which means that the separate and diverse elements involved in spatial planning, land use management and land development should be co-ordinated into a more harmonious whole, and includes the norms below.

- (a) Spatial planning, land use management, land development processes and decisions should be co-ordinated and aligned with policies of other organs of state in any sphere of government.
- (b) Spatial planning, land use management, land development processes and decisions should promote efficient, functional and integrated settlements.
- (c) Spatial planning, land use management and land development decisions should be guided by the availability of appropriate services and infrastructure, including one of transportation.
- (d) Spatial planning, land use management, land development processes and decisions should promote racial integration.
- (e) Spatial planning, land use management, land development processes and decisions should promote mixed land use development.

4.1.5 The principle of fair and good governance

The principle of fair and good governance, which means that spatial planning, land use management and land development should be democratic, participatory and legitimate in nature, includes the following norms below.

- (a) Spatial planning, land use management and land development processes and decisions must be lawful, reasonable and procedurally fair.
- (b) Everyone whose rights are adversely affected by spatial planning, land use and development decisions have a right to be given written reasons.
- (c) Capacities of affected communities should be enhanced to enable them to comprehend and participate meaningfully in spatial planning, land use management and land development processes affecting them.
- (d) Forums at which land use management and land development decisions are taken should be open to the public.

- (e) The names and contact details of officials with whom the public should communicate in matters relating to spatial planning, land use management and land development should be publicised.
- (f) Spatial planning, land use management and land development decisions should be taken within pre-determined time frames.

4.2 SPATIAL DEVELOPMENT FRAMEWORKS AS A COMPONENT OF THE INTEGRATED DEVELOPMENT PLAN

The spatial development framework that must be included in a municipality's integrated development plan in terms of section 26 (e) of the Municipal Systems Act must be consistent with and give rise to:

- (a) the Directive Principles;
- (b) any national land use framework applicable in the area of the municipality; and
- (c) any national and provincial plans and planning legislation.

So a spatial development framework must include the following below.

- (a) a land use policy to guide with:
 - desired patterns of land use in the municipal area;
 - the spatial reconstruction of the municipal area, including the correction of past spatial imbalances and the integration of formerly disadvantaged areas;
 - directions of growth;
 - major movement routes;
 - the conservation of the natural and built environment;
 - the identification of areas in which particular types of land use should be encouraged or discouraged; and
 - the identification of areas in which the intensity of land development should be increased or reduced.
- (b) decision-making relating to the location and nature of development in the municipal area with:
 - a plan visually indicating, or where appropriate describing, the desired spatial form of the municipal area;

- basic guidelines for land use management system in the municipal area;
- a capital expenditure framework for the municipality's
- development programmes; and
- a strategic assessment of the environmental impact of the spatial development framework.

Spatial planning is defined in the Green Paper on Development and Planning: 21 May 1999 as a public sector activity which creates a public investment and a regulatory framework within which private sector decision-making and investment occurs. Spatial planning therefore refers to the organisation of space.

The spatial planning in local government has two broad dimensions, namely:

- (i) a proactive or forward planning system, which defines desirable directions, actions and outcomes; and
- (ii) land development and management, which is concerned essentially with regulating land use change, (driven usually by private sector initiatives) and with protecting individual and group rights in relation to land.

The Green Paper on Development and Planning: 21 May 1999 further outlines reasons for the importance of a positive planning system, and these include a positive planning system is necessary for a number of reasons.

1. To provide vision and consistent direction, as well as a strategic assessment not only of what is desirable, but what is possible in various contexts.
2. To protect the rights of people. Once people gain access to land, in effect they obtain certain rights and obligations. It is necessary to manage change in such a way that those rights and obligations are respected.

3. To protect natural systems. Natural systems have their own operational requirements, which must be respected if long-term sustainable human development is to be achieved and if large-scale environment degradation is to be avoided or at least minimised.
4. To make efficient use of resources. Resources, such as land, water, energy, finance, building materials, skills and so on are in short supply. Those that are available must, in all contexts, be used wisely to ensure that maximum benefit is obtained from them.
5. To achieve a higher quality of service delivery by all spheres of government.
6. To co-ordinate actions and investments to ensure maximum positive impact from the investment of resources, it is necessary to co-ordinate actions and investments in time and space. This co-ordination of different forms of public authority actions and investments, leads to greater co-ordination between public and private actions.
7. To set priorities. In order to enable significant inroads to be made into meeting the developmental needs of the country in a fair way, it is necessary to provide a rational basis for prioritisation, and to manage and direct resources to where they are needed most.
8. To avoid duplication of effort by different departments and spheres of government.

The spatial planning must therefore be viewed and operate as a synthesising holistic practice. Its primary role is actually to integrate different sectoral elements creatively. Municipalities are therefore expected to include a proactive spatial component in their integrated plans, and the primary purpose of the spatial plan should be to move towards the emergence of more integrated, equitable, efficient and sustainable settlements. Specifically the spatial elements of the integrated development plan should:

- i) Develop an argument or approach to the development of the area of jurisdiction which is clear enough to allow decision-makers to deal with the unexpected (for example, applications from the private sector);
- ii) Develop a spatial logic that guides private sector investment. This logic primarily related to establishing a clear hierarchy of accessibility;
- iii) Ensure the social, economic and environmental sustainability of the area;
- iv) Establish priorities in terms of public sector development; and
- v) Identify spatial priorities and the places where public-private partnerships are a possibility.

The plan should not attempt to be comprehensive. It should take the form of a broad framework that identifies the minimum public actions necessary to achieve the direction of the plan. The spatial dimension must have sufficient clarity of logic to guide decision-makers in respect of development applications.

The primary public spatial elements which need to be co-ordinated and brought into a synergistic relationship with each other are a green system, that is, places where built environment should not be allowed; hard public space, that is, open urban spaces such as square and other forms and public spaces which accommodate the informal activities which occur within settlements; social

facilities; and utility and emergency services. So, a spatial plan should identify the following below.

- i) An open space system, including both green and urban space – the identification of areas where development will not be allowed or will be more tightly controlled (for a variety of reasons, including ecological, hazards, production, recreation and place-making).
- ii) The planned patterns of public investment in terms of public space, movement, social services and utility and emergency services;
- iii) Defined areas where greater intensification and mixed use will be encouraged;

- iv) Conservation areas, if applicable, or areas requiring special control, if applicable;
- v) Areas for more noxious nuisance-creating activities, if applicable;
- vi) Areas where special problems are to be resolved such as where tenure, restitution and land rights issues pertain;
- vii) Areas requiring special services, if applicable; and
- viii) Special project areas (for example, public housing schemes).

4.3 SYNERGISTIC RELATIONSHIP BETWEEN COMPONENTS OF SUSTAINABLE DEVELOPMENT

The components of sustainable development outlined above have to be co-ordinated, synergised and synchronised through a spatial development framework and the integrated development planning processes to provide a broad framework for the operationalisation and maintenance of sustainable development.

4.4 LAYOUT PLANNING CONCERNS AND PRINCIPLES

Layout planning concerns and principles referred to below are critical elements of sustainable development. They guide the physical planning process towards sustainable settlements. It is important to note that although both the layout

planning concerns and principles are crucial elements of sustainable development, they do not guarantee sustainable development. A host of other components such as land use management systems, land availability, availability of finance, level of enforcement of policies and legislation, and political will, can positively or negatively affect a good layout plan. The challenge to municipalities is that despite all these interventions and guidelines, cities in South Africa are still fragmented and incoherent.

The purpose of layout planning is to provide a framework within which numerous collective and individual investments may be accommodated over time, in a

mutually reinforcing and developmental manner Behrens and Watson (1996:7-12). This is seen as initiating and facilitative tools rather than being prescriptive.

This implies that the layout plan should indicate a minimum set of spatial interventions rather than attempt to be more comprehensive Behrens and Watson (1996:13).

It is cited that the approach to layout planning is informed by a view that the establishment of urban settlement is a process and not a product, and that the development of infrastructure and housing, for example, is a set of processes intimately involving the end-user community, and not a designed end-product. It is further postulated that it is neither possible nor desirable at any one point in time to design an urban settlement, that Urban environments are the result of successive collective and individual actions and reaction over time. That this is evidenced by the fact that urban settlements seldom resemble the structural plans or layout plans that planners and engineers envisaged originally Behrens and Watson (1996: 47-48).

Planning for sustainable development is guided by a combination of general planning guidelines and normative planning concerns. The general planning guidelines for urban planning include, the movement network and transport; the open space system which is made up of the hard open spaces and soft open spaces; public facilities; public utilities; land subdivision; cross-cutting issues such as environmental design for safer communities; ecologically sound urban development and fire safety; economic services such as employment generation, urban markets, and manufacturing infrastructure; and the urban engineering services (Guidelines for Human Settlement Planning and Design: 2000 :National Department of Housing).

The normative planning concerns include place-making, scale, access, opportunity, efficiency, and choice Behrens and Watson (1996:66).

The general planning guidelines and the normative planning concerns are interwoven and form an informed planning tool for sustainable development

planning process. The process is discussed below under the normative planning concerns.

(a) Place making

According to Behrens and Watson (1996:10) the concept of a 'sense of place' has been the subject of considerable intellectual exploration within a variety of disciplines, and has been imbued with numerous layers of meaning. Contained within the concept are a number of meanings or dimensions which have direct implications for the development of an appropriate urban planning consciousness as well as for layout planning. Adam et al (2000) refer to place-making as the quality of place and discuss the same issues as Behrens and Watson.

The first dimension is a sense of uniqueness. The creation of a sense of place requires embracing, and consciously seeking to promote, uniqueness, as opposed to standardisation. The second dimension is a sense of balance. A characteristic of quality urban places is the degree to which there is a sustainable balance with natural systems, and a responsive balance with human needs Behrens and Watson (1996:67). The third dimension is a sense of symbolism. Over time, certain places frequently acquire historical significance and are elevated over other places in terms of a perceived importance to communities. The fourth dimension is a sense of legibility – the ability of people to participate, and orientate themselves within, settlements they do not know intimately. It is this quality which provides the particular spatial structural language of a place Behrens and Watson (1996:67-72).

Behrens and Watson confirm that the concept of a 'sense of place' is complex. The concept may not only be difficult to comprehend, but also to apply. "Its attainment cannot be achieved through the application of standardises planning actions. Rather, it results from imaginative, appropriate actions based on an understanding of site, human need, function and culture" (1996:67).

Behrens and Watson stress, however, that the concept is not so abstruse that it cannot guide layout planning, or that it only results from accidental events over long periods of time. The concept has direct implications for layout planning, hence for sustainable development too.

(b) Scale

A concern for human scale – the design of the heights, widths, surfacing and operations of the various elements of a layout plan from the perspective of the person on foot – has implications for the planning and design of public facility, amenity and circulation systems

(c) Access

A concern for access – the meeting of circulation needs and the maximisation of levels of access to commercial, facility and employment opportunities for the greatest number of people – has implications for *inter alia* road network design, public transport operations and city-wide land use distribution patterns. With regard to layout more specifically, a concern for access has implications for the planning and design of circulation and public facility systems.

(d) Opportunity

A concern for opportunity - the maximisation of the economic opportunities inherent in large agglomerations of people through the arrangement of infrastructural investments in space - has implications, *inter alia*, for small business support programmes, training programmes, retail management policies and development control systems. Especially with regard to layout, the concern for the creation of economic opportunities and local economic development has implications for the planning and design of circulation, amenity and utility systems.

(e) Efficiency

A concern for efficiency – the cost effective utilisation of land and financial resources – has implications, *inter alia*, for land use policies, transport policies, and capital investment programmes. With regard to layout, more

specifically a concern for efficiency has implications for the planning and design of public facilities, amenities and utility systems.

(f) Choice

A concern for choice – the maximisation of the range of choices available to end-user communities regarding housing consolidation, service provision, urban surroundings, movement modes and so on – has implications for the planning and design of circulation, amenity and utility systems.

The overarching concerns and the layout planning principles for purposes of archiving sustainable settlements and development impact directly on the physical component of integrated development process, as set out in chapter 5, table 5:1 and figure 5:1.

The physical component of integrated development planning process has, in turn influence on other components such as the economic, social, and institutional components Development Facilitation, 1965 (Act 67 of 1995).

TABLE 4.1 SUMMARIES OF THE OVERACHING CONCERNS AND LAYOUT PLANNING PRINCIPLES

CONCERN	LAYOUT PLANNING PRINCIPLE
Place making	<ul style="list-style-type: none"> ▪ Focus on a hierarchical system of hard public spaces (for example squares, markets) as the main structuring element of urban areas, in order to establish loci for social interaction and community events and create places that shape enduring impressions of the settlement. ▪ Respond to the cultural context of a site by understanding traditional ways of making the local cultural landscape (for example patterns of planting, road alignments, locations of symbolic or sacred buildings and spaces), incorporating these into layout plans in order to ensure that existing forms of the cultural landscape are maintained.

	<ul style="list-style-type: none"> ▪ Respond to the cultural context of a site by identifying the implications of natural characteristics (for example topography, vegetation, climate etc.) for layout planning, in order to accentuate uniqueness, and bring the presence of the natural landscape visually into the settlement. ▪ Improve, where necessary, the protective and visual qualities of the natural landscape (for example, shade, wind protection, topographical interest), in order to enhance the comfort of urban places, and provide structure to processes of settlement formation. ▪ Define hard open spaces (for example, squares, road reserves) through the juxtaposition of public buildings, public furniture and tree-planting, in order to create outdoor 'rooms' which provide a sense of enclosure, greater safety through public surveillance, and protection from the natural elements. <hr/> <p style="text-align: right;">Scale</p> <ul style="list-style-type: none"> ▪ Link soft open spaces (for example, public parks, playing fields etc.) in order to form networks of recreational space that provide opportunities for the creation of continuous walkways and greater levels of urban biodiversity. <hr/> <p style="text-align: right;">Access</p> <ul style="list-style-type: none"> ▪ Provide middle and lower order road networks with a continuous functional gradation of road types, in order to reconcile the needs of numerous road functions (for example, social, economic, aesthetic) and road users (pedestrians, street traders, motorists) and accommodate different modes and types of traffic movement (for example through, stop-start, access seeking). ▪ Integrate the local road network with the surrounding movement system and land use pattern, in order to improve levels of interconnection, extend important routes through the area, and provide opportunities for increased coverage and penetration of public transport operations. ▪ Prioritise pedestrian movement by providing direct, safe and convenient routes between different land use activities and public transport stops, in order to increase levels of intra-district access for the most vulnerable and very often poorest group of users. ▪ Facilitate efficient and effective public transport service by making
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	<p>at points of greater access, as an element of essential public infrastructure, in order to assist small-scale manufacturers and traders by providing central trading locations and creating agglomerations of small traders capable of competing effectively with larger commercial establishments.</p> <ul style="list-style-type: none"> ▪ Cluster public facilities according to their hierarchical and lateral functional relationships (for example medical referrals, book circulation), in order to facilitate the sharing of resources (for example halls, playing fields, teaching equipment) between facilities, and enable a number of household needs to be satisfied in a single trip. ▪ Integrate public open space networks with high utility services like major storm water management systems (for example retention and retarding ponds and solid waste disposal sites, in order to enable these spaces perform numerous functions (for example public open spaces acting as overflow facilities in the event of severe storms, and storm water storage facilities providing landscaping features). ▪ Facilitate efficient service provision and land utilisation by optimising the layout for the particular combination of service options provided (for example avoiding steep or flat road gradients, reducing road length per erf) in order to enhance the affordability of a development through reductions in the unit cost of land acquisition and service provision.
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Source: Guidelines for Human Settlement Planning and Design, 2000

4.5 SUSTAINABLE ENVIRONMENTAL MANAGEMENT PLAN COMPONENT

The environment refers to the biosphere in which people and other organisms live. It consists of renewable and non-renewable natural resources such as air, water, land and all forms of life; natural ecosystems and habitats; and ecosystems, habitats and spatial surroundings modified or constructed by people, including urbanised areas, agricultural and rural landscapes, places of cultural significance and the qualities that contribute to their value.

The new South African Government's vision for environmental management projects an integrated and holistic management system for the environment aimed at achieving sustainable development now and in the future. It seeks to unite the people of South Africa in working towards a society where all people have sufficient food, clean air and water, decent homes and green spaces in their neighbourhoods enabling them to live in spiritual, cultural and physical harmony with their natural surroundings.

This vision can only be achieved through a new model or paradigm of sustainable development based on integrated and co-ordinated environmental management. This model or paradigm of sustainable development must promote the environmental health and well-being of the nation's people by addressing (i) people's quality of life and their daily living and working environments; (ii) the integration of economic development, social justice and environmental sustainability; (iv) more efficient use of energy resources; (v) the integration between population dynamics and sustainable development; (vi) sustainable use of social, cultural, and natural resources; (vii) public participation in environmental governance; and (viii) the custodianship of the environment (White Paper on Environmental Management Policy for South Africa: May 1998).

The White Paper on Environmental Management Policy for South Africa: May 1998 defines sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains two key concepts, namely, the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given, and the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs.

By its definition and meaning the sustainable environmental management plan forms a strong component of sustainable development. It addresses other components such as social, economic, cultural and physical components, and integrates them into a complete sustainable environmental management plan. A sustainable environmental management plans requires a strategic spatial development plan and framework, and a strategic layout planning process that

accommodates all other components of sustainable development. This proves that components of sustainable development are not only interrelated but they are also mutually inclusive, in other words in one component, the elements of other components are found.

4.6 EFFICIENT FINANCIAL PLAN AS A COMPONENT OF SUSTAINABLE DEVELOPMENT

Financial planning is one of the core components of the integrated development plan [section 28 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000)]. The financial plan or budget's major function as a component of sustainable development is to ensure that sustainable development programmes, projects and other components are properly budgeted for. Sustainable development cannot be achieved if there is no money to finance the operationalisation of such sustainable development plans, programmes, processes and projects.

A Municipal Council must for each financial year, by way of an annual budget, appropriate money for its Revenue Fund for the requirements of the municipality. The annual budget must be in accordance with a format as may be prescribed; must be balanced to ensure that the total amount appropriated in terms of the budget does not exceed the realistically anticipated revenue; and may not exceed a growth factor as determined by the National Treasury (Local Government Municipal Finance Management Act, 2003). Crucial to the budget process is community participation. The planning processes to develop sustainable development programmes, projects and plans in terms of the sustainable development components have to involve the community and all stakeholders (a Legislative requirement). Finance as one of the generic function of public administration has been discussed in Chapter 3 of this report.

4.7 SUSTAINABLE ECONOMIC DEVELOPMENT PLAN AS A COMPONENT OF ECONOMIC DEVELOPMENT

Economics is a social science. It is concerned with human beings and the social systems where they organise their activities to satisfy basic material needs. These are likely to be food, shelter, clothing, and non-material wants, such as education, knowledge and spiritual fulfilment. Social systems means the interdependent relationship between economic and non-economic factors. The non-economic factors include, attitudes towards life, work, and authority; public and private bureaucratic, legal and administrative structures; patterns of kinship and religion; cultural traditions; systems of land tenure, the authority and integrity of government agencies; the degree of population participation in development decisions and activities; and the flexibility or rigidity of economics and social classes Todaro (2000:12-13).

The first concern for urban planning and management must be to maximise urban generative capacity. The more urban systems that generate economic, social, cultural, commercial and recreational opportunities and facilities, the more habitable they will become (Living Cities: Urban Development Framework: National Department of Housing 1997).

Effective urban areas are prerequisites for attracting investment and generating national economic growth. Likewise economic development is the key to making the cities and towns more habitable, efficient, competitive and sustainable. Without a vibrant and productive urban economy the urban areas will stagnate and decline to the detriment of the national economy.

Local Economic Development (LED) as one of the core components of the integrated development plan, contributes to the creation of employment and an environment conducive to investments. LED approaches are associated with attempts to promote the satisfaction of basic needs, to bring about empowerment and to allow for greater local level self-determination.

Sustainable economic development can only materialise if its other components are incorporated, namely, a sustainable land use management plan, effective

spatial planning framework, effective land transport management system, sustainable environmental management plan, political stability and will, a sustainable layout plan and efficient and sustainable financial plan and sustainable settlement.

The Government's goal for reconstruction and development is to meet the social needs of the people and to create a strong, dynamic and balanced economy that will:

- (i) create jobs that are sustainable, and increase the ability of the economy to absorb new job-seekers in both the formal and less formal sectors;
- (ii) alleviate the poverty, low wages and extreme inequalities in wages and wealth generated by the apartheid system to meet basic needs, and thus ensure that every South African has a decent living standard and economic security;
- (iii) address economic imbalances and structural problems in industry, trade, commerce, mining, agriculture and the finance and labour markets;
- (iv) integrate into the world economy utilising the growing home base in a manner that sustains a viable and efficient domestic manufacturing capacity and increases the country's potential to export manufactured products;
- (v) address uneven development within regions of South Africa and between the countries of Southern Africa;
- (vi) ensure that no one suffers discrimination in hiring, promotion or training on the basis of race or gender;
- (vii) develop the human resource capacity of all South Africans; and
- (viii) democratise the economy and empower the historically oppressed, particularly the workers and their organisations, by encouraging broader participation in decisions about the economy in both the private and public sector.

As indicated the Government's goal to sustain its economy will be made feasible if other components of sustainable development are achieved.

4.8 EFFECTIVE EMPLOYMENT OF DEVELOPMENT LEGISLATION AND POLICIES INCLUDING ADMINISTRATIVE PRINCIPLES AS COMPONENTS OF SUSTAINABLE DEVELOPMENT

Sustainable development takes place within environments including legislative and policy environment and administrative environment. The legislation and policy environment include all statutory and legal requirements and directives with which the sustainable development process has to comply. These include the Constitution of South Africa Act, 1996 (Act 108 of 1996); the Water Services Act, 1997 (Act 108 of 1997); Housing act, 1997 (Act 107 of 1997); the Development Facilitation Act, 1995 (Act 67 of 1995); and the Physical Planning Act, 1991 (Act 125 of 1991).

Legislation and policies created to promote and ensure sustainable development are discussed in all the chapters of this report.

The generic functions of public administration, namely, policy and policy-making, finance organising, procedures and methods as well as staffing and control are discussed in Chapter 3 of this report. The absence of legislation and policies and the principle of administration will lead to unprocedural and illegal actions and procedures being taken, and statutory requirements being ignored. If this happens, then sustainable development will be negatively affected and fail.

4.9 POLITICAL STABILITY AND POLITICAL WILL AS A COMPONENT OF SUSTAINABLE DEVELOPMENT

Political stability and political should provide a conducive climate for sustainable development to happen. Political will is likely to provide leadership and direction in respect of sustainable development programmes, processes and projects, including development plans formulated as per sustainable development components. Political stability and political will as a component of sustainable development impacts directly on the layout planning as well.

Another important aspect of layout planning is the layout infrastructure. The elements of the layout infrastructure include, water supply, sanitation, roads, storm-water disposal, energy supply, public lighting, solid waste removal, communications, public spaces and markets. Sustainable development would be incomplete and would not be realised if these elements are not included as parts of the integrated development plan.

4.10 A SUSTAINABLE LAND TRANSPORT PLAN AS A COMPONENT OF SUSTAINABLE DEVELOPMENT

Land transport is defined by the National Land Transport Transition Act, 2000 (Act 22 of 2000) as the movement of persons and goods on or across land by means of any conveyance and through use of any infrastructure and facilities in connection therewith.

The National Land Transport Principles and Policy outlined in the Land Transport Transition Act, 2000 (Act 22 of 2000), among others provides that all role-players must strive to achieve an effective land transport system through integrated planning, provision and regulation of infrastructure and services and diligent and effective law enforcement; investment in infrastructure and operations must promote economic, financial, technical and environmental sustainability. Also, land transport functions must be integrated with related functions such as land use and economic planning and development through the development of corridors, densification and infilling and transport planning. These must guide land use and development planning and the co-ordination of institutional functions in land transport must be promoted. The participation of all interested and effected parties, including vulnerable and disadvantaged persons in transport planning must be promoted, taking into account that people must have the opportunity to develop the understanding, skills and capacity necessary to achieve equitable and effective participation and that public transport services must be designed to add value to the customer and has the least harmful impact on the environment.

There is no doubt that land transport plan is informed by elements, aspects and components of sustainable development and form pillars of an integrated development plan.

4.11 GENERAL PRINCIPLES FOR TRANSPORT PLANNING AND ITS RELATIONSHIP WITH LAND DEVELOPMENT

Part 7 of the National Land Transport Transition Act, 2000 (Act 22 of 2000) concludes that land transport forms an integral part of sustainable development by providing the following general principles for transport planning, and its relationship with land development.

Land transport must be integrated with the land development process, and the transport plans required for that purpose by this Act are designed to give structure to the function of “municipal planning” mentioned in Part B of Schedule 4 of the Constitution, and must be accommodated in and form an essential part of integrated development plan, with due regard to section 84(1)(a), 84(2) and 84(3) of the Local Government: Municipal Structures Act, 1998 (Act No. 117 of 1998). For this purpose:

- (a) where the relevant planning authority is a municipality, the plans mentioned in sections 19 and 20 of the National and Transport Transition Act 2000, (Act 29 of 2000) must form the transport component of the integrated development plan of the municipality; and
- (b) where the jurisdictional area of a municipality falls wholly or partly in a transport area or Metropolitan Transport Area, the plans mentioned in (a) above, constitute the transport component of the integrated development plans of such a municipality in respect of that part of its jurisdictional areas that falls within the transport area or Metropolitan Transport Area.

Subject to this section, land transport planning must be so carried out so as to cover both public and private transport and all the modes of land transport relevant to the area concerned, and must focus on the most effective and economic way of moving from one point to another system. Transport plans must be developed so as to:

- (i) enhance the effective functioning of cities, towns and rural areas through integrated planning of transport infrastructure and facilities, transport operations including freight movement, bulk services and public transport services within the context of those integrated development plans and the land development objectives set in terms of section 27 of the Development Facilitation Act, 1995 (Act no. 67 of 1995), or, where applicable land development objectives of that nature set in terms of relevant provincial laws;
- (ii) direct employment opportunities and activities, mixed land uses and high density residential development into high utilisation public transport corridors interconnected through development nodes within the corridors, and discourage urban sprawl where public transport services are inadequate;
- (iii) give priority to infilling and densification along public transport corridors;
- (iv) give higher priority to public transport than private transport by ensuring the provision of adequate public transport services;
- (vi) applying travel demand management measures to discourage private transport; and
- (viii) enhance access to public transport services and facilities, and transport functionality in the case of persons with disabilities; and minimise adverse impacts on the environment.

Transport planning must be viewed as a continuous process by which planning authorities professionally develop and implement integrated public transport services for their areas.

A planning authority must, unless clearly inappropriate or not reasonably practical in the circumstances, in preparing any transport plan, ensure co-ordination and integration within and between land transport modes so as to optimise the accessibility and utilization of public transport services, facilities and infrastructure.

The MEC must ensure the co-ordination of planning processes of all planning authorities under the jurisdiction of the province and, in so doing, must ensure that all plans address the following:

- (a) public transport services operating across the boundaries of the areas of planning authorities;
- (b) road and rail networks;
- (c) freight movements;
- (d) the needs of special categories of passengers;
- (e) rivalry between neighbouring planning authorities that may result in the duplication or over-supply of transport facilities and infrastructure in the region; and
- (f) the integration of transport and land use planning within the context of the Development Facilitation Act, 1995 (Act no. 67 of 1995), or any other similar provincial law.

The following plans are required for the purposes of this Act (National Land Transportation Transition Act 22 of 2000):

- (a) A national land transport strategic framework;
- (b) A provincial land transport framework;
- (c) A current public transport record;
- (d) An operating licences strategy;
- (e) Rationalisation plans;
- (f) Public transport plans; and
- (g) Integrated transport plans.

The relationship and sequence of transport plans are as follows:

- (a) The Department must prepare a national land transport strategic framework to guide land transport planning countrywide;
- (b) Every province must prepare its initial provincial land transport framework as an overall guide to transport planning within the province;
- (c) Every transport authority and core city as well as every municipality required to do so by the MEC, must prepare a public transport plan of which a current public transport record and an operating licences strategy, and, if it has subsidised public transport services, a rationalisation plan, form components;

- (d) Transport authorities and core cities, and other municipalities requested by the MEC, must prepare an integrated transport plan of which the public transport plan forms a component; and
- (e) Every province must prepare subsequent provincial land transport frameworks which must summarise the local plans in the province.

Subject to section 20 (4) and (5), provincial transport frameworks must include planning of both inter-provincial and inter-provincial long-distance services, which must be linked where applicable with other public transport services, and may provide for charter services, staff services and tourist services, and in the case of inter-provincial transport, this must be done in consultation with the MEC of the other province or provinces concerned.

The Minister must, as soon as possible after the commencement of this Act, [National Land Transport Transition Act 2000 (Act 22 of 2000)] in consultation with the MECs and via notices in the Government Gazette, determine a date by which each province must have prepared its provincial land transport framework. The date for each of the plans mentioned in subsection (1)(c) to (g) must be linked to the provincial land transport framework and be as agreed upon by the MECs. The planning authority must before or on the date determined publish a notice in English and at least one other official language in a newspaper circulating in the area of the planning authority making known that the plan in question has been completed and is available for public inspection at a place stated in the notice. The MEC may prescribe procedures to be allowed in promoting public participation in the transport planning process.

The Minister and any MEC may provide financial or other assistance for planning to enable authorities to fulfil their obligations from money appropriated by Parliament or by the relevant provincial legislature, as the case may be. The content of plans must be as required by this Act [National Land Transport Transition Act, 2000 (Act 22 of 2000)], but the Minister may, in consultation with the relevant MEC or MECs, modify requirements for those plans, in the prescribed manner, in relation to rural area in particular provinces.

The directives and guidelines provided by National Land Transport Transition Act, 2000 (Act 22 of 2000) clearly, do not only inform and direct land transport planning, but also influence components such as urban form, environmental management planning, economic development planning, social development planning and layout infrastructure planning.

The layout plan that includes the layout infrastructure plan influence, is also influenced by the land transport plan. The elements of layout infrastructure include water supply, sanitation, roads, storm water disposal, energy supply, public lighting, solid waste removal, communications, public space, and markets. These elements are also listed in the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) as functions and responsibilities of Government, categories in terms of the three spheres of Government. This implies therefore that Government, with the three spheres are at the core of sustainable development.

4.12 EFFECTIVE LAND USE MANAGEMENT SYSTEM AS A COMPONENT OF SUSTAINABLE DEVELOPMENT

Land use Management means establishing or implementing a statutory or non-statutory mechanism in terms of which the unencumbered use of land is or may be restricted or in any other way regulated (Wise Land Use: White Paper on Spatial Planning and Land Use Management: 20 July 2001 : National Department of Land Affairs). The Land Use Management, therefore, includes

- the regulation of land-use changes such as, for example, the rezoning of a property from residential to commercial use;
- the regulation of green fields land development, that is, the development of previously undeveloped land;
- the regulation of the subdivision and consolidation of land parcels;
- the regulation of the regularization and upgrading process of informal settlements, neglected city centres and other areas requiring such processes; and
- the facilitation of land development through the more active participation of the municipality in the land development process, especially through public-private partnerships (Wise Land Use, 2001).

The paper *Wise Land Use: White Paper on Spatial Planning and Land Use Management*: 20 July 2001 gives clear directives on how land should be used and developed. One of the reasons the Government provides directives on the use of land is because land is a national resource and falls within the national legislation competency. The responsibility for this legislature's competency resides with the Minister of Land Affairs. This is evident in the Minister's responsibility for the administration of land, the transfer of land, the ownership of land and the cadastral boundaries of land. The National Department of Land Affairs exercises this authority over the land reform programme, the Deeds Registry, the office of the Surveyor General, the National Spatial Information Framework and the administration of land held in trust by the Minister (*Wise Land Use*, 2001).

The challenge facing municipalities, as far as this legislation is concerned, revolves largely around the correct application of the provisions of this legislation and its enforcement. There is no doubt that any inability to correctly implement the provisions of this legislation in the long run will hinder or even harm future developments within municipalities.

There is also no doubt that land use management and development systems form a crucial component of an integrated development plan for sustainable development. The land-use management has two main underlying concerns that make it a crucial component.

The first is the widely felt resistance to the idea of uncontrolled land development, and the second is the commonly expressed wish by particular sectors in society to promote various types of desirable land development. The resistance to uncontrolled development is motivated by a number of concerns, the precise mix of which is determined by the particular social, economic and political context of different times and places. Essentially these concerns include the following:

TABLE 4.2 UNDERLYING LAND USE MANAGEMENT – MAIN CONCERNS

Concerns	Impact
i) Environmental Concerns	Uncontrolled development of land can have adverse effects on natural habitats, cultural landscapes and air and water quality.
ii) Health and Safety Concerns	Uncontrolled development can lead to overcrowding and unsafe building construction. Certain land uses can also be detrimental to the health and safety of neighbours.
iii) Social Control	The control of land uses and building types has long been a means of imposing social control, particularly through the exclusion of certain types of person, household or economic activity from certain areas through the application of particular development controls limiting, for instance, plot sizes, plot coverage and home industries.
iv) Efficiency of infrastructure provision and traffic management	It has become increasingly clear that where the granting of development permissions is not coupled with the provision of adequate infrastructure and traffic management the consequences can be severe. Similarly, where infrastructure is provided, generally at high financial cost, without taking into account likely and relevant land-use and settlement patterns, the opportunity costs to society are very high.
v) Determination of property values for purposes of rating	The market value of land is the basis on which property valuation is determined and the extent and nature of the development permitted on the land is a key factor in that determination.
vi) Aesthetic concerns	The control of land development enables government to prescribe certain design parameters for buildings.

Source : Wise Land Use: White Paper on Spatial planning and Land Use Management, 2001

The wish to promote desirable development is also driven by a number of different concerns, as listed below.

- (a) The land development needs of the market seldom match the social and political needs of government**

Government may well want to promote a type of land development in an area that the market neglects. It then has to take certain steps to facilitate that development or provide incentives. The history of land ownership in South Africa also inevitably skews the land market in favour of white people, thus creating a situation where the needs of the market reflect only those of an already privileged minority (Wise Land Use, 2001). The municipalities need to turn this trend around. Sustainable development, through proper land use policies and legislation may address this dysfunction.

b) Investment promotion

Changing the applicable land-use management instruments is often seen as a prerequisite for attracting certain types of investment to certain areas. This can take the form of both relaxing controls in those areas and increasing controls in other areas that might be more favoured by the market. These strategies are likely to be linked to local economic development initiatives (Wise Land Use, 2001). A careful balancing of relaxation and increasing of controls in affected areas is at the heart of this concern. The incorrect approach to this concern can harm investment opportunities.

Currently, the laws regulating land development management are diverse and unrelated. In each of the provinces that have not passed their own development and planning laws, old ordinances that used to apply in white, 'coloured' and Indian areas prevail, alongside apartheid regulations that only applied in so-called African areas. There are also other laws at a national level that impact on land development management such as the Less Formal Townships Establishment Act, the Removal of Restrictions Act and the Physical Planning Act. The ordinances set out the legal basis for zoning and town planning schemes and deals with both the compilation of schemes, the amendment of schemes and procedures for approving new developments. It is important to note that the absence of appropriate and relevant development legislation and policies is a handicap for any development initiative, due to the fact that development in South Africa is largely policy and legislation driven. The Development Facilitation Act 2000 (Act 32 of 2000) introduced a system of land

development linked to provincially-created tribunals which provided an alternative route for land development applications. The aim was to speed up land development and also tribunals to override laws from the old order that impeded positive land development.

The provinces that have passed their own new legislation have tried to create one set of procedures to deal with new land development and land management, yet in most cases have retained the Development Facilitation Act 2000, as an alternative route (Wise Land Use, 2001).

An important conceptual shift is that in the new system the primary role of government – and especially local government – in relation to spatial planning, land use management and land development is no longer merely the control of development (although that remains an essential function). The facilitation of appropriate development is an important new responsibility. Two aspects require particular attention: firstly, there is a need to allow for public-private partnerships that are specially equipped to facilitate land development; and secondly, there is a need to strengthen municipalities' power to negotiate development with the private sector, rather than simply applying a yes-or-no approach to land development (Wise Land Use, 2001).

The Wise Land Use: White Paper on Spatial Planning and Land use Management: 20 July 2001 also outlines a series of approaches and mechanisms to spatial planning, land use management and land development. These are that every municipality should have an indicative plan showing desired patterns of land use, directions of growth, urban edges, special development areas and conservation-worthy areas as well as a scheme recording the land use and development rights and restrictions applicable to each erf in the municipality. The plan should be flexible and be able to change to reflect shifting priorities of the municipality, whereas the scheme should be tighter and only amended where required for particular development and where certain other requirements are met, with the most important of these requirements being conformity with the plan. The plan should thus influence the contents of the scheme as and when required, rather than act as the direct source of rights and controls itself (Wise Land Use, 2001).

There must be a strong link between both the plan and the scheme and the municipality's budget and capital expenditure framework. On the one hand the budget will record the municipality's income and expenditure and on the other the capital expenditure framework will indicate planned spending on infrastructure and services. These two elements are important for land use planning for two reasons. Firstly, the rights recorded in the municipality's scheme determine the value of the land and that value in turn forms the basis of the rates that the municipality can charge, which form a major part of its income stream. Secondly, any new land development or land use change has to be adequately serviced by infrastructure and the capital expenditure framework will indicate where the municipality is able to spend funds on the upgrading or extension of the infrastructure (Wise Land Use, 2001).

A further directive to municipalities to ensure an integrated and planning that aims at achieving a sustainable development is that every municipality must compile a spatial development framework for its area. The spatial development framework so directed has four components, namely;

- (i) Policy for land use and development;
- (ii) Guidelines for land use management;
- (iii) A capital expenditure framework showing where the municipality intends spending its capital budget, and
- (iv) A strategic environmental assessment (Wise Land Use, 2001).

The spatial development framework guides and informs all decisions of the municipality relating to the use, development and planning of land. The timing of the process of compiling the spatial development framework must correspond with that of the (Integrated development plan) IDP. Each of the three components of the spatial development framework must guide and inform the following (Wise Land Use, 2001):

- (i) Directions of growth;
- (ii) Major movement routes;
- (iii) Special development areas for targeted management to redress past imbalances;
- iv) Conservation of both the built and natural environment;

- v) Areas in which particular types of land use should be encouraged and others discouraged; and
- vi) Areas in which the intensity of land development could be either increased or reduced.

The four components of spatial development framework will also each have to expressly reflect the way in which they reflect and operationalise the principles and norms for land use and land development set out in the new legislation (replacing the Development Facilitation Act 1995, Chapter One Principles) (in Wise Land Use, 2001).

The Wise Land Use (2001) further points out that the way in which the spatial development framework and the scheme relates to individual land development or land use changes applications will depend whether or not the proposed change is consistent with the spatial development framework and, where such a framework is silent on the applicable national principles and norms.

Every application will obviously be for a development that is in some way inconsistent with the scheme, as otherwise there would be no point in making an application. The owner is entitled to exercise his or her rights already recorded in the scheme. An applicant is only required to apply to a land use regulator where he or she wishes to develop the land or change its use in a way that is in conflict with the relevant scheme (Wise Land Use, 2001).

The following directives and conditions as outlined by the Wise Land Use (2001) are crucial to sustainable development in the cities, because they directly influence land uses for purposes of development. These are, firstly, where an application is made for additional land use and development rights the municipality or tribunal shall approve that application, subject to reasonable conditions, where the application is consistent with the express provisions of the spatial development framework. Secondly, where the municipality or tribunal however approves an application that is not consistent with the spatial development frameworks may charge that applicant a surcharge over and above the municipality's' standard bulk services connection fee, which can be up to 50 % of the capital cost of the

development (Wise Land Use, 2001) Also in a case where a landowner holds development rights in terms of a scheme he or she must exercise that right within a five-year period after it is granted. After five years the right lapses and the landowner is not entitled to any compensation for the loss of that right. Thirdly where a person holds a right in terms of an existing scheme at the time that this legislation comes into effect and has not exercised the right within a five year period the right similarly lapses. Application may however be made to the appropriate land use regulator for permission to extend the period of lapsing by no more than three years, provided that the applicant can provide sound reasons, motivated in terms of the principles and norms to be confirmed in the new law (Wise Land Use, 2001), and where land is used or developed contrary to the applicable scheme the land owner must within one year of the scheme coming into effect obtain the necessary permission from the municipality. In the event that he or she is not able to obtain that permission the use or development of the land will constitute an offence. The municipality, subject to giving the landowner a month's written notice, will then be able to demolish the illegal structure or to impose a fine per square metre per week for illegal use of the structure (Wise Land Use, 2001).

The primary purpose of the spatial development framework is to represent the spatial development goals of a local authority that result from an integrated consideration and sifting of the spatial implications of different sectoral issues. The spatial development framework should not attempt to be comprehensive. It should take the form of a broad framework that identifies the minimum public actions necessary to achieve the direction of the plan. It must have sufficient clarity to guide decision-makers in respect of development applications. It should describe the existing and desired future spatial patterns that provide for integrated, efficient and sustainable settlements. In this regard, the spatial development framework should do the following (Wise Land Use, 2001) :

- (a) Only be strategic, indicative and flexible forward planning tool to guide planning and decisions on land development.

- (b) Develop an argument or approach to the development of the area of jurisdiction which is clear enough to allow decision-makers to deal with the unexpected (for example, applications from the private sector);
- (c) Develop a spatial logic that guides private sector investment. This logic primarily relates to establishing a clear hierarchy of accessibility;
- (d) Ensure the social, economic and environmental sustainability of the area; and
- (e) Identify spatial priorities and places where public-private partnerships are a possibility.

In a rural context it will be necessary also to deal specifically with natural resource management issues, land rights and tenure arrangements, land capability, subdivision and consolidation of farms and the protection of prime agricultural land (Wise Land Use, 2001).

In addition to the spatial development framework, the Wise Land Use (2001) directs that municipalities must have land use management system and that the system must include at least a scheme recording the rights and restrictions applicable to erven within the municipal area. Any land development that exceeds these rights and restrictions will require the consent of the relevant land use regulator. The rights and restrictions must relate at least to land use, floor-area ratio and building height. Every scheme shall consist of a map and a set of regulations. The scheme is a key tenet of a municipality's regulatory powers and must therefore be formalised as a by-law of the municipality. The scheme is an instrument that can be either a very complex and detailed document accommodating a wide range of different land uses and the relatively strong institutional capacity of a metropolitan municipality or a much simpler document suited to the needs and capacity of smaller local or district municipalities in primarily rural areas. The Department of Land Affairs will provide a basic model scheme, for use in default situations, where a municipality does not have a scheme of its own in place (Wise Land Use, 2001). Based on the provisions of legislation and policies, it may be confirmed that land use management and land development is central to sustainable development. This is evidenced by development elements and aspects

reflected in land use management and land development, for example, social, economic, environmental, institutional and layout infrastructure.

Spatial planning which refers to planning of the way in which different activities, land uses and buildings are located in relation to each other, in terms of distance between them, proximity to each other and the way in which spatial considerations influence and are influenced by economic, social, political, infrastructural and environmental consideration; actually provide crucial guidelines for land transport planning. The same applies to land-use planning and land development, which means planning of human activity to ensure that land is put to optimal use, taking into account the different effects that land use can have in relation to social, political, economic and environmental concerns and the process of building and landscaping land in order to enhance its commercial or social value, respectively. All these planning aspects and elements culminate in important pillars or components of sustainable development and integrated development planning.

4.13 CONCLUSION

Urban development planning as a tool for managing sustainable development appears to be an instrument that can provide a comprehensive strategic approach to manage and maintain sustainable development. The challenge, however, is the following: according to which definition of sustainable development will this tool be relevant or applicable. The additional components or elements of sustainable development - synchronised and synergised through relevant tools such as the integrated development planning process and Local Agenda 21 - may also not necessarily be the relevant tools to manage sustainable development due to the many and still increasing number of definitions of sustainable development.

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CHAPTER 5

MANAGING SUSTAINABLE DEVELOPMENT THROUGH THE INTEGRATED DEVELOPMENT PLANNING PROCESS, PARTNERSHIP AND LOCAL AGENDA 21

As mentioned in Chapter 1 in particular, Chapter 5 would deal with additional tools that can be used to facilitate the management of sustainable development, namely, IDP, LA21 and partnerships. IDP is outlined by the Local Government Municipal Systems Act, 2000 (Act 32 of 2000) as a process through which a municipality can establish a development plan for the short-, medium- and long-term. Its intention is to enable municipalities to assess the current situation in the municipal area, including available resources, skills and capabilities; assess the needs of the community with and through community structures and individual community member; prioritise the identified needs; set goals to meet these needs; and devise strategies to achieve the goals to meet these needs. This will allow one to achieve the goals within a set time frame; develop and implement projects and programmes to achieve key development objectives; set targets so that performance can be measured; and regularly monitor and re-assess programmes and take corrective steps where necessary.

The core components of the integrated development plan set out a process to develop an integrated development plan for a municipality. This process can be categorised into the following steps, depending on the approach adopted by the municipality concerned:

The first step is the development of a vision for the long-term development of the municipality. The Local Government: Municipal Systems Act 2000 (Act 32 of 2000) requires that such a vision must put emphasis on the municipality's most critical developmental and internal transformation needs. The vision should therefore be realistic and grounded in an understanding of the current reality. It must create a gap between current reality and the critical developmental and internal transformation needs.

The next step is to achieve and realise the set vision the municipality should have to access its current reality. The assessment needs to present an overview of the

municipality itself, the area and its commitments and the external environment, for example, the regional issues, provincial, national and even global issues relevant to the municipality such as existing and future exchange programmes and agreements between the local and municipality and other municipalities around the world.

One way of achieving a broad assessment of the current reality is with the SWOT Analysis that is, establishing and analysing the current *strengths* of the municipality, its *weaknesses*, *opportunities* and its *threats*. In addition to the SWOT Analysis an in-depth structural analysis should follow to enable the municipality to gain a deeper insight into the key development issues that would lead to the strategic planning.

The Situational Analysis would generally cover an analysis of the status quo, that is the current reality, trends and needs; an assessment of external factors such as applicable national and provincial policies, legislation, programmes and service standards affecting the key development issues. There are also internal factors such as powers and duties, the municipality's capacity and financial constraints and opportunities existing in the area of the municipality and a spatial analysis of the area of the municipality.

In short the situational analysis which takes into account the vision and current reality should present a clear picture of the municipal area in terms of its economic strengths, describe the characteristics of the population, and provide an overview of the physical character of the area and its natural attributes and its liabilities. For example, poor soil conditions that would limit agricultural activities, steep hillside that could complicate building initiatives. The situational analysis should also describe the spatial distribution of infrastructure, for example, roads, communicators, water and electricity as well as social services such as health, education, banks, shopping centres and police stations.

Other elements of the Situational Analysis are the examination of the environmental conditions and assessment of the institutional capacity of the municipality, the community structures, private sector, that could be involved in managing and sustaining development. The analysis can also review land tenure, identify social empowerment programmes, labour relations issues in the municipality area, gender issues, the needs of historically disadvantaged communities and youth development programmes.

Section 3 of the Development Facilitation Act 1995 (Act 67 of 1995) provides the following components or aspects for the purposes of integrated development planning, which are actually the same components for sustainable development. These are the social component, the economic component, the physical component and an institutional component for purposes of situational analysis. The components can be categorised as indicated below.

SOCIAL COMPONENT	ECONOMIC COMPONENT	PHYSICAL COMPONENT	INSTITUTIONAL COMPONENT
<ul style="list-style-type: none"> ● Demographic data ● Social infrastructure ● Settlement pattern ● Gender and youth analysis ● Housing 	<ul style="list-style-type: none"> ● Economic policies and legislation ● Economic conditions ● Opportunities and constraints 	<ul style="list-style-type: none"> ● Land-use ● Land tenure and access ● Land values ● Land-use controls ● Physical infrastructure ● Transportation infrastructure ● Area: character, opportunities and constraints ● Environmental hazards and policies and regulations 	<ul style="list-style-type: none"> ● Applicable legislation ● Capacity in terms of finance and skills and manpower both in the municipality and among stakeholders

Source : Adapted from the Development Facilitation Act, 1995 (Act 67 of 1995).

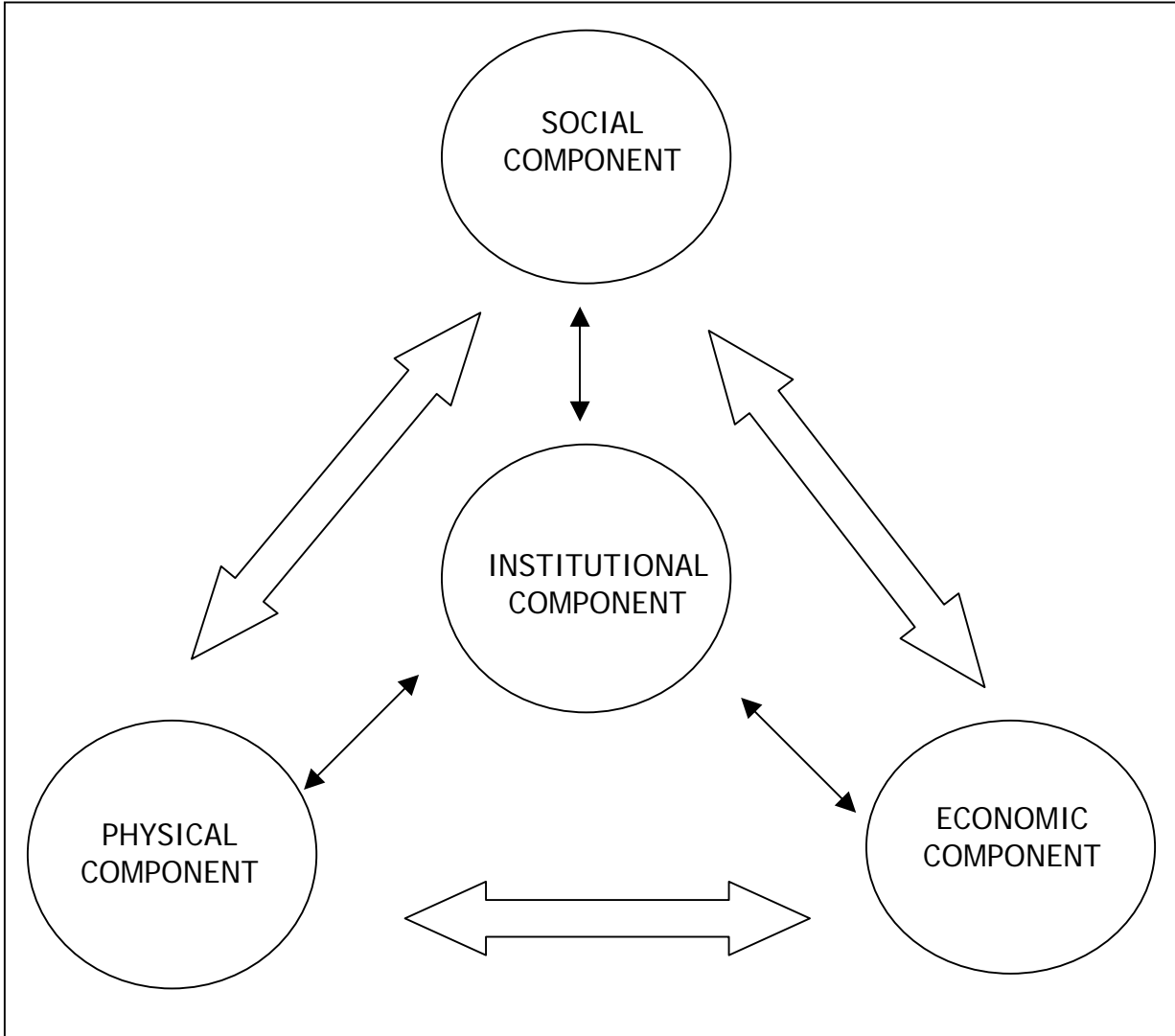
It is important to note that these components are the same as the environments that influenced management development thoughts discussed in Chapter 2 (figure 2.1) as well as the public administration environments (figure 2.4). These environments show how complex it is to integrate the components of sustainable development.

The third step involves the development prioritisation of the municipality's development objectives, including its local economic development aims, its internal economic development aims and its internal transformation needs.

The formulation of integrated development objectives requires an integrated development framework. Such a framework can be viewed as a set of development objectives, which cut across different development components, namely, social economic, physical and institutional components.

The integrated development objectives and priorities can in terms of the four development components be depicted as follows:

Figure 5 Components of development



Source : Adapted from the Development Facilitation Act, 1995 (Act 67 of 1995)

5.1 Integrated development planning and sustainable development: analysis

The integrated development objectives and priorities are developed in terms of the four development components. This arrangement forms an integrated development framework.

It is important to note that the integration of these components constitute the definition of sustainable development Development Facilitation Act 1995 (Act 67 of 1995). The Integrated Development Framework will enable a municipality to move to the next step that is the formulation of development strategies. These are mechanisms on how to achieve the development objectives. The integrated development strategies can for example provide mechanisms on how to, efficiently and effectively provide quality but affordable municipal services, how to manage areas of growth and movement of people, poverty alleviation programmes, how the municipality can intervene to integrate previously divided communities, improve transportation systems, support housing development and economic growth. This means, generally, how to manage sustainable development as required by legislation, and to realise development objectives, namely, to increase the availability and widen the distribution of basic life sustaining goals and services, such as, food, shelter, and health and protection. Also to raise levels of living, including high income, the provision of more jobs, better education and paying greater attention to cultural and humanistic values. All of these will not only enhance material well-being, but also generate greater individual self-esteem and expand the range of economic and social choice available to nations by freeing them from servitude and dependence not only in relation to other people and nation states but also from the forces of ignorance and human misery Todaro (1985:85-87).

One way of ensuring workable integrated development strategies is by first formulating strategies for a development objective and then to integrate them. For example, formulate transportation strategy, local economic development strategy, housing strategy and integrate them to form one integrated development strategy that cuts across services. Depending on a municipality, different approaches may be adopted.

It is important to note that Section 3 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) read together with Section 41 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) require that the municipality's development plans and strategies should be aligned with national or provincial sector plans and planning requirements binding the municipality in terms of the provisions of legislation. This will not only promote integrated development planning at all three spheres of Government, but will also promote co-operative government.

The fourth step involves the formulation of a spatial development framework, which must include the provision of basic guidelines for a land use management system for the municipality.

The formulation of the municipality's operational strategies, disaster management plans and a financial plan, which must include a budget projection for at least the next three years, could constitute the fifth step.

The final step is setting key performance indicators and performance targets - as required by Section 41 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) - as yardsticks for measuring performance, including outcomes and impact, with regard to the municipality's development priorities and objectives set out in the integrated development plan.

A Performance Management System is an integral part of the integrated development plan. It is a legislative requirement that a municipality must establish a Performance Management System that is commensurate with its resources, is best suited to its circumstances and in line with the development priorities, development objectives, development indicators and development targets contained in the municipality's integrated development plan. The Performance Management System must also promote a culture of performance management among its political structures, political office bearers and Councillors and in its administration and enable the municipality to administer its affairs in an economic, effective, efficient and accountable manner.

It is the requirement of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) of Section 39, that it must be the responsibility of the executive committee or executive mayor of a municipality to manage the

development of the municipality's Performance Management System. If the municipality does not have an executive committee or executive mayor such a responsibility must be entrusted to a committee of Councillors appointed by the municipal council, and further assigned to the municipal manager who must submit it to the municipal council for approval and adoption. A municipality must further establish mechanisms to monitor and review such a Performance Management System on a regular basis to ensure that it serves the purpose it was designed to serve.

Clear directives are provided by Section 41 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) on the core components of the Performance

Management System so designed and adopted by the municipality. Section 41 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) provides that the Performance Management System must make provision for an appropriate key performance indicator as a yardstick for measuring performance, including outcomes and impact, with regard to the municipality's development plan. Also measurable performance targets with regard to each of the identified development priorities and formulated development objectives; a mechanism to monitor performance in respect of the development priorities and objectives; and to establish a process for regular reporting to the municipal council, other political structures, political office bearers and the staff of the municipality, the public and appropriate organs of state.

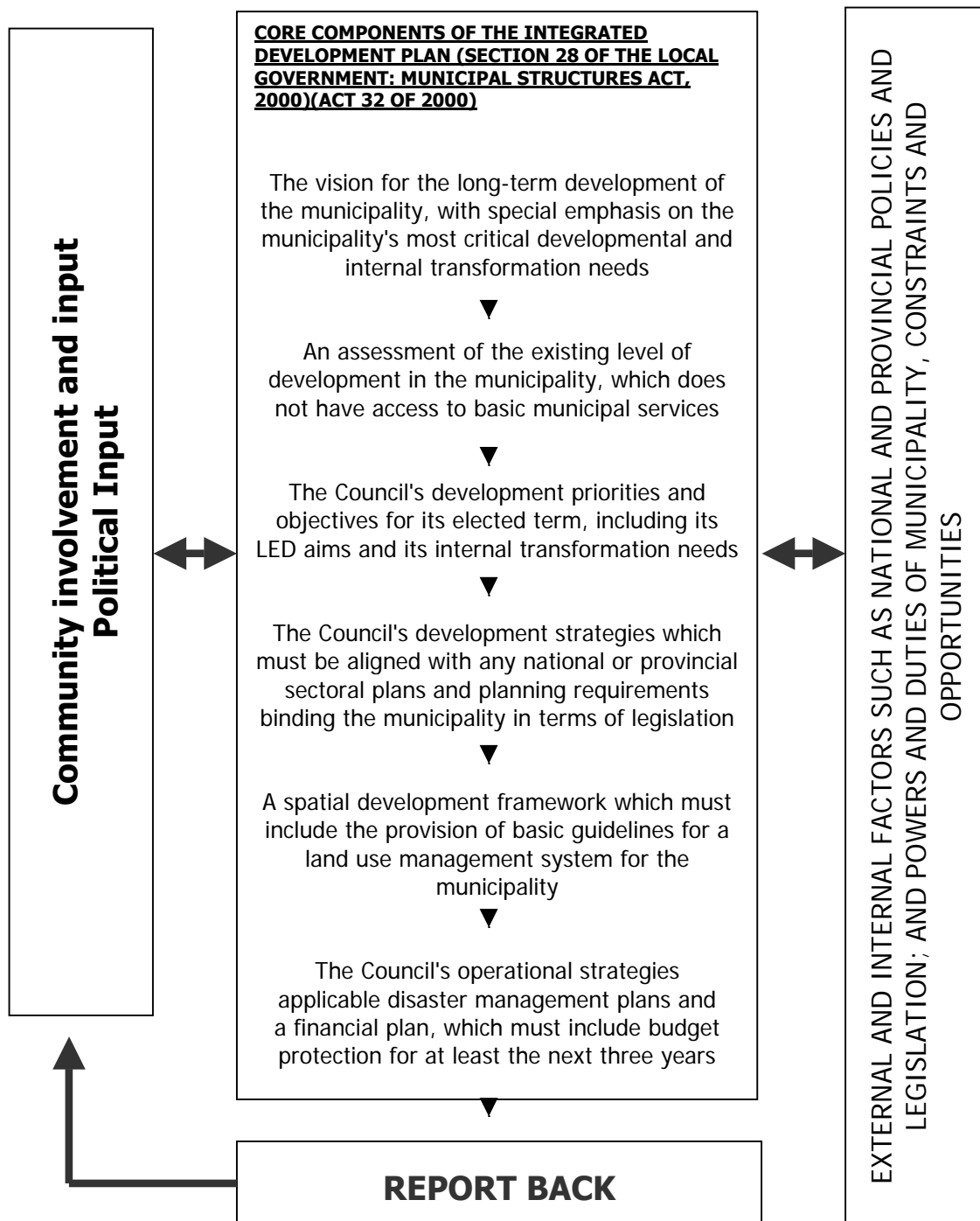
It is required of the municipality to devise appropriate mechanisms; processes and procedures to involve the local community not only in the development of the integrated development plan but also in the development, implementation and review of the Performance Management System. This is especially with regard to the setting of a key performance indicators and performance targets for the municipality.

The establishment of the performance indicators is not the sole responsibility of the community, and municipality only, but also the Minister for Provincial and Local Government, after consulting the Member of Executive Committee for Local Government (MEC for Local Government) may by regulation prescribe general key performance indicators that are appropriate and that may be applied to local government generally.

It would appear that the development objectives, the indicators, and the targets referred to in the integrated development plan (IDP) processes are not aimed at measuring sustainable development as defined by the Brundtland Report: 1987, but they would definitely be able to measure the effects and impacts of sustainable development as defined in section 1.2 infra (own definition of sustainable development).

The IDP may also not be the appropriate tool to measure sustainable development as defined by the Brundtland Report: 1987. The IDP process can be depicted diagrammatically as shown below.

Figure 5.1 CORE COMPONENTS OF THE INTEGRATED DEVELOPMENT PLANNING PROCESS



Source : Adapted from the Local Government Municipal Systems Act 2000 (Act 32 of 2000)

Municipalities are developmental in nature and have been entrusted with developmental duties by legislation. The relevant legislation further set clear directives on how municipalities must manage development in their

jurisdiction. Development within the area of jurisdiction of the municipality and managed by the municipality is informed, guided and shaped by legislation. Such development has resulted because of a legislative requirement and an obligation of local government. It is important also to note that the manner in which municipalities have to provide services is directed and informed by legislation and that it is developmental in nature and in approach.

The general duty of the municipality is in terms of Section 73 of the local government: Municipal Systems Act 2000 (Act 32 of 2000) to give effect to the provisions of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) on matters of local government, and to give priority to the basic needs of the local community, promote their development and ensure that all members of that community have access to at least the minimum level of basic municipal services.

In providing such municipal services the municipality is expected by the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) to ensure that the services are equitable and accessible, are provided in a manner that is conducive to the prudent, economic, efficient and effective use of available resources and the improvement of standards of quality over time and they ensure that the provision of services are financially and environmentally sustainable. This obligation reaffirms the developmental nature of Local Government. These services have to be in line for and contribute towards the developmental duties of the municipalities as set out in Section 153 of the Constitution of the Republic of South Africa Act, 2000, (Act 32 of 2000).

To ensure that the municipalities provide services in a sustainable way the local government: Municipal Systems Act, 2000 (Act 32 of 2000) provides guidelines and options on the mechanisms for provision of municipal services.

Section 76 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) states that a municipality may provide a municipal services in its area or part of its area through an internal mechanism which may be a department or some other administrative unit within its administration; or any business unit devised by the municipality, provided that such an administrative unit operates within the municipality's administration and under the control of the Council in accordance with operational and performance criteria determined by the Council, or any other component of its administration. The municipalities have also the option to provide

services through an external mechanism by entering into a service delivery agreement with a municipal entity, another municipality, an organ of state, including a water committee, established in terms of the national and traditional authority.

An external mechanism includes community-based organisations or any non-governmental organisation legally constituted. An external mechanism refers also to any other institution, entity or person legally competent to operate a business activity.

5.2 SERVICES PROVISION MECHANISMS OPTIONS

The services provision mechanisms options suggested by the Local Government: Municipal Systems Act 2000 (Act 32 of 2000) bring in the concept of municipal services partnerships as outlined in the concept of municipal services partnerships as contained in the White Paper on Municipal Services Partnerships as a strategic policy to ensure universal access to municipal service, published by the Minister for Provincial Affairs and Local Government in the General Notice 1689 of 2000, on 26 April 2000.

The White Paper on Municipal Service Partnerships (General Notice 1689 of 2000) states that while the Government is committed to facilitating the use of municipal service partnerships arrangements it does not mean that municipal service partnerships are the preferred option for improving service delivery. It is rather that municipal service partnerships should enjoy equal status among a range of other possible service delivery options available to municipalities.

Municipal Service Partnerships may include arrangements between a municipality and private sector partner, termed a public-private partnership, or between the municipality and a public sector partner, referred to a public-public partnership, or between the municipality and a community-based-organisation/non-government organisation partnership.

The White Paper on Municipal Service Partnerships (General Notice 1689 of 2000) describes an important developmental responsibility of municipalities, namely, that determining whether or not to use the municipal service partnerships service delivery option begins with the process of preparing the integrated development plan. It is further directed by the White Paper on Municipal Service Partnerships (General

Notice 1689 of 2000) published on 26 April 2000, by the Minister for provincial and local government that the results of the integrated development planning process should be the municipality's infrastructure investment plan, which will set out the specific investment programmes including proposed municipal service partnerships arrangements that the municipality intends to employ to realise its service delivery goals and objectives. It is further indicated that the choice to use municipal service partnerships arrangements should be based on the needs and capacity of an individual municipality, while the role of both the national and provincial sphere of government will be to provide strategic direction by creating conducive environments for facilitating any or all of service delivery options; assisting municipalities to develop the requisite capacity to make informed and appropriate decisions on service delivery; establishing an implementation and monitoring framework to provide ongoing evaluation and refinement of the municipal service partnerships policy, and providing targeted capacity enhancement for municipalities to assist in municipal service partnerships implementation.

The Municipal Services Partnerships is one of the means available to municipalities recommended by the Department of provincial and local government to address the municipal infrastructure and service backlog. Too often the debate around the municipal services partnership is presented as an attempt by government to actively promote the private sector as the mechanism for municipal service delivery. As outlined in the White Paper on Municipal Services Partnerships published by the Minister of Provincial and Local Government on 26 April 2000, General Notice 1689 of 2000, the Municipal Services Partnerships are not intended to be a substitute for traditional methods of direct service delivery, nor should they be viewed as an alternative to ongoing efforts to improve the efficiency and accountability of service delivery by the municipality itself. Instead Municipal Services Partnerships are intended to provide municipal councils with greater flexibility in addressing service delivery needs.

The five most typical forms of municipal service partnerships' contractual arrangements and their characteristics are referred to briefly below.

5.2.1 SERVICE CONTRACT

In the case of the service contract, the service provider receives a fee from the municipality to manage a particular aspect of a municipal service. The service contract is usually short-term, one to three years. Examples of a service contract includes repairs, maintenance billing and collection functions.

Evidence suggests that this type of arrangement is a good starting point for involving community-based-organisations and non-government organisations in municipal service provision.

5.2.2 MANAGEMENT CONTRACT

The service provider is in the case of a management contract responsible for the overall management of all aspects of a municipal service, but without the responsibility to finance the operating, maintenance, repairs or capital cost of the service. The management contracts are typically for three to five years. They generally specify the payment of a fixed fee plus a variable component. The variable component being payable when the service provider meets all or exceeds specified performance targets. The service provider normally does not assume the risk for collecting tariffs from residents. However, high collection rates could be a trigger for incentive payment to the service provider. An example of management contract is contracting for the management of a water utility.

5.2.3 LEASE

In the case of a lease the service provider is responsible for the overall management of a municipal service, and the municipalities operating assets are on lease to the service provider. The service provider is responsible for operating, repairs and maintenance of the assets leased. In some cases the service provider may be responsible for collecting tariffs from residents and assume the related collection

risks. The service provider pays the municipality rent for the facility, which may include a component that varies with revenues. Generally the service provider is not responsible for new capital investments or for replacements of the lease assets. Leases are typically for 8 to 15 years. Examples of lease include the lease of a municipality market, port or water system.

5.2.4 BUILD / OPERATE / TRANSFER (BOT)

In this case service providers undertakes to design, build, manage, operate, maintain and repair at their own expense, a facility to be used for the delivery of a municipal service. The municipality becomes the owner of the facility at the end of the contract. The Build/Operate/Transfer (BOT) arrangement may be used to develop new facilities or expand existing ones.

In the latter case, the service providers resume the responsibility for operating and maintain the existing facility, but may or may not, depending on the provisions of the contract, assume responsibility for any replacements or improvement of the facility. A BOT arrangement typically requires the municipality to pay the service provider a fee that may include performance incentives for the service provider leaving responsibility for tariff collection with the municipality.

5.2.5 CONCESSION

In the case of a concession the service provider undertakes the management, operation, repairs, maintenance, replacement, design, construction, and financial responsibility of a municipal service facility or system.

The service provider often assumes responsibility for managing, operating, repairing, and maintenance of related exiting facilities. The service provider in this case collects and retains all services, tariffs, assumes the collections risk and pays the municipality a concession fee, sometimes including a component that varies with revenue.

The municipality in case of a concession still remains the owner of any existing facilities operated by the concession and ownership of any new facilities constructed by the concessionaire is transferred to the municipality at the end of the concession period (General Notice 1689 of 2000).

The White Paper on Municipal Services Partnerships suggests that any other contractual arrangements to provide municipal services or any variant of the arrangements described may in terms of the definition and purpose of the municipals services partnerships be employed by the municipality.

It is further suggested that if well structured and properly implemented then municipal service partnerships arrangements can lead to significant improvements in the efficiency of service delivery. Potential advantages added by the White Paper on Municipality Services Partnerships (General Notice 1689 of 2000) are that contracting a specialised service provided can have advantages such as providing a specialised knowledge and expertise can often gain efficiency from economies of scale that may not be available to a municipality. It is also indicated that municipal services partnerships also permit municipalities to reduce their expenses for equipment, rental, lease, cost, initial purchase cost and technology licensing. Over time municipalities can also save on capital cost on infrastructure cost expansion and technology upgrades by limiting the provision of municipal services to a definite contractual arrangement. Then municipalities can also be able to know their cost in advance and therefore be in a better position to prepare their budgets and service delivery plans and programs.

Other core components of the IDP are the development and maintenance of a disaster management plan, financial management plan, the municipality's operational strategies and the community participation mechanisms.

The internal and external environmental factors for purposes of integrated development processes include national and provincial policies and legislation, powers and duties development objectives, strategies, development indicators and targets. Other external factors are suppliers, competitors, international issues and the local communities. Internal factors include the organisational culture, employees and the organisational capacity.

The relevant inputs into the integrated development plan come from the community, the politicians and technical experts. The community includes all stakeholders such as the business sector, community-based organisations, non-governmental organisations, labour movements and individual stakeholders.

Development is about improving the capacity of people and their capabilities, empowering them to participate in matters affecting them and enable them to decide their destiny. Midgley (1995:25) refers to development as people-centred or human-centred process integrated with economic development processes, referred to as socio-economic development.

The Constitution of the Republic of South Act, 1996 (Act 108 of 1996) entrusts local government with developmental duties, and objects of local government that include the directive that it must ensure that communities and community organisations are encouraged to be involved in the matter of local government. Community participation is one of the legislated components of the IDP, that will, therefore, be incomplete without community participation. In terms of Section 16 of the Local Government: Municipal Systems Act, 200 (Act 32 of 2000) a municipality must develop a culture of municipal governance that complements formal representative government with a system of participatory governance and must for this purpose encourage and create conditions for the local community to participate in the affairs of the municipality. The conditions to encourage the local community to participate in the affair of the municipality must include preparation, implementation and review of the municipality's integrated development plan. Also the establishment, implementation and review of the municipality's performance including the outcomes and impact of such performance, as well as the preparation of the municipality's budget and strategic decisions relating to the provision of municipal services.

The Local Government: Municipal Systems Act of 2000 (Act 32 of 2000), Section 16, states further that the municipality must contribute to the capacity building of the local community to enable it to participate in the affairs of the community and that Councillors and staff must establish mechanisms and allocate resources to foster community participation.

The mechanisms, processes and procedures for community participation are set out in Section 17 of the Local Government Municipal Systems Act, 2000 (Act 32 of 2000). These include the directive that participation by the local community in the affairs of the municipality must be made through Councillors and political structures as set out in terms of Section 72 of the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998). Section 72 empowers metropolitan and local municipalities with the following types of municipalities to establish ward committees, namely, a category A municipality, that is, a metropolitan municipality, with a collective executive system combined with a ward participatory system; or a metropolitan municipality with a collective system combined with both a sub-council and a ward participatory system, or a metropolitan municipality with a mayoral executive system combined with a ward participatory system or a metropolitan municipality with a

mayoral executive system combined with both a sub-council and a ward participatory system.

The other type of municipalities that may establish ward committees are the Category B municipalities which is a local municipality with a collective executive system combined with a ward participation system or a local municipality with a mayoral executive system with a ward participatory system; or a local municipality with a plenary executive system combined with a ward participatory system.

The metropolitan municipality or the local municipality may establish ward committees for each ward in areas of jurisdiction, and such a ward committee must in terms of Section 73 of the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998) consist of the Councillors representing the ward who must also be the chairperson of the ward committee and not more than ten (10) other persons. The functions of the ward committee are described as making recommendations on any matters affecting the ward to the respective ward Councillors or through the ward councillors to the council, the executive committee, the executive mayor or the sub-council. The council may delegate further functions to the ward committee should the need arise.

It is important to note that the ten other members of the ward committee may not necessarily be Councillors, but that they could be members of the local community as well.

The municipality may further establish one or more advisory committees consisting of persons who are not Councillors to advise the municipality on any matters within the municipality's competency. Community participation is so crucial to the operation of municipalities, that the Minister for Provincial and Local Government may in terms of Section 120 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) make regulations or issue guidelines concerning the participation of the local community in the affairs of the municipality should the need arise. Omitting to encourage community participation in the affairs of the municipality may constitute non-compliance with the provisions of legislation in particular the developmental duties and objects of local government as provided by the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996).

It may be inferred with some degree of certainty therefore that it is a statutory requirement that municipalities must ensure and manage development in their areas of jurisdiction, and ensure community participation and involvement. Section 105 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) actually stipulates that

the Member of the Executive Committee (MEC) for Local Government in a province must establish mechanisms, processes and procedures as provided by Section 155(6) of the Constitution of the

Republic of South Africa Act, 1996 (Act 108 of 1996) to monitor development of local government capacity in the province and assess the support needed by municipalities to strengthen their capacity to manage their own affairs, exercise their powers and perform their functions. This legislative requirement includes managing sustainable development in their areas of jurisdiction.

One of the core components of the integrated development plan as outlined in Section 26 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) is the development of a financial plan which must include a budget projection for at least the next three years.

Section 156 of the Constitution of the Republic of South Africa provides that a municipality must structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community, to promote the social and economic development of the community, and to participate in a national and provincial development programme.

A municipality's budget must in terms of Section 15 of the Local Government: Municipal Finance Management Act, 2000 (Act of 2000) give effect to the municipality's integrated development plan. The Local Government: Municipal Finance Management Act, 2000 (Act Of 2000) provides broad core components of the financial plan for a municipality and this may be gleaned from its objective and contents.

5.3 The City of Tshwane integrated development planning process

The format of the Integrated Development Planning Process for the City of Tshwane Metropolitan Municipality has been informed by the guidelines provided by the Department of Provincial and Local Government and the Department of Environmental Affairs and Tourism. The format consists of five planning phases, namely:

- (i) Phase 1: Analysis;
- (ii) Phase 2: Strategies;
- (iii) Phase 3: Projects and Programmes;
- (iv) Phase 4: Integration; and
- (v) Phase 5: Approval and implementation.

PHASE 1: ANALYSIS

Phase 1: Analysis	
Purpose	To ensure decisions are based on: <ul style="list-style-type: none"> • People's priority needs and problems; • Knowledge on available and accessible resources; and • Proper information and on a profound understanding of the dynamics influencing the development in a municipality.
Outputs	<ul style="list-style-type: none"> • Assessment of the existing level of development: priority issues/ problem statement; • Understanding of nature/ dynamics/ causes of these issues; and • Knowledge of available resources and potentials (including a tentative overall financial frame).
Processes	<ul style="list-style-type: none"> • Data-based analysis of service standards/ gaps (including sector-specific data); • Participatory problem analysis/ issues prioritisation (cross-sectoral); and • In0depth analysis related to identified priority issues (dynamics, causal factors, resources, etc.).

PHASE 2: STRATEGIES - MAKING CHOICES WITHIN GUIDELINES & LIMITATIONS

Phase 2: strategies: Making choices within guidelines and limitations	
Purpose	To ensure a broad inter-sectoral debate on most appropriate ways and means of tackling priority issues, considering policy guidelines, principles, available resources, inter-linkages, competing requirements and having an agreed version. The strategy debate to avoid short cuts from identified needs to sectoral projects. It helps to find more appropriate, innovative and cost-effective solutions by considering various options.
Outputs	<ul style="list-style-type: none"> • Visions (for the municipality); • Objectives (for each priority issues); • Strategic options and choice of strategy (for each issue); • Tentative financial framework for projects; and • Identification of projects.
Processes	<ul style="list-style-type: none"> • Inter-sectoral workshop processes as a forum for open discussion on ways and means of dealing with the priority issues; • Workshops at district-level with all affected local municipalities and representatives from relevant provincial and national agencies and corporate services providers to ensure; • Well informed and well facilitated strategic debates; • Cross-boundary issues are taken care of.

PHASE 3 - PROJECTS - PROJECT PLANNING FOR DELIVERY

Phase 3: projects: projects planning for delivery	
Purpose	To ensure a smooth link between Planning delivery through a detailed and concrete project design process in the context of necessary operational cost. Departmental routine projects also clarified as necessity not priority.
Outputs	<ul style="list-style-type: none"> • Indicators (quantities, qualities) for objectives; • Project outputs with target and location; • Major activities, timing; • Responsible agencies/actors; • Costs budget estimates and sources of finance; • Considerations of sectoral planning requirements; and • Sector plans may be elaborated during this phase; IDP will only include a summarised projects overview resulting from such service plans.
Processes	Project Task Teams, including the officials from agencies in charge of implementation, other domain specialist responsible for provincial, national agencies and communities, stakeholders affected by the project.

PHASE 4: INTEGRATION - CUMULATIVE IMPACT AND MANAGING IMPLEMENTATION

Phase 4: Integration: Cumulative impact and managing implementation	
Purpose	To ensure that the results of project planning will be checked for their compliance with the vision, objectives, strategies and resources and harmonized. The harmonization process will result in a frame work as a sound basis for smooth implementation.
Outputs	<p>Revised projects proposals</p> <ul style="list-style-type: none"> • For priority projects; • For other routine projects; • Five year financial plan; • Five year capital programme; • Five year municipal action plan; • Integrated spatial development programme framework; • Integrated programme for LED, environmental issues, poverty; • Alleviation and gender equity; • Integrated institutional programme; • Integrated monitoring and performance management system; • Reference to sector plans; and • Disaster management plan.
Process	<ul style="list-style-type: none"> • Presentation of the project proposals to the wider IDP Forum and discussion; • Matching, alignment (within municipality); • Revision by project task teams; and • Compilation of revised proposals.

PHASE 5: APPROVAL CONSIDERED DEVELOPMENTAL MANDATE

Phase 5: Approval: Considered developmental mandate	
Purpose	To ensure that before being adopted by the municipal council, all relevant stakeholders and interested parties, including other spheres of government have been given a chance to comment on the draft plan, thus giving the approved plan sound basis of legitimacy, support and relevance.
Output	An amended and adopted Integrated Development Plan district-level summaries of the local IDPs.
Final outcome	An IDP document which has the support of the municipal administration and residents, the district council and relevant agencies in charge of implementation of programmes and projects within the municipal area of jurisdiction and which approved by the municipal council.
Processes	Discussion of draft IDP in the municipal council providing opportunity for public comments District level alignment; Horizontal coordination Provincial /national alignment for: <ul style="list-style-type: none"> • Legal compliance check; • Sector alignment; and • Feasibility check/ professional feedback. Amendments and/or response by local council final adoption by council.

The Integrated Development Plan for the City of Tshwane Municipality is largely informed by the provision of the Local Government: Municipal Systems Act 2000 [Act 32 of 2000], of Section 26.

Section 26 of the Local Government: Municipal Systems Act 2000 [Act 32 of 2000] stipulates the core components of integrated development plans for inclusion by municipalities, namely, the vision for the long-term development of the municipality, with special emphasis on the municipality's most critical developmental and internal transformation needs; an assessment of the existing level of development in the municipality which do not have access to basic municipality services, the council's development priorities and objectives for its elected term, including its local economic development aims and its internal transformation needs. Also the council's developmental strategies which must be aligned with any national or provincial sectoral plans and planning requirements binding the monitoring in terms of legislation; a spatial development framework which must include the provision of basic guidelines for a land-use management system for the municipality's the council's operational strategies; an applicable disaster management plan; a financial plan; which must include a budget plan for at least the next three years; and a set of key performance indicators and performance targets.

The Council of the City of Tshwane Metropolitan Municipality adopted at its Council meeting on the 15th of February 2001, the following vision:

An internationally acclaimed African capital city that empowers the community to prosper in a safe and healthy environment.

Emanating from the vision statement, the following strategic focus areas, as well as strategic guidelines to support each strategic focus area, were identified: It is important to note that these strategic focus areas (SFAs) are normative in approach. This means that they present a framework of what is envisaged or what ought to be done instead of what is being done. They are also not elaborative, but presented in a broad and summary form.

5.3.1 The encouragement of economic growth and development in order to make the City of Tshwane's economy globally competitive and more focused, (SFA 1)

The aim of this strategic focus area is to broaden the economic base of Tshwane. It is also envisaged that a sound and diverse economy should be aspired to in order to diminish the dependence on the Government sector.

Economic development has to focus on the strengthening and promoting of existing and potential economic activity clusters that include the following:

- Automotive;
- Metals;
- Research and development;
- Education;
- Government;
- Arts and Culture;
- Medical;
- Tourism; and
- Sport.

Activity nodes and development corridors such as the Mabopane / Centurion Development Corridor (MCDC), the Platinum Corridor, the Rosslyn / Wonderboom

Economic Development Zone (EDZ), the Innovation Hub, the Urban Port and the Ring Rail will have to be promoted.

The less developed sector of the economy, comprising informal trade, urban agriculture, training and support structures such as business information centres will have to be drawn into the mainstream of the economy through economic empowerment.

Facilitation and promotion will play a prominent role in the development approach. Special emphasis will have to be placed on information technology (IT) connectivity to enable the City of Tshwane to participate in the global economy.

To support this strategic focus area, the following strategic guidelines are identified:

(a) General

The City of Tshwane has to embark on the following to realise this focus area, namely:

- (i) Make the metropolitan economy diverse, less dependant on government activities and more robust in pursuing the goal of sustainable development;
- (ii) Exploit and optimise economic development opportunities derived from the integration of land-use and transport planning;
- (iii) Focus on the promotion of economic development opportunities and potential;
- (iv) Exploit the economic trend of globalisation; and
- (v) Develop clusters and networks.

(b) Transportation

- (i) Promote and develop Tshwane as the transport hub of the Southern African Development Region, to support the achievement of sustainable development;
- (ii) Optimise local transport networks for passenger and freight according to its potential;

- (iii) Integrate transportation with land-use planning and guide economic development accordingly;
- (iv) Enhance industrial investment; and
- (v) Enhance existing manufacturing activities.

(c) Services sector

Enhance the provision and standard of the existing local services to its full potential.

(d) Agriculture

Optimise the agriculture sector.

(e) Mining

Optimise the mining sector (e.g. clay, gravel, dolomite, silica, etc.)

(f) Small, Medium & Macro Enterprises (SMMEs)

Promote the development of SMMEs.

(g) Tourism

Develop the tourism potential.

(h) Research, development and education

Exploit and develop the potential of research, development and education optimally.

(i) Information Technology / Communications

Exploit and promote the potential for the use of telecommunications and Information Technology.

(j) Social equity

- (i) Initiate and promote socio-economic empowerment programmes to redress gender imbalances; and
- (ii) Initiate and promote socio-economic empowerment programmes focusing on the youth, women, the aged, the disabled and disadvantaged communities.

Comment: Economic vitality is one of the core components of sustainable development. The Focus Area 1 and the list of strategies or statements of intent in the form they are now will not bring about sustainable development. A more practical definition of this Focus Area and the listed strategies is a prerequisite for purposes of the application.

A sectoral sustainable economic development plan, based on the city strategy and IDP process that allows integration with other components, remains a crucial element for this Focus Area.

The impact or influence of economic forces as a component of environmental forces that shape management thoughts Smit and Cronje (1992:14-15) and as an element of public management the environment Schutte *et al* (1999:86) plays an equally important role in this Focus Area, and needs, therefore, to be clearly defined.

5.3.2 The establishment of new local governance structures to ensure democratic, responsible and equitable governance, as well as efficient and effective service delivery (SFA 2)

Developmental local government requires that local authorities become more strategic, visionary and ultimately influential in the way they operate. The City of Tshwane Metropolitan Municipality has to ensure democratic, responsible and equitable governance and play a crucial role as policy-maker, thinker and innovator and as an institution of democracy. To fulfil this role, it is essential that the municipality must have an effective organisational structure, a

responsible management, governance (that includes law enforcement), service delivery, financial viability and empowered role players.

A new way of thinking should be evident in the functional structure of the municipal administration that will reflect the IDP strategies. Both the functional structure and the organisational structure have to make provision for direct liaison with the community, as well.

It is essential to empower all role players in the administration of the municipality to support the functional and organisational structure. The personal development of each employee, councillor and participatory structure member should be supported and management should be capacitated to take responsibility for the implementation of the IDP.

The City of Tshwane Metropolitan Municipality should develop an institutional plan that outlines its own transformation programmes. It is the responsibility of the management of the municipality, firstly, to develop the strategic capacity to assess, plan and develop innovative programmes aimed at meeting local needs. Secondly, management has to facilitate the integration of capacity to co-ordinate and integrate inputs from inside and from outside the administration to ensure developmental outcomes. Thirdly, to have a community orientation approach, including a user-friendly, relevant and quality service to local communities.

The City of Tshwane Metropolitan Municipality is responsible for efficient and effective spending of funds of the community and, therefore, should conduct all its activities in the most cost-effective way.

In order to meet the objectives of the Constitution, the system of municipal finance will need to be restructured in line with a number of basic policy principles, for instance, revenue adequacy and certainty, sustainability, effective and efficient resource use, accountability, transparency and good governance, equity and redistribution, etc. In order to effect these principles, the municipal fiscal and financial system needs to be restructured accordingly.

To support this strategic focus area, the following strategic guidelines are identified:

(a) General

The functional structure of the Tshwane's administration must reflect the IDP strategies, and has to be easily adaptable to environmental change; to support the organisational processes by means of a corporate information system; to provide within the organisational structure mechanisms for direct liaison with the community, as well as the other spheres of government; and the Municipal Manager should be accountable for all aspects of integrated planning and management.

(b) Management and governance

Ensure that all the objectives as contained in the IDP (the vision, strategic focus areas, guidelines, strategies, policies, targets, etc.) are met by Council; ensure that assets / funds are applied in a responsible way by Council; ensure that a code of ethics forms the basis of governance; and the establishment of smaller areas i.e. sub-regions, administrative areas.

(c) Finance

Conduct all activities in the most cost-effective way; manage debt effectively and efficiently so that it will reduce (and ultimately eliminate) financial liabilities; ensure affordable long-term funding for capital expenditure; and base expenditure on zero-based budget and prioritisation.

(d) Empowerment

Enable and support personal development of each employee, councillor and participatory structure member; capacitate the politicians to ensure effective governance; capacitate management (at least first three levels) to drive integrated planning and management and to take responsibility for all aspects in this regard; adopt a culture of a learning organisation; the governance model must facilitate the promotion of sound relationships

between the Metropolitan Municipality and the various stakeholders; provide appropriate structures for the facilitation of sound relationships and establishment of partnerships; and maintain a high level of client service.

(e) Participation

Enable civil society to participate effectively in local governance.

(f) Communication

Initiate and maintain good and co-operative relationships with other spheres of government; create and promote trust and good relations between the local authority and the community; ensure direct liaison with the community, as well as information with regard to municipal services and facilities, which should be easily accessible; and communicate relevant information to all role players who have a function and/or interest in the metropolis.

(g) Partnerships

Stimulate, encourage and facilitate partnerships between the Municipality and other role players.

(h) Municipal by-law

Cover all relevant aspects (such as health, environmental pollution, safety, building, emergency, advertising, etc.) by means of municipal by-laws; cultivate law-abiding culture and combat illegal practices.

(i) Social equity

Initiate and promote empowerment programmes to redress gender imbalances; and initiate and promote empowerment programmes focusing on the youth.

Comment: The strategic area of focus 2 (SAF 2) links well with the social and the institutional components of sustainable development Development Facilitation Act 1995 (Act 67 of 1995). This Strategic Focus Area can further be informed by other interventions such as the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996), the Local Government: Municipal Systems Act 2000 (Act 32 of 2000), both of which provide for the participation of communities in matters of local government through community structures and ward communities.

5.3.3 The management of physical development so as to compact and integrate the city, as well as to improve the quality and liveability of the urban and rural environment (FSA3)

Physical development of the Tshwane area should be managed in such a way that the liveability of the area for all the segments of its population is enhanced and sustained.

The phenomenon of urban sprawl should be discouraged. There should be boundaries to urban expansion. Natural and rural areas beyond these boundaries should be protected from sprawling urban development, while urban areas within the boundaries should be well structured, densified and spatially integrated. The public urban environment deserves special attention in terms of its functionality and attractiveness.

The integration and the compacting of the city are advocated as segmentation and urban sprawl has definite negative socio-economic consequences in terms of increased expenses and reduced opportunities. In compact cities people live closer to employment and social opportunities, fewer trips are generated; fewer roads and other costly infrastructures are required. At the same time more land is preserved for agriculture, recreation and wild life conservation.

The City of Tshwane Metropolitan Municipal Area should be structured as a multi-nodal municipal area where nodes are linked by corridors. A multi-nodal structure provides a logical basis for spatial structuring and management of the vast and heterogeneous metropolitan area. Concentrating mixed uses and

higher residential densities along the major linear transportation routes or in meaningfully located nodes, furthermore, has advantages. It enables growth whilst maintaining high levels of accessibility and permeability; it improves the viability of public transport; it gives people the opportunity to be pedestrians in an open-air urban environment; it provides continuity of an urban feeling (richness and vibrancy) along the most intensely used routes; and it improves the legitimacy of the metropolitan municipality.

The inner city of Tshwane should, however, be the most important node.

It is the focus of Tshwane's civic identity; it is the city's most important source of income; it is a major employment and commercial centre; it contains the majority of Tshwane's most important architectural assets; it is one of a few 'neutral' public territories (belonging to everybody and not only to the residents of a particular suburb); it is a key transportation hub; It is the centre of government, containing the seat of municipal government, as well as the head offices of most state departments; and It is a key destination for tourists and other visitors.

The public urban environment consisting of individual public urban spaces such as streets, squares, parks, etc., must allow for people's movement, their gathering and their social interaction. It must be functional and safe, but at the same time it must be an appropriate and attractive setting for a variety of human activities.

To support this strategic focus area, the following strategic guidelines are identified and listed below.

(a) Appearance and design

Establish a cohesive and integrated network of public places. Create special and visually attractive places with distinct ambience.

Encourage innovative architectural, urban and landscaping design

Accommodate the needs of the people.

(b) Management, maintenance and cleanliness

Manage and maintain public places efficiently, effectively and in a co-ordinated manner to ensure it remains an attractive city. Adjust the level of maintenance of public spaces to their functional and symbolic significance, as well as their design characteristics.

(c) Diversity

Define different areas (such as rural, suburban and urban) in terms of their spatial and functional development potential, characteristics and management requirements.

(d) Sprawl prevention and densification

Demarcate boundaries for urban / suburban expansion; manage the development of rural areas according to availability of services (social and infrastructure); densify the existing urban fabric where and when appropriate; protect the integrity and liveability of residential areas.

(e) Mixed land-use

Promote the diverse combination of compatible land-uses in order to increase liveability and convenience of the urban structure, as well as to reduce the infrastructure services costs.

(f) Nodes and corridors

The City of Tshwane must be a multi-nodal metropolis where a hierarchy of nodes exist and where the nodes are linked by corridors (e.g. transport corridors, development corridors, heritage corridors).

Develop the inner city as the most important node, which must contain the “capital district”.

Comment: The Strategic Focus Area 3 and 4 deal with physical development which include, planning for and provision of engineering services, city restructuring and repositioning. This may be addressed through interventions

such as Urban Development Frameworks as introduced by Government and the city strategy. Formulation and employment of sustainable indicators are fundamental to monitoring and assessing the success or failure of these Focus Areas.

5.3.4 Ensuring community well-being by addressing poverty and making essential services and facilities available, accessible and affordable (SFA 4)

This spatial activity node relates to issues that have an impact on the health, survival and general well being of the residents of the City of Tshwane Metropolitan Municipality.

The municipality is responsible for the provision of household infrastructure and services that are essential components of human survival. This includes services such as water, sanitation, local roads, stormwater drainage, refuse collection and electricity. Good basic services, apart from being a constitutional right, are essential to enable people to support family life, find employment, develop their skills or establish their own businesses. Not only should the delivery of at least a basic level of services be prioritised to those who currently have little or no access to services, but also a reasonable level of services, which are sustainable and affordable, should be at the disposal of all inhabitants.

Besides providing a household infrastructure and services, the municipality is also responsible to facilitate the provision of adequate housing for the inhabitants of the metropolitan area.

To promote the health of the inhabitants of the metropolitan area, the municipality has to ensure that adequate health facilities and services are accessible and provided to the residents on a sustainable basis.

Developmental local government is committed to working with citizens and groups within the community to find sustainable ways of meeting their social,

economic and material needs. To improve the quality of their lives, the municipality is tasked with:

- Providing sufficient social facilities, multi-purpose community centres, community libraries, information centres, as well as sport and recreational facilities;
- Creating opportunities for human resource development;
- Supporting effective postal and telecommunication services;
- Facilitating welfare services to address social problems such as abuse, rape, prostitution, homelessness, street children, etc.
- Providing adequate community and public facilities with regard to public health (e.g. public toilets and water kiosks); and
- Ensuring adequate public transport.

The practise of the above will ensure community well-being where the residents will experience an acceptable level of quality of life. To support this strategic focus area, the following strategic guidelines are identified:

(a) Human resource development to facilitate skills and literacy improvement

Facilitating the promotion of employment opportunities; creating and promoting co-existence, tolerance and synergy between different cultures, race and sexism in the City of Tshwane; and alleviate poverty.

(b) Health

Promote health (including mental health), manage prevention and potential impact of communicable diseases (including AIDS) on the metropolis. Provide adequate community and public facilities of relevance to public health (e.g. public toilets, water kiosks, etc.). Provide adequate health facilities and services in a sustainable manner.

(c) Infrastructure

Make and maintain basic services (roads, stormwater drainage, water, sewer, electricity, waste disposal) at reasonable levels available to the disposal of all inhabitants and entrepreneurs in an affordable and sustainable manner.

(d) Provide adequate housing and integrate major welfare facilities and social services and housing

Promote effective postal and telecommunication services; facilitate the delivery of these services, while allowing for their continued effective operation; manage social problems (such as child abuse, gender-related abuse and violence, rape, prostitution, homelessness and the problem of street children, the elderly, etc.).

(e) Public Passenger Transport

Develop public transport with the aim to make it accessible, convenient, viable, effective, efficient and affordable, with a wide passenger base. Intensify the use of existing rail systems for public passenger transport purposes. Co-ordinate the different modes of public transport.

Comment: The Strategic Focus Areas 5 and 8 form the environmental component of sustainable development [A Pathway to Sustainability: Local Agenda 21 for South Africa, 2001] and all other relevant environmental and conservation legislation, policies, and programmes initiated by Government.

5.3.5 Ensuring a safe and secure environment by making community safety services available and accessible (SFA 5).

The aim of this strategic focus area is to promote community safety and orderliness in the City of Tshwane Metropolitan Municipal area. An area can be ensured through:

- Adequate emergency services, i.e. by preventing the loss of lives and damage to property, as well as by providing protection against fire, other incidents and emergency situations;
- Consistent law enforcement aimed at traffic safety, order on public roads and in other public spaces, protecting community values and maintaining the environmental qualities. Also disaster management and community (public and private sector) preparedness; environmental design which promotes community safety and security; and proper communication, liaison and education.

Furthermore, crime prevention is an important aspect of community safety and security. Although this is a national priority, there is much evidence that strategies to reduce crime are effective only if applied at a local level.

To support this strategic focus area the following strategic guidelines suggest that one needs to:

- Ensure adequate policing services;
- Ensure the safety and security of the community;
- Ensure adequate emergency services;
- Ensure community preparedness and adequate disaster management services;
- Design the metropolis with due regard to safety, security and health requirements; and
- Ensure proper victim empowerment programmes.

5.3.6 The promotion and strengthening of Tshwane's national status as the sole capital city of South Africa (SFA 6)

In order to address Tshwane's national status one has to focus on a variety of facets.

Firstly, the city's status as the sole capital of South Africa has to be confirmed by the Constitution or an appropriate act of Parliament. Secondly, Tshwane, as the capital city, should house the integrated seat of government containing

parliament, all government departments, national judicial institutions, as well as foreign diplomatic and other missions. Head offices of various non-governmental organisations and major national and international corporations would further strengthen the city's status.

Furthermore, Tshwane should showcase South Africa in a cultural, symbolic, economic, and political and any other sense through various programmes, events, institutions, monuments, etc. It should be developed, governed and promoted in such a way that every South African would be proud of the capital city. In other words, Tshwane as the capital city should hold a special place among the cities of the country, expressing the nation's vitality, dynamism and dreams and reflecting the national culture, wealth and power. For this reason the city should belong not only to its own residents, but to the nation as a whole.

Tshwane residents, therefore, cannot be expected to build the capital on their own. The entire nation must contribute its share of the country's culture, wealth and power in building the nation's capital. This task, however, would require a large measure of congruence of vision and co-ordination between the municipality and the State. It is thus necessary to establish an appropriate co-ordination channel and mechanism in this regard.

To support this strategic focus area, the following strategic guidelines have been identified. Define a precinct to accommodate the integrated seat of government and develop this with a capital city image; locate parliament within the integrated seat of government precinct; house major national institutions, as well as major corporate head offices, within this integrated seat of government; project South Africa in a cultural, symbolic, economic, political and any other sense (e.g. through various programmes, events, institutions, monuments and other features of national significance). Brand and promote the Tshwane Area as the sole capital city of South Africa globally.

Co-ordinate and implement all planning, development and promotion actions of the capital city jointly between the Metropolitan Municipality and the State (e.g. National Capital Commission).

Tshwane as a service centre of excellence must complement, supplements and supports all government functions and foreign missions present in the metropolis.

Comment: The Strategic Focus Areas 6 and 7 are to promote the City's relations with the outside world. Sustainable development is one of the most viable tools to create a climate conducive to realising these Focus Areas. Agenda 21, New Economic Partnership for Africa (NEPAD), and a host of the United Nations' agencies are some of the structures that can work through the United Nations Development Assistance Framework to help realise this focus area, for example, the Food and Agriculture Organization (FAO), the joint United Nations Program on HIV/AIDS (UNAIDS), the United Nations Development Programme (UNDP), the World Health Organization (WHO), and the United Nations Volunteers (UNV).

5.3.7 Building Tshwane's international image and reputation as the African Centre of excellence (SFA 7)

The intention of this strategic focus area is to bring Tshwane into focus as the African centre of excellence. Therefore, it is necessary to establish, to promote and to market the city as a truly African city that meets most expectations of the continents and offers best solutions.

Tshwane should, furthermore, open itself towards the African continent. It should make itself easily accessible and known for its educational, medical and other facilities, which are likely to be needed and used by residents of other African countries. Tshwane should also aim to house major institutions, organisations, agencies, corporate head offices, missions, etc. of cultural, political, economic, financial and other resources significance for the entire African continent.

To support this strategic focus area, the following strategic guidelines identified. Institute a new image that will highlight a unique African theme; attract and develop unique facilities that are desirable and utilised by the residents of neighbouring and other African countries (such as medical and educational facilities). Host major institutions, organisations, missions, etc. of

cultural, political, economic, sport and other resources significance for the African continent; Tshwane must be accessible from the African countries; Tshwane must be promoted as the main international centre of Africa.

5.3.8 Caring for natural and cultural resources by preserving, utilising and enhancing them (SFA 8)

It is important that natural and cultural heritage, including nature eco-systems, as well as renewable and non-renewable natural resources, are protected and enhanced.

The natural heritage is the very source of life, while cultural heritage is the source of identity, uniqueness, and civic pride. Both remind us of who we are, where we come from and where we are going.

Natural resources should be used wisely so that they can be used indefinitely. Apart from preserving, conserving and enhancing natural areas and features, the green open space system, special places, sites and structures, we should allow these to be alive and part of our daily activities, such as recreation, tourism education, entertainment, etc. It is only in this way that our natural and cultural heritage can really benefit and that the city can benefit from it.

To support this strategic focus area, the following strategic guidelines are suggested.

(a) Natural resources

Ensure protection, optimal use and enhancement of all renewable and non-renewable resources (such as air, water, soil and all forms of life). Integrate all natural environments and man-made green areas and features in a green open space system, which must be well defined and protected. The clearly defined open space system must be integrated with land-use patterns and accordingly planned for.

(b) Cultural resources

Preserve, utilise and enhance appropriate areas, structures and features worthy of conservation; manage cultural diversity and promote creative arts across the racial and gender spectrum to achieve social integration.

5.4 STRATEGIC MAP

The purpose of the strategic map is to illustrate spatially those strategic focus areas that can be interpreted visually. It is a conceptual map, and is thus not detailed.

The principles behind the strategic map are those of preserving natural and conservation areas, a compact city, densification and intensification of the urban areas, the need to enrich the urban areas through controlled mixed land uses. There is also an urgent need for basic service provision and upgrading in certain areas, the need for economic development, and it is imperative to conserve high potential agricultural land and areas of high tourism potential.

A compact city is essential for a more efficient and effective city. This implies on the one hand the need for densification and infill development within the existing urban areas, and on the other, the need for a clear urban edge, beyond which no urban sprawl will be tolerated. Simultaneously, development must be encouraged nearer to the central city, where social and other infrastructure exists. Mixed land uses, particularly in the identified nodes and corridors, are essential to enrich the urban environment, and provide job opportunities and convenience goods to local residents.

Service Upgrading Areas / Strategic Development Areas, although not indicated on the map, are those areas, where basic social and engineering services are either lacking or are, inadequate, or in urgent need of replacement or maintenance. These areas include Temba (1), Hammanskraal (2), New Eersterust (3), Stinkwater (4), Soshanguve (5), Klip-Kruisfontein (6), Winterveldt (7), Mabopane (8), Garankuwa (9), Kirkney / Andeon (10), Lotus Gardens / Atteridgeville / Laudium (11), Olievenhoutbosch (12), Marabastad (13) and Eersterust / Mamelodi (14).

Nodes and corridors have been accepted as main structuring elements. Those indicated on the map are the areas where public spending will be necessary until the

area crosses the threshold of self-sustaining development and the private sector will undertake most of the investment.

The development of the Gauteng Spatial Development Initiatives (SDIs) will also play a major role in the Tshwane Area regarding the structuring of the city, as well as economic development. The nodes and corridors are the Urban Port-Wonderboom.

SDI, the Innovation Hub (CSIR / Pretoria University) SDI and the Gautrain (Highspeed train) SDI.

High potential agricultural land, or areas with potential for tourism, and that require the protection of the natural landscape to retain that potential, have been indicated on the map as areas to be conserved.

The primary elements indicated on the strategic map are nodes and corridors, the urban edge, land for conservation for various purposes, critical transportation routes, and areas beyond the boundaries of Tshwane that can influence local strategies.

- (i) The urban edge. The urban edge essentially follows the line of the existing urban development. All new development should be within the area, encouraging the optimal use of existing infrastructure and strengthening the public transport network.
- (ii) Economic growth areas consist of primary and secondary nodes and economic development axes. The primary nodes are the Pretoria Inner City (15) and the Silverton / Waltloo node (16). Secondary nodes generally fall within the primary development corridors, and serve as anchor points. These secondary nodes include Babelegi (17), Mabopane Station together with Central City (18), Lotus Gardens (19), Sunderland Ridge / Laudium (20), Centurion Centre (21), and Kolonade (22). While there are other large nodes within the urban area, the further development of these nodes (e.g. Menlyn) will not necessarily be encouraged, and are therefore not indicated as strategic development areas. The economic development axes are along primary development nodes and comprise the Urban Port (Rosslyn – Wonderboom Airport area) (23) and the Centurion-N1 development axis (24).

- (iii) There are two major development corridors that traverse the entire metropolitan area – the Platinum / Maputo Corridor (25) and the Mabopane-Centurion Development Corridor (MCDC)(26). The former is an east west corridor, following the route of the PWV2 / N4, intersecting the Urban Port and the Silverton nodes. The MCDC stretches from the Centurion N1 development axis in the south, through the Laudium / Sunderland Ridge and Lotus Garden Nodes, intersecting the Platinum corridor at the Urban Port, up to Mabopane Station, and then extends from the Tswaing Crater through New Eersterust / Stinkwater to Babelegi / Temba. These corridors have an economic focus, but include housing, conservation areas, and other urban elements.
- (iv) The transport corridors are primarily rail corridors that have the potential to move large numbers of residents safely, efficiently and cost-effectively. Of particular importance is the ring rail within the central area (27), and the zone of densification and intensification around it. The rapid rail, although not a corridor per se, has the potential to attract investment around the stations.
- (v) Areas of conservation include not only the nature reserves as environmentally sensitive areas, but also areas of high agriculture potential such as the Pienaars River region (28), and the northern part of the Crocodile River area (29). The south-western part of Tshwane area (30) has little agricultural potential, but serve as a rural residential area with high potential for tourism (e.g. the Crocodile River Ramble). The area also links with the World Heritage site around Sterkfontein / Kromdraai. The area should be conserved so that its tourism and job creation potential is not irrevocably destroyed.
- (vi) Besides the World Heritage site, other areas beyond the Tshwane boundaries that could influence development in Tshwane are the North Eastern Gauteng Initiative (NEGI) (31) to the east of Tshwane and the development around Brits to the west.
- (vii) Administrative Areas: it will be possible that once these areas have been demarcated, to indicate such areas on the strategic map, which could include the locations of decentralised offices including customer care centres.

5.5 IMPLEMENTATION FRAMEWORK

The Implementation Framework consists of two components, namely;

1. Projects of varying types
 - [a] Ongoing projects: these are capital and operational contractually bound projects with a financial implication for the current financial year and onwards.
 - [b] Operational projects: these are projects that have ongoing cash flows as a result of the completion of a project, new services projects without capital needs, and other non-capital projects.
 - [c] Maintenance projects: these are projects which are operational in nature, projects that relate to repairs to assets, projects that do not change the performance of an asset, projects that do not change the life expectancy of an asset, projects that deal with the replacement of parts of an asset for reparation purposes.
 - [d] Capital projects: these are projects that relate to the replacement of an entire asset, the purchase or building of a new asset, the upgrading of an asset, their refurbishment (only if life expectancy is enhanced) of an asset, the renovation (only if it changes / increases the life expectancy or performance) of an asset, additions leading to a change in assets, donated assets and assets being prepared for operations.
2. A Financial Plan: linked to the projects (ongoing projects, operational projects, maintenance projects and capital projects), the financial plan spans over a five-year period. The operating side of the financial plan itself will only be in place once the final organisational structure is in place, and its costing has been done.

The strategic focus areas, together with the strategic map, which are both contained in the Strategic Framework, are already a reflection of the priorities that Council wants to target with regard to planning and development. The

project list, therefore, has already gone through this prioritisation screening process.

The Implementation Framework consists of a full project list, linked to a financial plan spread over a five-year period. The implementation framework actually completes the integrated development planning process and links the process to a performance management system.

A Municipality's integrated development plan must at least identify the institutional framework, which must include an organogram, required for the implementation of an IDP, as informed by the strategies and programmes set out in the IDP; must include any investment initiatives in the municipality; including infrastructure. Physical, social, economic and institutional development; all known projects, plan and programmes to be implemented within the municipality by any organ of state; and the key performance indicators set by the municipality (Section 2(1) of the Local Government: Municipality Planning and Performance Management Regulations 2001.)

Municipalities have to make sure that the minimum requirements as set out by the legislation and policies that direct integrated development planning processes are met. The City of Tshwane needs to develop appropriate indicators to measure if its IDP has potential or meets the minimum requirements.

A financial plan reflected in a municipality's IDP must at least include the budget of the Local Government, the Municipal Systems Act, 2000 (Act 32 of 2000) indicates the financial resource that are available for capital project developments and operational expenditure; and these include a financial strategy that defines sound financial management and expenditure control, as well as ways and means of increasing revenues and external funding for the municipality and its development of priorities and objectives, may address the following:

- (i) Revenue rousing strategies;
- (ii) Asset management strategies;
- (iii) Financial management strategies;

- (iv) Capital financing strategies;
- (v) Operational financing strategies; and
- iv) Strategies that would enhance cost-effectiveness
(Section 3 of the Local Government; Municipal planning and performance Management, 2001).

The Local Government: Municipal Management Bill, 2001 read together with the Local Government: Municipal Systems Act, 2001 (Act 32 of 2001) and the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) clearly implies that the management of the municipality's finance is directly regulated. The City of Tshwane, therefore, has to ensure that the provisions of all legislations and policies that inform the municipalities' finances are adhered to.

Section 6 of the Local Government: Municipality planning and performance Management Regulation, 2001, further directs that a municipality's integrated development plan must inform the other multi- municipality's annual budgets that must be based on the development priorities and objectives referred to in section 26(c) of the local Section 4 of the Local Government: Municipality Planning and Performance Management Regulations, 2001, that states that a spatial development plan must give effect to the principles contained in Chapter 1 of the Development Facilitation Act, 1995 (Act 67 of 1995); sets out objectives that reflect the desired spatial form of the municipality. It also contains strategies and policies regarding the manner in which to achieve the objectives referred to above, which strategies and policies must

- (i) indicate desired patterns of land use within the municipality;
- (ii) address the spatial reconstruction of the municipality; and
- (iii) provide strategic guidance in respect of the local and nature of development within the municipality.

The spatial development framework reflected in the municipality's integrated development plan must further set out basic guidelines for a land use management system in the municipality; set out a capital investment

framework for the municipality's development programmes; contain a strategic assessment of the environmental impact of the spatial development framework; identify programme and project for the development of land within the municipality. It must also be aligned with the spatial development frameworks reflected in the integrated development plans of neighbouring municipalities; and provide a visual representation of the desired spatial form of the municipality, which representation:

- (i) Must indicate where public and private land development and infrastructure investment should take place;
- (ii) Must indicate desired or undesired utilisation of space in a particular area;
- (iii) May delineate the urban edge;
- (iv) Must identify areas where strategic intervention is required; and
- (v) Must indicate areas where priority spending is required.

The core components of the municipalities integrated development plans are statutorily and clearly outlined. The spatial development framework required to form part of the core component of the municipality's integrated development plan is further directed by other legislation and policies such as the Green Paper on Development and Planning; dated 21 May 1999, the Constitution of the Republic of South Africa Act, 1996 [Act 108 of 1996], and the Development Facilitation Act, 1995 [Act 67 of 1995]

5.6 AN INTEGRATED DEVELOPMENT FRAMEWORK FOR THE STRATEGIC DIRECTION OF THE CITY: PROPOSALS FOR THE CITY OF TSHWANE

The Government's broad urban vision provides informative guidelines for urban development, which is influenced by some current constraints and opportunities, which are fundamental to urban development and integrated development planning. The constraints and opportunities include:

- (i) A large and growing urban population;
- (ii) Persistent inequality and poverty;
- (iii) Financial pressure on municipalities;
- (iv) A vibrant and dynamic civil society; and

- (v) Economic and financial potential for urban revitalisation.

Although each situation has its own unique opportunities and constraints within its specific environment, broad opportunities and constraints have the tendency to impact broadly on almost all situations, depending of course on circumstances and issues involved.

There is no doubt, however, that the broad opportunities and constraints outlined by the Government's urban vision will have an influence on the City of Tshwane's vision to create an integrated, viable and liveable city.

The Government through its urban vision envisages developed urban settlements that will be:

- (i) Spatially and socio-economically integrated, free of racial and gender discrimination and segregation, enabling people to make residential and employment choices to pursue their ideals;
- (ii) Centres of economic and social opportunity where people can live and work in safety and peace;
- (iii) Centres of vibrant urban governance, managed by democratic, efficient sustainable and accountable metropolitan and local governments in close co-operation with civil society and geared towards innovative community-led development.

The urban development framework developed by Government, focuses on four key programmes.

- (i) Integrating the city aims to negate apartheid-induced segregation, fragmentation and inequality. The focus is on integrated planning, rebuilding and upgrading the townships and informal settlements, planning for higher density land-use and developments, reforming the urban land and planning system, urban transportation and environmental management.
- (ii) Improving housing and infrastructures involves upgrading and the construction for housing, restoring and extending infra-structures.

- (iii) Alleviating environmental health hazards, encouraging investment and increasing access to finance, social development, building habitable and safe communities, maintaining safety and security and designing habitable urban communities.
- (iv) Promoting urban economic development aims to enhance the capacity of urban areas to build on local strengths to generate greater local economic activity, to alleviate urban poverty, to increase access to informal economic opportunities and to maximise the direct employment opportunities and the multiplier effect from implementing development programmes.
- (v) Creating institutions for delivery requires significant transformation and capacity building of government at all levels and clarity on the roles and responsibilities of the different government spheres. This will also encompass a range of institutions, including civil society and the private sector, and require significant cooperation and coordination among all of these.

These key programmes can only add value to the City of Tshwane's Plan to restructure the city. The City of Tshwane's vision and strategic focus areas discussed above could be guided by the Government's broad urban development vision, strategies and principles which include legislation, policies, programmes and specifically local Agenda 21 as a crucial tool to ensure sustainable development. The importance of such initiatives to consolidate vision, strategies programmes, legislation and policies, devices and mechanisms purported to promote and ensure sustainable development, cannot be over emphasised.

In order to play their rightful role in alleviating poverty and addressing the inequalities created by past policies, the Government's urban development framework suggests that cities and town must achieve a high level of integration of a wide variety of social and cultural groups, must maintain efficient services and infrastructure, must secure and protect democratic and accountable local institutions of governance, and must collaborate effectively with other cities and political jurisdiction of governance in an increasingly interconnected national and international urban system.

Given South Africa's political history, a central prerequisite for meeting these challenges is to overcome the historically ingrained patterns of the apartheid city. The resolution of

urban land claims provides an opportunity to initiate a process of re-integrating and reconstructing the cities and towns. Spatial integration through sound urban planning, land, transport and environmental management, is critical for the enhancement of and generative capacity for ease of access to socio-economic opportunities of our urban areas.

In order to ensure that economic, spatial, social and environmental planning is integrated and targets the disadvantaged, it is essential that local economic development planners and urban planners work as a team to maximise urban generative capacity. Less rigid zoning, more flexible planning mechanisms, promoting mixed land-use which will complement local economic envelopment, can all serve to enhance the efficiency of urban settlement.

The Government's urban vision provides broad frameworks and direction for municipalities to design and implement their integrated development plans, and these include, rebuilding and upgrading the townships and informal settlements, planning for higher density land-use and development; reforming urban land and planning system; urban transportation; environmental management; improving the housing infrastructure and the urban infrastructure.

The City of Tshwane's integrated development plan is also guided by strategic focus areas that are largely informed by the Government's urban vision and its urban development framework. However, the relevance of these strategic focus areas to sustainable development still has to be tested through appropriate sustainable development indicators.

The townships and informal settlements represent under-utilised resources for the future. These have to be transformed into sustainable, productive environments, free from crime and violence. Rebuilding the townships cannot occur in isolation from integrating strategies. In order to rebuild and upgrade the townships and informal settlements means to move actively away from the segregation of different parts of the city and to ensure equity across the urban landscape, thus offering all urban residents access to opportunities and facilities.

One of the first steps towards effective viable cities is to undo the apartheid cities, and this will include linking the component parts of the city through high-density activity corridors; township upgrading; urban infill, development and integration of apartheid developed buffer zones; inner city development and provision of adequate open spaces for recreational purposes and land reform programmes including restitution, redistribution and tenure reform.

Rebuilding and upgrading the townships and informal settlements as part of a development programme includes augmenting and diversifying urban functions, upgrading existing urban settlements and constructing new housing, restoring and extending infrastructure services, promoting investment and economic activities, alleviating environmental healthy hazards and including women in decision- making processes.

In order to be sustainable, higher density living environments must be affordable to the target group and, through innovative design, be habitable in the longer term. They should be designed to reflect the qualities of variety, convenience, sociability, and privacy and provide for the need to have access to natural areas.

To ensure sustainable human settlements, environmental management must form an integral part of the urban planning and development process. The manner in which housing, infrastructure and other urban facilities, for example, are developed has a direct bearing on environmental quality, health and well being of urban residents. For this reason, environmentally sensitive land use, planning and the impact on sensitive areas, the protection of cultural heritage or assets as well as pollution control and waste management, is emphasised. High potential agricultural land for agricultural production should also be identified and maintained. Green belts, open spaces and parks necessary for the maintenance of biodiversity as well as for human psychological health must form an integral part of environmental planning.

At the 19th Plenary Meeting of the United Nations in June 1992, Agenda 21 was recommended a blue print for ensuring that development is socially, economically and environmentally sustainable, due to the fact that many problems and solutions addressed by agenda 21 had their roots in local activities that municipalities had been found to be more appropriate to participate in and to cooperate in educating, mobilising and responding to the public to promote sustainable development.

At this point It is important to provide some background to where local Agenda 21 comes from and its impact on integrated development planning processes and sustainable development.

Local Agenda 21 is the outcome of a host of international policies and event that reflect the growing importance of sustainable development. Local Agenda 21 arose out of the biggest gathering of heads governments and states held in Rio de Janeiro, Brazil, in 1992. This was the United Nations Conference on Environmental and Development (UNCED), more commonly know as the Earth Summit. It was prompted by a growing realisation that the world was fast approaching a crisis, because the current form of development was leading to increased human suffering and environmental damage. More than a hundred heads of government pledged to work together for the common future by adopting Agenda 21, and action plan for sustainable development.

Agenda 21 provides that the population, their consumption and technology are the primary driving forces for environmental change. It lays out what needs to be done to reduce wasted and inefficient consumption patterns in some part of the world, while encouraging increased but sustainable development in others. It offers policies and programmes to achieve a sustainable balance between consumption, population and the earth's life-supporting capacity. It further describes some of the technologies and techniques that need to be developed to provide for human needs while carefully managing natural resources.

Agenda 21 provides options for combating degradation of the land, air and water concerning forests and the diversity of species of life. It deals with poverty and excessive consumption, health and education, cities and farmers. There are roles for everyone: governments, business people, trade unions, scientists, teachers, indigenous people, women, youth and children.

The major theme of Agenda 21 is the need to eradicate poverty by giving poor people more access to the resources they need to live a sustainable life. Agenda 21 calls on governments to adopt national strategies for sustainable development. These should be developed with wide participation, including non-governmental organisations and the public.

Agenda 21 puts most of the responsibility for leading change on national governments but recommends that they need to work in a broad series of partnerships with international

organizations, business, regional states, provincial and local governments and non-governmental and citizens groups.

The South Africa government's response to the R10 Declaration can be addressed by means of the provisions of development Legislation and policies.

The Rio Declaration provides broad normative principles to states, which impact directly or indirectly on local government as a sphere of government. The principle outlined above should serve as a yardstick to assess the successes and failures of states to achieve sustainable development at the global level.

One of the most commonly used definitions for sustainable development is that used in the 1987 report of the World Commission on Environment and Development, namely, that sustainable development is development which meets the needs of the present without compromising the ability of the future generation to meet their own needs.

This is a very broad statement but, clearly, it does emphasize the key characteristic of adopting a long-term approach towards improving the quality of the people now as well as in the future. It also implies that this can be done through development that is environmentally sound, as this is the only way to prevent damage to the resource base on which all life and thus, development depends.

This definition also emphasizes three elements of sustainable development, namely, social, economic and ecological factors and the integration thereof.

The integration of these elements was illustrated diagrammatically in Chapter 1. Sustainable Development has further, three broad principle based on the three identified components.

- **Prosperity (Economic System)**

The economic aspects of sustainable development requires the development of an economic system that facilitates equitable access to resources and opportunities and the fair sharing of finite ecologically productive space; enables sustainable livelihoods; and establishes viable businesses and industries based on sound ethical principles. The focus is on creating prosperity for all, not just profits for a few, and to do this within the bounds of the ecologically possible and without infringing on basic human rights.

- **People (social system)**

The social aspects of sustainable development require that the development of fair and just societies fosters positive human development and provides people with opportunities for self-actualisation and an acceptable quality of life.

- **Planet (biophysical environment)**

The environmental aspects of sustainable development require that a balance between protecting the physical environment and its resources, and using these resources in a way that will allow the earth to continue supporting an acceptable quality of life for human beings (some would say all being).

As mentioned in Chapter 1, South Africa's National Environmental Management Act, [Act 107 of 1998] for sustainable development means the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves the present and future generations.

The International Council for Environmental Initiatives (ICEI) uses the following definition which is focused specifically at service provision at the local level, namely that, sustainable development is development that delivers basic environmental, social and economic services to all residents of a community without threatening the viability of the natural, built and social systems upon which the delivery of these systems depends.

The Development Facilitation Act, 1995 [Act 6 of 1995] refers to four components of development, namely, social, economic, physical and institutional components, where physical components include all physical infrastructure and environmental issues. The environment is viewed by the Department of Environmental Affairs and Tourism and the University of Cape Town: Environmental Evaluation Unit as encompassing; everything around us and thus includes:

- (a) Where and how people live;
- (b) The atmosphere around us;
- (c) Soil, rocks, and other land forms;
- (d) Fresh and salt water above and below ground and in the sea;
- (e) Radiation, noise and vibration;

- (f) All forms of life, including humans and their remains;
- (g) Things people have made and manned;
- (h) All processes necessary for life, such as the water cycle;
- (i) Human culture and social systems, both present and historical;
- (j) Views about society's physical surroundings quality of life; and
- (k) Economic and political factors relating to the above.

It is clear that sustainable development means adopting a broad approach to development by considering socio, economic, institutional and physical factors which include ecological issues in an integrated fashion. It is important to note however, that it is not clear how should the three elements of sustainable development be integrated to ensure a sustainable development, as defined by the Brundtland Report: 1978.

The following can be summarized as key principles of sustainable development, namely, and can further help clarify the definition of sustainable development:

- (i) Wise use and management of the environment;
- (ii) Opportunities to develop must be made available to all people, this means greater fairness in sharing wealth, opportunities and responsibilities, with particular emphasis on the poor and disadvantaged;
- (iii) That there are ecological limits and human activities that must be respected;
- (iv) That development is broader than economic growth and also has social; cultural, environmental, political, moral and spiritual dimensions;
- (v) That people must be given the opportunities to participate in all activities and decisions which affect their lives; and
- (vi) That environmental decisions must be integrated into all planning and development processes, this include integrated development plans, local economic development plans, land use or structure plans, sectoral plans for water, transport and waste management.

These principles are fundamental to local Agenda 21. The strength of local Agenda 21 is that it allows for local stakeholders together with municipalities to address the complexities and define sustainability in a local context, with the emphasis that ecological considerations are balanced with economic and social considerations.

As mentioned chapter one infra, in 1991 at the Earth Summit held in New York, President Thabo Mbeki affirmed the Country's commitment to Agenda 21. The Government, therefore, is firmly committed to the goal of sustainable development, and has formally adopted Agenda 21. Many national policies and laws have sustainable development as a guiding principle and there is a strong similarity between local Agenda 21 and the South Africa Constitutional requirements of co-operative governance, participation, and developmental mandate and promotion of a safe and healthy environment. South Africa's democratic constitution includes the right to a healthy environment as a basic human right. Section 24 of the Bill of Rights states that everyone has the right to an environment that is not harmful to their health well-being, and to have the environment protected, through reasonable legislation and other measure that prevents pollution and degradation; promotes conservation, and secure ecologically sustainable development and supports the use of natural resources while promoting justifiable economic and social development. The Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) clearly sets out the responsibilities of local government with respect to sustainable development.

Chapter 7 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) provides the following objectives of Local Government:

- (i) To provide for a democratic and accountable Government for local communities;
- (ii) To ensure the provision of services to communities in a sustainable manner;
- (iii) To promote social and economic development; and
- (iv) To promote a safe and healthy environment, and to encourage the environment of communities and community organizations in the matters of local government.

These objectives indicate a commitment of Government to sustainable development and environmental sustainability by entrenching sustainable development in the supreme law of the country, and provide guidelines for other laws and policies to follow a similar direction, for example:

- (i) The development Facilitation Act, 1995 [Act 67 of 1995] encourages the promotion of an environmentally sustainable land development practices and processes;

- (ii) The urban Development Framework regarding sustainable development as key objective for urban development and specifically encourages local authorities to embark on local Agenda 21; and
- (iii) The White Paper on Local Government; 1998, sees environmental sustainability as an integral component of integrated development planning.

The National Environmental Management Act, 1998 [Act 107 of 1998] translates the policy principles of the White Paper on Environmental Management Policy, 1997 into law. It commits all state departments to use certain sustainable development principles to guide decision-making. These principles include the following:

- (i) That development must be socially, economically and environmentally integrated;
- (ii) That public participation must be promoted; and
- (iii) That environmental justice be ensured

A key local Agenda 21 principle is the integration of ecological thinking into all social and economic planning. This principle was recognised by the Reconstruction and Development Programme (RDP), which provides that development strategies must incorporate environmental consequences in the course of planning and the Development Facilitation Act, 1995 [Act 108 of 1995]; the local government policies that operationally sustainable development.

It is clear that South Africa's policies and legislation regulate and inform integration of environmental concerns in strategic planning and decision-making processes. Such legislation and policies, however, are less clear regarding the exact mechanisms to achieve this. They are normative in approach and nature. The legislation and policies further require that local government officials should have much experience of community participation methods. Local Agenda 21, however, provides a framework for implementing these constitutional requirements of Local Government.

Local Agenda 21 is a long-term commitment to achieve local sustainable development and it should be a permanent future plan of the way in which a municipality carries out its functions and responsibilities. Full integration of sustainable development principles into the overall corporate and strategic planning of a municipality should be the goal if sustainable development is to be realised.

The key issue for the successful local Agenda 21 is that the local community - through community participation - must feel and take ownership of the Local Agenda 21 process and of any outcomes. Thus any Local Agenda 21 should fully involve active local participation in the decision making processes and structures that lead to the development and implementation of Local Agenda 21 in the short-term and long-term.

The university of Cape Town's Environmental Evaluation Unit points out that sustainable development can sometimes seem like an abstract concept. That it is, however, a daily reality for Local Authorities seeking to improve their developmental mandate in a way that is socially acceptable, economically viable and ecologically sound. That adopting Local Agenda 21 as a framework for implementing local level responsibilities can result in:

- (i) Improved communication and cooperation between various sectors;
- (ii) Better quality of housing;
- (iii) Improved relations between the municipality and the community;
- (iv) Reduced garbage output;
- (v) More efficient and responsive transport;
- (vi) Improved and efficiency water provision;
- (vii) Reduced energy input through better building design;
- (viii) Community empowerment, and
- (ix) Improved air and water quality.

There are clear similarities between Local Agenda 21 and the integrated development planning. It can be concluded, therefore, that to manage the Local Agenda 21 and the integrated development planning process as parallel mechanisms to achieve sustainable development may create confusion among communities, stakeholders and Councillors and Officials. Therefore, it will be advisable for municipalities to comply with the legislation and policies regulating integrated development planning and devise mechanisms to incorporate Local Agenda 21 principles into the planning process.

Sustainable development by its definition and implications has proved to be a global issue. The impact of unsustainable development has the same effect and outcomes on countries and on the lives of all species including human-kind globally, although at different levels, and depends on the country's level of development, that is, whether the country is a developing, less-developed, under-developed or developed country.

The purpose, intentions and processes employed to achieve and manage sustainable development are to a large extent common throughout the world. The following are summaries of some initiatives and processes employed by different countries and municipalities as presented at the World Summit on Sustainable Development held on 26 August 2002 to 4 September 2002 in Johannesburg, Gauteng Province, South Africa. The local agenda 21 of the County of Durham in the United Kingdom, the City of Ingolstadt in Germany, and Sweden's local Agenda 21: From vision to action, do not mention sustainable development as defined by the Brundtland Report: 1987. There are actually more similarities between these initiatives and the Integrated Development planning process designed for municipalities in South Africa.

The presentations were made at the Local Government Session that ran parallel with the main Summit. It is just important to note that not a single city or local government at this session claimed to be sustainable or had achieved levels of sustainable development. There was also no attempt to stick to definition of sustainable development as defined in the Brundtland Report: 1978, cities or municipalities presented their programmes or initiatives without going much into their definition of sustainable development.

The Local Government Session was organized by the International Council for Local Environmental Initiatives [ICLEI] in co-operation with the following impressive list of participants.

- The World Association of Cities and Local Authorities Coordination [WACLAC]
- The International Union of Local Authorities [IULA]
- World Federation of United Cities [UTO]
- World Association of the Major Metropolises [Metropolis]
- The Regional Network of Local Authorities for the Management of Human Settlements [CITYNET]
- The Organisation of Islamic Capitals and Cities [OICC]
- The Arab Towns Organisation [ATO]
- Eurocities
- The Assembly of European Regions [AER], in partnership with the United Nations
- The United Nations Development Programme [UNDP]
- The United Nations Environment Programme [UNEP]
- The United Nations Human Settlement Programme [UN HABITAT]

- The United Nations Institute for Training and Research [UNITAR]
- The United Nations Framework Convention on Climate Change [UNFCCC]
- The United Nations Convention Combating Desertification [UNCCD]
- The World Health Organisation [WHO]
- The World Bank, with cooperation and contributions from Government of Denmark
- The Government of Finland
- The Government of Germany
- The Government of Norway
- The Ministry of the Flemish Community, Belgium
- Industry Canada, Sustainable Cities Initiatives [SCI]
- Canadian Agency for International Development [CIDA]
- The United States Agency for International Development [USAID]
- UNEP International Environmental Technology Centre [IETC]
- The United Nations Development Programme [UNDP], Equator Initiative.
- The United Nations Development Programme/PPPUE
- The United Nations Development Programme/ LIFE
- The Development Bank of South Africa [DBSA]
- The WHO Centre for Urban Health
- The City of Rotterdam, Holland
- The City of Belfast, Northern Ireland
- The Earth Council
- Velo Mondial
- The Accell Group
- Shimano.

One of the processes, mechanisms and strategies employed globally to achieve sustainable development at the Local Government level in particular is the Local Agenda 21.

Local Agenda 21, which is actually a localised Agenda 21 has the same purpose, intentions, approach and outcomes as the Integrated Development Planning [IDP] employed by the South African Government, designed specifically for the Local sphere of Government (Municipalities)

5.6.1 LOCAL AGENDA 21 IN COUNTY DURHAM: UNITED KINGDOM

The local Agenda 21 in County Durham was launched by the Prime Minister, Tony Blair in November 1997.

The local Agenda 21 in County Durham is made up of a partnership of over 17 000 organizations and statutory agencies, 275 businesses, over 200 community groups, 360 schools and over 100 districts, towns, and parish councils (County Durham's Local Agenda 21: 2002.

The roundtables and forums are the driving force for the County Durham Local Agenda 21 process. Eight roundtable groups each meet quarterly, chaired by representatives from a wide range of organisations. They address the following topics:

- i. Community Action;
- ii. Natural resources;
- iii. Education, participation and awareness;
- iv. Energy v eco-school;
- v. Waste and minerals;
- vi. Economic sustainability; and
- vii. Transport and planning.

These roundtable meetings are open to everyone and they aim to:

- I. build understanding and consensus on sustainable issues;
- II. generate practical action that makes a real difference;
- III. support sustainability as a mainstream principle for participation organizations;
- IV. challenge unsustainable decisions and policy-making;
- V. offer an ideal opportunity for networking and the exchange of good practice; and
- VI. encourage local participation , community empowerment and partnership working.

The integrated development planning process as outlined in the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) provides for the establishment of ward-committees as structures to implement the integrated development plans. The ward-committees are made up of all stakeholders to address community issues. Similarities do exist between the integrated development planning processes and the Local Agenda 21 as employed by the County Durham.

To implement the Local Agenda 21 in the County Durham, a wide range of seminars, forums and consultative meetings take place throughout the year in addition to the round table meetings and the whole programme is published in the quarterly newsletter. In addition, Local Agenda 21 liaison meetings are held with the district and borough councils and with the parish and town councils. A small Local Agenda 21 Partnership Fund is established to help support innovative sustainable projects.

The government's vision for sustainable development was, first set out in 1999 in what is called "A Better Quality of Life", now forms part of the corporate aims and objectives of many public, private and voluntary sector organisations. Its vision for sustainable development is based on four broad objectives, namely, social progress which recognises the needs of everyone; effective protection of the environment; prudent use of natural resources; and maintenance of high and stable levels of economic growth and employment. In 1999 every household in County Durham was consulted on their priorities for future quality of life and four overall aims were agreed upon, namely: building a strong economy ; developing life-long learning ; looking after the environment ; and promoting strong, healthy and safe communities.

Furthermore, twelve sustainability objectives were built on the core aims, namely:

1. Building a strong economy	<ul style="list-style-type: none"> i. Economy; Strong urban and rural economies with work opportunities for all; ii. Transport; A sustainable transport network with good access to services and facilities.
2. Looking after the environment	<ul style="list-style-type: none"> i. Biodiversity; A healthy, bio-diverse natural environment ii. Distinctiveness; Distinctive and high quality urban and rural Environments iii. Resources; Efficient natural resources- use with priority for renewables. iv. Pollution; Minimal waste and pollution.
3. Developing lifelong learning	<ul style="list-style-type: none"> i. Learning ii. Involvement: Local participation, community empowerment and partnership working.
4. Promoting strong, healthy and safe communities	<ul style="list-style-type: none"> i. Equity: A fair society with equal opportunities for all. ii. Health: Healthy community and life style communities. iii. Safety: Safe Communities iv. Housing: Housing that meets local needs

The City of Tshwane's eight strategic focus areas are similar in purpose and intentions with the four core aims and the twelve] sustainable objectives of the County Durham's local Agenda 21 referred to above. Like the eight strategic focus areas, an improved quality of life can be reasonably sustained if all the objectives are addressed at the same time or planned in such a manner that they overlap in terms of their effect and impact. To address some at the expense of others, or not to address them will impact either on environments, communities or on the economies in the area, and will not result in a better quality of life in the long term.

To implement the above-mentioned aims and the broad objectives, specific projects have been identified, and these include a biodiversity action plan; municipal waste strategy; local authority energy programmes; investing in children projects; eco-

schools network; local farmers' markets; sustainable communities campaigns; and urban renaissance.

Remarks

It may be concluded that similarities in approach, intention and outcomes do exist between the local Agenda 21 of County Durham and the City of Tshwane's integrated development planning processes. The core outcome in both processes is the achievement of and the attainment of sustainable development, that is, the improvement of human well being.

5.6.2 TOWARDS A LOCAL SUSTAINABLE STRATEGY: CITY OF INGOLSTADT: GERMANY

In 1997, the city council of Ingolstadt decided to set up new city master plan and master strategy until 2016, according to the principle of sustainable development. Until the year 2000, there were two unconnected processes. The master plan process (Internal Process) was set up by the local government, while the local agenda 21 process (external process) started with the participation of local non-Governmental organizations and some companies supported by the local government. A central problem, however, was that the average citizen was not really involved in either processes. To encourage civic participation, the city organized a big event in October 2000. Overall more than 5 000 citizens participated, and 900 feedback cards were submitted by citizens with over 1500 ideas for urban development in an initiative called "Towards a local sustainable strategy, 2000" facilitated by the Bavarian Minister for State Development and Environmental Affairs.

In May 2001, the City Council of Ingolstadt decided to combine the Local Agenda 21 Process with the Master Plan Process, and all other projects under a Good Government approach. The thematic integration of both processes took place in six citizen conferences with 41 round tables, where citizens, councillors, experts from the administration and representatives of the Local Agenda 21 built consensus regarding the new Master Plan and the Local Agenda 21 Action Program. This strategic approach has initiated a dialogue

between politics, administration and the citizens and has made civic participation an inherent part of municipal development planning.

The municipal development planning process resulted in projects executed during the implementation stage.

Remarks

The intention, purpose and processes to achieve sustainable development, employed by the City of Ingolstadt are largely similar to those employed by the City of Tshwane and County Durham, through the IDP and LA21 respectively.

5.6.3 FROM VISION TO ACTION: SWEDEN'S NATIONAL REPORT TO THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT: JOHANNESBURG 2002

The 1972 Stockholm conference paved the way via the 1992 Rio conference, for the extensive development in Sweden. There is a wide range of Agenda 21 activities in Sweden. All Sweden's local authorities have been involved in the Agenda 21 in one way or another. More than 70% of the country's municipal councils have adopted Agenda 21 plans and programs called "From Vision to Action" - Sweden's National report to the World Summit on Sustainable Development in Johannesburg 2002.

Agenda 21 programs in Sweden started with waste, that is, recycling, composting, but they were later extended to cover public health issues, international cooperation, co-operation with business and democracy issues.

By means of grants provided under the Local Investment Programs (LIPs) the Government contributes significant resources to encourage local sustainable development projects.

Business in Sweden plays an increasingly important role in efforts towards sustainable development. For many companies, environmental concerns have become a strategic issue. Dialogue and voluntary agreements between the public and private sectors are increasingly common. In recent years,

environmental and ethical matters have also increasingly attracted attention among financial market operations.

Civil society, including various popular movements in Sweden has played a very important part in the democratic development of Swedish society. The voluntary educational associations and adult education has made a significant contribution towards broadening the educational base in Sweden.

The general objective of Sweden's international cooperation is to help to raise the living standards of the poor. Sweden has decided to increase its development cooperation efforts, its ambition being to contribute 1% of its Gross Domestic Product for this purpose, and as soon as its Central Government Finances allow Sweden intends to insure that environmental aspects are integrated more explicitly into the United Nations development efforts, and that environmental and development issues carry more weight in the United Nation's funds and programs, as well as the World Bank groups and the regional development banks.

Globalisation is considered an important factor in Sweden's Agenda 21 programs and plans. The Swedish Globcom Committee recently proposed extending the global development policy areas to include development concerns in all relevant public goods and development assistance.

Some future challenges facing Sweden in its efforts to ensure sustainable development include:

- **Climate change**

Climate change is seen as one of the most complex challenges for the future of the world and one of the most difficult to address. Constructive negotiations taking place world wide on climate change need to be transformed into practical actions if sustainable development is to be achieved, that is, mechanisms and strategic programs and plans need to be developed to deal with climate change. Other challenges are:

Biological diversity; Limiting the spread of HIV/AIDS; Limited water resources; prevailing consumption and production patterns which make major adverse impacts on social conditions and environment; and Transport and energy sectors, which need to be developed to be able to respond to sustainable development strategies.

Remarks

There is evidence that sustainable development can be addressed or achieved through different plans and programs. Common to these programmes and plans are community/citizens private sector and government involvement and participation. Broad issues such as social, economic, and environment remain central to sustainable development.

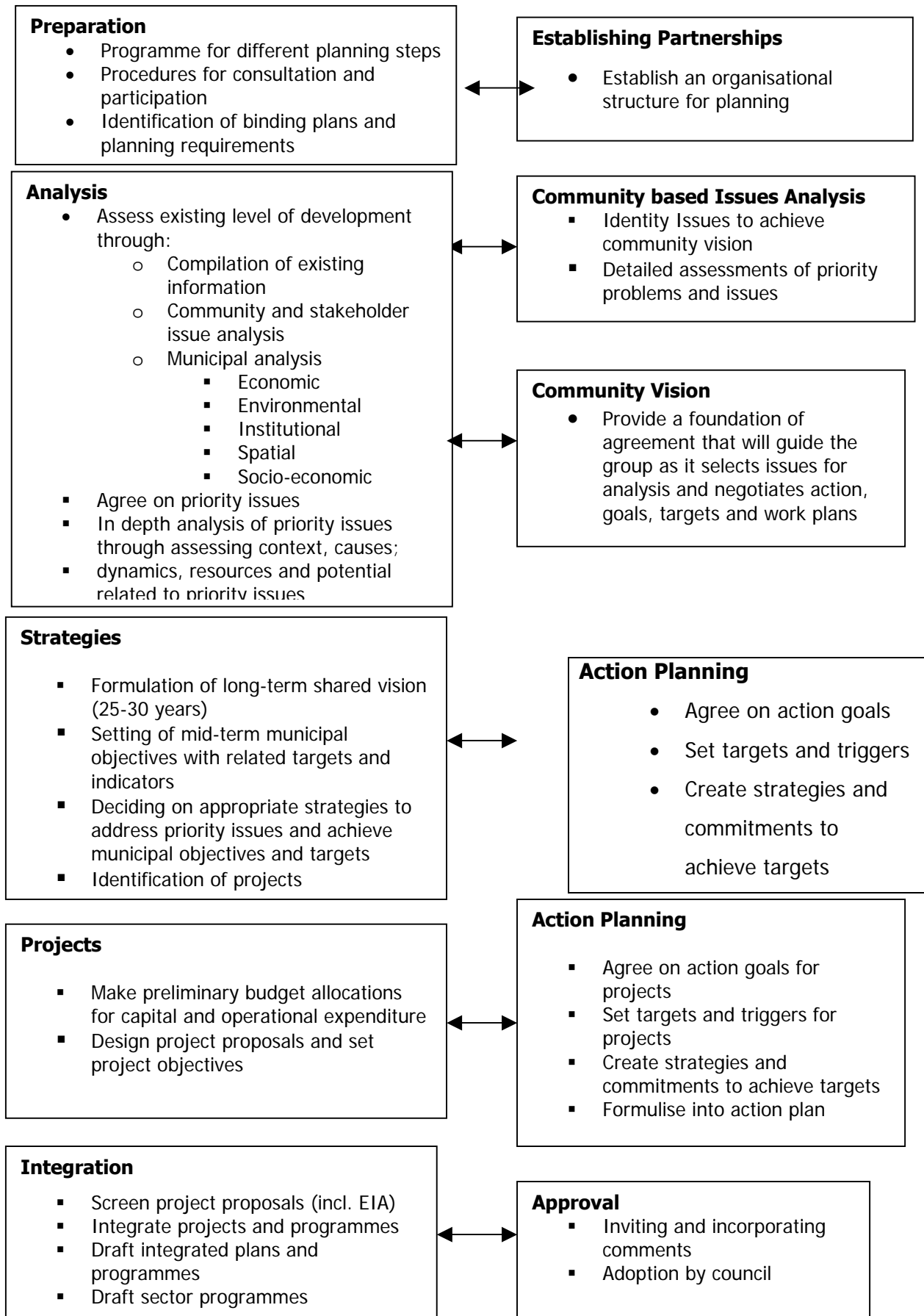
5.6.4 LOCAL AGENDA 21 ADDS VALUE TO INTEGRATED DEVELOPMENT PLANNING

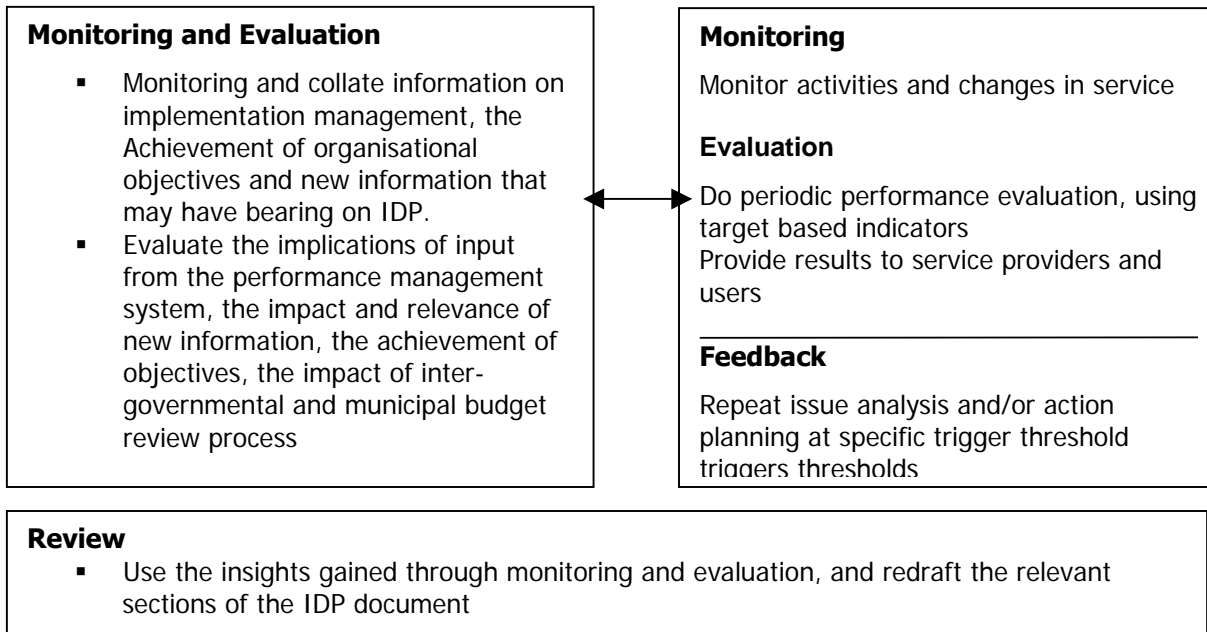
South Africa's integrated development plan offers a broad planning framework for municipalities. The integrated development plan is informed and directed by legislation and policies including the national and provincial development planning frameworks.

The integrated development plan is a comprehensive tool to achieve and to manage all sustainable development related initiatives.

Local Agenda 21 that is also a comprehensive tool designed to achieve and to manage sustainable development, can add value to the integrated development framework. Both the frameworks are presented below to show their links.

INTEGRATE DEVELOPMENT PLANNING PROCESS ↔ LOCAL AGENDA 21





Source : Coetzee : (2000:15)

Municipalities in South Africa are bound by legislation to develop integrated development plans as mechanisms to achieve and to manage sustainable development including all other developmental responsibilities. They can therefore employ the Local Agenda 21 framework and principles as added value to the integrated development planning processes.

It is within this broad framework and Government’s vision on urban development that municipalities should build and manage their integrated development planning process.

Chapter 2 further confirmed that sustainable development is a broad strategy that has the ability to weld together all development elements and aspects related to development.

The core components of the integrated development plan set out in the Local Government: Municipal Systems Act, Act 2000 (Act 32 of 2000) are therefore not prescriptive, but provide a broad framework and guidelines to municipalities to follow when they develop their integrated development plans.

It has been established also that different definitions for the concepts development and sustainable development share the same element and aspects that can easily be fused to deliver the same meaning.

A challenge exists, therefore, to continuously conduct research and consolidate existing and new findings on development and elements, components and aspects of development, in order to create a complete and comprehensive approach to policies that influence development and in particular sustainable development.

5.7 BUILDING AN INTEGRATED AND VIABLE CITY: AN INTERVIEW WITH THE CHIEF TOWN PLANNER FOR THE CITY OF TSHWANE

The strategic starting point to develop an effective integrated development plan for the city is to understand the city's strategic leverage points, followed by the vision for repositioning the city or developing strategic spatial direction, and finally the strategic interventions that can kick-start the city's repositioning process.

Interviews with the Chief Town Planner for the city of Tshwane were held on 13 May 2002 and 16 May 2002 to explore the implications and relevance of these strategic issues to sustainable development and sustainable City. The contents of the interview were confirmed with him on 29 July 2003. The spatial principles that guided the interview emanated from the legislation, policies and programmes, that support, inform and guide urban development and integrated development planning processes as initiated by government.

Significant spatial principles covered by the interview included the following:

- (i) the efficiency of the city: this relates to functional, economic, financial as well as issues of accessibility, mobility and flexibility;
- (ii) the liveability of the city: this addresses issues such as convenience, aesthetical qualities, health and safety;
- (iii) the sustainability of the city: this deals with issues such as costs, use of renewable and non-renewable resources, urban conservation, and community satisfaction;

- (iv) the equitability of the city: this area deals with issues such as social justices; and
- (v) integration of the city: this deals with issues such as physical, functional, social economic visual mental and other facets of integration.

The interview identified the City of Tshwane's most important strategic leverage points as:

- (i) Capital City Status;
- (ii) Excellence through higher education and research institutions;
- (iii) The "Freedom Initiative";
- (iv) Blue IQ Projects;
- (v) Liveability; and
- (vi) Accessibility.

The strategic assets within the City of Tshwane area include:

- (i) Clusters of high tech industries;
- (ii) The natural environment;
- (iii) Good accessibility;
- (iv) Cultural heritage;
- (v) Tourism potential;
- (vi) Skilled labour;
- (vii) Proximity to an SA powerhouse;
- (viii) A sound economic base; and
- (ix) Clusters of Government departments.

Both strategic leverage points and the strategic assets within the City of Tshwane area will be discussed later under the proposed strategic interventions.

The interview further covered both spatial and comparative analysis and revealed the following:

(a) Spatial Analysis

Tshwane currently lacks a clear spatial vision. The existing structure is regarded as one of the most inefficient and distorted in the country. It is

characterised by low-density urban and rural sprawl, fragmentation, a lack of a sense of place, separation of land and income groups and structural imbalances.

The paradox of this settlement structure is that the poorest people are living furthest from the city centre in dormitory towns segregated from the rest of the city. This tends to aggravate issues of poverty, unemployment, social inequality and polarisation and fails to create the conditions for a viable, efficient and accessible public transport system.

Furthermore, the phenomena of sprawl and segregation generate enormous movement across vast areas, which is both time consuming and costly thereby entrenching a system of unequal access to economic activity and social resources.

(b) Comparative analysis

A comparative analysis between the City of Tshwane and major world cities, namely, London, Santiago, Sao Paulo, Buenos Aires, Singapore and Rotterdam revealed the following insights.

The City's current area with low densities lacks the conditions for sustainable urban development. This directly translates to a condition where the city is on average three times more expensive to sustain than the other international cities; further expansion of the City structure should therefore be avoided; the preferred development approach should rather focus on the intensification and densification of the existing urban fabric.

The city restructuring approaches in the world cities, therefore, are not entirely suitable for the restructuring of the City of Tshwane and therefore require adaptation to suit local circumstances. Eleven focus areas were presented and were summarized as follows:

Focus Area 1: Alternative restructuring options

After considering alternative restructuring options, it is suggested that appropriate structuring elements of a spatial development framework for the City of Tshwane should be:

- a regional open space system;
- an activity system coinciding with public transport systems and entailing densification along these;
- compaction of the city (establishing growth boundaries);
- public facilities;
- urban spaces reinforcing the above; and
- balanced processes of development to enable not only larger developer's opportunities but all development initiatives.

Focus Area 2: Alternative spatial structure models

This explored best practices to arrange transportation lines, land use zones, neighbourhoods, nodes, open spaces and infrastructure in such a way that a balanced, efficient and sustainable metropolitan area can be established. After an analysis and evaluation of various alternative spatial structure models, it was concluded that the appropriate spatial structure model for Tshwane is not to be found in one particular model alone but rather in a combination of certain elements of the different models.

A new model was therefore developed on this premise, labelled the Multi-Nodal-Network-City, which is primarily poli-centric (multi-nodal) in nature and responds more appropriately to the restructuring needs of the city.

Focus Area 3: Open space system

This exposed the unique open space resources of the metropolitan region and expressed the need to restructure the city around these significant and irreplaceable resources. These natural elements do not only serve as visible landmarks which aid orientation, naturally connect to the wilderness/rural realms that form an integral part of the City, but also its African essence and a basis for a unique identity, and also to enhance the environmental sustainability of the City.

Focus Area 4: Fixed rail system

The interview revealed the opportunity to restructure the City around a fixed rail system, i.e. the rapid rail and the ring rail. Through intensification and densification of the land uses especially around stations assisted by the integration of this system with supporting public transport systems, the foundation can be laid for a robust and sustainable City structure.

Focus Area 5: Provincial spatial development reality

This exposed the impact of globalisation on the cities in general and the drive towards competitiveness as a reaction to this post-modern manifestation. The proposed provincial economic core as defined in the Gauteng Spatial Development Framework, is regarded as the most viable area for economic development in the Gauteng Province primarily related to industries of the “new” economy. The interview found that the most appropriate way to optimise the development potential in this zone primarily along the N1 in the Tshwane area is through an integrated development lattice connected to the rapid rail system.

Focus Area 6: Implications of the capital city status

Through a scanned investigation on International Capital Cities the unique capital city language that developed over time was revealed. If Tshwane is to be a Capital city, the following elements are essential.

- (a) The City should have all capital city ingredients, namely, national legislature, state administration, judiciary headquarters, military headquarters, headquarters of religious institutions, foreign diplomatic, cultural and trade missions and headquarters of national and international semi-and non-governmental organizations.
- (b) The City should look and feel like a capital city that is, capital city precinct, high quality public urban environment, and public urban spaces as “power vistas”.

- (c) Complementary government buildings and locations for various symbols of national identity and pride.
- (d) The City should deserve recognition, so respect and affection of the nation, excelling in every regard, reflecting values, beliefs, personalities and cultural characteristics of all South Africans would make the capital city accessible to all and manages local affairs in close cooperation with provincial and national government.

Focus Area 7: International examples of city restructuring

It would appear that city restructuring in most cities is propelled by creative thinking. Curitiba is one such city where the Mayor of the City took the lead in the restructuring process and used transport and corridors as the core restructuring tools. This implies the ability to find new innovative solutions and a new set of tools to deal with city restructuring process. The interview concluded with the following findings listed below.

- (a) There must be ambition and innovation in the plans.
- (b) There must be agreement between political, cultural and economic forces for implementation to occur.
- (c) Any strategy must be based on a simple yet powerful physical vision.

Focus Area 8: Strategic development initiatives (Flagship projects)

This interview found flagship projects powerful catalysts that often unlock the real potential of a city. After considering the many strategic projects currently in progress in the City, the following was concluded.

- (a) Focus more energy on a limited number of projects that have the ability to kick-start the restructuring of the City as compared to the current process that have too many different projects.
- (b) Many projects are already closely linked to the fixed railway system, and could therefore create the necessary impact if the consolidated list of strategic development initiatives closely support the spatial planning directives.

Focus Area 9: Option for guidance of market forces

This part of the interview established the need for a more sophisticated mechanism to guide market forces towards a more sustainable long-term City structure. In view of the current limited knowledge on this topic, it was concluded that a project be initiated to develop the necessary knowledge on this mechanism.

Focus Area 10: City image and branding

Here the interview found that the branding of places as an urban restructuring device is still vastly underestimated. In view of globalisation, cities are compelled to look at alternative ways to reinvent themselves. Cities can no longer function on infrastructure and economy alone, the quality of the public realm and the projection of good images are becoming crucial for aspiring cities.

Focus Area 11: Communication and marketing

The interview found that the new form of urban intervention does not only require the restructuring of the urban landscape in physical terms, but also needs to take place in the minds of the people. A great need was therefore expressed for the communication of strategic spatial directives, which are not sufficiently covered by the general promotion of the city on the one hand, and the focussed marketing of development opportunities related to specific projects on the other.

The eight strategic areas discussed above and these eleven focus areas have the potential to provide an informed strategic spatial direction for the City of Tshwane. One of the major purposes of the strategic spatial direction for the city is to inform and guide the City of Tshwane's integrated development plan.

5.8 RESTRUCTURING RATIONALE

It was established that the Restructuring Rationale for the City of Tshwane pivots around four broad issues, namely, inefficiency, non-sustainability, inequity, and placelessness. An attempt is made to provide responses to each of them.

ISSUES	RESPONSES
1. Inefficiency <ul style="list-style-type: none"> i) Low density sprawl; ii) Fragmentation; iii) Separation of functions; iv) Absence of land use and public transport synergy; v) Sub-optimal economic growth. 	1. Efficiency functional and operational aspect including the issues of usability, accessibility, mobility, flexibility and productivity.
2. Non-sustainability	2. Sustainability use of renewable and non-renewable resources, environmental health, urban conservation, costs, economic sustainability and community satisfaction.
3. Inequity	3. Equity social justice, equal rights and access to opportunities
4. Placelessness; <ul style="list-style-type: none"> i) Lack of identity and sense of place; ii) Poor (capital) city Image; and iii) Ugly and unresponsive public environment 	4. Liveability and image <ul style="list-style-type: none"> i) Convenience; ii) Aesthetically qualities; and iii) Safety, security and other aspects of experienced in the city.

These issues and responses are summary of broad developmental issues, strategic urban restructuring and planning. The issues include all components of sustainable development including elements and aspects.

5.9 RESTRUCTURING AIM

The restructuring aim is to radically change the structure and form of the municipal area as well as the lives of those dwelling in it, in order to ensure more efficient, sustainable, equitable and liveable settlements.

5.10 RESTRUCTURING PRINCIPLE

The spatial restructuring principles include: functionality and efficiency; environmental sustainability (which includes wise use of resources and environmental health); social equity; responsiveness to community needs; values and aspirations; and economic viability. All of these call for sustainable economic growth, increased employment opportunities and competitiveness.

5.11 SPATIAL RESTRUCTURING DIRECTION

The spatial restructuring direction is presented in the form of maps with explanatory notes per map (See Annexure B). A linkage between the maps is contained in the Annexures.

5.12 RESTRUCTURING ELEMENTS OF THE SPATIAL PLANNING CONCEPT

The restructuring element of the spatial planning concept is: an open space system; urban edge, public transport; urban cores; connectivity; economic nodes and a capital precinct.

- (a) Open space systems address liveability and sustainability;
- (b) Urban edge promotes sustainability and efficiency;
- (c) Public transport ensures liveability and image, sustainability; efficiency and equity;
- (d) Urban cores promote liveability and image, sustainability, efficiency and equity;
- (e) Connectivity promotes sustainability and efficiency;
- (f) Economic nodes ensure sustainability, efficiency and equity; and
- (g) A Capital precinct promotes liveability and image that can be realised if the listed restructuring elements are mutually related and that they address developmental and spatial planning issues.

5.13 STRATEGIC INTERVENTIONS

The proposed strategic interventions for the City of Tshwane that appear to have the ability to activate the City towards a viable and sustainable City in the short or medium and long-term, are grouped into five restructuring programmes below.

PROGRAM 1: MAKE CITY OF TSHWANE UNIQUE

- Enhance the Capital City status and image.
- Brand the new city identity.

PROGRAMME 2: MAKE THE TSHWANE CITY ECONOMICALLY and GLOBALLY COMPETITIVE

- Initiate the Tshwane Global digital hub program.
- Initiate a rural economic empowerment program.
- Optimise the urban port and automotive cluster Strategic Development Initiative.
- Support the innovation hub Strategic Development Initiative.

PROGRAMME 3: MAKE TSHWANE A FACINATING AFRICAN CITY

- Enable the Freedom Park/Salvokop initiative.
- Support the Dinokeng Strategic Development Initiative.
- Develop Tshwane's African identity.

PROGRAM 4: MAKE TSHWANE AN EFFICIENT CITY

- Support the rapid Rail Strategic Development Initiative.
- Enhance the use, function and viability of the local rail system.
- Integrate the local rail system with road base public transport.

PROGRAM 5: MAKE TSHWANE AN EXCELLENT CITY TO LIVE

- Enable the development of Eerste Fabrieke Urban Node and Kruisfontein node around the stations.
- Address service backlogs as contained in the Tshwane IDP document.
- Initiate a local Aids/HIV program.

5.14 ASSESSMENT OF THE CITY OF TSHWANE INTEGRATED DEVELOPMENT PLANNING PROCESS

The assessment of integrated planning process in South Africa is informed largely by the Local Government: Municipal Systems Act, 2000 {Act 32 of 2000}, which suggests that the municipality must:

- (a) set appropriate key performance indicators as yardstick for measuring performance with regard to the municipality's development objectives as set out in its integrated development plan;
- (b) set performance targets with regards to each of its development objectives;
- (c) monitor and measure at least once per year as part of the internal auditing processes, of its development objectives against the key performance indicators and targets;
- (d) take steps to improve performance indicators and targets; and take steps to improve performance with regard to development objectives where performance targets were not met, and establish internal and external reporting processes to the public, provincial, national structures and all other relevant organs of state.

The suggested and appropriate approach to assess the integrated development planning process would be to develop applicable indicators for each of the issues contained in the inputs, outputs and processes of each of the phases of the integrated development plan, the Focus Areas and strategies formulated in respect of each of the Focus Areas, including the vision.

It is important for municipalities to understand and design indicators in terms of the components of sustainable development as well.

5.15 CONCLUSION

The City of Tshwane's integrated development planning framework is a well structured plan for directing the municipality to render quality services so as to improve the quality of life of all communities in its area of jurisdiction, including the general state of the human well-being. The strategic map contains strategic elements which can be developed into a plan for the City through a comprehensive spatial development framework which must have a policy for land use and development; a capital expenditure framework

showing where the City intends to spend its capital budgeted; and a strategic environmental plan; and further direct growth in the area; indicates major movement routes; provide strategies to restructure spatially inefficient settlements; to promote the sustainable use of the land resources in the area; and stimulate economic development opportunities in the area.

It is important to note further that the Integrated Development Plan for the City of Tshwane Metropolitan Municipality is largely informed and guided by legislation, in particular the Local Government: Municipal Systems Act 2000 (Act 32 of 2000).

The Local Government: Municipal Systems Act 2000 (Act 32 of 2000) is a National Legislation, and its provisions, therefore, apply to all municipalities in all nine provinces in South Africa. It can therefore be concluded that development as a function entrusted to local government by Section 152 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) is an obligation that municipalities must implement and realise, and that non-compliance with the provisions of legislation and policies and lack of appropriate sustainable development indicators are major statutory omissions and constitute handicaps to development initiatives by Government.

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CHAPTER 6

DEVELOPING A SUSTAINABLE CITY

Chapter Six seeks to establish four crucial issues in this research, namely: “What is a sustainable city? “How is a sustainable city managed?” “What indicators are generally employed to measure and assess a city’s level of sustainability?”; and “What urban form best promotes a sustainable city?”

According to Lynch (1990:35) the world’s first cities arose between 4500 and 3500 B.C. in the valleys of the Tigris, the Euphrates, the Nile, and the Indus rivers. The important finding by Lynch at that time is that the coming of a city marked a sudden alteration in the character of human existence; that with a city came the invention of writing, the specialization of labour, the acceleration of technology, and the beginning of science. Also that today in every developed country the city is man’s principal way of organizing his living space. This implies that the challenge to develop, manage and sustain the cities started as early as between 4500 and 3500 B.C. Added to the challenges of city development is how should sustainable development in cities be measured and what indicators should be employed.

Paragraph 5 of the HABITAT Agenda (HABITAT II): 1996, adds that cities and towns have been engines and incubators of civilization and have facilitated the evolution of knowledge, culture and tradition as well as industries and commerce; that urban settlements, properly planned and managed, hold the promise for human development and the protection of the world’s natural resources through their ability to support large numbers of people while limiting their impact on the natural environment.

UN-HABITAT (2003:1) claims that cities make an important contribution to social and economic development at the national and local levels. It states that cities are important engines of economic growth, that they absorb two-third of the

population growth in developing countries, offer significant economies of scale in the provision of jobs, housing and services and are important centers of productivity and social advancement.

Cities are defined above as centers of development. According to the definition of sustainable development by the World Commission on Sustainable Development (1987) and the National Environmental Management Act, 198 [Act 107 of 1989], if development of such cities does not have the capacity to meet the needs of the present without compromising the ability of the future generations to meet their own needs, and fail to comply with the principles of sustainable development, such cities will not be sustainable. What then constitutes a sustainable city?

6.1 BACKGROUND

The International Centre for Sustainable Cities (2000:3) defines a sustainable city as a city that enhances and integrates the economic, social, and ecological well-being of current and future generations. This definition is built on the three key elements of sustainable development, namely, economic, environmental and social elements. It needs to be established whether the sustainability of a city can be measured in terms of these three elements, and if so, which indicators are relevant and applicable in order to measure the performance and sustainability of such a city.

The UN-HABITAT (2003:1) refers to a sustainable city as a city where achievements in social, economic, and physical development are made to last, that it is a city that has a lasting supply of natural resources on which its development depends and one that maintains a lasting security from environmental hazards which may threaten development achievements. The similarities between the views of the UN-HABITAT and the International Centre for Sustainable Cities draw attention to development that integrates the social, economic and the environmental elements. The challenge, however, is not so much on identifying the elements that need to be integrated, but how to integrate them.

Each of these elements has what the UN-Division for Sustainable development (2003:1-3) refers to as themes and sub-themes. The Social element has themes such as equity, health, education, housing, security, and population. The sub-themes include poverty, gender equality, nutritional status, mortality, sanitation, drinking water, healthcare delivery, education level, literacy level, living conditions, crime, and population change. These themes and sub-themes need to be integrated with the themes and sub-themes of environmental and economic elements.

Economic element: themes: these include an economic structure, and consumption and production patterns; sub-themes include economic performance, trade, financial status, material consumption, energy use, waste generation and management, and transportation.

Environmental element: these themes include, atmosphere, land, fresh water and bio-diversity; sub-themes are climate change, ozone layer depletion, air quality, agriculture, forestry, desertification, urbanization, water quality, ecosystems, and species.

Each of the themes and sub-themes of the elements need to be further unpacked and clarified, for example, what the theme equity means for a particular city, and what does the sub-theme poverty mean. The integration of these elements is, therefore, quite a complex process that demands a thorough understanding of the meanings and respective implications.

The South African Government's Urban Vision: 2020 (Living cities:8) envisages a sustainable city/urban settlement as a city/settlement that displays the characteristics listed below, namely:

- (a) "spatially and socio-economically integrated, free of racial and gender discrimination and segregation, enabling people to make residential and economic choices to pursue their ideals;

- (b) a centre of economic, environmental and social opportunity where people can live and work in safety and peace;
- (c) environmentally sustainable, marked by a balance between quality-built environment and open space; as well as a balance between consumption needs and renewable and non-renewable resources. Sustainable development in a city is seen also as development that meets the needs of the present while not compromising the needs of the future generations;
- (d) a centre of vibrant urban governance, managed by democratic, efficient, sustainable and accountable metropolitan and local governments in close co-operation with civil society and geared towards innovative community-led development;
- (e) planned for in a highly participative fashion that promotes the integration and sustainability of urban environment;
- (f) marked by housing, infrastructure and effective services for households and business as the basis for an equitable standard of living; and
- (g) an integrated industrial, commercial, residential, information and educational center which provide easy access to a range of urban resources.”

Although the challenge facing the city management has also to do with the definition of a sustainable city, developing and employing relevant and applicable indicators is another complex process that demands adequate know-how for effective application.

The other issue that is crucial for sustainable development is a city's form. Lynch (1990:34-95) links a city form to development and examines the city in terms of various attributes of urban form such as size, density, grain, and pattern. He also points out that size, density, grain outline, and pattern are basic aspects of the city's physical form. Based on Lynch's view, it is reasonable to infer that these attributes have a direct impact on the sustainability of the city. Other views on city form are also referred to briefly below.

6.2 Sustainable urban form

Lynch (1990:46-95) examines and discusses the different forms of a city, namely, the dispersed sheet; the galaxy of settlements; the core city; the urban star; and the ring. A compact city as a form of a city is examined by Jenks et al., (1996:9-45).

Each of these types of urban forms has its own characteristics or features that make one different from another although similarities may occur. For purposes of comparison, features or characteristics of the dispersed sheet, the galaxy of settlements, and a compact city are presented below as examples. This will be followed by the urban form for the City of Tshwane and a summary that examines such forms in terms of what consulted literature defines as a sustainable city.

The dispersed sheet

What is a dispersed sheet as an urban form, how is it identified and what value does it add to sustainable development and a sustainable city?

Lynch (1990:49-51) defines dispersed sheet as an urban form that allows growth at the periphery to proceed to its logical conclusion: that with a dispersed sheet new growth occurs at the lowest densities practicable with substantial interstices of open land kept in reserve.

Furthermore, older sections are rebuilt at much lower densities so that the city spread rapidly over a vast continuous track, perhaps coexisting with adjacent cities, and old centers and sub-centers could be dissolved to allow city-wide activities to disperse throughout the city, with a fine grain.

Factories, offices, museums, universities, hospitals in this type of urban form, are built everywhere in the suburban landscape. Lynch further points out that in this type of urban form there are no outstanding nodal points, no major terminals, that physical pattern encourages a balanced cross-section of the population at any given point. Other features are that workplace and residence might be adjacent

or some kilometers apart; automatically factory-based and intensive food production might be dispersed throughout the region. Lynch indicates that cities such as Los Angeles appear to be developing this pattern.

The galaxy of settlements

Development in the galaxy of settlements approach is bunched into relatively small units, each with an internal peak of density and separate from the next by a zone of low or zero structural density (Lynch, 1990:51-53) and depending on the transport system such separation might be as great as several kilometers. Other attributes of the galaxy of settlements pointed out by Lynch are that city-wide activities could be concentrated at the density peak within each urban cluster, thereby forming an overall system of centers. Each of these would be relatively equal in importance to any of the other. The system of flow would also be dispersed, but would converge locally at the center of each.

Compact city

According to Jenks et al., (1996:5-6) a compact city consists of high density, mixed land-use development where growth is encouraged within the boundaries of existing urban areas, but with no development beyond its periphery. Other features of a compact city listed by Jenks et al (1996: 5-6) are that the settlement would be packed into one continuous body with a very intensive peak of density and activity at its centre; that activities would be evenly distributed, all at high intensity; that it could depend almost entirely on public transport, cycling, walking, rather than individual vehicles; and that accessibility would be high both to special activities and to the open country. It is also pointed out that a compact city does not have to be a high-rise city Jenks, et al (1996:5-6).

Jenks et al (1996:5-6) further discuss the advantages and disadvantages of a compact city. These will probably not be the only advantages and disadvantages of a compact city. Cities will have to establish what they view as advantages and disadvantages in terms of their needs. The listed advantages are:

“Less car dependency, which implies low emissions and reduced energy consumption, better public transportation services and shorter traveling distances to increased overall accessibility, the re-use of infrastructure and previously developed land;

The rejuvenation of existing urban vitality, the preservation of green space;
A milieu for enhanced business and trading activities; and
Easy access to the countryside” Jenks et al (1996:9-45)

Jenks et al (1996:39-45) also list the following disadvantages of a compact city, namely, that:

- (i) “The high density might increase discomfort because of noise or poor climate, although these problems could perhaps be met by the invention of new technical devices;
- (ii) Little choice of residential area although choice of facilities should be great;
- (iii) Channels might be crowded; and that
- (iv) In practice it has been very difficult to implement because of the difficulty in controlling sprawl.”

Core City

According to Jenks et al (1996:39-45) the major features of a core city include the following: greater interior floor space in buildings as there is total ground area in the city; construction of elevators for apartments instead of one family house; one continuous body, with a very intensive peak of density and activity at its center; a fine grain of specialized activities all at high intensity, where

apartments would be built over factories, and stores on upper levels; the city would depend on public transport, rather than individual vehicles, or revelators that would facilitate pedestrian movement.

Jenks et al (1996:39) state further that great European cities such as Paris and Moscow appear to be following this pattern. They admit, however, that not all features will be found in these cities. Each city would promote only those features that are of importance to the development, characteristics and needs for the city.

A core city as an urban form does not, therefore, provide answers to city development. Feasibility studies and analyses of each of the features to establish their implications and relevance to the vision of the city are but one of the recommended first steps to be taken by the city.

The urban star

According to Jenks et al (1996:39-40) the urban star retains some features of a compact city. Jenks et al (1996:40) also point out that in cases where the urban star is applied in an existing city, existing densities are kept or only revised upward a little, while the low density developments at the outer fringe would no longer be allowed. Open land, according to Jenks et al., (1996:40) would be incorporated into the city area to produce a density pattern that is star-shaped.

Jenks et al (1996:41) point out too that the City of Copenhagen has adopted the urban star form as its pattern for future growth. Although Jenks et al (1996:40-41) do not refer to the failures and successes of the urban star form of the City of Copenhagen, it is logical that critique does exist and it will be an interesting experience for cities that wish or intend to employ the urban-star form in their cities to learn from cities such as that of Copenhagen.

Jenks et al (1996:42) note that key problems with the urban-star form are those of circumferential movement, of potential congestion at the core and along the main radials, and of wide dispersion of the pattern as it recedes from the original

center. It appears that solutions need to be established to address these problems before the form is employed elsewhere.

The ring

Jenks et al (1996:42-43) point out that in the case of the ring the center is kept open, or at very low density, while high densities and special activities surround it, like the rim of a wheel. They explain that the ring is actually a linear system that circles back on itself and bypassed by the spokes crossing the hub. The system is said to be well-adapted to public transportation, both on the ring roads and the crossing radials, while individual vehicles may be used for circulation outside the rim Jenks et al (1996:44).

Other features of the ring described by Jenks et al., (1996) are that densities within the ring are high, while those beyond the rim are low.

Jenks et al (1996:44-45) point out that Dutch cities such as Haarlem, Amsterdam, Utrecht, Rottendam, The Hague and Leiden have adopted this pattern. The San Francisco Bay region is also said to be developing in the direction of a ring form. Such city development makes it easier for others who intend to adopt this form to learn from their experiences before adoption.

For the purpose of this research it is relevant to establish how the forms discussed above - including their influences on city development - compare with that of the City of Tshwane. The City of Tshwane IDP:2003) provides valuable information that is critical for city development strategy and sustainable development. The information is presented and discussed below for comparison purposes.

6.3 The City of Tshwane urban form

The City of Tshwane's urban form seems not to have been informed, influenced, shaped or guided by any of the specific urban form discussed above but displays elements of all. Its urban form is discussed here in terms of the Gauteng

Province's economic core, the Transport link between the City of Tshwane and the City of Jo'burg, the Mabopane- Centurion Development Corridor, and the Tshwane urban structure (City of Tshwane IDP:2003).

6.3.1 Spatial patterns

The City of Tshwane Metropolitan Municipality is a multi-centred Municipality characterised by a complex web of economic, social infrastructural and environmental linkages (City of Tshwane IDP: 2003).

This complexity requires a holistic understanding of the City and any inter-relationships between all the urban systems, namely, city-centers, suburbs and townships. This further demands the co-ordination of planning initiatives and strategies at all spheres of government, namely, National, Provincial departments and municipalities (City of Tshwane IDP:2003).

Spatial development: key issues and trends

This section provides a summary of the multiple complexities, which have and still are informing the growth of Tshwane. These include marginalized communities and the legacy of apartheid leading to edge cities; alack of city form and identity; inner city, transport, and regional spatial development patterns; the Maputo-Platinum corridor; globalisation; and the Mabopane-Centurion development corridor. Added to this are spatial concepts and strategic guidelines; core values for appropriate patterns of activity; settlement form; areas of consolidation; movement systems; activity systems; settlement growth; natural urban edge; and core capital (City of Tshwane idp:2003). For the purpose of this research the key issues and trends referred to below should be viewed in relation to the hypothesis of the research.

(i) Marginalised communities

The whole of Gauteng is affected by the spatial legacy of apartheid. Disadvantaged communities were marginalized, that is, located on the edges of the city where land was cheapest at the time. These areas were removed from any meaningful economic opportunities and are below the minimum thresholds for any market driven development (City of Tshwane IDP:2003).

Due to Tshwane's proximity to grand apartheid's system of homeland development there is a huge rural reservoir of impoverished people probably seeking to be urbanised. This problem must be seen in conjunction with the displaced urban settlements of the North-West Province (City of Tshwane IDP:2003).

(ii) Legacy of apartheid

From the beginning of colonial settlement in South Africa there has been a clear distinction between class and racial patterns, which was spatially embedded in South African urban settlements (City of Tshwane IDP:2003). As urbanisation continued, controls to exclude the indigenous population from the urban areas became more comprehensive. This led to the Urban Acts of 1923 and 1945 that allowed forced removals and led eventually to apartheid policies that consolidated displacement on a massive scale. (City of Tshwane IDP:2003). The legacy of apartheid left Tshwane with:

an urban core (inner city) surrounded by an "inner periphery", where 40 % of the population live and which contributes to 91% of the economic output;

an "outer periphery" to the north-west and north-east, home to 60 % of the population and which only contributes to 9% of the economic output; and

high volumes of long-distance commuting which require huge transport subsidies.

(iii) Edge cities

Over time the Tshwane area grew from a strong central core as a mono-centred city (City of Tshwane IDP:2003) As the market and apartheid policies drove development from the core outwards, a ring of satellite nodes developed. These nodes grew in such a way that Tshwane can now be regarded as a multi-centred urban region. Presently, the metropolitan area can best be described as a series of settlements (affluent edge cities and impoverished townships) surrounding the core (inner city).

The areas outside the central core can be divided into two categories as follows (CITY OF Tshwane IDP:2003):

- areas to the east and west of the central core, that were planned and designed around public transport (railways, trams and buses) prior to the 1950's; and
- large suburban areas developed after the 1950s, the location and layout of which were determined predominantly by private car ownership.

Each edge city is large enough to support a mix of land uses, such as residential uses, social and economic services, as well as employment opportunities. This, in turn, allows their populations to function on a daily basis without necessarily having to visit the central core or other edge cities.(City of Tshwane IDP:2003).

The edge cities, due to their predominantly suburban character (private car dependency, low density sprawl, fragmentation and separation of functions), are however inefficient and need to be restructured in order to support the notion of a compact and sustainable city(City of Tshwane IDP:2003).

The demographic composition of the most affluent edge cities, that is their high education, skill and income levels, makes them attractive for development related to so-called new economies and, as a result, they are becoming increasingly economically self-sufficient. Consequently, the last two decades have seen the eastern and southern suburban realms emerge as the focus of the vast majority of employment growth in Tshwane. These areas, therefore, should be regarded as an asset for Tshwane as they represent a strong income base and as the link with a wider geographical space created by globalization (City of Tshwane IDP:2003).

(iv) City form and identity

Tshwane's settlement form is spatially characterised by the following (City of Tshwane IDP:2003):

Low density sprawl, which is based on an anti-urban ethic of the free-standing house on an erf. In the case of lower income housing, this means housing estates generally located on the periphery.

Fragmentation, which means that the grain of development is coarse with isolated - or introverted - pockets of development connected by roads frequently separated by buffers of under-utilised open space.

Separation of functions, which means that land uses, various urban functions and facilities are all separated by great distances.

The combined implications of the above are disastrous and include dysfunctions (City of Tshwane IDP: 2003) such as:

- much time-consuming and expensive commuting is necessitated, which aggravates poverty and inequity;
- city living has become over-dependant on the private car, which the vast majority cannot afford;
- the fact that city streets are predominantly designed for vehicular movement and do not allow for other activities such as strolling, trading, shopping, refreshment and entertainment and results in public environments which generate few opportunities for small-scale economic operators;
- the total settlement form is inefficient and wastes scarce resources, such as land, energy and finance;
- the present patterns of development result in extensive environmental destruction;
- large numbers of people who live in under-developed areas are forced to commute on a daily basis to access social and economic opportunities;
- the uniqueness of place, including natural assets and amenities, as well as irreplaceable cultural assets, is being destroyed and has resulted in the city becoming increasingly ugly and placeless.

(v) Inner city

The central business district (CBD) and the rest of the inner city were shaped during the time when public transportation was still dominant. The street layout and the land use pattern still reveals the former public transport dependency. Furthermore, a circular

commuter rail line evolved around the inner city area, currently referred to as the 'ring rail' (City of Tshwane, IDP:2003).

Due to a number of processes and developments that occurred during the last 10-15 years the role of the Central Business District has changed dramatically. Whilst an area like Hatfield is developing at a rapid rate, the character and function of the Central Business District are declining. For quite some time now, the Central Business District functions have been relocating from the Central Business District eastwards. This has extended the boundaries of the inner city far beyond the original ones. Parts of the functional inner city are now lying inside the private vehicle dominated areas. As a result of this process, up-market low-density residential areas closer to the Central Business District currently experience the development pressure of non-residential land uses. There is a general lack of development interest on the western and northern sides of the Central Business District (City of Tshwane IDP:2003).

It is unlikely that former Central Business District shoppers will ever return to the Central Business District. The Central Business District will however remain the most popular shopping destination generally for the following groups:

residents from the townships where there are no retail facilities;
residents of the Central Business District area;
people who work in the Central Business District; and
visitors and tourists.

The inner city still provides 54% of the job opportunities in Tshwane. This capacity needs to be sustained and expanded, while city restructuring may be one of the mechanisms to attract investments (City of Tshwane IDP:2003).

(vi) Transport

It has become evident that commuting from the suburbs to the inner city is no longer the predominant commuting pattern. Increasingly, people are commuting between the suburbs and their economic nodes (City of Tshwane IDP:2003).

The phenomena of sprawl and segregation generate a tremendous amount of movement, as there is generally a weak relationship between land use and transportation. The dependence on commuting is a consequence of Tshwane's settlement form. Tshwane developed in such a spatially distorted way so that the demand for and the cost of providing public transport is very high.

It is evident that Tshwane has a strong radial transportation network (comprising various arterial roads and commuter rail lines), but weaker concentric transportation network. This weaker concentric network limits movement between the various activity areas located in the outlying suburbs of Tshwane. The dual transportation patterns that are characteristic of multi-nodal cities are in other words restricted by the incomplete concentric road network. This is in contrast to the multi-nodal structure of Tshwane, which is clearly defined.

In general, with the exclusion of a few areas, the planned and existing rail network is extensive and greater emphasis should be placed on it as a means of mass transport.

(vii) Regional spatial development pattern

The regional spatial development patterns are influenced by the need for economic growth, emerging property markets as well as by global economic trends (City of Tshwane IDP:2003). Their most important manifestations affecting Tshwane are:

- the industrial link along the railway line between Tshwane and Germiston;
- direct road link between Tshwane and Johannesburg's Central Business District;
- high-tech and information technology related development along the N1 highway from Tshwane's eastern suburbs to northern Johannesburg; and
- the provincial economic core which encompasses large parts of southern, south-eastern and central Tshwane.
- The new, emerging economic sectors have different spatial requirements to those that used to lead the economy. These spatial requirements include the following:
 - good accessibility and in particular proximity to airports and land transportation routes;
 - high visibility;
 - controlled and managed environments, that are safe, secure, attractive and clean, preferably with park-like or natural settings; and
 - proximity to a highly skilled population.

The requirements and concerns of these new sectors need to be addressed if Gauteng and Tshwane are to benefit from the resultant growth in employment provision. These spatial requirements, however, if not addressed properly, could increase the process of urban decentralisation, segregation, fragmentation,

separation of functions, urban sprawl and further marginalisation of certain communities. (City of Tshwane IDP:2003)

(viii) Globalisation

With the rise of the phenomenon of globalisation in recent decades, cities are increasingly the focal points of international finance and labour markets. Capital and labour are attracted to cities that are well managed, perform well and have a sound skill base. The economic viability of cities is critical for national economic performance and for the ability of a country to compete globally (City of Tshwane IDP:2003).

(ix) Maputo - Platinum Corridor

Tshwane is located on the Maputo Platinum corridor that stretches along the N4 highway. This corridor is being extended westwards to Rustenburg and beyond to Gaborone and Walvisbaai. This provides the Tshwane area with a long-term development impetus, especially for export related activities (City of Tshwane IDP:2003)

(x) Mabopane - Centurion Development Corridor

During the past few years much attention has been given and resources committed to mobilising the development of the western areas of Tshwane in the form of the Mabopane-Centurion Development Corridor. This corridor will be heavily dependant on the southern extension of the PWV 9 and the connection to the conurbation in the south (City of TSHWANE IDP:2003)

The current spatial development trends are compounding problems identified in the spatial analysis and are resulting in the perpetuation of past wrongs. It is clear that they do not contribute to a more livable environment for the majority of the city's

residents, with the result that the gap between rich and poor is increasing. Tshwane is becoming increasingly inefficient and hence unsustainable spatially. More residents are becoming dependent on private transport, which is also becoming increasingly expensive. The majority of the city's residents have no option other than to rely on inadequate public transport and many opportunities and facilities are therefore inaccessible to them. Servicing costs are increasing drastically as distances increase and the city has difficulty even maintaining existing infrastructure.

Although it will be difficult to relieve the chaos and marginalisation brought about by the past against the affluence resulting from the new markets and economic trends, it is believed that the spatial dynamics of the Tshwane area contain enough potential to build a prosperous future for all (City of Tshwane IDP:2003).

(xi) Spatial concept and strategic guidelines

Spatial restructuring of the Tshwane metropolitan area is the most important aspect of the total restructuring of the City of Tshwane Metropolitan Municipality (City of Tshwane IDP:2003).

The spatial structure is made up of movement systems, land use patterns, physical structures and networks of public spaces, facilities, utilities and infrastructure. It creates the spatial logic that elicits predictable responses from many role players who make decisions about location of urban activities from both public and private sectors.

(xii) Core Values for appropriate patterns of activity

The new urban logic, as derived from the Development Facilitation Act, Act 67 of 1995 (DFA) and advocated by this Framework, is

based on the following two core values listed below (City of Tshwane IDP:2003):

Movement systems should be used to create access and structure activities (the principle of linearity). They should therefore become the most desirable channels of connection for intensive uses. As a general rule, the more continuous the route, the more local communities it integrates, the greater the structural power and ability to attract intensive and complex patterns of activities. The energy potential contained in lines is only released through stopping. Routes, which do allow for stopping (high accessibility), will tend to attract and concentrate more activities (City of Tshwane IDP:2003). By co-ordinating plans of stopping and crossing, a strong hierarchical pattern of accessibility will be established. In this way an accessibility surface is created that underpins the land market, with land prices being the highest at places of greatest accessibility, and in this way informs the appropriate placement of all potential activities and land uses.

Those facilities and activities requiring public exposure and support should be located along prominent movement channels, namely, the principle of externalisation. Externalisation means making facilities as accessible as possible by associating them with important movement channels, as opposed to embedding them within local communities (City of Tshwane IDP:2003)

(xiii) Settlement form

Tshwane does not function as a single city due to the mere size of the area, the existing settlement pattern and the dispersed economic activities. Tshwane should rather function as a metropolitan region comprising a number of settlements, namely, cities, towns and villages. All individual settlements have to achieve a certain level of self-sufficiency, but at the same time

they have to be inter-related and inter-dependent (City of Tshwane IDP:2003)

(xiv) Areas of consolidation

Some settlements on the northern periphery of Tshwane, or parts thereof, are not likely to become viable settlements without serious interventions. They are not likely to attract any sustainable investment and are too remote and functionally separated from the main urban fabric (City of Tshwane IDP:2003) In essence, they exist only as a result of past policies and politically influenced planning practices.

Furthermore, most of these settlements are located in the areas that, due to geological conditions, are not suitable for low-income housing.

A desired outcome of the metropolitan restructuring is to negate apartheid induced segregation, fragmentation and inequality. One of the means of integration is to link the outlying parts of the municipal area with the central urban areas through mass transportation corridors. Some of these settlements are, however, so remote that even measures such as corridors cannot be employed to integrate them with the rest of the city.

In terms of the National Government's Urban Development Framework (1997), the government and the private sector, when supplying infrastructure, should seek to integrate cities and towns by focussing infrastructure on centrally, well-located land to ensure that apartheid patterns are not reinforced.

However, this does not imply that these outlying areas (so-called "areas of consolidation") should be abandoned and neglected or that the people should be relocated. They should still be provided with basic public facilities, amenities and services to ensure a

minimum level of livability. Furthermore, investment in these areas should rather be made in people than in places (that is skill development, social development, health care, etc.) Commercial and subsistence farming that is labour intensive must be actively encouraged in these areas to empower the people and to encourage further sustainable settlement development. New development and investment should rather be directed to areas where people stand a better chance for quality living (City of Tshwane IDP:2003)

(xv) Movement system

All settlements in Tshwane must be well inter-connected by means of a good and an efficient public transport system. The rail system has the greatest potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system. Commuting should be focussed on rail, with a supporting vehicular feeder and distribution system for effective diverse cross-city movement. The incomplete concentric road network also needs to be developed further to efficiently serve the multi-nodal structure of Tshwane (City of Tshwane IDP:2003)

(xvi) Activity system

Each settlement or group of settlements should have one or more urban cores that should be physically and functionally integrated with and around major railway stations. They should be the foci of civic identity of the broader area. Urban cores should be the highest order activity nodes of the local urban realms and should be developed as the urban places of highest concentration of residential, commercial, social, cultural and other general urban activities. (City of Tshwane IDP:2003) They should be characterised by:

- high intensity and high density mixed land use;
- highest level of accessibility;
- 24 hour activity;
- well defined communal spaces (for example, streets malls, squares and parks);
- pedestrian friendly environments; and
- public transport facilities and activities.

Local level urban cores should be extended into high density, mixed-use activity spines along certain vehicular public transport routes to allow for the linearity and externalisation as mentioned above.(City of Tshwane IDP:2003).

On a metropolitan scale the continuity of movement (linearity) should also inform the development of specialised activity zones. These zones should accommodate a variety of activities such as economic, social, cultural, institutional, educational, medical, recreational, research, etc., both large and small as well as formal and informal. These zones, therefore, could facilitate the specialisation, homogenisation and agglomeration of larger forms of industry or other specialised functions(City of Tshwane IDP:2003)

They house the primary economic base of the municipal area and primarily provide employment to the residents of the larger metropolitan conurbation of which they form part. These zones need good accessibility and, sometimes, visibility from major mobility routes.

The following principles are important for the development of these zones:

- exploit comparative advantages;
- allow for specialisation at certain locations;
- optimise linkages, and

- clustering of related activities (City of Tshwane IDP:2003)

(xvii) Settlement growth

The growth of Tshwane should be directed inwards, towards the urban cores, mixed-use activity spines and specialised activity zones. Built-up areas should not be allowed to extend further outwards beyond the urban edge.

The urban edge can be identified as an institutional boundary within the metropolitan area with the sole purpose of containing physical development and sprawl and re-directing growth towards a more integrated, compact and efficient urban form. Integration and compaction of the city are advocated as segmentation and urban sprawl have definite negative socio-economic consequences in terms of increased expenses and reduced opportunities. In compact cities people live close to employment and social opportunities, fewer trips are generated, the cities are more pedestrian orientated and fewer roads and other costly infrastructure are required. At the same time more land is preserved for agriculture, conservation and recreation purposes (City of Tshwane IDP:2003)

(xviii) Natural urban edge

Existing natural features (for example, ridges, rivers, dams and nature reserves) and valuable agricultural land naturally define the urban edge. The bushveld features that already penetrate the urban areas, contribute to Tshwane's identity, African character, uniqueness and attractiveness and should be protected and enhanced (City of Tshwane IDP:2003)

(xix) Capital core

Due to the City of Tshwane's capital status, the inner city has to accommodate the capital city functions and belongs, therefore, to the entire nation. A capital core should be identified and its image should be enhanced in terms of:

- achieving exceptional environmental quality;
- ensuring monumentality and symbolism; and
- reflecting the entire nation's values and aspirations.

The proposed guidelines presented above and referred to in sections below are to consider the socio-economic legacy; restructuring the city; the spatial, social and economic limitations; and the vision for the City of Tshwane, largely with a view to synergize the analysis.

Sustainable urban form cannot be divorced from sustainable settlement planning and design. The starting point will be to examine the principles that guide sustainable settlement planning and design and weld them to sustainable urban form.

The principles that guide sustainable settlement design actually emanate from the normative concerns, which include, place making, scale, access, opportunity, efficiency, and choice. A brief explanation of these normative concerns is presented below (see Making urban places: 1996).

Place-making

Place-making refers to sense of place. It contains a number of dimensions which have direct implications for the development of an appropriate urban planning consciousness and for layout planning, namely, (i) a sense of uniqueness which embraces and consciously seeks to promote uniqueness as opposed to standardization, (ii) a

sense of balance that is a sustainable balance with natural systems and a responsive balance with human needs, and (iii) a sense of symbolism and legibility.

Human scale

Human scale refers to the design of the heights, weights, surfacing and operations of the various elements of a layout plan from the perspective of the person on foot. Human scale in layout planning should therefore be guided by issues such as the design of open space and needs.

Access

This refers to maximization of levels of access to commercial facilities and empowerment opportunities. This has implications for road network design, public transport operations and city-wide land use distribution patterns.

Opportunities

Opportunities refer to the maximization of economic opportunities inherent in large agglomerations of people through the arrangement of infrastructural investments in space.

Efficiency

Efficiency refers to cost effective utilization of land and financial resources. This has implications for land use policies, transport policies and capital investment programmes.

Choice

Choice is the maximization of the range of choices available to the end-user communities, for example, housing, services provision, urban surroundings and movement modes.

Lynch (1990:47-48) presents what he refers to as the three vital factors to be used to judge the adequacy of a sustainable urban form. The first he refers to as the magnitude and pattern of both the structural density (ratio of floor space in building to the area of the site) and the structural condition (the state of obsolescence or repair); a second factor is the capacity, type and pattern of the facilities for the circulation of persons, roads, railways, airlines, transit systems, and pathways of all sorts; the third factor is the location of fixed activities that draw on or serve large portions of the population, such as large department stores, factories, offices and government buildings, warehouses, colleges, hospitals, theaters, parks, and museums.

(b) Implications of the City of Tshwane's spatial development on sustainable development.

There are indications that the multi-complexities discussed above, indeed inform and shape the growth of the City of Tshwane. There is however no evidence that these multiple-complexities contribute to sustainable development. If however, these multiple-complexities are analyzed and approached from a normative point of view, that is, making proposals and suggestions as to what ought to be done to redirect and rechannel the effects of these multiple-complexities toward achieving sustainable development, indications do appear that these can contribute to sustainable development, that is they can be integrated into other components of sustainable development to improve human well-being.

(c) **Summary**

There appears to be no universally accepted and/or recommended urban form for purposes of attaining sustainable development. The types of urban form discussed by both Jenks et al., (1996) and Lynch (1990) provide general guidelines from which individual cities can design their own urban form.

6.4 International experience

There is no universally applicable best practice for attaining a sustainable city. Each city needs to recognize and to identify its own problems and opportunities, which may vary considerably according to its location, level of economic, social and institutional development and many other factors (Cities Alliance, 2003:1).

Cities Alliance (2003:1) employs a strategic plan called a City Development Strategy and what they call a City-wide and a Nation-wide slum upgrading programme to achieve and maintain a sustainable city. A City Development Strategy is defined by the Cities Alliance as an action plan for equitable growth in cities and their surrounding regions, developed and sustained through participation, to improve the quality of life for all citizens. The output of such an action plan includes a collective vision and a strategic action plan aimed at policy and institutional reforms, increased economic growth and employment, and implementation and accountability mechanisms to ensure systematic and sustained reduction in urban poverty.

Flint (2003:1) of the Five Es Limited refers to four issues that they maintain and should be considered in developing sustainable cities.

Sustainable guiding models

Some of the models suggested by Flint are new economic models, new transportation models and new environmental management model. These can be integrated as illustrated diagrammatically on page 15 above.

Sustainable urban design

Sustainable development is seen by Flint (2003:1) as a search for balance between modern society, economic and nature. The emphasis is on the integration of these three aspects through design, communication, and interdisciplinary teamwork, with design being the first and most important consideration of the future. Flint packaged what he refers to as the essential components of sustainable cities as follows.

(i) Environmental integrity

living within ecological limits.

protecting natural resources .

responsible consumption patterns - re-use and recycling.

- measurable carrying capacity indicators - water & air.
- quality, species diversity, etc.

(ii) Quality of life

connection to place.

diversity.

co-operation.

health.

education.

efficient, affordable, accessible mass transportation systems.

communication.

linking jobs to housing and communities.

intra-/inter-generational equity.

pluralism and tolerance.

honoring culture.

compassion.

(iii) Economic security

local, regional economic viability.
opportunities for employment .
economic justice/equity .
reduce the gap between rich and poor.
economic security.
appropriate technology and economics.
long-term view, not short-term gains - keeping several
generations in mind.

(iv) Democratic Participation

power from within the community.
belief in the possibility of change.
democracy.
accountability.
responsibility.
personal dignity.
communication, education, information, and collaboration.
training in skills of democracy.
all stakeholders represented and involved.
grassroots organizations.

(c) Urban self-sufficiency

Flint (2003:1) moves from the premise that urban neighborhoods have the potential to achieve both a degree of self-sufficiency, recognize and maintain ethnic and economic residential diversity; also to achieve integration and a movement of individual household toward sustainable lifestyles that will, through the development of a sense of community bring people together and unite them in a neighborhood setting. He calls this approach, an inward-looking strategy. He further points out that inward-looking strategy needs to be balanced by an outward-looking strategy, that is, a regional landscape strategy that guides, how and where future

growth/development can be placed to avoid the destruction of essential resources that would sustain life into the future. Core issues addressed by such an outward-looking strategy include, basic commercial/industrial/economic regional links; bio-regions; parks, coastal regions/forest ridges and valleys; watersheds; regional history and regional culture.

(d) Urban environmental design

Urban Environment Design is defined as an interdisciplinary domain that can involve the combined design of arts, architecture, planning, engineering, landscape architecture, landscape ecology, the natural and social science, law, community organization and more. It is said that it can provide a comprehensive approach to sustainable cities development, through linking inward-looking neighborhood improvements with the large-scale outward-looking urban-rural constellation decision-making. This integration function is normally facilitated by what they call a Sustainable City Action Matrix, which forces a multi-dimensional consideration of all actions considered important in urban revitalization, by evaluation of the following three components of the matrix and their underlying issues.

(i) The City's context of action

Community partnership – the social contexts;
Community enterprise – the economic contexts;
Community conservation – the human resources, built, and natural ecological contexts; and
Community design – the contexts of intent and integration.

(ii) The City's context of infrastructure

natural ecological systems (aquifers, forests, open space);
physical network systems (mobility, energy, water);
physical in-fill systems (homes, office, retail, industry, parks);

information/communications systems (tele-marketing, tele-medicine, tele-commuting, networks, internet);
regional resource systems (lakes, rivers, farms, forests)
social infrastructures (sects, groups, institutions);and
economic infrastructures (banking, commerce, barter, currencies).

(iii) The City's context of land

neighborhoods;
town centers/urban centers;
parks and open space;
suburbs;
rural land resources; and
regional land resources.

Portney (2003:38-59) discusses and defines sustainable development indicators for cities as indicators of the environment, ecological health, and as an ecological footprint; they are indicators of energy consumption, indicators of local economic performance, indicators of sustainable governance and indicators of equity and equality. The indicators are used by cities such as San Francisco and Seattle. Sustainable development components/ elements outlined in the development plans of both cities are largely the same as those contained in the integrated development plan (IDP) for South African municipalities. It would appear that the least that these initiatives can achieve is an improved state of human well – being and the quality of life, and not necessarily sustainable development as defined by the Brundtland Report: 1987 (development which meets the needs of the present without compromising the ability of future generations to meet their own needs). The approach adopted by the two cities is presented as follows below.

6.4.1 Indicators of sustainability from San Francisco

(a) Environment

- The number of existing buildings that join the Building Air Quality Alliance Program (or similar voluntary programmes).
- The number of people going to clinics for respiratory problems.

The percentage of new cars registered in San Francisco that are alternatively fuelled (e.g. California Air Resources Board-certified, low emission vehicles, ultra-low emission vehicles, or electric vehicles).

(b) Bio-diversity

The number of volunteer hours dedicated towards managing, monitoring, and conserving San Francisco's bio-diversity.

The number of square feet of the worst invasive species removed from natural areas.

The number of surviving indigenous native plant species planted in developed parks, private landscapes, and natural areas.

- The abundance and species diversity of birds, as indicated by the Golden Gate.

The Audubon Society's Christmas bird counts.

(d) Energy, climate change, and ozone depletion

The ratio of renewable to non-renewable energy consumption.

The energy cost per tax dollar.

(e) Food and agriculture

The number of public agricultural gardens.

The quantity of food and agricultural residuals recycled.

The number of schools, vocational, and community education and training programs about sustainable agriculture and nutrition.

(f) Hazardous materials

The difference between motor oil purchased in the city and the amount that is properly recycled or disposed.

An equitable distribution of the hazardous material/waste exposure load throughout the city.

The number of contaminated sites within city borders.

The public awareness of hazardous material/waste issues (especially proper use and disposal and knowledge of alternatives) as measured by annual survey.

(g) Human health

New cases of asthma.

Number of people attending organised wellness classes.

Participation in organized young programs at city recreation centers.

(h) Parks, open spaces, and streetscapes

- The percentage of the population with a recreational facility and a natural setting within a ten-minute walk.
- The number of neighbourhood street corridors created annually.

- The number of volunteer hours spent annually on maintenance of open space.
- The annual municipal expenditures on parks, open space, and streetscapes.

(i) Solid waste

The tons of waste land-filled annually.

The recycling rate as a percentage of material generated.

The percentage of residents, businesses, and institutions that participate in recycling programs.

(j) Transportation

Auto registration.

Parking-spot inventory.

Mini ridership.

Mini route running time on key routes.

(k) Water and wastewater

- The per capita water consumption measured by the San Francisco Water Department.
- Mass pollutants in wastewater.
- Mass frequency of combined sewer overflows.
- Recycled water use.
- The acres of habitat restored.

(l) Economy and economic development

The number of San Francisco enterprises adopting ISO 14 000 standards.

The number of San Francisco neighbourhoods with unemployment rates higher than the government “full employment” rate.

The difference between the highest neighbourhood unemployment rate and the full employment rate.

The number of San Francisco manufacturers using recovered secondary materials as raw material.

The percentage of people employed in San Francisco who live in San Francisco.

(m) Environmental justice

The mean income level of people in historically disadvantaged communities.

The proportion of environmental pollution sources in historically disadvantaged communities with respect to San Francisco's other communities.

The participation of historically disadvantaged communities as a whole and their indigenous self-selected representatives in decision-making processes.

(n) Municipal expenditures

The number of items of legislation adopted by the Board of Supervisors that advance sustainability goals.

The number of service providers and companies on the Green Vendors list.

The percentage of budget allocated utilizing sustainability criteria.

The percentage of budget that is devoted to facility maintenance.

(o) Public information and education

The number of schools that integrate and progressively update environmental education in their curricula.

Conservation and waste reduction as measured by volume of garbage produced per capita and units of electricity used per capita.

The number of volunteers working on environmental projects as measured through the largest volunteer clearinghouse that refers or mobilizes people to do community service.

(p) Risk management (activities of high environmental risk)

The number of business that train employees in the Neighbourhood Emergency Response teams program.

The number of seismically upgraded buildings.

The number of hazardous materials incidents.

6.4.2 Sustainable community indicators from sustainable Seattle

Like San Francisco, Seattle developed indicators to measure development in terms of, environment, population growth and resources, economic growth, youth development and education, health, and community development elements. These elements are discussed briefly below:

(a) Environment

Wild salmon returning to spawn in King Country streams.

Wetlands health as measured by water quality, water level fluctuation, and amphibian health.

Bio-diversity as measured by amphibian and plant diversity in King Country wetland.

Soil erosion as measured by turbidity levels in King Country waterways.

The percentage of Seattle streets meeting pedestrian friendly criteria

The impervious surface areas in the City of Seattle.
The air quality as measured by the EPA Pollutant Standards Index.
Open space as measured by acres of accessible open space.

(b) Population and resources

The population growth rate.

The residential water consumption per capita.
Solid waste generated and recycled per capita.
Pollution prevention and renewable resource use as measured by the EPNs Toxic.
The Release Inventory and use of recycled paper products.
Farm acreage in King County.
Vehicle miles traveled and fuel consumption per capita.
Renewable and non-renewable energy use per capita.

(c) Economy

The percentage of jobs concentrated in top ten employers.
Real unemployment.
The distribution of personal income.
Healthcare expenditures per capita.
Hours of work at King County average wage required for basic living needs.
Housing affordability.
The percentage of children living in poverty.
The emergency room use for non-emergency health care purposes.
The community capital as measured by total and per capita deposits in local banks.

(d) Youth and education

Adult literacy.

High school graduation rate.

Ethnic diversity of teachers in public schools.

Arts instruction.

Volunteer involvement in schools.

Juvenile crime rate.

The number of youth involved in community service.

(e) Health and community

Equity in the justice system as measured by differences in judicial handling among juvenile offenders of differing ethnicities.

The percentage of births that are low birth weight.

Asthma hospitalisation rate for children.

Voter participation of off-year primary elections.

Library and community center usage.

Public participation in the arts.

Gardening activity.

Neighbourliness as measured by reported interactions with neighbors in community surveys.

The perceived quality of life as measured by surveys of individuals' sense of well-being.

One of the international experiences worth noting is the work and inputs of the UN-Sustainable Cities Programme (SCP). The Sustainable Cities Programme was launched in 1990 as a joint UN facility to implement Agenda 21 at the city level (UN-HABITAT:2003:3).

The UN-HABITAT : Sustainable Cities Programme is taking place currently in cities in China, Chile, Ecuador, Egypt, Ghana, India, Malawi, Nigeria, the Philippines, Poland, Sri Lanka, Tanzania, Tunisia, and Zambia.(UN-HABITAT:2003:3). It is further reported that preparatory activities are underway in Botswana, Canada, Kenya, Lesotho, South Africa, and Vietnam. Sustainable Cities

Programme has adopted an integrated approach of social, economic, environmental and institutional elements. The Programme offers a practical response to the universal search for sustainable development at the city level.

6.4.3 Summary

The literature review points to the importance of sustainable development including sustainable cities. The move toward developing and maintaining sustainable cities appears to be the approach that most cities around the world have adopted. Although many models for implementing sustainable cities already exist, it is important to be cautious of the danger of applying them without thorough feasibility studies. Countries and cities differ in many respects and successful models in one country/city will not necessarily apply equally to all countries/cities around the world. A combination of recommended types of urban forms may be a solution to some countries/cities in their endeavor to achieve sustainable cities.

6.5 SUSTAINABLE DEVELOPMENT INDICATORS

An Indicator is defined as a parameter, or a value derived from parameter, which points to, provides information about, describes the state of a phenomenon/ environment area with a significant, extending beyond that directly associated with a parameter value (Wise Land Use, 2000)

The word indicator comes from the Latin verb, 'indicate' meaning to disclose or to point out. Indicators focus and condense information about complex issues for decision-making, management, monitoring and reporting purposes. Indicators further provide a signal to an issue of greater importance or make more evident of a trend or phenomenon to help people to understand complex situations. Globally, a number of indexes exist. These range from the ecological footprint, the barometer of sustainability, the dashboard of sustainability, the human development index, the environmental sustainability index to the water and the poverty index.

Brouwer and Crabtree (1999:1-8) define an indicator as a parameter, or a value derived from parameter, which points to, provides information about, describe the state of a phenomenon/environment area with a significant value extending beyond that directly associated with a parameter value.

Two important features of indicators are cited as quantification of information as well as a simplification of complex phenomena. The quality aspects of an indicator is divided into three elements below, namely:

- (i) Consistency;
- (ii) Reliability; and
- (iii) Predictive capacity (Brouwer and Crabtree, 1999:1-8).

Guided by its definition of an indicator and its features, Brouwer and Crabtree (1999:1-8), have developed sustainability indicators such as those for

- (i) Macro and sectoral measures of sustainability development;
- (ii) Pressure, state and performance indicators; and
- (iii) Policy response indicators.

Indicators such as infant mortality rates, expectations of life at birth, average numbers of persons per room, dwellings with piped water as a percentage of all dwellings, dwellings with electricity as a percentage of all dwellings, and per capita, investment per economically active persons, gross reproduction rates, population in different locations, and average size of private households, empowerment, and levels of urban engineering services were highlighted. The European Foundation for the improvement of Living and Working Conditions (1995 :25 and 47-57).

It has been emphasised that any set of indicators if it is to be useful for development planning should meet the following criteria:

- (i) Clear definition – reflecting theoretical understanding;
- (ii) Quality – appropriateness to local needs;
- (iii) Currency: timelines is essential; and

- (iv) Availability – to development planners and analysts.

The authors, Kuik and Vebruggen, define indicators as models with possibilities and limitations, and that good indicators are defined as indicators which are consistent in their representation of complex processes while using a format which is psychologically attractive so that they may aid decision makers rather than confuse them (Kuik and Vebruggen, 1991:3). They further point out that indicators should be distinguished as class models by the following requirements:

- a. That the information must be presented in an attractive format, that effective indicators must have a format, which is designed for an explicit target group in mind, namely, the professional analysts and scientists, the policymakers and the public; and
- b. That the indicators must be representative for the chosen system and that representatives must be defined in terms of accuracy.

The Department of Environmental Affairs and Tourism and UCT's Evaluation units, in their book titled, A Pathway to Sustainability Local Agenda 21 in South Africa, discuss sustainable development as well as the Local Agenda 21 as a tool to implement sustainable development at the local level. The book further raises several questions that need to be asked when formulating sustainable development indicators.

- (i) What will the indicators be used for?
- (ii) Which subject or themes should the indicator cover?
- (iii) Who will develop the indicators?
- (iv) Which criteria would be important, for example measurability or the cost of measuring?
- (v) Are they relevant to the achievement of the goal they are measuring?
- (vi) Are they related clearly to the achievement of the goal they are measuring? (Urquhart and Atkinson, 2000:90-91).

6.5.1 Types of indicators

Todaro in his book, Economic Development (2000:44) applied the following indicators in case studies:

- 1) Area: km².
- 2) Population: % per year.
- 3) Population (average annual growth rate) where P: % per year.
- 4) GNP per Capita: % per year.
- 5) GNP per Capita (PPP): % per year.
- 6) GNP per Capita (average annual growth rate): % per year.
- 7) Agriculture as share of GDP: % per year.
- 8) Exports as share of GDP: % per year.
- 9) Infant mortality rate (per, 1000 live birth): % per year.
- 10) Child malnutrition (underweight): % per year.
- 11) Female as share of labour force : % per year.
- 12) Literacy rate (age 15+): male % : female %.
- 13) Human development index/ year (Todaro, 2000:44).

Davas and Rakodi (1993:1-14) employ indicators such as growth rate of urban population, projected urban population growth and urban services in respect of water supply, for example, they are broken down into:

- (a) Service options;
- (b) House connections;
- (c) Yard tap;
- (d) Yard tank;
- (e) Public stand pipe; and
- (f) Public water tank.

Reticulation options are:

- a) Ring main reticulation; or

b) Branched main reticulation.

These indicators apply to other urban engineering services such as sanitation, roads, storm-water disposal, energy supply, public lighting, solid waste removal, public spaces, public markets and public facilities (Devas and Rakodi, 1993,1-14).

6.5.2 Performance indicators

Performance indicators are measures that tell us whether progress is being made in achieving our goals. It is a statement with a quantitative value that provides a picture of a current state of affairs and which, in changing over time, allows for progress to be quantified Department of Provincial and Local Government (2001: 3).

Section 41 of the Local Government: Municipal Systems Act, 2000 [Act 32 of 2000] provides that a municipality must, in terms of its performance management system and in accordance with any regulations and guidelines that may be prescribed, one should:

- [i] set appropriate key performance indicators as a yardstick for measuring performance, including outcomes and impact, with regard to municipality's development objectives set out in the integrated development plan; and
- [ii] set measurable performance targets with regard to each of those development priorities and objectives;

With regard to those development priorities and objectives and against the key performance indicators and targets set in terms of [i] and [ii] above, monitor performance and measure and review performance at least once per year; take steps to improve performance with regard to those development priorities and objectives where performance targets are not met. Also establish a process of regular reporting to the council,

other political structures, political office bearers and staff of the municipality and the public and appropriate organs of state.

Examples of performance indicators provided in the handbook include the following.

- [i] The percentage of residents with access to water-borne sewerage, if for example, the percentage increases over time the municipality is doing well.
- [ii] The proportion of a municipal area covered by green space. This tells whether the municipality is conscious of life-style services in its urban planning, something which is often very important for economic decision- makers.
- [iii] The average daily traveling time of workers in a municipality that reveals things such as the quality of public transport and effectiveness of urban planning.

Types of indicators outlined in the Local Government: Municipal Planning and Performance Management Regulations, 2001 listed below.

- [i] Baseline indicators, these are indicators that measure conditions before a project is implemented. Baseline indicators show the status quo or the current situation. They may indicate the level of poverty, services or infrastructure. An example of this is the percentage of residents with access to water-borne sewerage.
- [ii] Input indicators, these are indicators that measure economy and efficiency. They measure what it costs the municipality to purchase the essentials for producing desired outcomes (economy) and whether the organization achieves more with less in resource terms (efficiency) without compromising on quality. An example is cost of staff to run the municipality's water-borne sewerage system.

- [iii] Output indicators, these are indicators that measure whether a set of activities or processes yields the desired outputs. They show achievement in terms of stated objectives and often record milestones in achievement of the municipality's goals of improving access or efficiency. An example of the output indicator is the average number of new water borne sewerage connections per month.

- [iv] Outcome indicators, these are the indicators that measure the quality as well as the impact of the municipalities output. They show whether individuals and communities are happy with the municipality (quality) or whether their welfare is objectively being improved (impact). Examples include the reduction in incidence of public health diseases such as cholera as a result of the sanitation programme.

- [v] Composite indicators, composite indicators combine a set of different indicators into one index by developing a mathematical relationship between them. When lists of indicators grow very long, composite indicators can be used to summarize performance by combining indicators into an equation. An example of a composite indicator is the Human Development Index, combining life expectancy, GDP, etc.

6.5.3 Critique of indicators

Indicators are directed by their definitions, purpose, and intention. The following have been identified by many authors as crucial to the validity of indicators, namely, consistency; reliability; predictive capacity; clear definition; quality; currency; and availability.

It is important to note, however that each indicator has its own limitations, despite the fact that it may meet all the requirements mentioned above.

Human limitations in the form of failure to interpret the indicator, or apply it incorrectly from an important element in terms of the relevance and applicability of an indicator to a particular situation. The other limitation worth mentioning is the fact that there is no universally accepted indicator for sustainable development. Each developed indicator needs to be tested as per a situation to establish its relevance and applicability.

Also there appear to be no universally accepted definitions of sustainable development. The numerous definitions of sustainable development may suggest that there should also be as many definitions of indicators as there are definitions of sustainable development.

6.5.4 International experience

The United Nations Commission for Sustainable Development (UNCSD), was established in December 1992 to ensure effective follow-up of the United Nations Commission on Environmental Development (UNCED), and to monitor and report on implementation of the UNCED agreements at the local, national, regional and international levels. The UNCSD approved the Programmed of Work on indicators of sustainable development in 1995. The main objective of the Working Programme was to make indicators of sustainable development accessible to decision-makers at the national level, by defining them, elucidating their methodologies and providing training and other capacity building activities. As part of the implementation of the Working Programmed a working list of 134 indicators and related methodology sheets were development and distributed for voluntary testing world-wide.

The South African national Department of Environmental Affairs and Tourism (DEAT) became involved with indicators of sustainability in February 1996, when co-operation with the UNCSD's indicator testing process commenced. The process started early in 1997, and DEAT was involved in testing the 134 indicators of sustainability (55 of these were environmental indicators), and reporting to the UNCSD on the relevance and potential applicability in South Africa.

Universal/international sustainable development indicators are also reflected largely in the United Nations development programmes and the International Institute for Sustainable Development and these include the following elements below.

(a) Social development:

Reducing poverty;
Fighting hunger;
Health;
Human settlements;
Education;
Population and development;
The advancement of women;
Assistance to children;
Drug control; and
Crime prevention.

(b) Sustainable development:

Bio-diversity, pollution;
Action for the environment;
Desertification;
Meteorology, climate and water; and
Natural resources and energy.

(c) Human rights

Economic, social and cultural rights;
Civil and political rights; and
Right to development.

In 1987, the world Commission on Environment and Development (Brundtland Commission) called for the development of new ways to measure and assess progress towards sustainable development. This call has been subsequently echoed in Agenda 21 of the 1992 Earth Summit as well as through activities that range from local to global in scale. In

response, significant efforts to assess performance have been made by corporations, non-governmental organizations, academics, communities, nations, and international organization.

In November 1996, an international group of measurement practitioners and researchers came together at the Rockefeller Foundation's Study and Conference Center in Bellagio, Italy to review progress to date and to synthesize insights from practical ongoing efforts. A number of principles resulted and were unanimously endorsed.

These principles serve as guidelines for the whole of the assessment process including the choice and design of indicators, their interpretation and communication of the result. They are interrelated and should be applied as a complete set. They are intended for use in starting and improving assessment activities of community groups, non-government organizations, corporations, national governments and international institutions.

These principles deal with four aspects of assessing progress towards sustainable development. Principle 1 deals with the starting point of any assessment, establishing a vision of sustainable development and clear goals that provide a practical definition of that vision in the terms that are meaningful for the decision-making body in question. Principle 2 to principle 5 deal with the content of any assessment and the need to merge a sense of the overall system with a practical focus on current priority issues. Principles 6 through to 8 deal with key issues of the process of assessment, while principles 9 and 10 deal with necessity for establishing a continuing capacity for assessment.

The above-mentioned principles are presented in details below.

(i) Guiding vision and goals

Assessment of progress towards sustainable development should be guided by a clear vision of sustainable development and goals that define that vision.

(ii) Holistic Perspective

Assessment of progress toward sustainable development should include:

- (a) Include review of the whole system as well As its parts;
- (b) Consider the well being of social, ecological, and economic sub-systems, their state as well as the direction and rate of change of that state, of their components parts, and the interaction between parts.
- (c) Consider both positive and negative consequences of human activity, in a way that reflects the costs and benefits for human and ecological systems, in monetary and non-monetary terms.

(iii) Essential Elements

Assessments of progress towards sustainable development should

- (a) Consider equity and disparity within the current population and between present and future generations, dealing with such concerns as resource use, over-consumption and poverty, human rights and access to services, as appropriate;
- (b) Consider economic conditions on which life depends; and
- (c) Consider economic development and other, non-market activities that contribute to human/social well-being.

(iv) Adequate Scope

Assessment of progress toward sustainable development should:

- (a) Adopt a time horizon long enough to capture both human and ecosystem time scales thus corresponding to needs of future generations as well as those current to short term decision-making;
- (b) Define the space of study large enough to include not only local but also long distance impacts on people and ecosystems; and
- (c) Build on historic and current conditions to anticipate future conditions where we want to go, where we could go.

(v) Practical focus

Assessment of progress toward sustainable development should be based on:

- (a) An explicit set of categories or an organizing framework that links vision and goals to indicators and assessment criteria;
- (b) A limited number of key issues for analysis;
- (c) A limited number of indicators or indicator combinations to provide a clearer signal of progress;
- (d) Standardising measurement wherever possible to permit comparison; and
- (e) Comparing indicator values to targets, references values, ranges, thresholds, direction of trends, as appropriate.

(vi) Openness

Assessment of progress toward sustainable development should:

- (a) Make the methods and data that are used accessible to all;
and
- (b) Make explicit all judgments, assumptions, and
uncertainties in data and interpretations.

(vii) Effective Communication

Assessment of progress toward sustainable development should:

- (a) Be designed to address the needs of the audience and set
of users;
- (b) Draw from indicators and other tools that are stimulating
and serve to engage decision-makers; and
- (c) Aim, from the outset, for simplicity in structure and use of
clear and plain language.

(viii) Broad Participation

Assessment of progress toward sustainable development should:

- (a) Obtain broad representation of key grass-root,
professional, technical and social groups, including youth,
women, and indigenous people- to ensure recognition of
diverse changing values; and
- (b) Ensure the participation of decision-makers to establish a
link to adopted policies and resulting action,

(ix) Ongoing assessment

Assessment of progress toward sustainable development should:

- (a) Develop a capacity for repeated measurement to determine trends;
- (b) Be interactive, adaptive, and respond to change and uncertainty because systems are complex and change frequently;
- (c) Adjust goals, frame works, indicators as new insights are gained; and
- (d) Promote development of collective learning and feedback to decision-making.

(x) Institutional Capacity

Continuity of assessing progress toward sustainable development should be assured by:

- (a) Clearly assigning responsibility and providing ongoing support in the decision-making process;
- (b) Providing institutional capacity for data collection, maintenance, and documentation; and
- (c) Supporting development of local assessment capacity.

6.5.5 South African experience

The Department of Environmental Affairs and Tourism (DEAT) initiated a project at the end of 2000 to develop a core set of indicators for the environment reporting, termed the National Environmental Indicators Programme (NEIP). This project stemmed from the realisation that a commonly agreed core set of indicators and access to good quality data to support the indicators was one of the major obstacles for reporting on the status of the environment in South Africa. Although the scope of the NEIP was to develop indicators specifically for the biophysical component of sustainable development, indicators and supporting statistical systems on both the economy and social components were developed in South Africa. Gross Domestic Product (GDP), unemployment levels, inflation

rates, life expectancy and literacy rates are accepted indicators of various economic and social aspect of life.

The South African statistical services publishes, in their census records, a series of indicators, for example: geographical implications for development and planning and climate change impacts, demography, marriage and divorces, live births, deaths and infant deaths, tourists and migration, gross domestic products, expenditure on gross domestic product budget expenditure, liquidations and insolvencies, departments, employment rate, unemployment rate, salaries and wages, inflation, manufacturing, energy conception , water supply, sanitation, refuse disposal, toilet facilities, health schools and human development index.

Both the public and private sector employ these indicators for different purposes such as measuring progress, development, for planning, projections in issues such as population growth, economic growth, health related issues, such as HIV/AIDS, provision of engineering services.

Each indicator setout in the National Environmental Indicators Programmed has an information sheet associated with that contains a variety of information, including;

- (a) a description of the indicator;
- (b) reasons for selecting the indicator;
- (c) links to other indicator initiatives;
- (d) information on data sources, data acquisition and data limitations;
- (e) example[s] of reporting on the indicator, including methodologies for calculation where appropriate; and
- (f) an outline of any needs for further developing the indicator.

6.5.6 Recommended international sustainable development and performance indicators

Municipalities / cities in South Africa have been entrusted with functions and duties such as social, economic, institutional, and physical

development by legislation, including the Constitution of the Republic of South Africa Act 1996 (Act 108 of 1996), which can be classified as follows.

Social Issues	Economic Issues	Physical Issues	Institutional issues
Health Services Housing Services Education Welfare Services	Job Creation SMMEs Development Urban Farming Tourism Development	Urban Engineering Services, such as water supply, institutions and sanitation, energy supply, roads environment management city planning land use management	Policies Legislation Political issues and organizational structures, human resources developed finances and management

For each of the above-mentioned functions and duties, indicators need to be formulated. The research problem for this report is also to establish the relevance and applicability of international sustainable development and performance indicators to municipalities in South Africa, in particular to the City of Tshwane.

Indicators such as the following need to be compared with the international recommended sustainable and performance indicators to establish similarities and differences:

- (a) the level of education, number of learners at different levels, number of schools, universities, technikons and technical colleges;
- (b) Mortality and level of HIV/AIDS patients in relation to population, population growth (male and female); and
- (c) Level of urban engineering services, the indicators that municipalities can employ to measure, monitor and evaluate their performance and sustainability.

These indicators may be broken down as follows:

Level of Service	Water	Sanitation
Minimum	Water Vendors; Tankers, water Kiosks, standpipes 100m	Pit latrine bucket system
Basic	Standpipe 100 m	Ventilated improved pit latrine (VIP) Aqua privies
Intermediate	Yard tap Yard tank	Aqua privy with solid free water, septic tank intermediate flush
Full	Household connections	Full flush sewer

The indicators are categorized in to four main themes, which flow from the definition of sustainable development, namely, social, environmental, economic, and institutional components; the sub-themes of each main theme and the indicators developed from both the main themes and the sub-themes (UN-Division for Sustainable Development, 2003:1-3).

The indicators are further defined in terms of the name of the indicator; brief definition of the indicator; the unit of measurement; purpose of the indicator; the relevance to sustainable/unsustainable development; international targets/recommended standards; underlying definitions and concepts; measurement methods; and the alternative definitions/indicators(Intermediate Cities in Search of Sustainability, 1995:47-57).

SOCIAL		
Theme	Sub-theme	Indicator
Equity	Poverty	Percentage of Population Living Below Line
		Gini Index of Income Inequality
		Unemployment Rate
	Gender Equality	Ratio of Average Female Wage to Male wage
	Nutritional Status	Nutritional Status of Children
	Mortality	Mortality Rate Under 5 Years Old
		Life Expectancy at Birth
Health	Sanitation	Percent of Population with Adequate Sewage Disposal Facilities
	Drinking Water	Population with Access to Safe drinking Water

ENVIRONMENTAL		
Theme	Sub-theme	Indicator
	Healthcare Delivery	Percent of Population with Access to Primary Health Care Facilities
		Immunisation Against Infectious Diseases
		Contraceptive Prevalence Rate
Education	Education level	Children Reaching Grade 5 of Primary Education
		Adult Secondary Education Achievement Level
	Literacy	Adult Literacy Rate
Housing	Living Conditions	Floor Area per Person
Security	Crime	Number of Recorded Crimes per 100.000
		Population
Population	Population Change	Population Growth Rate
		Population of Urban Formal and Informal Settlements
Atmosphere	Climate Change	Emissions of Greenhouse Gases
	Ozone Layer Depletion	Consumption of Ozone Depleting Substances
	Air Quality	Ambient Concentration of Air Pollutions in Urban Areas
	Agriculture	Arable and Permanent Crop Land Area
		Use of Fertilizers
Land		Use of Agricultural Pesticides
	Forest	Forest Area as a Percent of Land Area
		Wood Harvesting Intensity
	Desertification	Land Affected by Desertification
	Urbanization	Area of Urban Formal and informal Settlements
Fresh Water	Water Quantity	Annual Withdrawal of Ground and Surface Water as a Percent of Total Available Water
	Water Quality	BOD in Water Bodies
		Concentration of Faecal coliforms in fresh water
Biodiversity	Ecosystem	Area of Selected Key Ecosystems
		Protected Area as a % of Total Area
	Species	Abundance of Selected Key Species
ECONOMIC		
Theme	Sub-theme	Indicator
	Economics	GDP per Capita
	Performance	Investment Share in GDP
Economic	Trade	Balance of Trade in Goods and Services
Structure	Financial Status	Debt to GNP Ratio
		Total ODA Given of Received as a Percent of GNP
	Material Consumption	Intensity of Material Use
	Energy Use	Annual Energy Consumption per Capita
		Share of Consumption of Renewable

Consumption		Energy Resources
and		Intensity of Energy Use
Production	Waste Generation	Generation of Industrial and Municipality solid
Patterns	and Management	Waste
		Generation of Hazardous Waste
		Management of Radioactive Waste
		Waste Recycling and Reuse
	Transportation	Distance Traveled per capita by Mode of
		Transport
INSTITUTIONAL		
Theme	Sub-theme	Indicator
Institutional	Strategic	National Sustainable Development Strategy
Framework	Implementation of SD	
	International	Implementation of Ratified Global
	Cooperation	Agreements
	Information Access	Number of Internet Subscribes per 1000
		Inhabitants
Institutional	Communication	Main Telephone Lines per 1000 Inhabitants
Capacity	Infrastructure	
	Science and	Expenditure on Research and Development
	Technology	as a Percent of GDP
	Disaster	Economics and Human Loss Due to National
	Preparedness and	Disasters
	Response	

All indicators, as recommended by the UN: Division on Sustainable Development and those developed by the South African Government seem to be designed to measure the state of the elements/components (social, economic, and environment) and not sustainable development as defined by the Brundtland Report: 1987. The issue still is, how would the integration of social, economic, environment, and institutional issues, result in development that meets the needs of the presents without compromising the ability of future generations to meet their own needs.

6.7 CONCLUSION

Some of the responses to issues raised by Chapter 6, are: “What is a sustainable city?”, “How is a sustainable city managed?”, “What indicators are generally employed to measure and assess a city’s level of sustainability?” and “What urban form best promote a sustainable city?”. These are hard to establish. It would appear that there is no clear answer as to what actually constitutes a sustainable city. What can be established are programmes and initiatives designed to improve the quality of life of the city communities, such as the processes and programmes aimed at improving social services, such as housing, health services; economic outcomes such as job creation growing GDP and environmental protection initiatives; such as reduction in the emission of the greenhouse gasses, prevention of ecological degradation, destruction of biodiversity.

It is also not clear how a sustainable city is managed. It would appear that it has to be managed by means of a city development strategy or any strategic framework suitable to that city. The many definitions of sustainable development further make it difficult to think of one universally suggested strategy.

Available indicators referred to, do not necessarily measure sustainable development. The indicators can however provide an indication of the state of environment, economic performance, social services and institutional capacity.

Cities that have embarked on a restructuring process moving either towards the galaxy of settlements, namely, a compact city, city core, urban star or the ring, have not as yet experienced the outcomes of their restructuring initiatives.

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CHAPTER 7

MANAGING SUSTAINABLE DEVELOPMENT IN THE CITY OF TSHWANE: CONCLUSIONS AND RECOMMENDATIONS

The purpose of the research was to evaluate and either to confirm or not whether sustainable development in the cities in South Africa is a myth or a reality. This was based on the concern that despite Government interventions such as legislation, policies and programmes, cities in South Africa are still spatially distorted, ineffective, incoherent and not integrated. Added to this concern is the dilemma created by the numerous definitions of the concept sustainable development presented by literature to date.

The City of Tshwane Metropolitan Municipality's Integrated Development Plan is an example of legislative and statutory obligation with which the municipalities are compelled to comply. The City of Tshwane Metropolitan Municipality's Integrated Development Plan as a process and a tool to manage sustainable development was evaluated in order to establish its capacity to achieve sustainable development in the City.

A host of legislations and government policies make it a statutory requirement for government organs - including Local Government - to structure and to manage their administration, budget and planning processes. This will have a direct impact on the Integrated Development Planning and promote the social, environmental and economic development for the community.

Chapter 7, which is the final Chapter of this thesis, attempts to compact and collate all conclusions drawn under each of the six Chapters and ends with recommendations aimed at guiding and facilitating effective sustainable development management at the local government level, specifically municipalities. Development legislation and policies such as interventions for managing sustainable development have been referred to throughout the report. Firstly, this was to illustrate the statutory implications of

provisions that such legislation and policies have on sustainable development.

Secondly, it presented concerns on non-compliance with the provisions of legislation and policies. Some of these legislation and policies are presented below, followed by a recommendation to the City of Tshwane.

7.1 DEVELOPMENT LEGISLATION AND POLICIES AS INTERVENTIONS FOR MANAGING SUSTAINABLE DEVELOPMENT IN TSHWANE

It is important to note that development legislation and policies are generally normative in nature. Although they provide statutory requirements, such requirements provide, to a large extent, guidelines and directives of what ought to be done, and not what is being done. For this reason legislation and policies presented below will be discussed from a normative perspective.

The City of Tshwane's Integrated Development Plan is a statutory requirement and is informed, guided and shaped largely by development legislation and policies. The development legislation and policies referred to in this section (Section 7.1 of Chapter 7) are relevant to critical issues that make up the City of Tshwane's Integrated Development Plan.

The White Paper on Local Government issued by the Minister of Provincial and Constitutional Development in March 1998 established one of the most important methods of achieving greater co-ordination and integration in development planning.

The Integrated Development Plans (IDPs) provide powerful tools for municipalities to facilitate integrated and co-ordinated service delivery and development in Local areas (Scheepers, 2000:237).

The development outlined in the Development Facilitation Act 1995 [Act 67 of 1995] suggests guidelines according to which municipalities have to build integrated, liveable settlements. A sustainable and an integrated service depends largely on integrated service delivery, regulation and planning of all aspects of land use, infrastructure, environmental management, transport, health, education, housing,

safety and security. All these elements are important aspects of development planning and should be viewed as a process through which a municipality establishes a development plan for the short-, medium- and the long-term.

Development legislation and policies are available for readers, managers and officials who are responsible for implementing development policies and plans (Scheepers, 2000:107). Development Managers have to use these tools to ensure that the development process remains within the limits of policy and the law. Successful management of development therefore depends on the understanding of the value of development legislation and policies and ability to skilfully use development legislation and policies in the course of managing development processes.

It is important to note that development legislation and policies do not necessarily bring about development (Scheepers, 2000:107). History teaches that legislation and policies lose their value and usefulness when applied as an instrument of social engineering. It is not the function of legislation and policies to manipulate people and communities to develop according to a predetermined political or legal model. People do not tolerate such legislation and policies for long: sooner or later, such legislation and policies are ignored or discarded (Scheepers, 2000:107).

Development legislation and policies provide direction, guidance and inform the planning process on issues such as the development policy framework, the relevant law and legal principles, applicable development principles, role-players and their development functions. Also the development function of government, environmental impact assessments, and land matters, land rights and the expropriation of land rights, agreements, development funding and accountability are important here.

Development legislation and policies are therefore tools or mechanisms that leaders, managers and officials use to achieve the desired development goals and outcomes, they are designed to facilitate the development processes directly or indirectly.

Management of development in South Africa today focuses on:

- (i) People, that is, civil society, community structures, organisations, small business, families and individuals;

- (ii) Land, which includes private, state, tribal, urban, rural, surveyed or non-surveyed land;
- (iii) Services and infrastructure, which refers to roads, water, sanitation, electricity, buildings, bridges and dams;
- (iv) Natural resources, that is, water, regeneration, rivers, lakes, deserts, the sea, forests and animals;
- (v) Finance, namely, money, capital loans, interest, security, income, job creation, economic growth, subsidies, banks, credit profits, loss and accountability; and
- (vi) Information, that is, data, plans, statistics, research, reference material, comparisons, specialist knowledge, expertise, treaties, contracts and policy documents Scheepers (2000:108-109).

All these issues are directly or indirectly being guided by a specific legislation and/or policy. The City of Tshwane Metropolitan Municipality is bound by these legislation policies, and will have to ensure that no legislation and policies are ignored during any form of development planning process.

Each of the powers and duties entrusted to the City of Tshwane Metropolitan Municipality in terms of Section 152 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) are being approached from a developmental point of view. They are all designed in such a manner that they form the basis for an integrated development planning process and they contribute to development of the City.

The issues focused on in development planning, namely, people, land, services and infrastructure, natural resources, finance and information, each demands a developmental strategy and plan, before they are integrated into a development plan for the area.

Development legislation and policies are important mechanisms to guide, to inform and to direct integrated development. The City of Tshwane Metropolitan Municipality as a sphere of Government will have to remain and be guided by all relevant

development legislation and policies and co-operate with all the stakeholders identified by these legislation and policies.

The success of development legislation and policies to achieve development objective hinges heavily on people. Meaningful participation of people in development planning processes has to be preceded by human resource development initiatives and strategies. The human development aspect of development planning is catered for in the White Paper on Population Development, the official policy issued by the Minister for Welfare and Population Development in April 1998. The policy contains guidelines applicable to the development process and the human development of development planning in South Africa Scheepers (2000:228).

The population policy has established a clear link between population and development. Sustainable human development is the central theme of the Policy. The development challenges are viewed in terms of meeting the needs of the present generation and improving the quality of life of the people without destroying the environment or depleting non-renewable natural resources Scheepers (2000:228).

Development must be planned to avoid compromising the ability of future generations to meet its own needs. Development, therefore, should provide for the enhancement of the quality of life of people through the systematic integration of population factors into all policies, plans, programmes and strategies at all levels within all sectors and institutions of government. This may be achieved by developing and implementing a co-ordinated, multi-sectoral, interdisciplinary and integrative approach to designing and executing programmes through interventions that impact on major national population concerns and the human development situation in the country. This could inform policy-making and programme-design, implementation, monitoring and evaluation at all levels and in all sectors. The purpose of development in this regard is seen as increasing choices in order to promote human well-being and some of the major elements in human development which include productivity, equity, sustainability and empowerment.

The Local Government Municipal Systems Act, 2000 (Act 32 of 2000) defines development as including integrated social, economic, environmental, infrastructure, institutional, spatial and human resources development aimed at the improvement of

the quality of life of communities with specific reference to the poor and other marginalized sections of the community.

The City of Tshwane Metropolitan municipality has to ensure that human resources development is a priority within its integrated development and that meaningful participation in the planning processes takes place. A failure to comply with such a legislative directive will continually threaten development with rejection and with lack of ownership by the community itself.

The White Paper on Local Government, March 1998 and Chapter 5 of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) formulate guidelines for co-operative government and integrated planning. Fundamentally, both these mechanisms are rooted in the notion that all sectors and role-players must join hands in order to provide effective support and services to people and communities. The values and ideas articulated in these guidelines include a willingness and a commitment of different role-players to formally engage in a partnership to pool strengths, resources and abilities in an effort to jointly achieve more as a group than individually. Through the process of co-operative government and the community participation process, the danger of people ignoring development legislation and policies is minimised. Community participation empowers and enables communities and people to become part of the planning and actually plan for themselves, and not to be planned for. If people view and regard development legislation and policies as guidelines to manage development, then they will actually promote the formulation of more guidelines by Government for purposes of facilitation development.

7.1.1 Land use

Section 16 of the Land Use Management Bill, 2001 provides that the spatial development framework that must be included in the municipalities integrated development plan must be consistent with and give effect to any national land use framework applicable in the area of the municipality. A spatial development framework must include a land use policy to guide desired patterns of land use in the municipal area, including the correction of past spatial unbalances and the integration of formally disadvantaged areas; direction of growth, major movement routes, conservation of the natural and built environment and the identification of areas in which particular types of land use should be encouraged or discouraged; and the

identification of areas in which the intensity of land development should be either increased or decreased.

A spatial development framework must include a plan visually describing and indicating an appropriate and the desired spatial form of the municipal area. A basic guideline for a land use management system is the municipal area, a capital expenditure framework for the municipalities development program and a strategic assessment of the environmental impact of the spatial development framework.

The Land Use Management Bill, 2001 gives clear directives in respect of spatial development framework. Section 19 thereof further states that each Metropolitan

Municipality must adopt a land-use scheme for the whole of its area. The Land Use Scheme that is adopted must give effect to any national land use framework that is applicable in the area of the municipality, and must further

determine the purpose for which each piece of land in the area in which the scheme applies maybe used and the conditions applicable to each purpose.

The City of Tshwane Metropolitan Municipality has to ensure that its land use policies, schemes and decisions are guided by the provision of the Land Use Management Bill, 2001. The Bill further guides development in terms of the spatial framework of the Land Use Schemes. Relevant to land use management and spatial planning framework and the integrated development planning process is the physical planning requirements set out in the Physical Planning Act 1999, (Act 125 of 1991).

The Physical Planning Act 1991 (Act 125 of 1991) promotes development planning by dividing the country into planning regions and by prescribing national development plans, regional development plans, regional structure plans and urban structure plans to be prepared for the development of these regions. The object of the policy plans is to promote the orderly physical development of the area to which the plans relate.

Policy plans contain broad guidelines for the future physical development of the area for the benefit of all the inhabitants Scheepers (2000:65-66). Local and regional authorities in terms of the Physical Planning Act, 1991 (Act 125 of 1991), must prepare urban structural plans containing guidelines for the future physical

development of their regions. The effect of these plans is that land may be used only for the particular purpose specified in an urban structure plan.

7.1.2 Transportation

The general principles for transport planning and its relationship with land development provided by the National Land Transport Transition Act, 2000 (Act 22 of 2000) indicates that land transport planning must be integrated with the land development process. Also, the transport plans required for that purpose must be designed to give structure to the function of municipal planning and be accommodated in and form an essential part of integrated development plans.

Section 3 of the National Land Transport Transition Act 2000 (Act 22 of 2000) provides that transport plans must be developed in order to enhance the effective functioning of Cities, towns and rural areas through integrated planning of transport infrastructure and facilities, transport operations including freight movement, bulk services and public transport services. This is within the context of the integrated development plans and the land objectives that direct employment opportunities and activities, mixed land uses and high density residential development into high utilization public transport. There should be corridors interconnected through development nodes within the corridors that discourage urban sprawl where public transport services are inadequate. The integrated development plan and the transport plan for the City of Tshwane Metropolitan Municipality among others, will have to be guided, informed and directed by the provisions of the National Land Transport Transition Act, 2000 (Act 22 of 2000) and the transport policies developed by the Gauteng Province.

7.1.3 Economic development

Economics is a social science. It is concerned with human beings and the social systems by which they organise their activities to satisfy basic material needs, for example, food, shelter and clothing as well as non-material needs, such as education, knowledge and spiritual fulfilment. Social systems in this context refer to the inter-dependent relationships between economic and non-economic factors. The non-economic factors include, attitudes toward life, work, and authority; public and private

bureaucratic, legal and administration structures, patterns of kinship and religion; cultural transitions; systems of land tenure; the authority and integrity of government agencies; the degree of popular participation in development decisions and activities; and the flexibility of economic and social classes Todaro (2000:11-13).

Development which refers to a multi dimensional process involves changes in social structure, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality and the eradication of poverty. It involves the whole gamut change by which an entire social system, tuned to the diverse basic needs and desires of individuals and social groups within the system, moves away from a condition of life widely perceived as unsatisfactory toward a situation or condition of life regarded as materially and spiritually better. Todaro (2000:16) is blended with economics, and can thus together be employed to guide an integrated development planning process of the municipality. The City of Tshwane Metropolitan Municipality has to adopt such an understanding of economics and development in its approach to designing its local economic development plan.

Enabling legislation and policies to inform and guide economic development at the municipality level includes the reconstruction and development programme, which remains the main policy document on how to develop South Africa. The Reconstruction and Development Programme propose that development should take place by way of economic reconstruction and relying on the economic strengths of the country in addressing the weaknesses in the South African economy Scheepers (2000:272-278). Building the economy, therefore, calls for the linking of reconstruction and development, industry and trade and commerce, resources-based industries, and upgrading of infrastructure.

Every development plan has to cater for small business development where possible (The White Paper on the National Strategy for Development and promotion of Small Businesses in South Africa: Government Notice 213 of 1995; Gazette 16317 of 28 March 1994). The National Small Businesses Act, 1996 (Act 102 of 1996) has established, among others, the National Small Business Council development at the National, the Provincial and the Local level in South Africa. Through this Act, special assistance is provided at provincial and at local level in support of socio-economic development in South Africa. Through this Act, special assistance is provided to

provincial and local government to ensure that their planning, projects and programmes do in fact promote the establishment of small business in the area.

The White Paper on the National Strategy for Development and Promotion of Small Business in South Africa's main purpose is to create an enabling environment for small enterprises. It is incumbent on the municipalities to ensure that their Local economic development Strategies and Plans make provision for the promotion of small enterprises.

For the City of Tshwane Metropolitan Municipality to succeed and achieve a sustainable economic development in its area of jurisdiction it is advisable that the basic statutory guidelines outlined in the development strategy and plan are adhered to. The directive that, the local economic development plan has to form a core component of the integrated development plan of a municipality is an example of such statutory guidelines. Basic issues such as a spatial development framework, land-use management decisions, transport plans, environmental management plans, disaster management plans, community participation, financial management plans and human resources management plans are all examples of the statutory guidelines for a successful integrated development plan of a municipality.

7.1.4 Agriculture

All planning relating to agricultural development must conform to the principles applicable to the conservation of agricultural resources by maintaining the production potential of land, combating erosion, preventing the weakening or destruction of water resources and by protecting vegetation and combating weeds and invader plants as indicated in Section 3 of the Conservation Agricultural Resources Act, 1983 (Act 43 of 1983).

The City of Tshwane's area consists of agricultural land and the promoting of agriculture in the area, and will have to abide by the control measures prescribed in terms of the Conservation's of Agricultural Resources Act, 1983 (Act 43 of 1993). When planning the cultivation of soil, the utilisation and protection of land which is cultivated, the irrigation of land, the prevention of water logging or salivation of land, the protection of valleys marshes, water spongers, water sources, and run-off water, the protection of vegetation and the grazing capacity

of veldt, the number and kinds of animals, that may be kept, the control of veld fires, the protection of veld which has been burned are all important. One has to also focus on the control of weed and invader plants, and restoration and other conservation measurements applicable to the area in question must be taken into account although most agricultural activities are owned and managed by private individuals, it still remains the responsibility of the Municipality to ensure that planning for any form of activity that relates to land-use are carried out as guided by legislation and policies. Enabling by-laws and land-use guidelines are some of the tools that municipalities can employ to optimise the agricultural sector and promote agricultural activities within their areas of jurisdiction.

Partnership with farmers and research institutions in the field of agriculture and other stakeholders in the agricultural sector is also a mechanism to ensure integrated development planning for the municipality.

Development is defined in the White Paper on Environmental Management (May 1998) as a process to for improving human well being through a reallocation of resources that involves some modification of the environment. Such development needs to address basic needs, equity and redistribution of wealth, that is, the focus is on the quality of life rather than the quantity of economic activity. The White Paper on Environmental Management: May 1998, argues that growth and development both depend on the use of social, natural and cultural resources from the environment but they relate to the use of these resources in different ways. It suggests that neither growth nor development, however, addresses the sustainable use of social, cultural and natural environmental resources over time. These arguments are based on the debate that development policies, plans, programmes and activities in all sectors that do not address environmental concerns cannot claim to be sustainable.

Sustainable development is defined by the White Paper on Environmental Management: May 1998 as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The definition contains two key concepts, namely, the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given and the concept of limitations as imposed by the state of technology and social organisation on the

environment's ability to meet present and future needs. Development, therefore, must be people-centred. To achieve this, the government's need to give attention to issues including integration of population concerns into all development strategies, planning, decision-making and resource allocation is to meet the needs and to improve the quality of life of present and future generations. This includes promoting social justice, and reducing unsustainable consumption and production patterns and negative environmental impacts due to demographic factors.

7.1.5 Manufacturing

A vital aspect of development and the implementation of economic development policy at the provincial and local level is the promotion of manufacturing projects and programmes Scheepers (2000:277). The manufacturing development board established in terms of the Manufacturing Development Act, 1993 (Act 187 of 1993) aims to assist leaders, managers and officials with the planning of development management administration and the implementation of manufacturing development programmes. In order to promote and support manufacturing, growth and development in any area, the Minister of Trade and Industry on recommendation of the Board, establishes programmes for manufacturing development with the assistance of National Government funding. Funding is made available by way of grants to manufacturers as incentives or concessions available to manufactures.

The City of Tshwane Metropolitan Municipality has to co-operate with both the Provincial and the National Government in order to promote the manufacturing sector to enhance industrial investment and existing manufacturing activities. Initiatives to promote the manufacturing need should form part of the integrated development plan. The municipality's local economic development initiative plans to promote and strengthen the manufacturing sector in the municipality.

7.1.6 Minerals and mining

The Minerals and Mining industry is governed at the National level through the Department of Minerals and Energy, but the Department has to comply with all national, provincial and municipal legislation (Section 6.2.4 of the White Paper: A Minerals and Mining Policy of South Africa, October 1998).

A formal mechanism has to be establishing whereby provinces can engage with national government on mineral industry issues where these relate to agriculture, the environment, economic affairs and other relevant provincial and local government competencies. In terms of the provisions of the White Paper: A Minerals and Mining Policy for South Africa, October 1998, Provincial Governments and Municipalities will have access to the Department of Minerals and Energy and associated institutions. This aspect makes integrated development planning at the municipal level possible. Section 6.2.1 of the White Paper: A Mineral and Mining Policy of South Africa, October 1998 provides that in view of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) it is important to ensure that uniform mineral management and regulatory standards are maintained throughout South Africa and that services by government be rendered in an equitable manner.

7.1.7 Social services and housing

Each municipality, as part of the process of integrated development planning, must provide for access to housing, health and safety, the provision of water, sanitation, electricity, roads, storm water drainage, transport and related services Scheepers (2000:254-257). The goals of each municipality with regard to each of these issues form part of the housing plans for the area.

Municipalities who have been accredited under section 10 of the Housing Act, 1997(Act 107 of 1997) for purposes of administering housing programmes need to be consulted and be involved in programmes and projects aimed at housing or residential development. It is, therefore, not possible to embark on any planning exercise regarding housing and residential development without reference to the integrated development planning of the municipal concerned and without consulting the municipality and the community.

Planning with regard to housing must comply with the broad economic policy, land-use options must provide for a safe and healthy environment as well as viable communities making a positive contribution to a democratic and integrated society. The housing process and therefore the planning of housing projects must be aimed at economically sustainable housing solutions Scheepers (2000:255).

The success of housing development depends largely on the standard of development planning, where such development planning must include land related issues such as Land-Use Planning, Land Development Management and Land Control, Land Registration, and Land-tenure assistance, infrastructure services, standards and tariffs.

The City of Tshwane Metropolitan Municipality has to be guided by the provisions of the housing Act, 1997 (Act 107 of 1997), the White Paper on Housing, the Constitution of the Republic of South African Act, 1996 (Act 108 of 1996) and other legislation and policies that impact on housing planning process and housing delivery including the Water Services Act 1997 (Act 108 of 1997), and the National Environmental Management Act, 1998 (Act 107 of 1998).

The White Paper for Social Services 1997 calls upon all South Africans to participate in the development of an equitable, people-centered democratic and appropriate social system. The White Paper describes the goal of developmental social welfare as a humane, peaceful, just and caring for society which will uphold welfare rights, facilitate the achievement of their aspirations, build human capacity and self reliance and participate fully in all spheres of social economic and political life. This would help to meet basic human needs, release people's creative energies. All spheres of government that is, the National, Provincial and Local Sphere of Government have a duty to ensure a developmental social welfare.

Though co-operative Government initiatives and integrated development planning process developmental social welfare can be achieved. The City of Tshwane Metropolitan Municipality has to respond to the call to participate and take the lead in its jurisdiction to ensure developmental social welfare for its community through an integrated development planning process.

7.1.8 Human resource development

The main theme of the human resources development programme is the empowerment of people through education and training including specific forms of capacity building within organizations and communities, to participate effectively in all processes of democratic society, economic activities, cultural expression and community life Scheepers (2000: 165).

The development of human resources must meet the people's ever-growing needs and improve their living standards and quality of life through the development of human capacities, knowledge and know-how. What is important is to engage in a process of transformation in the education and training sector which will bring into being a system of service to all people, democracy and reconstruction and development programme Scheepers (2000: 166).

The City of Tshwane Metropolitan Municipality's human resources development programme has to be informed by these broad guidelines for it to achieve the human resource development objective, and contribute towards sustainable development. Most economists argue that it is the human resources of a nation, not its physical capital or its natural resources that ultimately determine the character and pace of its economic and social development.

Human resources contribute to the ultimate basis for the wealth of nations. Capital and natural resources are passive factors of production, while human beings are the active agents who communicate capital, exploit natural resources, build social, economic and political organisations and carry forward national development. A country that is unable to develop the skills and knowledge of its people and to utilize them effectively in the national economy, will be unable to develop anything else Todaro (2000:326).

The basis for strong pillars within responsible institutions such as municipalities is when they design policies and promote sustainable development at the municipal level, and where projects and programmes are planned in such a way that they provide for and allow the development of skills. Leaders, managers and officials involved in planning process must be guided to ensure sustainable skills development with reference to the skills development policy and policy and the Skills Development Act, 1998 (Act 97 of 1998).

The Skills Development Act, 1998 (Act 97 of 1998) establishes a National Skills Authority whose responsibility is the implementation of the skills development policy and the allocation of funds from the National skills fund to ensure skills development in South Africa. During any development planning process, including the integrated development planning process at the municipal level, the national skills authority has to be consulted to find out what the relevant regulations are and to ensure that the

development projects or programmes are in the harmony with the National skills development strategy applicable to the area to be developed.

According to the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) educational and training are the basic human rights and they must enable all individuals to have access to, and succeed in lifelong education and training of good quality. Constitutionally, therefore, a municipality must ensure that within their areas of jurisdiction the education and training is managed in such a way that the community is well and properly educated and trained.

Although formal education is not their competency, municipalities have the duty to ensure that the education forms part of its integrated development plan and that educational institutions participate in the development planning process so that the education services meet community needs. With some national research Institutions such as the Council for Scientific and Industrial Research, the South African Bureau of Standards, and the Federation of Gem and Mineralogical Society, the City of

Tshwane Metropolitan Municipality has the potential to produce an effective integrated development plan informed by the expertise from these research institutes and Universities.

The White Paper on Population Policy, April 1998, lists the following guiding principles concerning the government's position on population and sustainable human resource development namely, that:

- (i) all South Africans are born free and equal in dignity and rights. Everyone is therefore entitled to all the rights and freedoms set forth in the universal declaration of Human rights and all Bill of Rights of the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996).
- (ii) the right to development is universal, inalienable and integral part of fundamental Human Rights, that the people are the country's most important and valuable resources as well as the central subject of development, that the role of government in the development process is therefore to facilitate people's ability to make informed choices and to create an environment in which they can manage their lives.

- (iii) Population, sustained economic growth and sustainable development are closely inter-related, that population policy should therefore be an integral part of an integrated system of development policies and programmes in a country and its ultimate goal should be enhanced human development; and
- (iv) That advancing of gender quality, equity and the empowerment of woman, are fundamental prerequisites for sustainable human development, and thus constitute the cornerstone of population and development programmes (Section 1.5 of the White Paper on Population Policy, April 1998). These guidelines provide direction and inform municipalities' integrated development plans.

7.1.9 Population and development

Different development paradigms have evolved and gained currency over time, primarily due to the analysis of the failure of past approaches to development. From an international perspective, there have recently been a number of fundamental changes in the concept and role of development, with a shift in focus to sustain human-centred development. The focus of the current paradigm is on sustainable human development in which population is placed at the centre of all development, the driving force and ultimate beneficiary of development (Section 1.3 of the White Paper on Population Policy, April 1998).

The role of population in development within this paradigm is encapsulated in the Human Development Report prepared annually by the United Nations Development Programme (UNDP) and the Programme of Action of the International Conference on Population and Development (ICPD) agreed upon by an international community including South Africa since 1994. The programme of Action endorses a new strategy on development that emphasises the reciprocal relationship between population, development and environment. It focuses on meeting the basic needs of individuals rather than on achieving demographic targets. Among its objectives and its recommended actions with regard to the interrelationships between population, sustainable economic growth and sustainable development are the need to fully integrate population concerns into all development strategies, planning, decision-making and resource allocation. The goal here is meeting the needs and improving the quality of life of present and future generation, promoting social justice and

eradicating poverty, adopting appropriate and sustainable population and development policies and programmes. It is also important to focus on reducing unsustainable consumption and production patterns as well as on the negative impact of demographic factors on the environment White Paper on Population Policy, 1998.

The South African Government's position on population and development is essentially a response to the injustices inherent in the population-related policies of the previous Government, as well as to the internationally accepted paradigm shift in the population and development field. Sustainable human development sees development as a process of increasing people's choices. The role of government in development is thus creation of an enabling environment for people to enjoy long, healthy and creative lives. The challenge is to meet the needs of the present generation and to improve their quality of life without destroying the environment or depleting non-renewable natural resources, which would compromise the ability of future generations to meet their own needs (The White Paper on Governmental Management, May 1998, read together with Todaro (2000:14-20).

Municipalities are compelled by legislation to involve communities in all development planning processes and programmes. This includes the Constitution of the Republic Act 1996 (Act 108 of 1996) and the Local Government Municipal Systems Act 2000 (Act 32 of 2000). The City of Tshwane Metropolitan Municipality as an organ of Government has to be guided by the relevant development legislation and policies to promote sustainable human development, and actually develop its own sustainable human development plan that would form an integral part of its integrated development plan.

7.1.10 Health services

The White Paper on the transformation of the Health System in South Africa, April 1997, provides guidelines for the restructuring of the health sector and introduces a National health system for South Africa as a whole. The aims for restructuring the health sector are to unify the fragmented health services at all levels into a comprehensive and integrated national health system; to reduce disparities and inequalities in health services delivery and to increase access to improved and integrated services based on primary health care principles. Also to give priority to

maternal, child and women's health; and to mobilise all partners, including the private, non-governmental organisations and communities in support of the integrated national health system. The national health system means the organisation of health services of the Republic of South Africa, including services provided by National Government, Provincial Government and Local Government, non-governmental organisations, community-based organisations and the private sector.

The restructuring of health services in the country enabled other spheres of Government, namely, the Provincial and Local Government to further restructure their health services. The Gauteng Province introduced the Gauteng District Health Services Act, 2000 (Act 8 of 2000) with the purpose to provide for the delivery of primary health care services to municipalities, to provide for the establishment of relevant institutions and to define the responsibilities of Provincial and Local Government.

Both the White Paper for the Transformation of the Health System in South Africa, April 1997, and the Gauteng District Health Services Act, 2000 (Act 8 of 2000) enable municipalities to develop health plans for their area of jurisdiction. Such health plans form an integral part of the integrated development plan for the municipality. The City of Tshwane Metropolitan Municipality has to ensure that broad guidelines provided by both the White paper for the Transformation and the Gauteng District Health Services Act, 2000 (Act 8 of 2000) are adhered to, and develop its health plan and incorporate such a plan in its integrated development plan.

7.1.11 Disaster management

A core component of the integrated development plan is the development of a Disaster Management plan. The White Paper on Disaster Management, issued by the Minister of Provincial Affairs and Constitutional Development in January 1999 advocates a new approach to disaster management which is to be included in the development planning process. The White Paper underscores the importance of preventing human, economic and property losses by avoiding environmental degradation, and it calls for a significant strengthened capacity to track, collate, monitor and disseminate information on phenomena and activities known to trigger disaster events such as droughts, floods, epidemics and fire. Further, it calls for an

increased commitment to prevention and mitigation of actions that will reduce the probability and severity of disaster Scheepers (2000:276).

The White Paper on Disaster Management, 1999, proposes that the following disaster management principles ought to be included in development planning and planning aimed at reducing risk. Thus, integrated disaster management strategies should emphasise risk reduction, make available resources to local government to provide disaster management services, alert communities to natural and other threats and provide for professional humanitarian support in times of emergency. This will facilitate their contributing to sustainable development by limiting environmental and property damage as well as loss of life and livelihood, planning for additional capacity of transportation telecommunication and electricity, Regarding the public section infrastructure it will focus on withstanding natural disasters and ensuring that the development of marginal and environmentally fragile areas is properly manned.

The development of a disaster management plan in terms of the integrated development plan is a statutory directive that the City of Tshwane Metropolitan Municipality has to be guided by when designing its Disaster Management Plan.

7.1.12 Partnerships

The White Paper on Local Government: March 1998, the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996) Chapter Three thereof, the Local Government; Municipal Systems Act, 2000 (Act 32 of 2000), the White Paper on Municipality Services Partnership; 2000 provide guidelines on partnership with stakeholders. The City of Tshwane Metropolitan Municipality has to ensure that the provisions of these legislation are employed to guide partnership with the stakeholders for purpose of development and efficient and effective services delivery, that is, to stimulate, encourage and facilitate partnerships between the Municipality and other role players.

Other interventions such the integrated development planning, the local Agenda 21; the urban development strategies and programmes; the strategic development initiatives, and sustainable development components such as sustainable development systems; the political will and stability; sustainable settlement and sustainable community, are equally important to a practical sustainable development

management process. This process need to be linked to appropriate sustainable development indicators as a measuring and a monitoring tool.

7.2 CONCLUSIONS

There is some degree of evidence that sustainable development as defined by the Brundtland Report: 1987, where development that meets the needs of the present without compromising the ability of the future generations to meet their own needs, cannot be achieved through the integration of economic, social and environmental elements at the municipality level.

What can be achieved however is the improvement of the human well-being in the short-term, medium-term, and the long-term, through the integration of sustainable development elements, including all the development systems, processes, and strategic development plans. It will need to incorporate sustainable economic development plans; sustainable settlement plans; sustainable development plans; sustainable environmental management plans; sustainable community development plans; political stability and political will; strategic spatial development framework; and a financial development framework, in order to support decision-making and implementation processes.

Development is defined in the White Paper on Environmental Management: May 1998 as a process for improving human well-being through a reallocation of resources that involves some modification of the environment. Such development addresses basic needs, equity and redistribution of wealth, that is, a focus is on the quality of life rather than the quantity of economic activity.

The White Paper on Environmental Management: May 1998, argues that growth and development both depend on the use of social, natural and cultural resources from the environment but they relate to the use of these resources in different ways. That neither growth nor development alone, can address the sustainable use of social, cultural natural environmental resources over time. These arguments are based on the debate that development policies, plans, programmes and activities in all sectors that do not address environmental concerns cannot claim to be sustainable.

Sustainable development is defined by the White Paper on Environmental Management: May 1998 as development which meets the needs of the present without compromising, the ability of future generations to meet their own needs. The definition contains two key concepts, namely, the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs.

Development, therefore, must be people-centred, and to achieve this government needs to give attention to issues including integration of population concerns into all development strategies, planning, decision-making and resource allocation to meet the needs and to improve the quality of life of present and future generations. This will also promote social justice, reduce unsustainable consumption and production patterns and any negative environmental impacts due to demographic factors.

Challenges of development are to improve the quality of life. A better quality of life generally calls for more values, namely sustenance, that is, the ability to meet basic needs, self-esteem and freedom from servitude.

Legislation and government policies designed to promote development can achieve development only if they have the capacity to achieve and realise these core values. The ability and capacity of legislation and government policies to achieve development are examined below in terms of the core values:

(i) Sustenance

Sustenance refers to the ability to meet basic needs. All people have basic needs without which life is impossible Todaro (2000:16). The life sustaining basic human needs, include food, shelter, health and protection. When any of these is absent or in a critical short supply, a condition of underdevelopment exists.

The basic function of development is to provide as many people as possible with the means to overcome the helplessness and misery arising from a lack of food, shelter, health and protection. To this end it can be claimed that

development is a necessary condition for the improvement of the quality of life, and that without sustained and continued development at the individual level and society level quality life cannot be achieved.

All three spheres of government including Municipalities have been entrusted with the powers and duties by the Constitution of the Republic of South Africa Act, 1996 (Act 108 of 1996), Schedules 4 Part A and Part B as well as Schedule 5, Part A and Part B to provide services to communities. These services are largely designed to achieve sustainable development, they actually form the components of sustainable development.

(ii) Self-esteem

The second core value and universal component of quality and good life is self-esteem that is a sense of worth and self-respect. Individuals and communities seek basic form of self-esteem, that is, authenticity, identity, respect, honour and recognition.

(iii) Freedom from servitude

Freedom from servitude or the ability to choose constitutes the meaning of development. It refers to human freedom, emancipation from alienating material conditions of life and from social servitude to nature, ignorance, other people, misery, institutions and dogmatic beliefs. Freedom involves an expanded range of choices for societies and their members. Community empowerment matters have been legislated.

The Bill of Rights outlined in Chapter 2 of the Constitution of the Republic of South Africa reflects both the core values and objectives of development. The Bill of Rights provide a legal framework for development and confirms development as a human right, as a legal obligation to be realised by government through its three spheres through the people for the people.

The core values of development and the objectives of development are embodied in the Bill of Rights, The Bill of Rights enshrines the rights of all people and affirms the democratic value of human dignity, equality and

freedom. Rights such as equality, human dignity, freedom and security of the person, the right to environment, to property, housing, health care, food, water, social security cultural, religious and objectives of development.

According to Todaro (2000:18) development is both a physical reality and state of mind in which society has, through combinations of social, economic and institutional processes, secured the means for obtaining a better life. Development, therefore, has three objectives namely (i) to increase the availability and widen the distribution of basic life-sustaining goods such as food, shelter, health and protection; (ii) to raise levels of living, including, in addition to higher incomes, the provision of more jobs, better education, and greater attention to cultural and humanistic values, all of which serve not only to enhance material well-being but also to generate greater individual and national self-esteem; and (iii) to expand the range of economic and social choices available to individuals and nations by freeing them from servitude, dependence and the forces of ignorance and human misery.

The Former President of the Republic of South Africa, Nelson Mandela, in his inaugural address to a joint sitting of Parliament, 24 May 1994, White paper on Reconstruction and Development,.. summarised the core values of development adequately when he said “My Government’s commitment to create a people-centred society of liberty binds us to the pursuit of the goals of freedom from want, freedom from hunger, freedom from deprivation, freedom from ignorance, freedom from suppression and freedom from fear. These freedoms are fundamental to the guarantee of human dignity. They will, therefore, constitute part of the centrepiece of what this Government will seek to achieve the focal point on which our attention will be continuously focused. The things we have said constitute the purpose of the reconstruction and Development Programme, without which it would lose all legitimacy.”

(ANC 1994 The Reconstruction and Development Programme: A Policy Framework).

The core values of development and the objectives of development are further outlined in the White Paper on Reconstruction and Development, 15 November 1994. Six basic principles of the Reconstruction and Development

Programme, namely, that it has integration and sustainability, is people-driven, has peace and security, embodies nation building, meets basic needs and builds the infra-structure and democratisation to further create a legal framework with which development must take place.

The six basic principles of the Reconstruction and Development Programmes are blended and reflect themselves in integrated development plans outlined in legislation and policies.

The Reconstruction and Development Programme intends, among others, to harness resources in a coherent set at national, provincial and local level by the Government, parastatals and local authorities.

Through the Reconstruction and Development Programme, business and organisations within civil society are encouraged to work within the specified reconstruction and development programme framework. The new vision for environmental management: May 1998 seeks to unite the people of South Africa in working towards a society where all people have sufficient food, clean air and water, decent homes and green spaces in their neighbourhoods enabling them to live in spiritual, cultural and physical harmony with their natural surroundings. The vision proposes a paradigm of sustainable development based on integrated and co-ordinated environmental management intended to promote the environmental health and well being of the nation people by addressing people's quality of life and their daily living and working environments. It should provide equitable access to land and natural resources; the integration of economic development; social justice and environmental sustainability; more efficient use of energy resources; the integration between population dynamics and sustainable development; the sustainable use of social, cultural and natural resources; public participation in environmental governance, and the custodianship of the environment.

The White Paper on Environmental Management: May 1998 further argues that if environmental concern are ignored, growth and development in overall living standards that this will lower the quality of life for many people, particularly poorer people who already face degraded living environments,

that failure to address the sustainable use of natural resources will degrade the resources base on which people depend.

Local Government as a sphere of government is designed and structured in terms of legislation to promote development. It is required in Local Government to assume new roles and responsibilities, for example, to provide democratic and accountable government for the local community; to ensure the provision of service to communities in a sustainable development; and to encourage the involvement of communities and community organisations in matters of local government.

Section 26 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) stipulates clearly what the core components of the integrated development planning of a municipality should contain. Linked to the core components of the integrated development plan is the performance management system, outlined in section of the Local government: Municipal Systems Act 2000, (Act 32 of 2000).

The challenge to the integrated development plan however is whether it has the capacity to achieve the objectives of the development, namely (i) increasing the availability and widening the distribution of basic life-sustaining goods such as food, shelter, health and protection; (ii) raising levels of living, including, in addition higher income, the provision of more, better education and greater attention to cultural, and humanistic values, all of which will also generate greater individual and national self-esteem; and (iii) expanding the range of economic and social choices available to individuals and the community by freeing them from servitude and dependence not only in relation to other people but also to the forces of ignorance and human misery.

The new approaches and definitions of development have similarities with the integrated development plan designed for municipalities by the Local Government Municipal Systems Act 20001, (Act 32 of 2000), as a tool for managing sustainable development by municipalities within their areas of jurisdiction.

As additional tools to manage sustainable development, municipalities as organs of government are compelled to employ the generic processes and principles of public administration. Policy, financing, organising, procedures and methods and control as processes of administration have to be employed to guide the development process.

To further shape the development process the municipalities must engage the principles of administration, which include respect for political supremacy, fairness and thoroughness, honesty as well as rule of law. It is important to note that principles of public administration as mentioned are largely embodied in the integrated development plan process, designed as a tool for municipalities to manage development.

The role of government legislation and policy implications on development remains untapped potential. Future research and studies on development in South Africa need to focus on the role of government and the directives and the responsibility that government entrusts to its organs to lead and to direct development.

The legislation and policies intended to promote development need to be consolidated. This can be achieved through co-operative government initiatives as set out in Chapter 3 of the Constitution of the Republic of South Africa Act, 1996 [Act 108 of 1996] and through the integrated development processes outlined in Chapter 5 of the Local Government; Municipal Systems Act, 2000 [Act 32 of 2000]. The Constitution of the Republic of South Africa Act, 1996 [Act 108 of 1996] provides that all spheres of government and all organs of state with each sphere must operate with one another in mutual trust and good faith by fostering friendly relations, assisting and supporting one another, informing one another of and consulting one another, on matters of common interest; co-ordinating their action and legislation with one another and adhering to agreed procedures. Integrated development plans outlined in the local government Municipal Systems Act, 2000 (Act 32 of 2000) can therefore be co-ordinated at all three spheres of Government. Developmental duties of municipality include participating in national and provincial development programmes.

This specific statutory obligation is in itself an enabling policy and legislation for the three spheres of government to co-operate on developmental issues. It can therefore within this context be concluded that existing development policies and legislation have the capacity to realise sustainable development by addressing both core values and objectives of development. It can also be recommended that for government to achieve sustainable development through enabling developmental policies and legislation, consideration of and the integration of development plans need to be prerequisite.

Development guided and informed by legislation and policies can be tested again with regard to its ability and capability to address key development issues such as poverty alleviation, inequality, rural-urban imbalances, unemployment, women and children empowerment, including the three development objectives, namely;

- (i) to increase the availability and widening the distribution of basic life-sustaining goods such as food, shelter, health and protection;
- (ii) to raise levels of living, including, in addition to higher incomes, the provision of better education, greater attention to cultural, and humanistic values, all of which will serve not only to enhance material well-being of individuals but also to generate greater individual and national self-esteem; and
- (iii) to expand the range of economic and social choices available to individuals and the community by freeing them from servitude and dependence not only in relation to other people but also to the forces of ignorance and human misery.

The integrated development plan is outlined by the local government; Municipal Systems Act, 2000 [Act 32 of 2000], if well managed can to a large degree address these key development issues.

Crucial to the Integrated Development Plan is the spatial planning. Generally Spatial Planning focuses on the people in cities and rural areas and their activities, how and where they live,

work and relax. Spatial Planning further focuses on the resources. Land issues buildings social economic and engineering services, the natural environment, and relationships between activities in space. Furthermore Spatial Planning predicts future trends and their impact on lifestyles, technology, and transport and interprets such impact on social and economic activities. It translates the impacts into demands for land uses including housing, employment, accesses, recreation and services. Spatial Planning not only translates inputs into demands for land uses, but also prepares proposals to meet demands and solutions to existing problems.

In Local Government, in the urban area in particular, Spatial Planning determines developmental direction of the City and City form; and it provides plans and guides future development and infrastructure. Spatial Planning directs and informs policy formulation to guide development, land use management and development activities.

In short, spatial planning guides development. It further leads to strategic framework. Strategic focus areas development and strategic plans for the purpose of efficient and effective service delivery.

For each of the services listed in Schedule 4 and 5 of the Constitution of the Republic of South Africa, 1996 (Act 108 of 1996) Strategic Plans can be developed. Such strategic plans will however be informed by the integrated development plan and Spatial Planning Guidelines.

It can be concluded then that development legislation and policies further provide mechanisms and ground to guide and inform development. Strategic Framework and Strategic Plans that emanate from the Integrated Development Processes, are such mechanisms. It should also be mentioned that the integrated development is not only a legal requirement but it provides numerous benefits for the municipalities, namely, it is a good tool to eradicate the legacy of the past, it facilitates the concept of developmental local government and fosters co-operative governance.

The Integrated Development Planning has the potential to create wealth through attracting funds from other spheres of government, namely, the National Government and the Provincial Government, donor agencies and investors. It has the potential to facilitate the creation of an environment conducive to private sector, investment and the general promotion of local economic development. The integrated development plan has to produce a local economic plan as a requirement in order to facilitate a direct intervention by the municipality through economic incentives, economic infrastructure, buying, developing, leasing and selling land.

The integrated development plan is also a mechanism to restructure cities, towns and rural areas through a shared understanding of spatial development opportunities, patterns and trends through the localisation of spatial development principles that promote integrated and sustainable development. Through the integrated development planning process, municipalities have to formulate strategies aimed at spatial restructuring of towns and cities and spatial overview of planned public and private sector investments.

The integrated development plan can also be a mechanism to promote social equality and fight poverty by focusing on areas with the greatest needs. It can also focus on the plight of the poor and the marginalized addressing landlessness through implementation appropriate to land reform initiatives; it could promote local economic development and prepare spatial frameworks that mainstream the poor in the economy.

The integrated development plan has the potential to make local government development a reality, because it is actually a strategy to promote the quality of life, it is a foundation for community building, a strategic framework for municipal governance, an agent of local government transformation, an instrument for effective and efficient resource allocation, a vehicle to fast track delivery, a barometer for political accountability as well as a yardstick for municipal performance.

As legal requirement sectoral legislation also requires that municipalities must take action to ensure the development of the following: a water services

development plan; an integrated waste management plan; an integrated transport plan; a housing strategy; a local economic development strategies; an integrated infrastructure plan; an integrated energy plan; a spatial development framework; an environmental implementation management plans and a disaster management plan. The plans confirm the fact that development has been entrenched in legislation and that it has been a legislative requirement that government organs such as municipalities must promote and ensure sustainable development in their areas of jurisdiction through the integrated development planning processes.

The research work has gathered adequate information to respond to the hypothesis and draw inferences and confirms that managing sustainable development at the municipal level is informed and guided by legislation government policies; further, that development forms part of human rights and it has been entrenched in the Constitution of the country and other supporting legislation and policies and has become a statutory requirement for municipalities to fulfil.

To fulfil this obligation, it is of critical importance that municipalities understand and comprehend the city development context by executing the following: acquiring insight into significant influences affecting the city; unpacking the vision for the repositioning of the city; and exploring the city restructuring and spatial development options.

The research further concludes that:

- * There is no evidence of a sustainable city since the introduction of the concept sustainable development twenty years ago;
- * there is no single universally accepted definition of the concept sustainable development.
- * there is no universally accepted sustainable development indicators; and
- * South African development legislation and policies provide adequate guidelines for implementation purposes, but lack mechanisms to enforce compliance.

7.3 Recommendations

There are as many definitions of the concept sustainable development as there are authors and writers on the subject, with the result that to date there is no single universally accepted definition of the concept.

Sustainable development as defined by the World Commission on Environment, also known as the Brundtland Report, 1987, proposes broad definitions, namely, that sustainable development refers to development that meets the needs of the present generation without compromising on the ability of future generations to meet their own needs. It is crucial to note however that sustainable development defined by the

Brundtland Report is not achievable in cities in South Africa – in fact it is more of a myth than a reality.

One of the reasons sustainable development is not achievable is because sustainable development is not a status that can be achieved, but an inspiring vision that may be aspired to.

- It is advisable therefore that municipalities in South Africa should develop their own definitions of the concept sustainable development, guided by numerous definitions discussed in Chapter 2 supra.

There are also no universally accepted sustainable development indicators. There are numerous sustainable development indicators developed by cities throughout the World for own use.

- Cities in South Africa are advised to develop their own in-house sustainable development indicators.

Some theorists, authors and writers on the subjects public administration as an activity and public management hold the view that public administration and public management are synonymous, while others are of the opinion that public management is an integral part of public administration. The latter view is also one held by the researcher.

This research established that generally, in the public sector working environment, the two concepts are employed as an integrated whole.

- Based on the findings of this research, municipalities are advised to employ public management as an integral part of public administration.
- The Integrated Development Plan (IDP) as set out in the Local Government Municipal Systems Act, 2000 (Act 32 of 2000) was found to be the more relevant and applicable tool for municipalities in South Africa to manage sustainable development.

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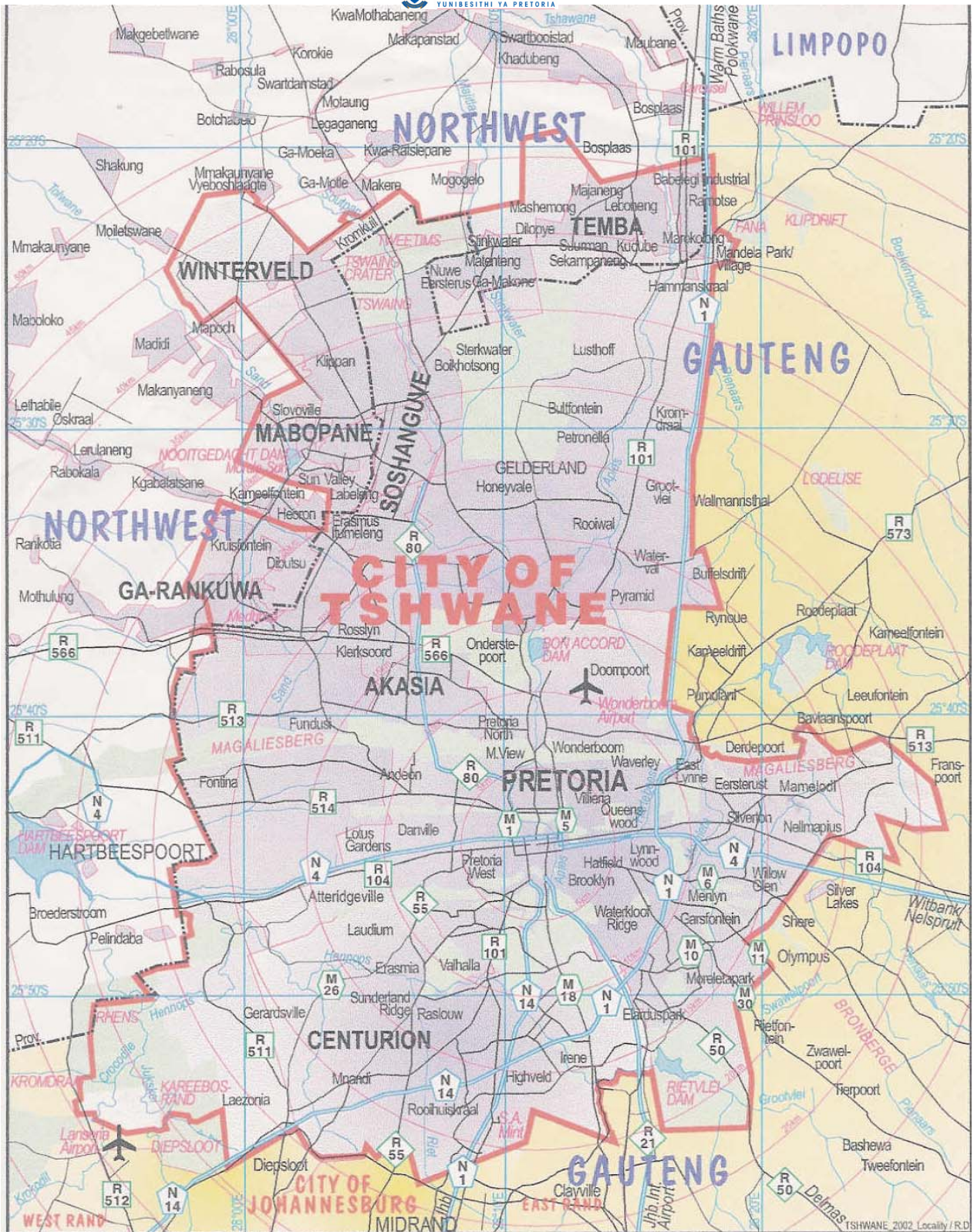
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ANNEXURE A

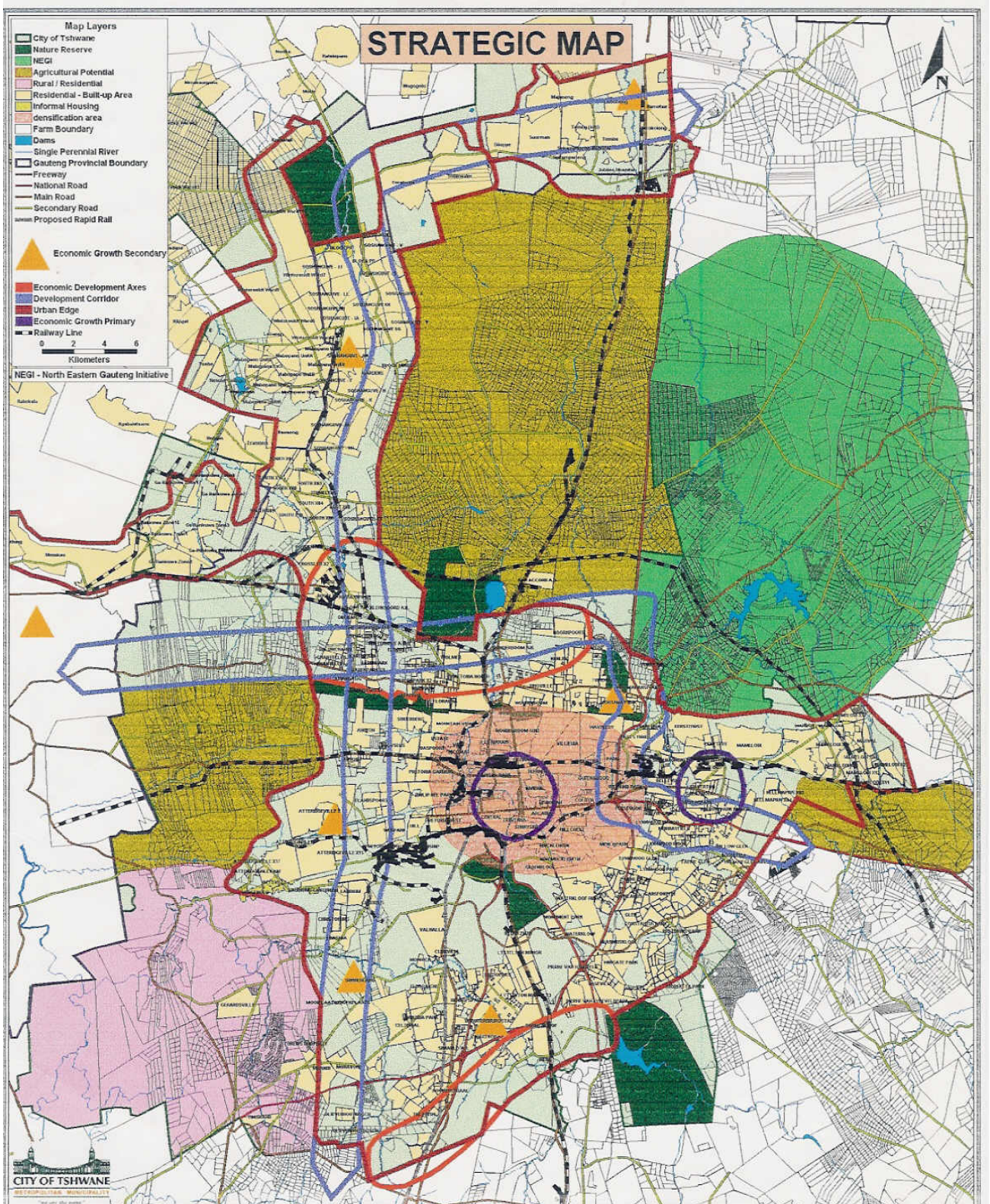
- City of Tshwane Schematic Locality Map
and Strategic Map



CITY OF TSHWANE

SCHMATIC LOCALITY MAP : Tshwane 2020 plan

GAUTENG PROVINCIAL BOUNDARY - - - - -
TSHWANE AREA BOUNDARY ————



Source: Tshwane 2020 Plan

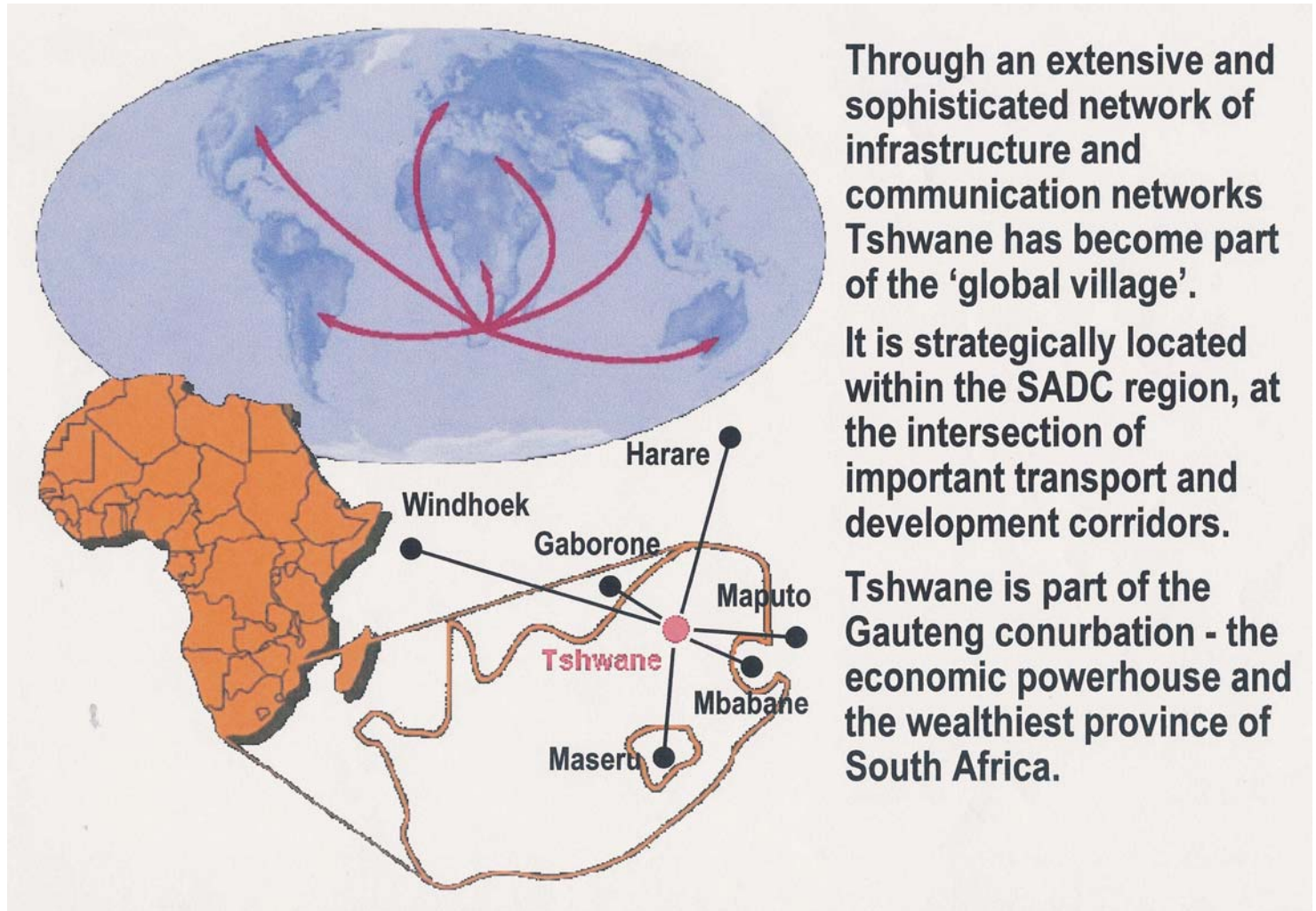
ANNEXURE B

- Tshwane – Part of the Global
- Tshwane, a Region comprising a number of Settlements
- Tshwane cannot function as a single City Individual must achieve settlements – Self sufficient
- Settlements – Inter-related and inter-dependants
- Some settlements or parts therefore – not likely to become viable settlements
- Investments should be made in people rather than in places
- All settlements must be well inter-connected
- The rail system – the basis for public transport throughout Tshwane
- Each or group of settlements should have one or more urban cores
- Urban cores are places of highest concentration of residential, commercial, social, cultural and other general urban activities
- Community should be focused on rail
- A number of other economic nodes should exist
- Growth settlements should be directed inwards
- Tshwane – existing natural features
- The green open space system defines that natural urban edge
- Pretoria's Capital City Status
- Open space system, urban edge, public transport, urban cores, connectivity, economic nodes and capital precinct

- **RESTRUCTURING PROGRAMMES:**

- Programme 1 – Make Tswane Unique
- Programme 2 – Make Tshwane’s economy competitive
- Programme 3 – Make Tshwane a fascinating African City
- Programme 4 – Make Tshwane an excellent place to live in
- Programme 5 – Make Tshwane Unique

- **TSHWANE – THE WAY FORWARD**

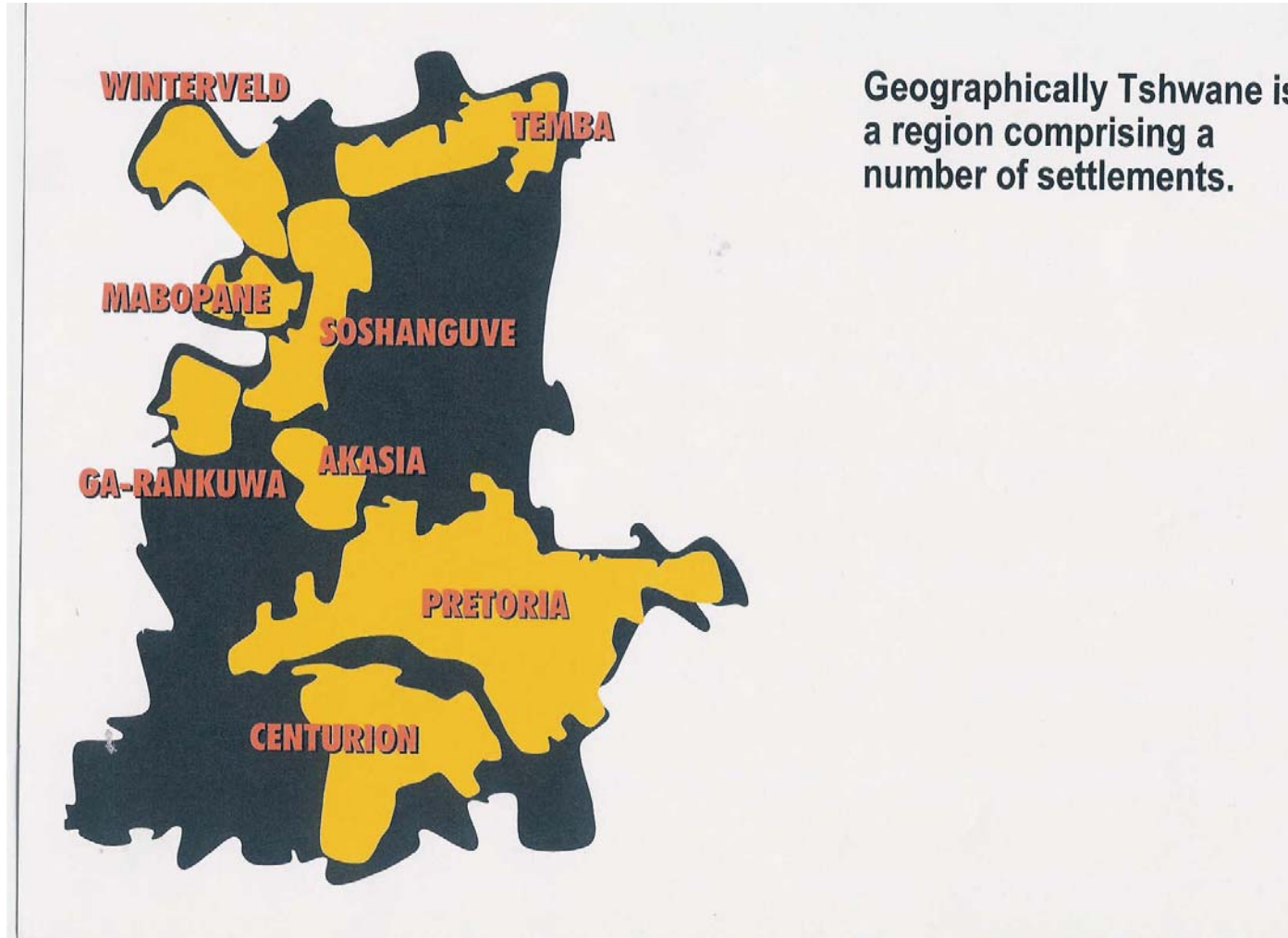


Through an extensive and sophisticated network of infrastructure and communication networks Tshwane has become part of the 'global village'.

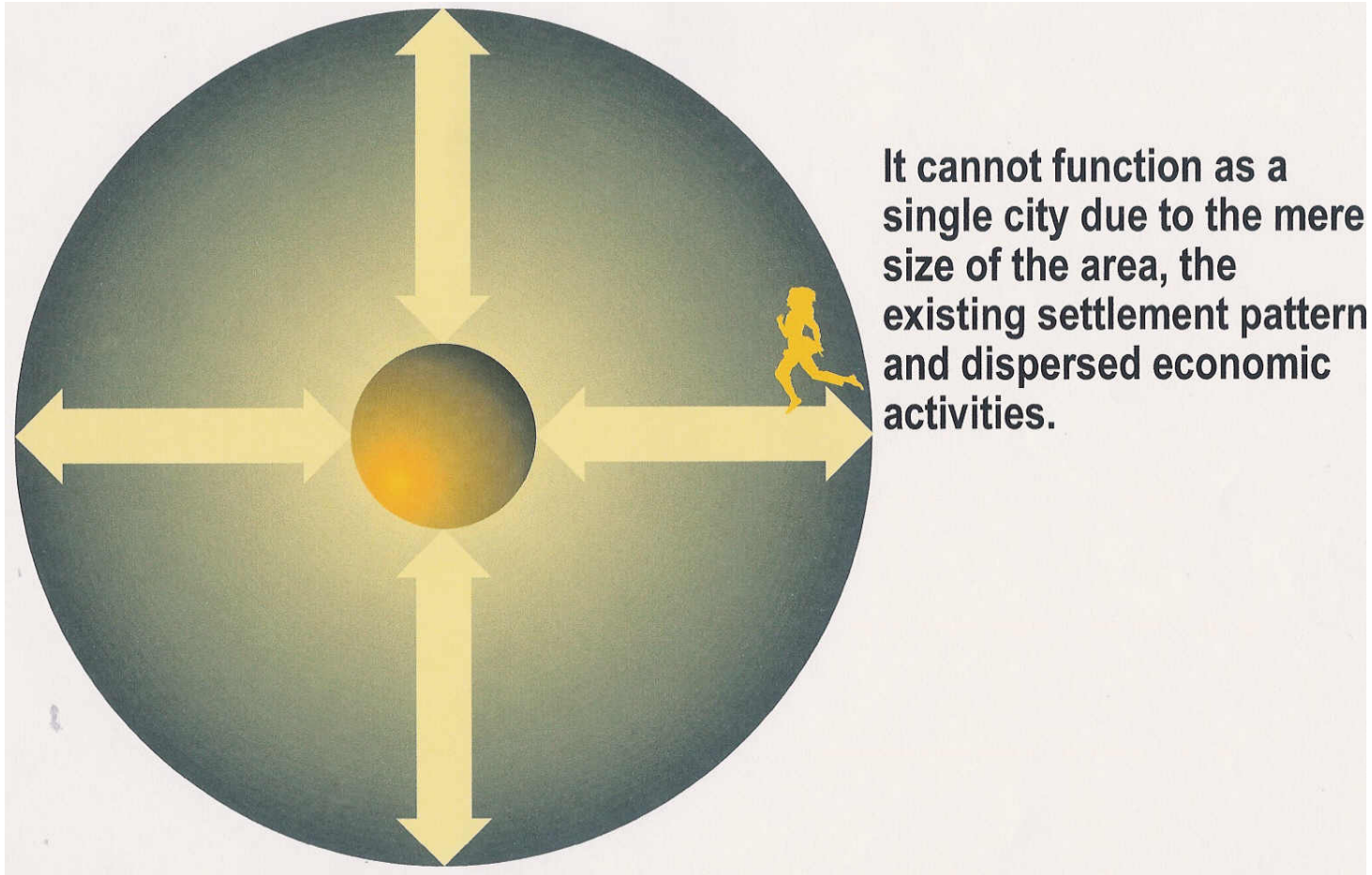
It is strategically located within the SADC region, at the intersection of important transport and development corridors.

Tshwane is part of the Gauteng conurbation - the economic powerhouse and the wealthiest province of South Africa.

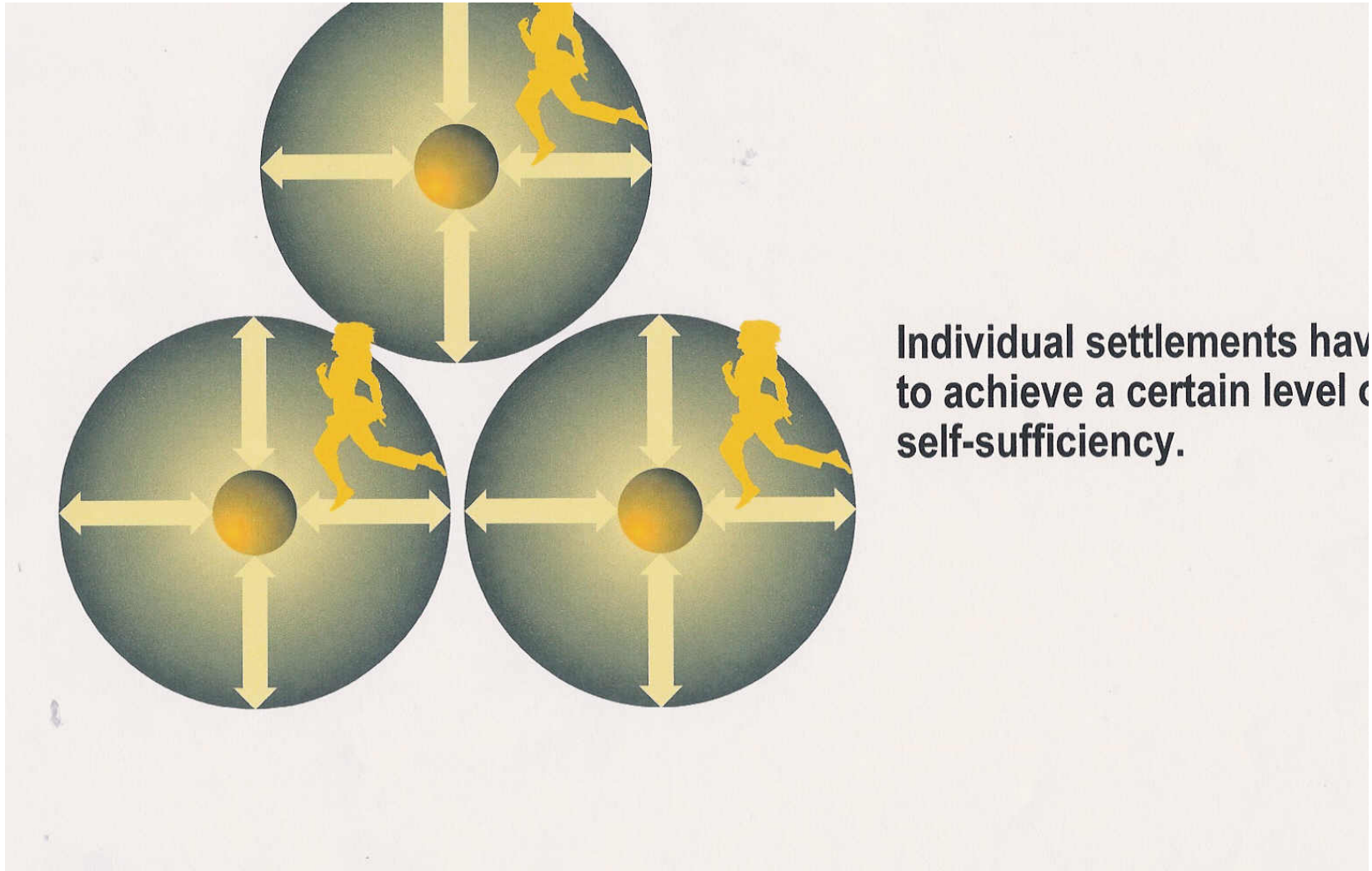
Restructuring and Rebirth of the City of Tshwane:
City Strategic Direction Working Group: 2002



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City Strategic Direction Working Group: 2002

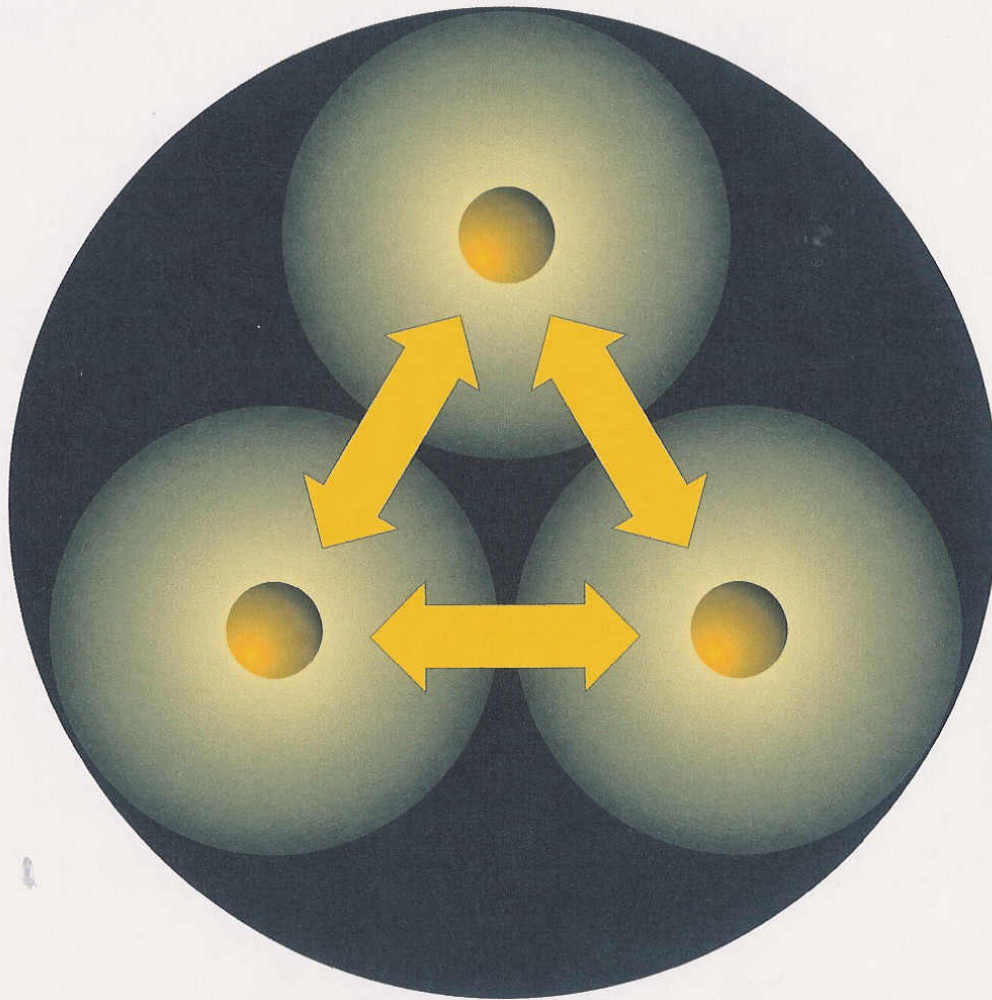


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City Strategic Direction Working Group: 2002



Individual settlements have to achieve a certain level of self-sufficiency.

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All settlements have to be inter-related and inter-dependent as they are governed and serviced by the same local authority.

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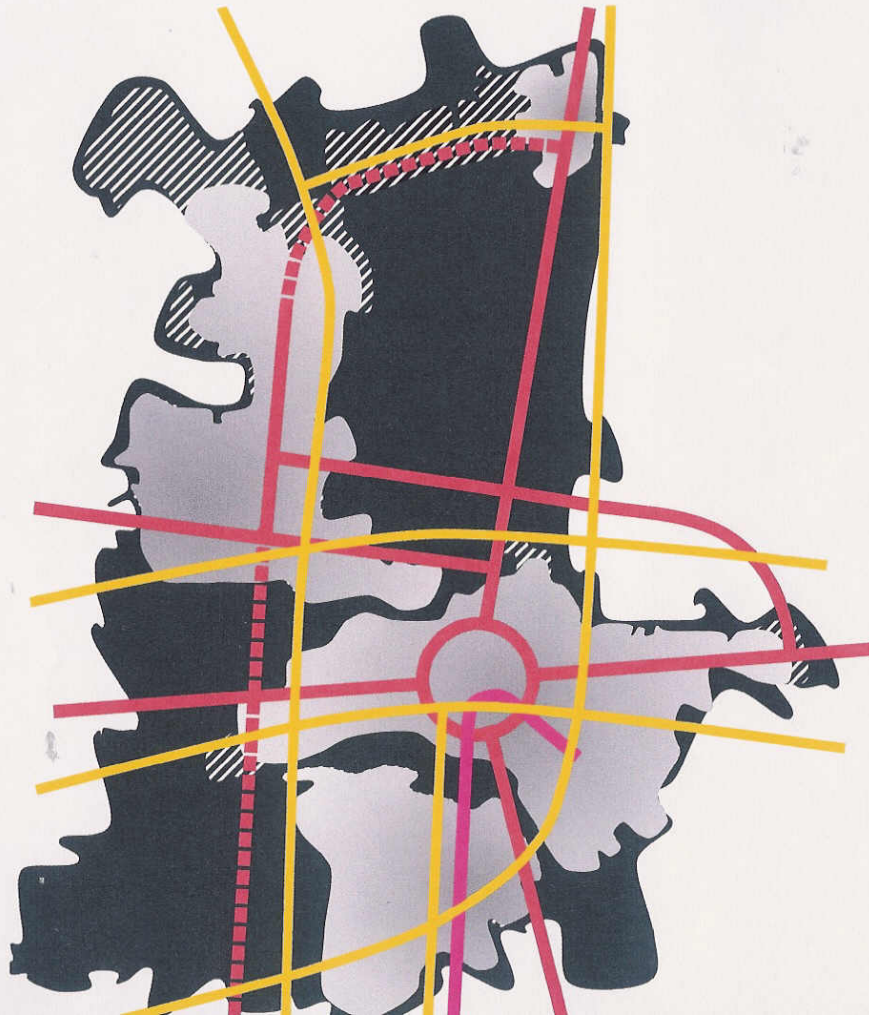


Some settlements or parts thereof are not likely to become viable settlements without serious interventions as they are -

- not likely to attract any development,
- too far from developed or potentially developed areas.

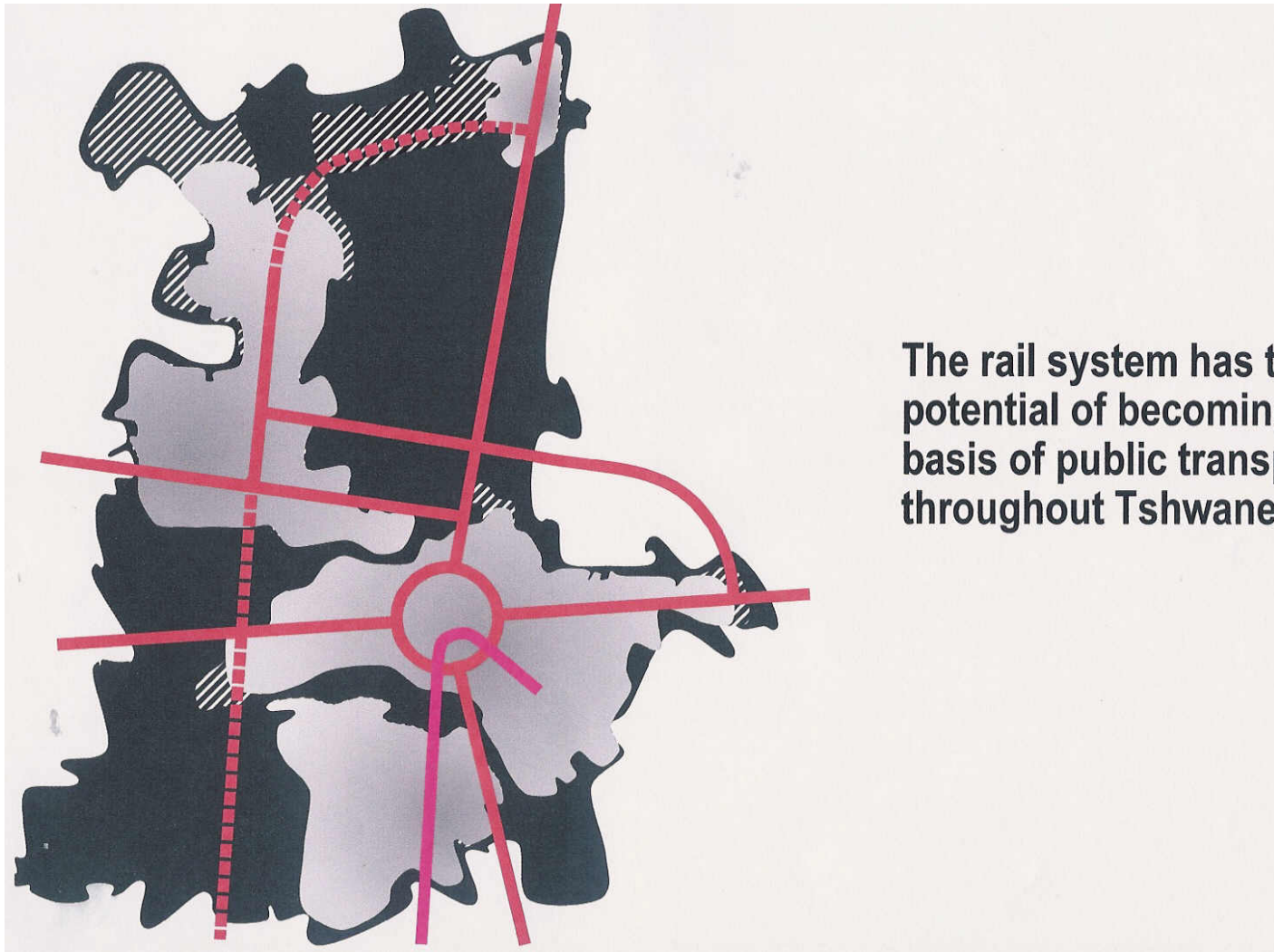
Although further urban development in these areas should be discouraged, basic infrastructure and services should be provided and a rural (agricultural) economy should be promoted.

**Restructuring and Rebirth of the City of Tshwane:
City Strategic Direction Working Group: 2002**

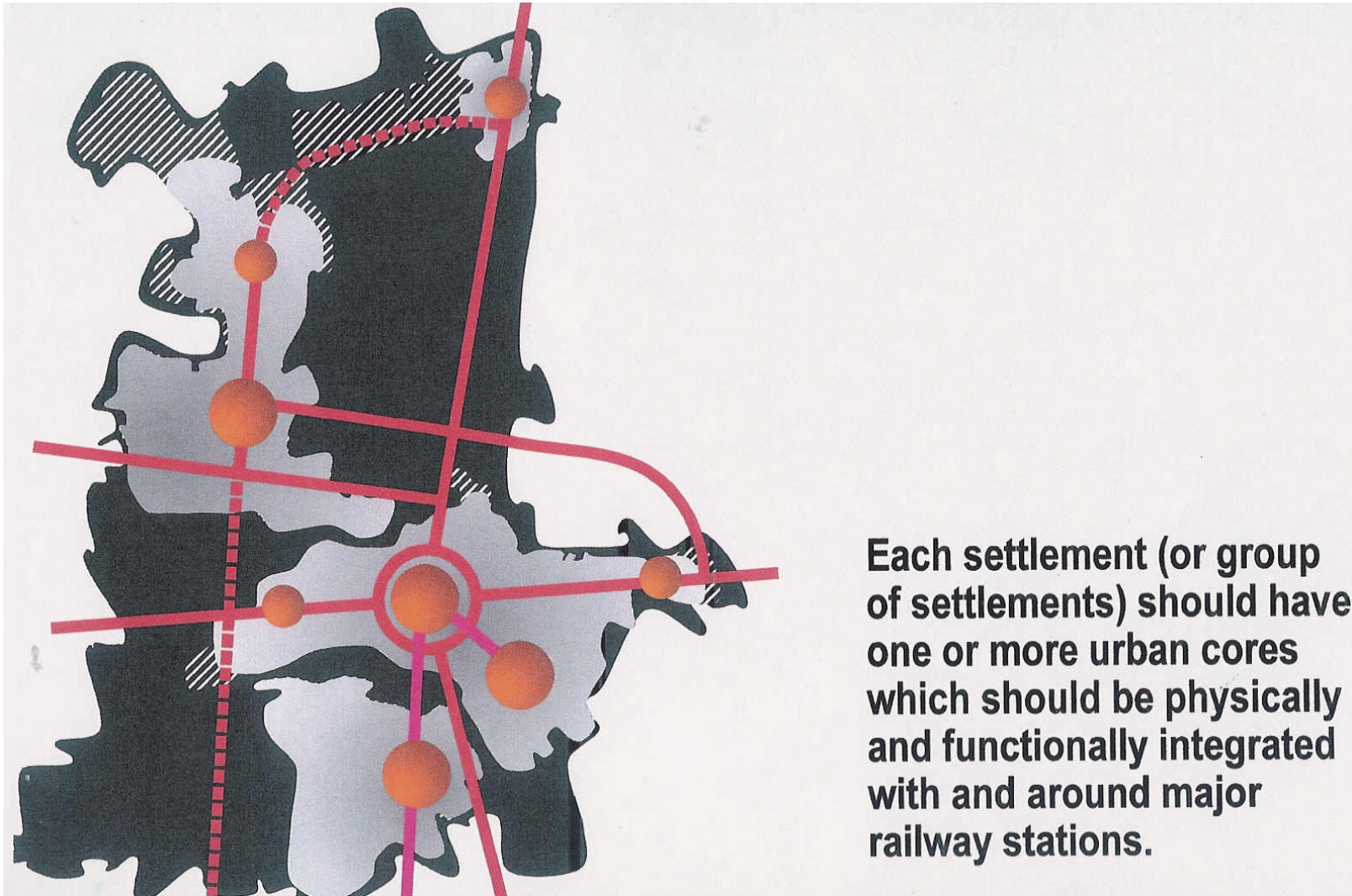


All settlements must be well inter-connected by means of good transport infrastructure and an efficient public transport system.

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Each settlement (or group of settlements) should have one or more urban cores which should be physically and functionally integrated with and around major railway stations.

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Urban cores are places of highest concentration of residential, commercial, social, cultural and other general urban activities.

They are characterised by -

- high intensity and high density mixed land use,
- 24 hour activity,
- well defined communal spaces (e.g. streets, malls, squares, parks),
- pedestrian friendly environments,
- public transport facilities and activities.

They are the foci of civic identity of broader areas.

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The following principles are crucial for the establishment and location of these nodes:

- exploiting comparative advantages,
- economic specialisation,
- optimisation of linkages and clustering of related economic activities.

These specialised economic development zones do not necessarily belong in urban cores and do not have the potential of contributing to the urban character of the cores.

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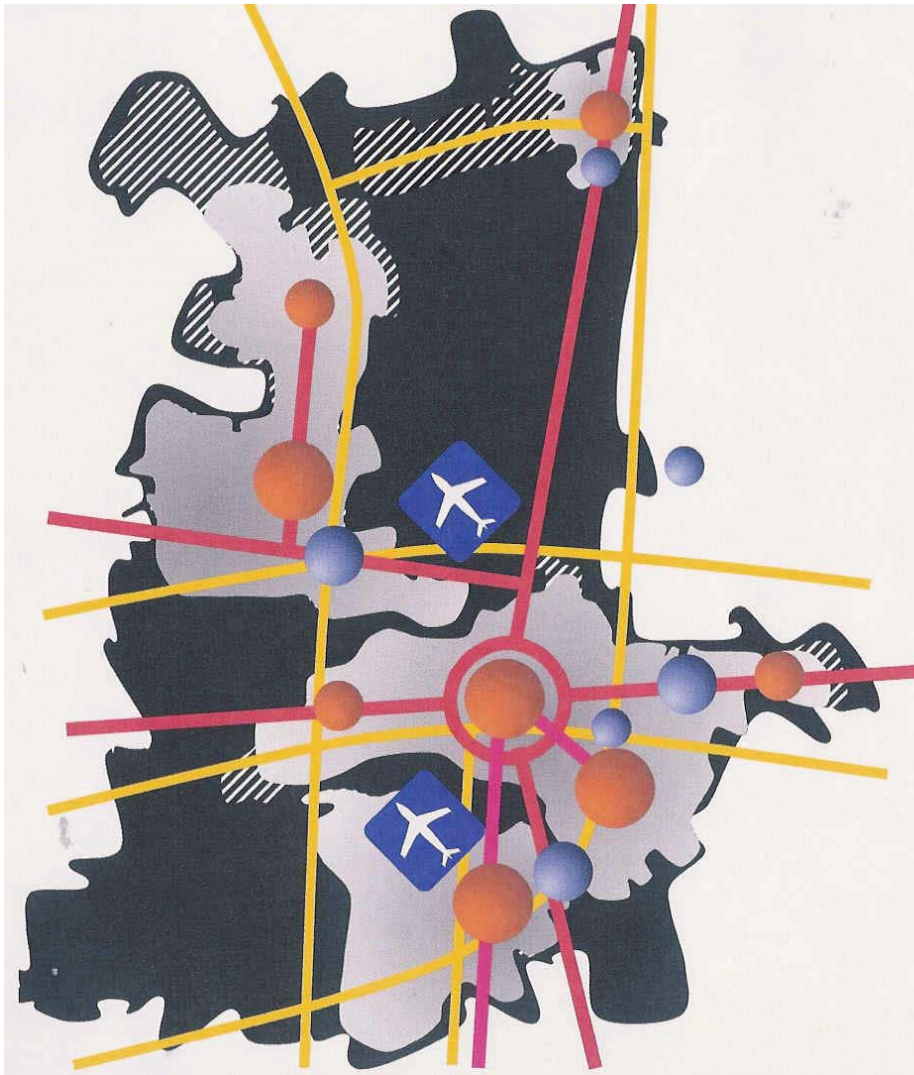


Commuting should be focussed on rail, with a supporting vehicular feeder and distribution system.

Vehicular public transport should support diverse cross-city movement networks.

On local level urban cores should be extended into high density, mixed-use corridors along certain vehicular public transport routes.

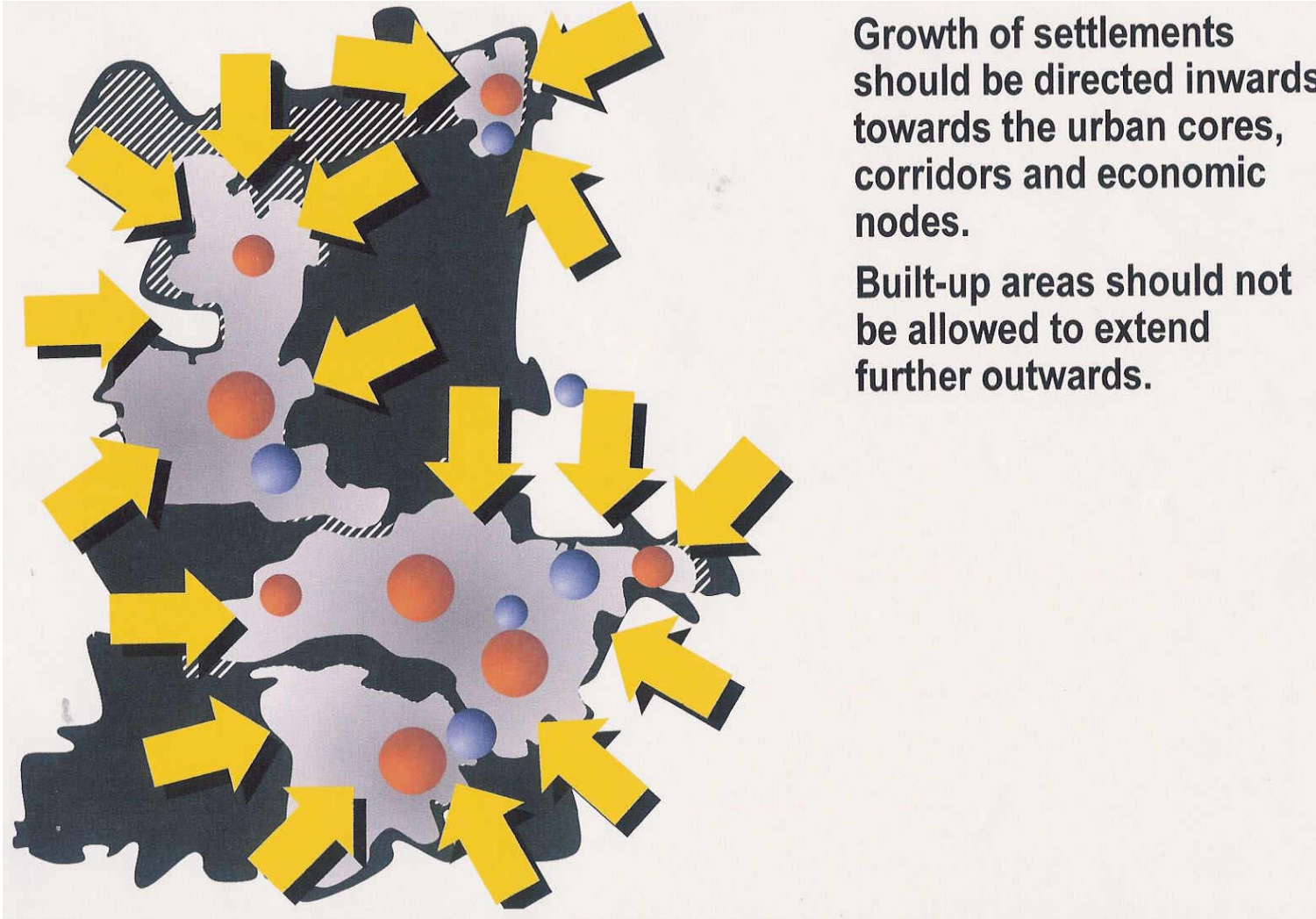
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City Strategic Direction Working Group: 2002



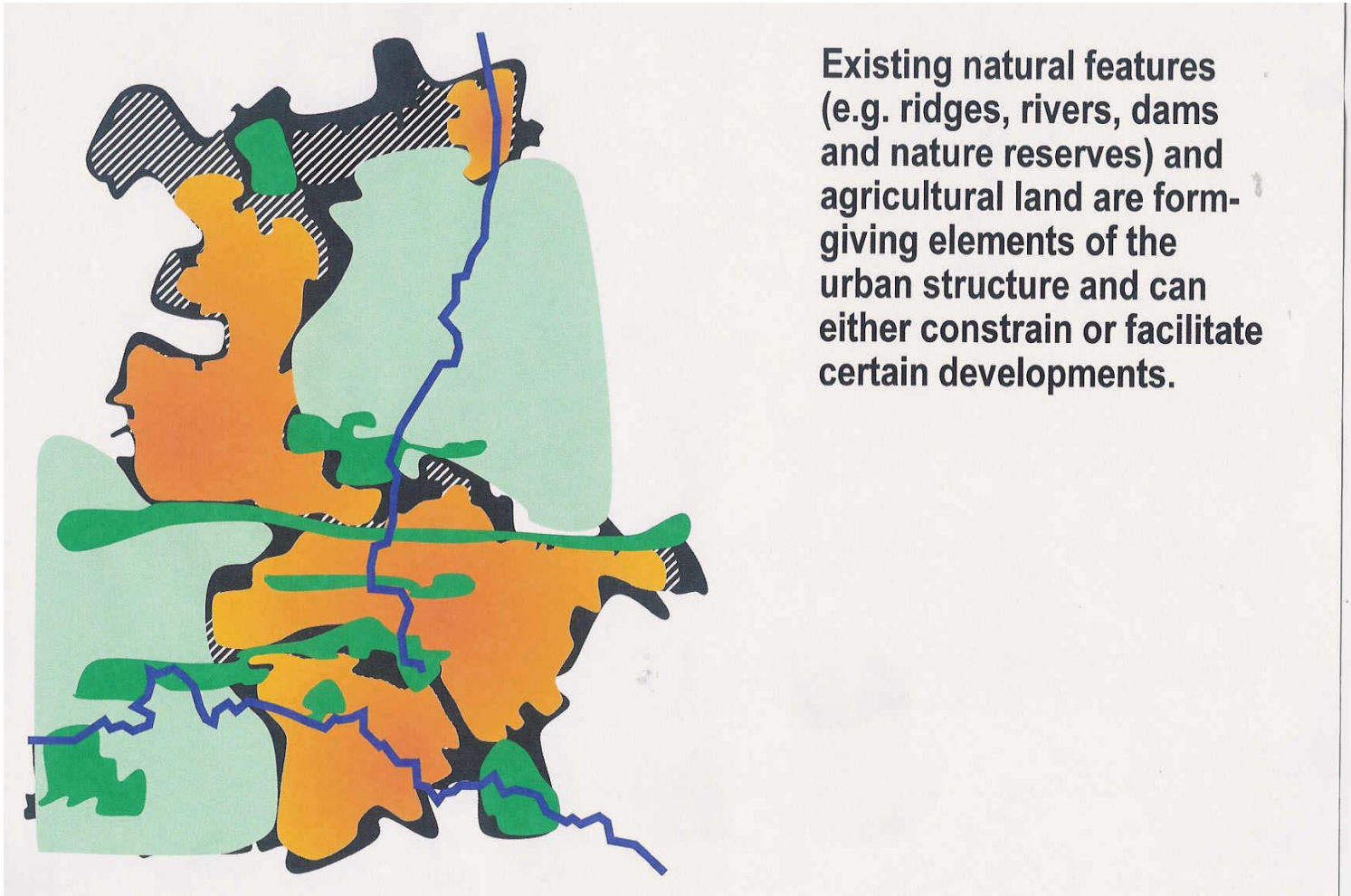
A number of other economic nodes should exist. They house the economic base of the municipal area and provide employment to its residents.

These nodes need good accessibility and, sometimes, visibility from major mobility routes.

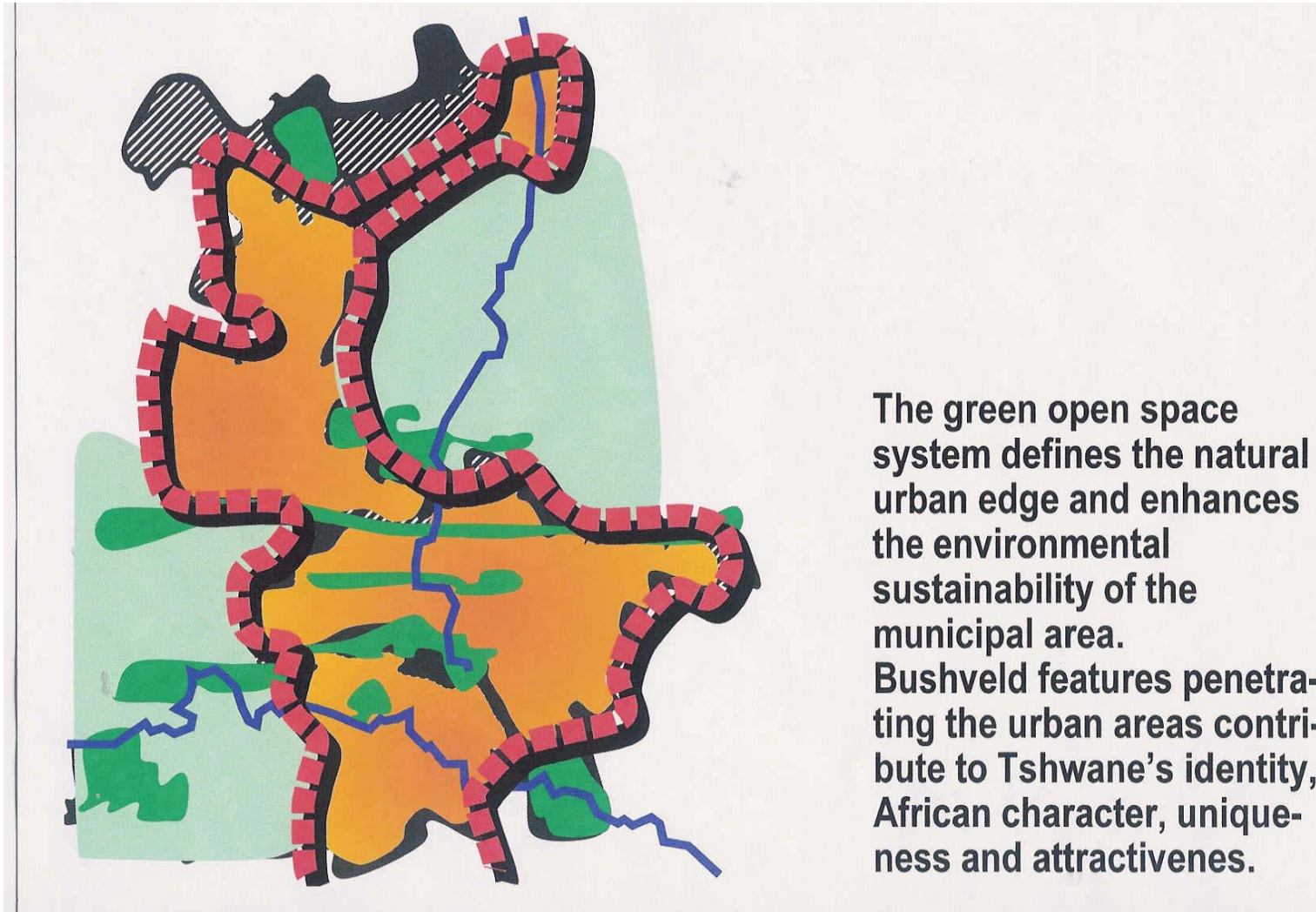
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City Strategic Direction Working Group: 2002



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City Strategic Direction Working Group: 2002

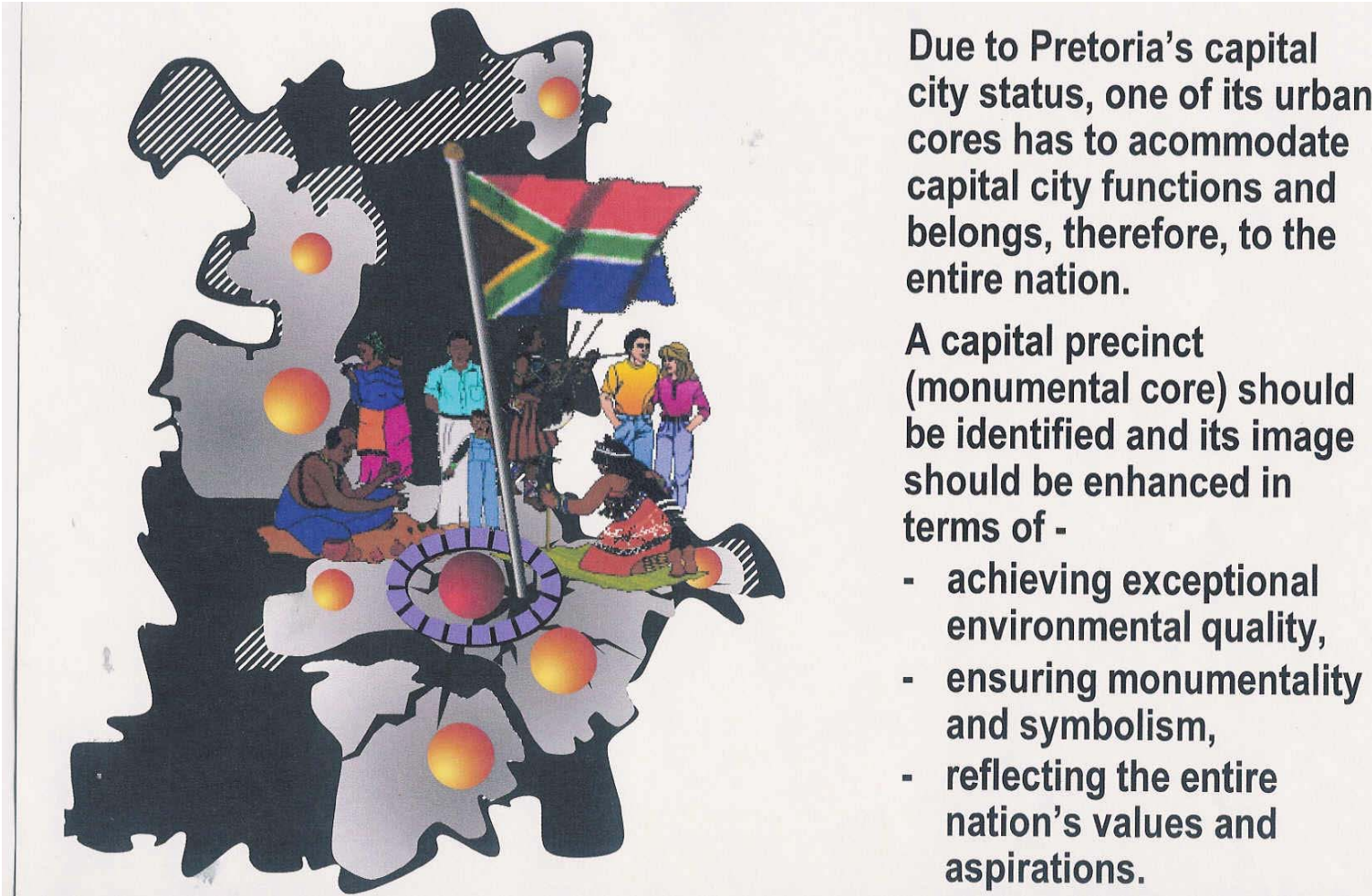


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City Strategic Direction Working Group: 2002



The green open space system defines the natural urban edge and enhances the environmental sustainability of the municipal area. Bushveld features penetrating the urban areas contribute to Tshwane's identity, African character, uniqueness and attractiveness.

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City Strategic Direction Working Group: 2002



Due to Pretoria's capital city status, one of its urban cores has to accommodate capital city functions and belongs, therefore, to the entire nation.

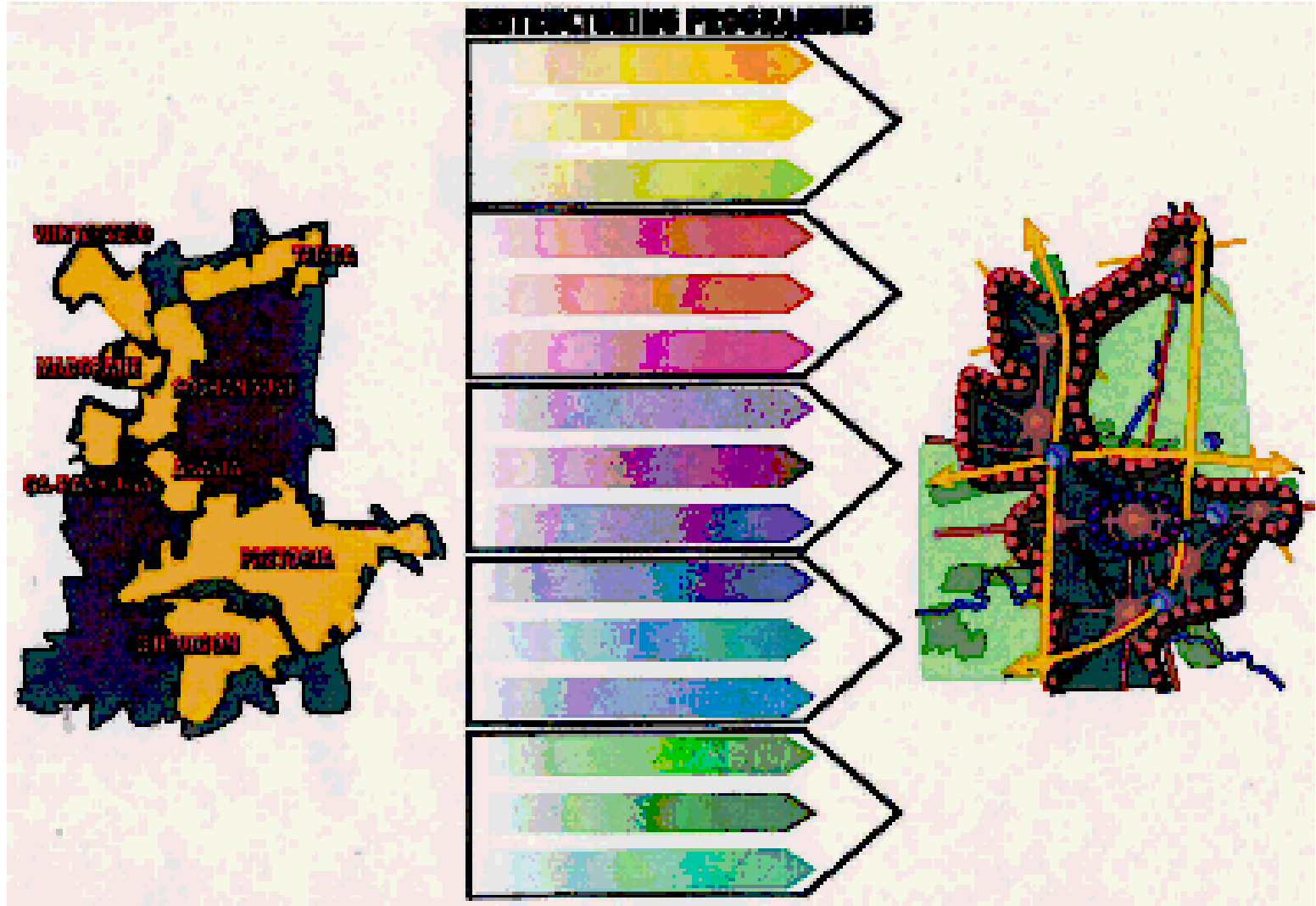
A capital precinct (monumental core) should be identified and its image should be enhanced in terms of -

- achieving exceptional environmental quality,
- ensuring monumentality and symbolism,
- reflecting the entire nation's values and aspirations.

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City Strategic Direction Working Group: 2002



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City Strategic Direction Working Group: 2002



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City Strategic Direction Working Group: 2002



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PROGRAMME 3 MAKE TSHWANE A FASCINATING AFRI- CAN CITY

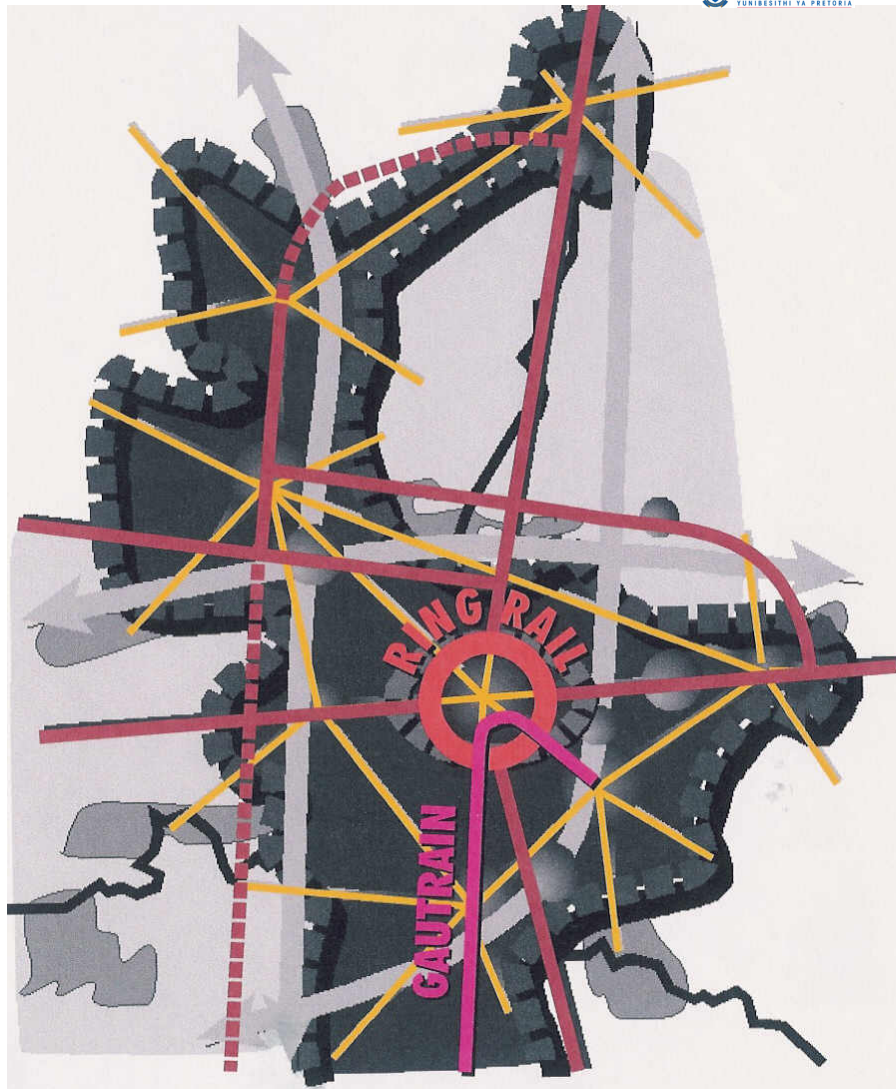
**...ENHANCE THE ATTRACTIVENESS AND
AFRICAN CHARACTER**

Explore and utilise African natural
and cultural features;

Support and expand on the Freedom
Park initiative;

Support the Dinokeng initiative;

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City Strategic Direction Working Group: 2002



PROGRAMME 4 **MAKE TSHWANE AN** **EFFICIENT CITY**

...OPTIMISE THE FUNCTIONING OF THE CITY

Enhance the use, function and viability of the Ring Rail system;

Support the Rapid Rail link to Johannesburg and integrate these with the vehicular public transport system;

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City Strategic Direction Working Group: 2002



PROGRAMME 5
**MAKE TSHWANE AN
EXCELLENT PLACE TO
LIVE IN**

**...GIVE RESIDENTS REASON FOR PRIDE
AND JOY**

Stimulate development of urban
cores around major railway stations;

Ensure clean, green and safe city;

Address service backlogs;

Address the impact of HIV/AIDS;

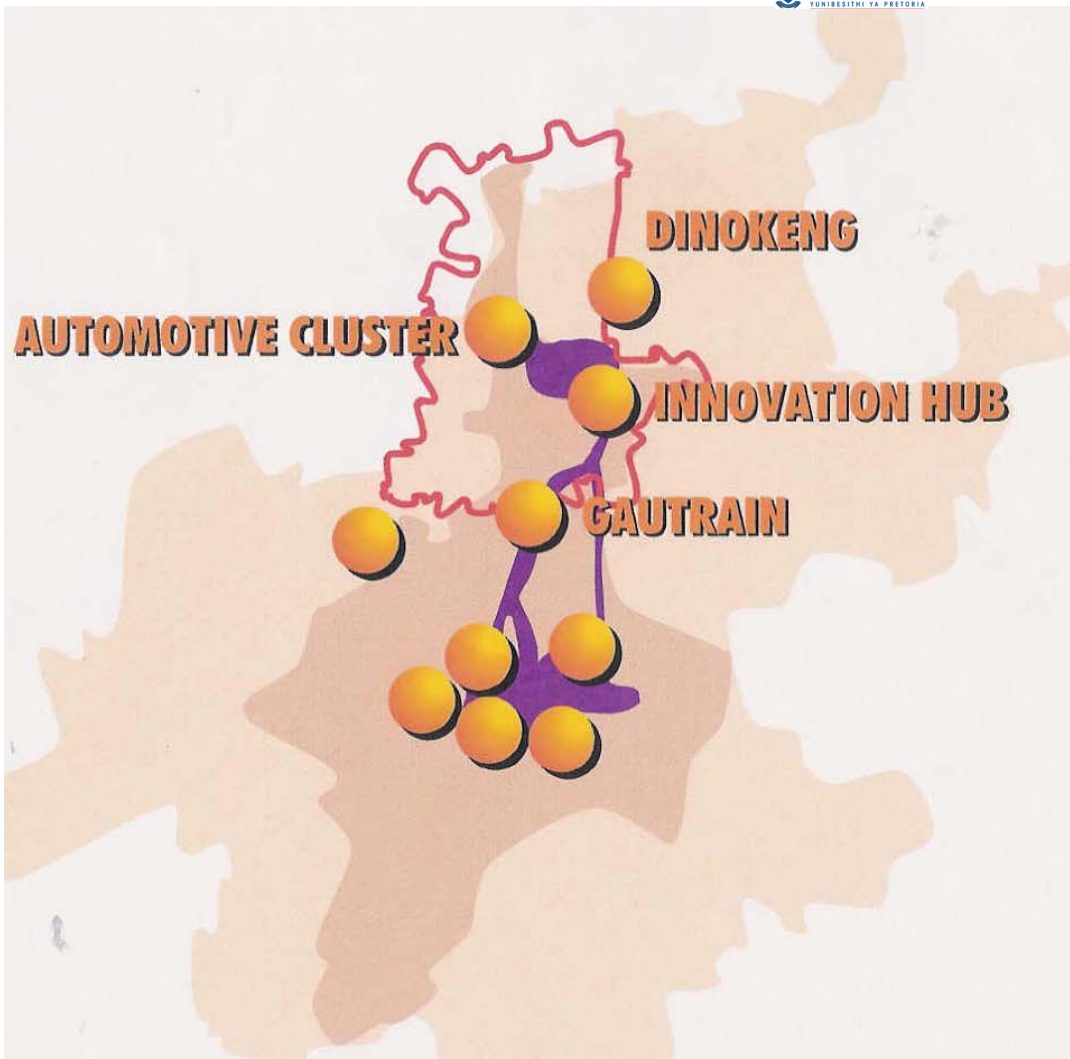
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THE WAY FORWARD

1. Obtain political approval and commitment
2. Continue the debate on Restructuring and Rebirth of the City of Tshwane with relevant role players
3. Establish a partnership with relevant role players for successful implementation
4. Use the approved Spatial Restructuring Directions as a basis for the Metropolitan Spatial Development Framework

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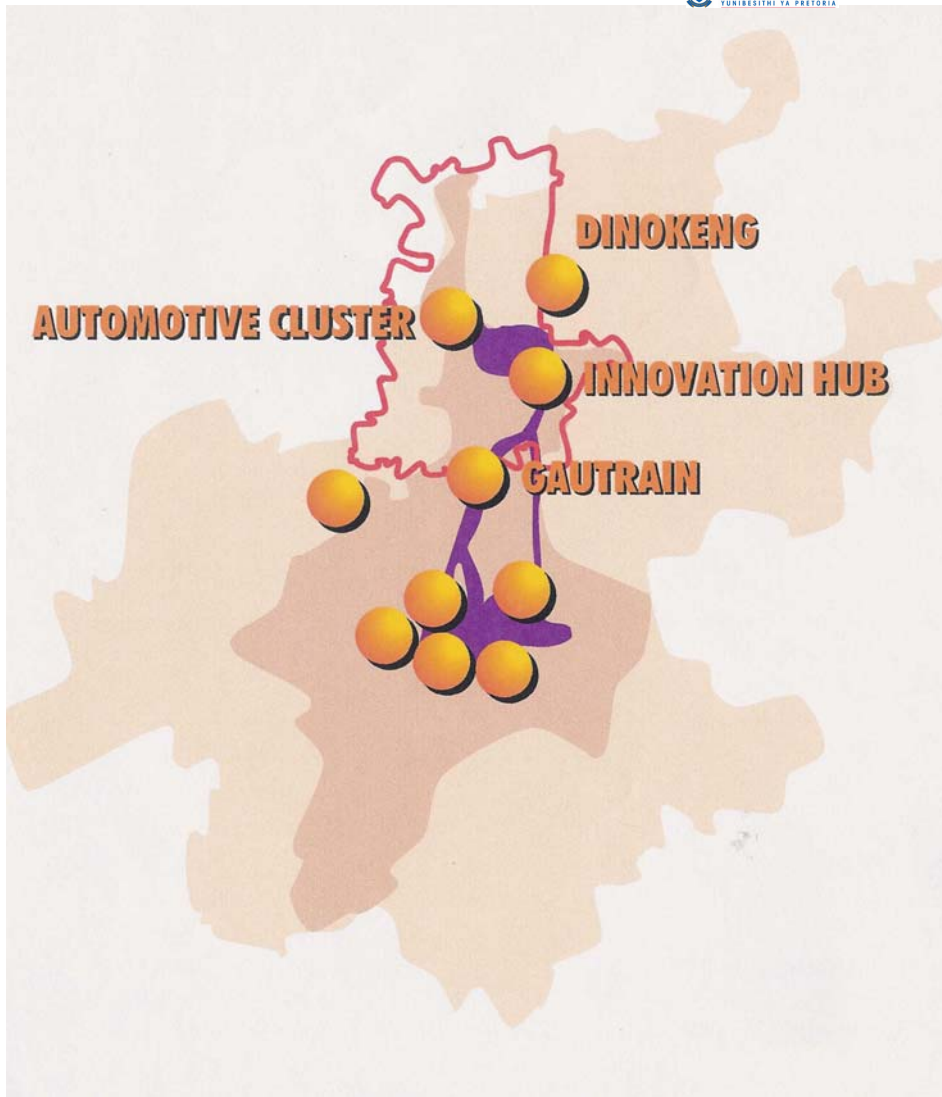


In restructuring Tshwane it is therefore essential to acknowledge and build on the proposals of the Gauteng Spatial Development Framework, especially with regard to -

- provincial economic core
- strategic development initiatives.

The Gauteng Spatial Development Framework proposes the following principles:

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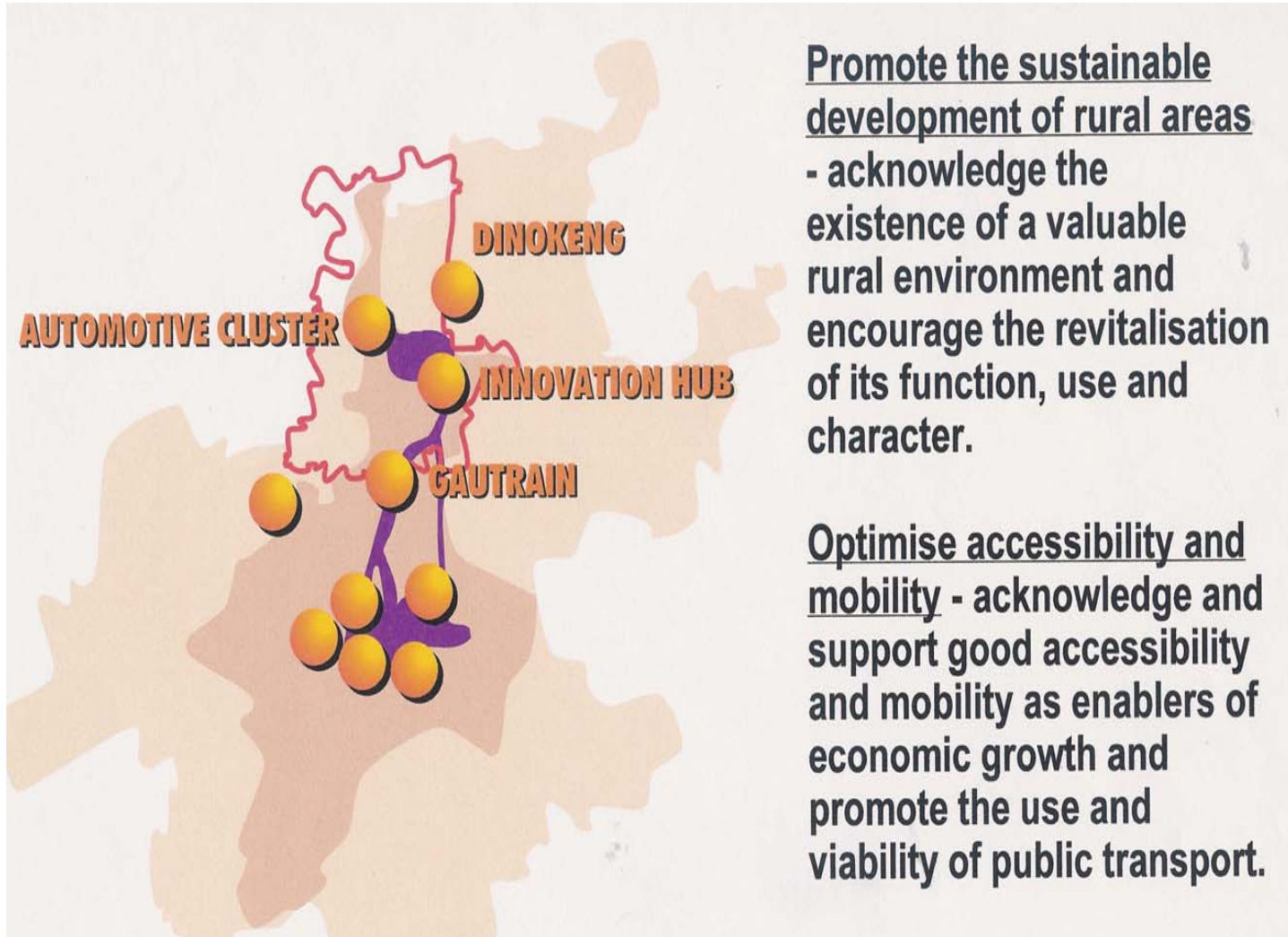


Contain and compact the city - define an urban edge as a restructuring device to protect the rural environment and to conserve the natural resources.

Stimulate economic growth - formulate local economic development strategies that address stagnation and decline and enable sustainable economic growth.

Encourage growth in new areas - create an enabling environment for economic activities in close proximity to new housing areas.

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City Strategic Direction Working Group: 2002



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City Strategic Direction Working Group: 2002