Identifying and managing the social, economic and environmental effects of gated developments in Jamestown, Stellenbosch

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Abstract

As urbanisation increases, crime and the feeling of insecurity are becoming more prevalent in South African towns. As a consequence, exclusionary developments have become an important form of development. Gated developments are dramatically altering the way in which towns function. Gated developments do not only have social and economic effects, but also affects the natural environment in many ways. For these reasons, gated developments do not promote sustainable development and are mostly undesirable. Although there are several fields of study that aim to address these effects, there is no single body of literature that looks at a combination of effects and ways to manage or address these effects.

This study aims to fill this gap by assisting to (i) provide a theoretical base and historical perspective of gated developments in South Africa; (ii) provide insight regarding the factors that have driven the popularity of these developments; (iii) identify the social, economic and environmental effects that arise as a consequence of the presence of gated development in the Western Cape, and more specifically Jamestown, Stellenbosch; (iv) provide practical examples of these effects by looking at case studies of gated developments in Jamestown; (v) identify current management tools with which to address these effects; and (vi) explore the best use of the management tools identified in this study to the identified effects of gated developments in Jamestown. This study makes use of a literature review, as well as an empirical study where existing documents (such as environmental impact assessments and spatial development frameworks) are analysed and qualitative and quantitative data are used to explore a number of case studies.

From the case studies and additional research it was evident that there is an overlap between laws, policies and plans at the various spheres of government, together with an overall absence of policies with which to manage several of the effects of gated developments. It was further found that in some cases such developments should not be approved, rather than simply trying to manage the effects after these developments have been approved. During the planning stage, more coordination between stakeholders are required and this needs to be converted into better implementation of the laws, policies and plans at ground level. Existing management tools have the ability to address several of the social, economic and environmental effects; however, some management tools must be amended to more effectively address case specific effects. Only if the

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above mentioned aspects are addressed, can sustainable development be integrated into development in South Africa.

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Opsomming

Soos wat verstedeliking toeneem, neem misdaad en die gevoel van onveiligheid toe in Suid Afrikaanse dorpe. As gevolg het uitsluitende ontwikkelings ‘n belangrike vorm van ontwikkeling geword. Omheinde ontwikkelings het die manier waarop stede funksioneer dramaties verander. Omheinde ontwikkelings het nie net sosiale en ekonomiese gevolge nie, maar dit affekteer ook die natuurlike omgewing op verskeie maniere. Vir hierdie redes bevorder omheinde ontwikkelings nie volhoubare ontwikkeling nie en is dus grootliks ongewens. Alhoewel daar verskeie studierigtings is wat daarop gemik is om hierdie effekte aan te spreek, is daar geen enkele liggaam van literatuur wat na ‘n kombinasie van die verskillende gevolge kyk en dan maniere uitlig om hierdie effekte te bestuur of aan te spreek nie.

Hierdie studie het ten doel om hierdie gaping te vul deur te help om (i) ‘n teoretiese basis en histories perspektief van omheinde ontwikkelings in Suid Afrika te bied; (ii) om insig te verskaf oor watter faktore die gewildheid van hierdie tipe ontwikkelings aandryf; (iii) om die sosiale, ekonomiese en omgewings effekte wat ontstaan as gevolg van die teenwoordigheid van omheinde ontwikkelings in die Wes-Kaap, en meer spesifiek Jamestown in Stellenbosch, te identifiseer; (iv) om praktiese voorbeelde van hierdie effekte te voorsien deur te kyk na gevallestudies van omheinde ontwikkelings in Jamestown; (v) om huidige bestuursmetodes waarmee hierdie effekte aangespreek kan word, te identifiseer; en (vi) om die beste gebruik van die bestuursmetode wat uitgelig is in hierdie studie op die geidentifiseerde gevolge van omheinde ontwikkelings in Jamestown te ondersoek. Hierdie studie maak gebruik van ‘n literatuurstudie en ‘n empiriese studie met die analise van bestaande dokumente (soos omgewingsimpakstudies en ruimtelike ontwikkelingsraamwerke) en waar kwalitatiewe en kwantitatiewe data gebruik word om ‘n aantal gevallestudies te ondersoek.

Uit die gevallestudies en addisionele navorsing was dit duidelik dat daar ‘n oorvleueling tussen die wette, beleide en planne op die verskillende vlakke van regering is, tesame met ‘n algehele afwesigheid van beleid om sommige van die effekte van omheinde ontwikkelings mee aan te spreek. Dit is verder bevind dat in sekere gevalle sulke ontwikkelings voorkom behoort te word, eerder as om slegs die effekte te probeer bestuur na die goedkeuring van sulke tipe ontwikkelings. Tydens die beplanning stadium word meer koördinering benodig tussen belanghebbendes en dit moet dan oorgedra word in beter implementering van die wette, beleide

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en planne op grondvlak. Bestaande bestuurs metodes het die vermoë om verskeie van die sosiale, ekonomiese en omgewings effekte aan te spreek, maar daar is steeds ‘n tekort aan sekere bestuurs metodes waarmee spesifieke gevalle aangespreek kan word. Slegs indien die bogenoemde aspekte aangespreek word, kan volhoubare ontwikkeling bevorder word in die ontwikkelings veld in Suid Afrika.

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List of Acronyms and Abbreviations

ANC	-	African National Congress
BEE	-	Black Economic Empowerment
BoR	-	Bill of Rights
CID	-	City Improvement Districts
CPTED		'Crime Prevention Through Environmental Design'
CSR	-	Corporate Social Responsibility
DMP	-	Dennis Moss Partnership
DEA&DP	-	Department of Environmental Affairs & Development Planning
ESD	-	Economically Sustainable Development
EAP	-	Environmental Assessment Practitioner
EA	-	Environmental Authorisation
ECA	-	Environmental Conservation Act
EIA	-	Environmental Impact Assessment
EMF	-	Environmental Management Framework
EMP	-	Environmental Management Programme/Plan
EMS	-	Environmental Management System
EPI	-	Environmental Policy Integration
FCTS	-	Future Cape Town Summit
GN	-	Government Notice
GVA	-	Gross Value Added
HOA	-	Homeowners Association

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HRDP	-	Human Rights Day Protest
IHF	-	Inclusionary Housing Framework
IHP	-	Inclusionary Housing Policy
IBA	-	Impact and Benefit Agreements
IDP	-	Integrated Development Plan
IEM	-	Integrated Environmental Management
I&AP	-	Interested & Affected Party
ISO	-	International Standards Organisation
LUMS	-	Land Use Management Systems
LUPA	-	Land Use Planning Act (Western Cape)
LUPO	-	Land Use Planning Ordinance
LUS	-	Land Use Schemes
MSA	-	Municipal Systems Act
NDP	-	National Development Plan
NEMA	-	National Environmental Management Act
NEPA	-	National Environmental Protection Act
NSDF	-	National Spatial Development Framework
NSSD	-	National Strategy for Sustainable Development
N	-	Nitrogen
NPC	-	Non-Profit Companies
PGD	-	Post-Graduate Diploma

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PGDS	-	Provincial Growth and Development Strategy
PPP	-	Public Participation Process
RPC	-	Rate Payers Committees
ROD	-	Record of Decision
RIDS	-	Regional Industrial Development Strategy
RDP	-	Rural Development Plan
SHP	-	Social Housing Policy
SAHRC	-	South African Human Rights Commission
SAPS	-	South African Police Services
SDF	-	Spatial Development Framework
SDI	-	Spatial Development Initiative
SDP	-	Spatial Development Plan
SPLUMA	-	Spatial Planning & Land Use Management Act
SRA	-	Special Rates Area
SSI	-	Steward Scott International
SEA	-	Strategic Environmental Assessments
SD	-	Sustainable Development
UN	-	United Nations
WWTW	-	Waste Water Treatment Works
WCPSDF	-	Western Cape Provincial Spatial Development Framework
WCG	-	Western Cape Government.

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Chapter 1: Introduction

1.1. Background to the study

This study is about gated developments and the effects that these developments have with regard to promoting sustainability. Sustainable Development (SD) is mentioned as the goal of development in many policy documents, and thus much emphasis is placed on the promotion of this type of development. As a consequence of the potentially negative effect of gated developments, a need exists to regulate the expansion and growth thereof, and a number of laws, policies and plans address aspects with which to manage the growth and effects of these types of developments.

In the year 2014 the researcher moved out of Stellenbosch in pursuit of a job in the environmental field, after having completed a Post Graduate Diploma in Environmental Management. During the process of finding affordable accommodation the researcher observed that vast areas had recently been developed on the urban edges of nearly all major residential areas in the Western Cape. While looking for safe, affordable and easily accessible accommodation, it was identified that a significant percentage of the housing opportunities that meet the above mentioned criteria, were in the form of gated developments.

After further investigation it became apparent that the fast moving tempo of urban development, often in the form of gated developments, had several effects on the natural, economic and social environments, as well as on the built environment. During informal conversations with practioners in the field, the researcher became more aware of some of the problems and opportunities that gated communities present in these specific areas, as also mentioned in the available literature. Having worked in the environmental field as an Environmental Assessment Practitioner (EAP) for several months prior to this study, it becomes evident that there is a limited amount of available tools to directly address the effects of gated developments. With the wealth of new gated developments, there is a need to attempt to address the shortcomings which are evident in both theory and practice.

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1.2. Research problem

Providing adequate housing for rapidly urbanising population groups is a major problem in South Africa. Due to the increased urbanisation and growing urban sprawl (Kotze et al., 2014: 3-5), safety (amongst multiple other factors) has become a driver for the demand of gated developments (Penderis, 1996: 1; Landman, 2001: 1; Landman, 2004: 1). In recent times the effects of gated developments have been visible in a number of fields. Many authors have highlighted the various effects mentioned above (Landman, 2004: 19-24; Fife, 2002: 65); however this has largely been done with a focus on their relevant field of study, whether it is from an environmental, planning, economic or social viewpoint. From this it has become apparent that in order to promote sustainability, all the evident effects of gated developments need to be analysed and understood from an overarching perspective.

After studying these effects and their causes in more detail, it is essential that management techniques also be identified and tested, as the management techniques will then hopefully provide ways with which to address these effects. An example is given by Donaldson (2014: 6) where he announces that the concept of agri-villages could potentially hold the answer to the fragmentation caused by gated developments in the Jamestown area. He also states that farmer's markets could provide the local population with access to local food systems. However, if such a system is not properly managed, it could become like the current commercial market in the area. This commercial market was once a farmer market, but is now a driver of further exclusion due to its commercial nature. This is one example of how mismanagement can itself become a problem. It is therefore pivotal that the identified effects be addressed accordingly; not only to attempt to mitigate the negative effects, but also to maintain and promote the positive effects.

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Figure 1.1: Aerial image of Stellenbosch, indicating the location of Jamestown in red (Google Earth, 2015)

1.3. Problem statement

The Western Cape is often compared to other provinces in South Africa due to it being rich in environmental resources and economic attractions and because it is very attractive for the development of high-income residential developments. Landman (2003: 22) mentions that the Western Cape has the third highest number of enclosed neighbourhoods (a form of gated developments) embedded in its local municipalities, amounting to 13% of the total number of enclosed neighbourhoods in South Africa, behind Gauteng (30%) and the Limpopo Province (17%). As is the case in other provinces in South Africa, gated developments in the Western Cape have various positive and negative outcomes and effects.

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Based on the fundamentals of Sustainable Development, the effects of gated developments can be categorised into three fields, namely: social, economic and environmental. Martino and Zommers (2007: 4) mention that: “The World Commission on Environment and Development (WCED) recognised 20 years ago that the environment, economic and social issues are interlinked. It is recommended that the three be integrated into development decision making”. In relation to the above mentioned statement, it must be assumed that to promote sustainability, the environmental, social and economic effects of gated communities must be dealt with as individual effects belonging to a certain field, but must also be dealt with in integrated ways, as they are dependent on one another for achieving Sustainable Development.

When comparing various gated developments overall, it becomes apparent that most of the gated developments in question present site specific effects; but that some effects are uniform and appear to be the same irrespective of the type and location of gated development. In their article, Landman and Schönteich (2002: 71-85) show that the effects of gated communities can even be similar on an international level, by comparing gated communities in South Africa to those in Brazil. It is thus again highlighted that it is of vital importance to identify the social, economic and environmental effects of gated developments in order to improve knowledge of these effects.

By identifying the effects of gated developments, the opportunities and problems of these types of developments become evident. These opportunities and problems require attention in order to manage the effects of gated developments; however, it is deemed as insufficient to simply highlight the effects that gated developments present. Also not much effort has been made to identify management efforts, techniques or tools. Various policies and frameworks aim to provide ways of avoiding the negative effects of gated developments; however, these ideas are either not implemented or the outcomes thereof are not yet visible and thus it is evident that society does not have the knowledge or skills how to deal with the effects of gated developments as also indicated by Landman (2003:3-5). Therefore a need exists to both identify and explore additional ways with which to manage the effects of gated development in the Western Cape. It must be noted that problematic developments should be rejected instead of aiming to simply manage the potential effects that may arise at a later stage.

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It is impossible to study all the gated developments in the Western Cape and this study will therefore make use of a number of case studies based in Jamestown, Stellenbosch. The researcher decided to focus on Jamestown, Stellenbosch, based on research done by Donaldson (2014) and Donaldson and Morkel (2012), which mentions Jamestown as an example where a number of retirement and lifestyle gated developments lead to the development of quartered spaces and to "the destruction of a once authentic space- an historical rural hamlet (for coloureds) by urban spatial transformation" (Donaldson & Morkel, 2012: 63).

The town of Stellenbosch, and the case studies, represents the main issues and effects of gated developments all over. Focusing on case studies within one municipal area will make it possible to study the specific context, as well as local responses to gated developments in more detail, thus leading to a more effective study.

1.4. Research question and aim

The main research question this study will explore is what the social, economic and environmental effects of gated developments in Jamestown, Stellenbosch are, and what would be required to ultimately better manage these effects? The study will therefore:

- identify the social, economic and environmental effects associated with gated developments in Jamestown, Stellenbosch;
- try and identify realistic management tools which could be applied in these areas to either address the negative effects, or sustain the positive effects of gated developments.

This exploratory study aims to describe existing phenomena in more detail, with the emphasis being placed on finding real life solutions in local areas. If sustainable and plausible mitigation or maintenance plans can be identified, they can potentially be applied in other geographical areas. This study aims to deal with real life phenomena, while placing special emphasis on the factors that relate specifically to the environmental management field. This study has not specifically been undertaken to make new findings in the field, but rather to get a clearer understanding of what exactly it is that makes gated developments the controversial topic it is.

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1.5. Objectives of the research

It is against the above mentioned background that the broad research objectives of this investigation will be to:

- Provide an interpretive theoretical base and historical perspective of gated developments in South Africa and what has driven the recent rise in popularity;
- Identify and provide insight regarding the main laws, policies and plans that currently regulate gated development in South Africa, with a specific focus on the Western Cape and Stellenbosch;
- Identify the known social, economic and environmental effects of existing gated developments in the Western Cape, and more specifically Jamestown, Stellenbosch;
- Provide practical examples of the effects of gated developments through the use of case studies of De Zalze Golf Estate, Aan De Weber Residential Estate, La Clemence Retirement Village and Stellenbosch Square Shopping Centre;
- Use the identified laws, policies and plans to explore management tools with which to manage the effects of gated developments identified in this study, with specific focus on the effects of gated developments in Jamestown, and
- Explore how to manage gated developments in a way which will ultimately contribute to promoting sustainable development.

1.6. Research design and methodology

1.6.1 Theoretical Perspectives

This study will be a combination of a literature review (a non-empirical study) and an empirical study, making use of case studies. There are various study approaches which could have been followed, such as participatory action research, surveys with large random samples, comparative studies and evaluation research (Mouton, 2001: 145). After careful consideration and due to time limits and practical implications, it was decided that a case study would be best suited to address the desired outcome of this particular study, based mainly on secondary data as found in existing documents, with a combination of qualitative and quantitative data. The case study methodology was selected since "case studies comprise more detail, richness, completeness, and variance –

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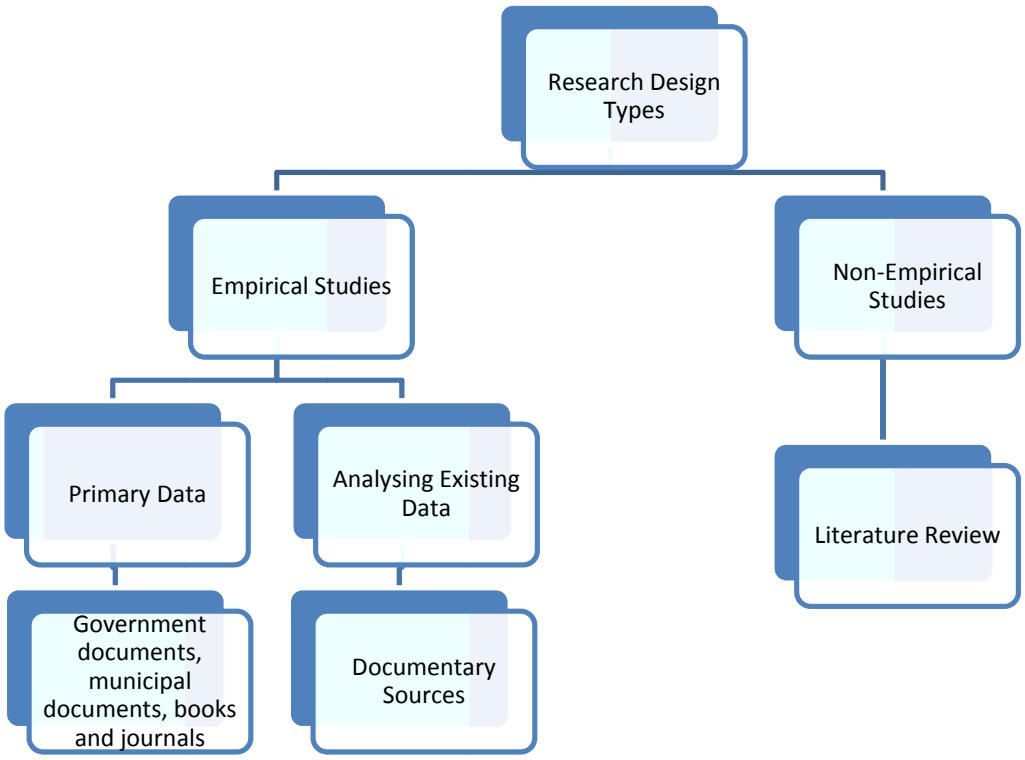
that is depth – for the unit of study than does cross-unit analysis" (Flyvbjerg, 2011: 301). According to Flyvbjerg (2001) there are a number of misunderstandings regarding case studies, including that one cannot generalise and develop general propositions and theories from a single or a number of case.

1.6.2 Literature Review

The non-empirical study consists of two literature review chapters, each covering a different area of literature.



1.6.2.1 Gated Developments and their effects

The first literature review chapter will cover a range of theoretical perspectives. The literature review will provide a clearer indication of what sustainability is and how it can most likely be achieved, since achieving sustainable development is one of the main aims of most development. The literature review will then identify what gated developments are and what factors led to the rise in their popularity. The social, economic and environmental issues will then be explored before focussing on what management means for this study, as well as how management tools can be understood in this context.

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1.6.2.2 Management instruments and tools

The second literature review chapter will turn the attention to the management tools which impact on the planning, environmental, social and economic aspects of developments; describing the role of these management instruments (or tools). This literature review will also look at the structure and frameworks within which the separate tools operate, systematically categorising the identified 'tools' under either environmental, social, economic or planning categories. This literature review chapter will identify general management 'tools', leaving the site specific application of these 'tools' for analyses as part of the case studies.

1.6.3 Policy and legal context

The next part of the study will explore existing laws, policies and regulations that currently apply to development, and more specifically gated developments, in South Africa. This section will start with national laws and policies and will then narrow down to legislation and regulations that specifically focus on the Western Cape as the provincial focus, before ultimately being narrowed down to local development in Jamestown, Stellenbosch. This section will flow from the National Constitution and its Bill of Rights down to the Stellenbosch Integrated Development Plan (IDP) and Spatial Development Framework (SDF), identifying applicable management 'tools' along the way.

1.6.4 Case study approach

The empirical research will be based on in depth case studies, making use of quantitative and qualitative data. The case studies were selected based on previous research by Donaldson (2014) and Donaldson and Morkel (2012) due to their specific effect on the rural hamlet of Jamestown. It was also decided to select a number of case studies in one municipal area, so that the policy and plans of that municipality could also be explored. The case studies also represented a number of different gated developments, from lifestyle developments to retirement villages.

The case studies will be explored using secondary data and analysing existing documents. The secondary data will be collected from public documents such as copies of Environmental Impact Assessments, Environmental Authorisations, and Environmental Management Plans, together with Acts, books, peer-reviewed articles, electronic journals and other relevant literature. This

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study looks at two main case studies due to available information as well as the relevance of its geographical location in Jamestown, which forms part of the discussion at a later stage. Two supplementary case studies is used to shape the argument set forth in this study; however, due a lack of co-operation from several parties, significant information about these case studies could not be acquired. A lack of time also contributed to the narrow focus of the case studies. Other limitations of the study were the lack of funds and the unwillingness of some parties in the area to participate in the study.

1.6.5 Effects of gated developments

The following part of the study will look at the actual effects of gated developments in order to identify as much possible effects of gated developments, also known as gated communities. This will be done from the literature, as well as in correlation with relevant case studies. In this section two main case studies will be used to identifying the various effects. The first case study is the case of De Zalze Golf Estate, opposite the Stellenbosch Square Shopping Centre. The second case study is Aan De Weber Residential Estate. Both of these developments had significant effects on the existing Jamestown development, a former Coloured rural hamlet. These gated developments have been blamed for fragmenting and quartering the area and excluding Jamestown, while some residents were also relocated, due to the shopping mall being built in this area (Donaldson, 2014: 6). By using these two developments as case studies, this study aims to uncover the true short and longer term effects of these gated developments. Due to a lack of available data, the further examples of La Clemence and Stellenbosch Square will be used to strengthen certain claims, but will not be looked at in as much depth as De Zalze Golf Estate and Aan De Weber Residential Estate.

Spocter (2013: 1-332) did an extensive study on the patterns, processes and purposes of gated communities in the Western Cape, and made various findings with regards to this specific region. He specifically looked at the theoretical perspectives that shape gated developments, such as the isolationist nature of gated developments as well as the perceptions around safety (Spoctor, 2013: 62-70). He also investigated what role the geographical location of these developments play, with regards to security estates and townhouse complexes (Spoctor, 2013: 97-115). His study will be used as a guiding document throughout this study.

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The chosen case studies will be studied in more detail by exploring copies of planning documents used when applying for these developments, such as copies of Environmental Authorisations, Environmental Impact Assessments, Environmental Management Plans, Integrated Development Plans and Spatial Development Frameworks. The relevant Environmental Authorisations, Environmental Impact Assessments and Environmental Management Plans will also be consulted for site specific information.

After the above mentioned effects have been highlighted, secondary textual data in the form of books, articles, journals and internet sources, will be examined. Secondary textual data will be used to identify current management techniques used in current practices in South Africa, and more specifically the Western Cape. This study will also aim to identify new management techniques and ideas which can be used to maintain the positive effects of existing gated developments if the flow of this study allows for such claims to be made.

All of the information needed for this study will be obtained from public sources. No formal interviews and personal data will be conducted or collected as part of the research, although some people will informally be contacted to help source documents. All the required information for this study can be obtained from public sources, deeming it unnecessary to conduct interviews, or use questionnaires.

1.7. Chapter outline

1.7.1. Chapter 1 – Overview of research

Chapter 1 explores why this study was undertaken and why more research on such a topic would be needed. This chapter also indicated how this study will aim to conduct the research and what specific gaps in current knowledge must be addressed in order to more effectively analyse the shortcomings of gated developments.

1.7.2. Chapter 2 – From gated development to sustainable development

Chapter 2 will be done in the form of a literature review, exploring various literatures analysing the term sustainable development and what is required to achieve sustainable development. This

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literature review will also look at what gated developments are and what factors are driving the demand for gated developments.

1.7.3. Chapter 3 – Management tools and techniques

Chapter 3 will look at what management tools are and what existing tools there are with which to guide development in general. These tools can be divided into planning, social, economic and environmental sections. This chapter will aim to unpack the fundamentals of some management tools in more detail.

1.7.4. Chapter 4 – Laws, policies and plans

In this chapter, the national, provincial and municipal laws, policies and plans that influence development (and specifically gated developments) will be analysed in detail. It will look at how these different laws, policies and plans are aligned and in what direction they collectively aim to guide developments.

1.7.5. Chapter 5 – Case studies: Jamestown, Stellenbosch

Various case studies of developments in Jamestown will be used to highlight the social, economic and environmental effects of gated developments in Jamestown. These case studies will then aim to unpack the above mentioned effects and aim to identify the causes thereof simultaneously.

1.7.6. Chapter 6 – Discussion of Findings

This chapter will address the various effects identified in chapter 5 by using the management tools (as included in the laws, policies and plans identified in chapter 4) to address the effects and ultimately mitigate the negative effects and enhance the positive effects. In this way, this chapter will aim to highlight how these management tools can ultimately assist in achieving sustainable development.

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1.7.7. Chapter 7 – Conclusion and Recommendations

This chapter will aim to determine if the study achieved its intended targets, while simultaneously giving concluding remarks and providing a summary of the outcomes of the research, as well as recommendations and suggestions for further research.

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Chapter 2: From Gated Development to Sustainable Development

2.1. Introduction

Development is an immensely complex concept due to the many environmental, social and economic factors that need to be considered during any type of development. This means that if development is to be done in an efficient way, it would need to explore how various environmental and social factors interact or intersect in specific cases. Carley and Christie (2000: 155) refer to the problems that arise as a consequence of interaction between the environment and the human population as 'metaproblems'. Metaproblems include fundamental developmental concepts such as urbanisation and urban sprawl. Although these concepts are global issues, South Africa is the perfect example of how the mismanagement of development activities can contribute to these metaproblems.

Together with various metaproblems, the environmental issues, economic issues and social issues that arise from mismanaged development, need to be addressed. Gated developments have specifically become controversial due to the effects that arise as a consequence of it, and thus a need exists to better manage these effects. The evident need to identify and then manage these effects will thus act as the theoretical point of departure on which this study will be based. Focusing specifically on Jamestown, it will explore the positive and negative aspects that originate as a consequence of the presence of gated developments in the area, using management methods to mitigate the negative effects as well as enhance the positive effects. Laws and policies are intended to encourage equality and sustainability, but progress made in recent years remains insufficient.

This literature review chapter will analyse the concept of Sustainable Development and the potential role that Sustainable Development has to fulfil. Development in South Africa will be examined, with specific emphasis on Gated Developments. This chapter will also unpack the various factors that have led to Gated Developments in South Africa, including urbanisation, and crime, as well as other environmental and socio-economic effects that arise as a consequence of

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the increased presence of gated developments. Current ways of managing these effects will be investigated to complete the chapter and provide greater insight into the size of the problem.

2.2. The origin of the term 'Sustainable Development'

The world renowned term, sustainable development, was initially illustrated in the report 'Our Common Future', also known as the Brundtland report (1987), published by the World Commission on Environment and Development, was credited for its ability to attach a definition to the relatively vague and complex term of sustainable development. This report defined sustainable development as: "development which meets the needs of the present without compromising the ability of future generations to meet their own needs" (Drexhage & Murphy, 2010: 2).

Sustainable development has become generally accepted on a world wide scale; to such an extent that in 1992, at the United Nations Conference on Environment and Development in Rio de Janeiro, various leaders got together to put out the so called 'core principles' of sustainable development (Earth Summit, 2015). This lead to the development of the plan for action, named 'Agenda 21'. In 2002 the World Summit in Johannesburg re-endorsed the concept of Sustainable Development in the Johannesburg Plan of Implementation. During 2012 at the Rio + 20 UN conference, the United Nations (UN) adopted a document called 'The Future We Want.'

2.2.1. From 'Agenda 21' to 'The Future We Want'

Since 1992 when Agenda 21 was adopted at the Rio Conference, its aim was to improve the general living standard of the lower income groups, to increase awareness of the vulnerability and importance of managing ecosystems, as well as to assist in providing more prosperous future for all of humankind (UN, 1992). Agenda 21 is then further described as an international and multi-sectorial commitment whose goals and objectives can be achieved at ground level if its long term action plans are successfully implemented. The above mentioned goals and objectives aim to place emphasis on sustainable development at local level. One constraint on the implementation of Agenda 21 at local level is the financial resources required to carry out the objectives of Agenda 21 over the long term.

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On a more practical basis, Agenda 21 can be viewed as an international development plan designed to enhance sustainable development on both a national and international level through addressing developmental, environmental and social issues. This Agenda is divided into four segments, with the main aim on promoting sustainable development through these various segments. The first segment of Agenda 21 deals with economic and social dimensions. Through identifying the human factors that affect economic and social dimensions of sustainable development, Agenda 21 aims to improve integrated decision-making on all government levels. This is most evident in this section due to the emphasis being placed on the integration between environmental decision-making and developmental decision-making (UN 1992: 13-17).

Agenda 21 (UN 1992: 231-320) further expands on increasing the accountability and authority of the different role players in the third segment of the document. If sustainability is to be achieved, the document claims that local communities must be involved in decision-making processes and that government and other agencies alone will not be able to achieve sustainability alone. This section of the Agenda highlights the importance of indigenous knowledge, the role that woman and children can play in community development, as well as the importance of business and industry in providing economic opportunities in communities, thus alleviating the reliance on other resources and so allowing for a more sustainable community.

The fourth and last segment of Agenda 21 focuses attention on implementation practices as well as means of implementation. Here it is stated that although resources such as technology and other financial resources are fundamental parts of their respective disciplines, a greater focus must be placed on long term social aspects, such as: education, data collection methods such as interviews, institutional structures and most importantly on successful implementation strategies over all levels of government (UN 1992: 346-351).

Agenda 21 is indirectly linked to gated developments and this becomes evident by looking at the various segments of this document. These segments were highlighted as part of this study due to the large number of people (the lower income groups) that would benefit if Agenda 21 were implemented in practice.

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"Despite the lack of clear targets and timelines, the final Rio+20 outcome document called 'The Future We Want' includes clear references to the Green Economy, the development of sustainable development goals and the need to strengthen sustainability reporting both at company and national levels" (Business Action for Sustainable Development (BASD), 2012). From the above mentioned statement it is evident that this document has shortcomings and may not necessarily be as focused as Agenda 21. Apart from these above-mentioned shortcoming, this document does make specific reference to aspects which appeared to be lacking attention in the past. 'The Future We Want' aims to address the Sustainable Development Goals by proposing that various nations come up with, and present, suggestions with goals that would better address implementation and have more specified targets as well as timelines stipulated in the goals.

Another aspect highlighted in Paragraph 47 of 'The Future We Want' document is the topic of increased corporate sustainability reporting. It is believed that South Africa was one of many countries that supported the proposal in this paragraph, dealing with ways on how to better report on the social, economic and environmental sustainability factors of organisations (BASD, 2012).

As is evident in this document and in Agenda 21, the poor are the ones that need to benefit more from any development, including gated developments, if sustainable development is to be achieved. Agenda 21 and 'The Future We Want' are thus important documents which should be used to further guide development in South Africa towards a sustainable future.

2.2.2 The Habitat Agenda

There are a number of United Nations policies that promote inclusive urban development, of which the Habitat Agenda is but one. The Habitat I Conference was held in 1976 in Vancouver, with the Habitat II Conference in 1996 in Istanbul. Habitat III is planned for 2016 in Quito, Ecuador. The Conference outcomes were the Istanbul Declaration and the Habitat Agenda. The Habitat Agenda in a number of places mentions the problems of exclusion and segregation and commit to the objective of "[p]romoting, as appropriate, socially integrated and accessible human settlements, including appropriate facilities for health and education, combating segregation and discriminatory and other exclusionary policies and practices" (section 43(a)).

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The UN-Habitat section (also known as the UN Centre for Human Settlements), which was mandated to implement the Habitat Agenda, bi-annually brings out a State of the World's Cities Report, of which a number has addressed problems relating to gated development. The 2006-2007 Report addressed inequality, crime and the problems of fortress cities (UN 2006: 147 -149), while the 2008-2009 Report (UN 2008: 194), with 'Harmonious Cities' as its theme, addressed the problem of gated communities and inequality in cities. They refer to "apartheid cities" [not just in South Africa], where neighbourhoods are physically separated by race or social class" and which "are characterised by lack of social interactions and conviviality as people retreat into their gated communities or dense slums". The 2012-2013 Report about Prosperity of Cities also mentions gated communities (UN 2012: 65) and the fact that inequality and "inadequate urban planning law enforcement drives many high- and middle-class residents into gated communities and other guarded urban and suburban enclaves".

2.3 Analysing the term 'Sustainable Development'

Given the history of how Sustainable Development, as a concept, came into existence and by understanding how the term has come to mean what it does today (through documents such as Agenda 21 and the Habitat Agenda), it is now pivotal to understand what the essence of Sustainable Development is and how it applies to various concepts and theories. Unpacking the term Sustainable Development is best understood through looking more closely at the definition of Sustainable Development and then explaining some of the Sustainable Development initiatives with the definition in mind. Sustainable Development ultimately boils down to finding a balance between meeting the needs of humanity versus the environmental, social and economic limitations of society (Mebratu, 1998: 500-501). Although there are multiple authors that try to bend the definition of 'sustainable development' and 'sustainability' to suit their viewpoints; Hopwood (2005) illustrates that the crux of the situation is that the ever expanding global population has ever expanding needs that needs to be met with a limited amount of natural resources.

Swilling and Annecke (2012: 27-28) place strong emphasis on the largely unnoticed importance of Sustainable Development and illustrates their viewpoint by referring to several documents

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which they believe altered the way in which humankind views the world. These documents include:

- *The UN Human Development Report (1998);*
- *The Millennium Eco-System Assessment Report (2005);*
- *The Intergovernmental Panel on Climate Change Report (2007);*
- *The World Energy Outlook (2008); and*
- *The International Resource Panel Report (2011).*

The above mentioned documents all refer in some way to the hard-core realities facing most of the world's population if the current ongoing trajectory of development and consumption is not drastically altered. It must be noted that these documents all aim to portray the current trajectory as not feasible, but more importantly, unsustainable. The documents mentioned above also portray the harsh realities that lie ahead if the world does not change the way it develops. In the light of the realisation that development has to be done in a more sustainable way; the rest of this study will look at the advantages as well as the trade-offs that need to be made in order for South Africa to develop more sustainably.

For the purpose of this study, the three 'pillars' of sustainability are understood from a development perspective to include ecological sustainability; economic sustainability and social sustainability. Other authors, such as Allen and You (2002) include two further pillars or dimensions, such as the physical or spatial dimension (or sustainability of the built environment and technology), as well as political sustainability (which refers to the "quality of the governance systems guiding the relationships and actions of different actors among the previous four dimensions". This includes a need for local communities to participate "in all areas of decision-making" (Allen & You, 2002: 17).

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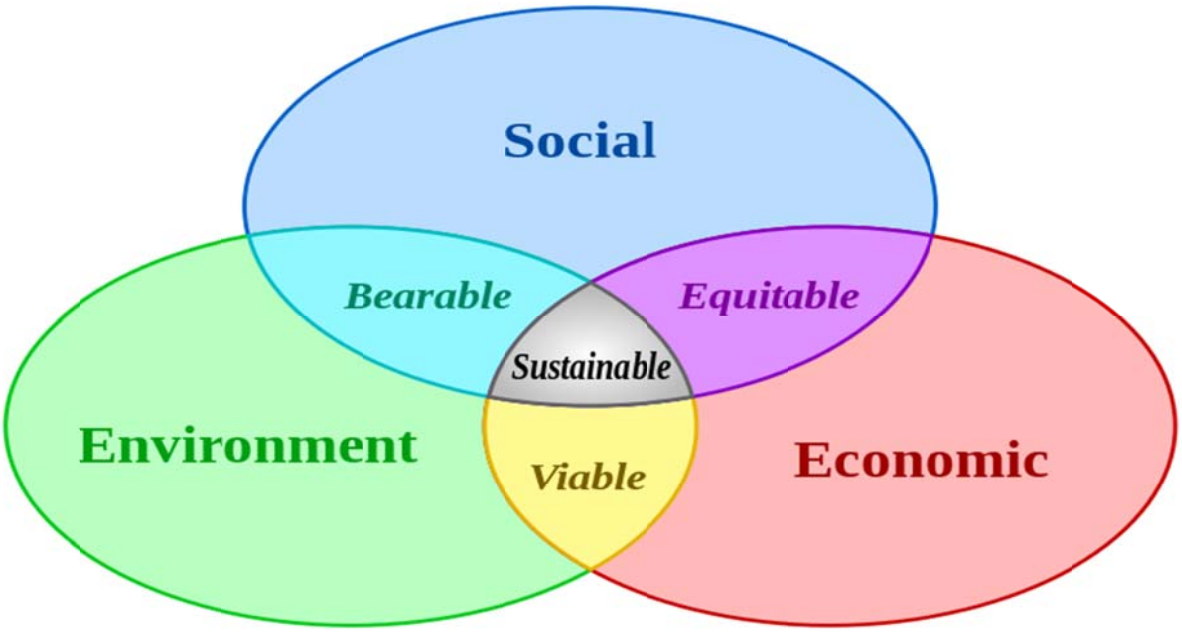

Figure 2.1: The three pillars of Sustainable Development (Karim, 2015)

2.3.1 Ecological Sustainability

The term 'ecologically sustainable development' falls under the environmental pillar of Sustainable Development and acts as an alternative approach to unsustainable economic development, as mentioned in the 1987 Brundtland report. Bartelmus (1994; 3) indicated in the early 1900s that the natural systems of the world will not be able to support the growing human population if an equilibrium of usage of natural resources was not found in the near future. The argument is that the natural system is currently being used to support the material demands of the human populations, however, more materials are being used as input material than is currently being sustained (seen as the output). Another way of expressing the above mentioned concern is by stating that the current resource allocation system fails in understanding the system in which it operates. Wills (1992: 8) claims that the idea of ecologically sustainable development does not take the following into account: it fails to recognise that the economy and the environment needs to interact to provide a means of life for people who are part of the economy; it fails to take into account the ways in which the environment improves the quality of life for many people; and it also fails to address the various consequences that the current use of the environment holds for future generations, which is ultimately similar to the core definition of sustainable development.

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It should however be noted that one cannot look at sustainability without taking into account economics, seeing that society relies heavily on the economy.

2.3.2 Economic Sustainability

Economically Sustainable Development (ESD) is explained further by an Environmental Protection Authority report (EPA, 2001), which illustrates that it is of vital importance that the current development path does not shift negative effects onto future generations. The negative effects mentioned above, refers to environmental issues, economic impacts and various negative social consequences. The EPA (2001) also realises that future economic development would need some form of reliance on the basic services provided by nature (such as unpolluted air and water). In order to move away from highlighting the need for ESD, it would be beneficial to look at the principles embodied in ESD, which would ultimately provide a platform for sustainable growth in the current economic system. The Environmental Protection Authority report (2014: 7) identifies five core principles which it believes should guide decision-making with regards to the environment and development on a global scale:

- Integration between economic and environmental factors;
- equity between and within generations;
- conservation of ecological integrity and biological diversity;
- improved incentive, pricing and valuation mechanisms; and
- improved public participation.

It now becomes more evident that in order to make provision for future economic growth, the principles of ecologically sustainable development must be respected. Sustained economic growth relies heavily upon services that various ecosystems provide. It must also be noted that the principles of ESD were not designed to alter the economic development path or to put a halt to it, but rather to ensure that economic development is given the best chance to take place in a sustainable way. Pearce and Barbier (2000) coined the term as “development that lasts”.

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2.3.3 Social Sustainability

Unfortunately, the economics framework often does not prioritise ecologically sustainability due to the complexities of achieving economic growth while conserving ecosystems simultaneously. Therefore sustainability is often seen as achieved once the wellbeing of society is sustained over a lengthy period of time. Markulev and Long (2013: 2) describe the wellbeing mentioned above as: "consumption of market goods and services, made possible by economic production (income), and includes household and environmental services and other non-market outcomes, such as social connectedness". The 'pillars' of sustainability also includes social aspects which need to be considered before sustainability can be achieved, therefore it is pivotal to understand what kind of social aspects need to be incorporated as part of the economic and environmental aspects.

It becomes evident that Sustainable Development has evolved as a concept since its inception in 1992. Understanding the potential benefits of Sustainable Development provides a good platform for the implementation of Sustainable Development, and especially its connection with gated developments. With this background, it is also necessary to look more closely at what gated developments are. Only then will it become apparent how gated developments can dramatically alter the progress towards achieving Sustainable Development in South Africa.

2.4 Gated developments

Gated developments are defined as: "*a housing development on private roads closed to general traffic by a gate across the primary access. The developments may be surrounded by fences, walls, or other natural barriers that further limit public access*" (Grant et al., 2004: 913-914). A gated development or gated community in itself takes on various forms and each type of community has its own effects on its surroundings. It is not only the forms that gated communities take on, but the actual concept of gated communities itself that is creating debate and which can be said in some cases to be controversial in its intentions. The planning, building, historical, economic, social and political factors in an area often tend to shape the kind of gated communities that can be found in that specific area.

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In order to understand the physical nature of gated communities, one needs to understand the origin of 'gated' or 'fortified' developments or residential structures. Spocter (2011: 2-4) mentions that:

> *"the English word 'wall' is derived from the Latin word Vallum, a type of palisade fortification. Thus the word 'wall' immediately denotes a structure of fortification, a barrier of protection. The Romans built walls of protection around their settlements in Italy and in lands that they invaded. One or many gates along the length of the wall would control entry and egress, and legions of soldiers would defend the space inside the walls. Medieval fortified towns and castles have also been viewed as a precursor to modern-day gated developments".*

Falzon (2004) focuses on tracing gated communities in India back to historical times where entire cities where divided by various means, based on class. The wealthy residents excluded themselves from the growing middle class through means of fortified developments. South African development also shows early traces of fortifications. The Khoisan built a structure known as the 'kraal' which was used to contain masses of cattle and other livestock. Spocter (2011: 4) then further explains that Jan van Riebeeck built a clay fort with wooden fences and watchtowers, and used rivers as means of fortification to protect colonists and their livestock against the Khoi tribes in the area. According to Jurgens & Gnad (2002: 341-342) the first recorded modern gated development in South Africa only came into existence in the year 1987 in the form of a 2.4 meter high walled enclosure that surrounded 913 plots.

Landman (2003: 19) depicts five types of modern gated developments, namely; enclosed neighbourhoods, office parks, security estates, secure townhouses and secure high rise developments. Enclosed neighbourhoods refer to neighbourhoods that have simply been fenced in by means of closing off public roads. Office parks are mainly found in industrial and business areas and comprise buildings used mainly for office space, which is then enclosed by a fence or similar means. Security estates refer to country estates or golfing estates, but the most important criteria is that large security estates can only be termed as such if it comprises of more than 50 residential dwellings. If it comprises of less than 50 residential dwellings, it is usually referred to as security townhouse complexes (for the purpose of this study as well). Secure high rises are

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usually multi-story blocks of flats, with access being granted only to those who reside inside the building.

AfriGIS (2011) suggested that there were approximately 26,000 different gated communities in South Africa in 2011. The large increase in the amounts of gated developments in South Africa has a number of effects on the environment, social relations and economic factors in South Africa.

The next part of this chapter will analyse the elements that led to the perceived need for gated developments and then try to understand what the consequences are of the increasing number of gated developments in South Africa, by looking at the social, economic and environmental effects of this type of development.

2.4.1 Aspects influencing gated developments

2.4.1.1 Urbanisation

Anthony (2004: 853) explains urbanisation as a timely process whereby substantial amounts of people congregate in a specific geographic area. When enough people are settled in the same area, it allows for various social institutions to be created and sustained. These social institutions could include governments as well as businesses. Since the efficiency of improving living standards in high density areas was noticed, urbanisation has increased on a global scale. Urban nodes tend to provide better healthcare, education, information distribution mechanisms, as well as a steadier supply of essentials needed to survive, such as food, water and shelter. The above mentioned items then act as an incentive for individuals and families from rural areas to move into the city, thus forming part of the phenomenon known as urbanisation (Freire et al., 2014: 2-14).

With 62% of South Africa's populations already living in urban settlements, it is evident that rapid urbanisation is taking place in all corners of the country. Turok (2012: 3) believes that urbanisation in South Africa is not solely caused by domestic population growth, but also by ever increasing immigration. Due to South Africa's unwieldy immigration system, internationals are entering the country illegally in search of economic opportunities. Figure 2.2 below indicates the

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declining numbers of the urban population in comparison to the rural population between the years 1950 to 2050. It must be noted that from the year 2010 to 2050, the indications on figure 2.2 are merely speculations based on data from previous years.

As can be seen in figure 2.2, there was a parallel increase in both rural and urban populations until the mid-1980s. Turok (2012: 11) indicates that urban population growth did not exceed rural population growth in these years due to the fact that the apartheid government regulated rural-urban migration and implemented forced removals from towns, in order to promote 'white superiority' in cities. Due to economic activities and opportunities taking place in urban areas, the rural populations (generally the black unskilled workers) were not nearly as economically strong as the urban populations, which in turn lead to great spatial inequality.

Figure 2.2: Rural and urban populations in South Africa

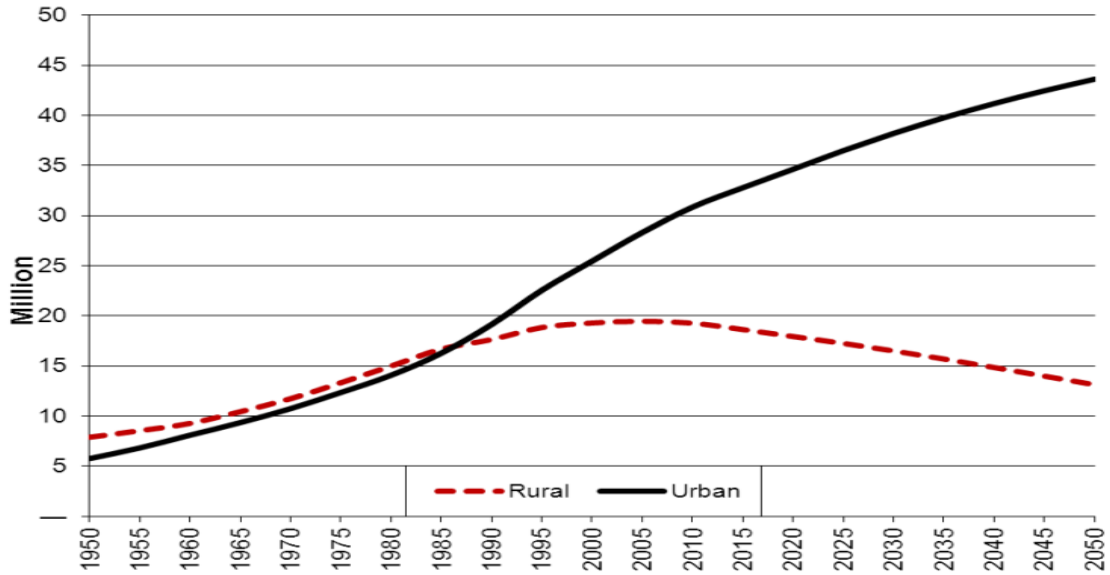

Figure 2.2: Rural and urban populations in South Africa (Turok, 2012: 10)

Urbanisation can be seen as a method of enhancing or retarding development and growth in developing countries. It is also believed that sustainable development can be achieved during periods of high urbanisations, due to the fact that economic development is the driver behind both sustainable development and urbanisation (Cobbinah *et al.*, 2015: 1-2). This is believed to be true in the sense that urbanisation is necessary for the generation of new ideas and technologies, which will ultimately lead to the promotion of sustainable resource use.

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On the other hand, urbanisation is often also linked to various negative aspects. Environmental, social and economic repercussions are often linked to scenarios where rapid urbanisation could not be sustained, and therefore failure of certain aspects of such a system is imminent. Hove (2013: 1-2) depicts the dominant characteristics of urbanisation as exclusion, as well as deprivation for the poor masses. It is the norm for the poor masses to be deprived of security, electricity, sanitation, water and proper shelter, as they mostly find themselves living in informal settlements. Individuals living in informal settlements are largely deprived of public services and don't have the opportunity to obtain credit, thus meaning that they are often deprived from further opportunities (Berger, 2006: 15). The above mentioned issues eventually lead to severe social exclusion and often to crime, and ultimately, human insecurity. To provide public security and correctly and effectively enforce the law is arguably the most challenging task of urban governments in South Africa, and crime statistics have been indicating a need for better law enforcement over the past few decades (as well as more equal social and economic development).

2.4.1.2 Insecurity and crime

Crime and violence in urban areas in the Western Cape are found in all forms. Individuals residing in urban areas are often exposed to crimes ranging from petty crimes to large scale organised crimes. According to the Western Cape Policing Needs and Priority Report (2012: 23-25), contact crime has increased to 94,422 reported cases in 2010/2011 in the Western Cape. The Western Cape has also seen a 0.6% increase in property related crimes over three years; from 101,359 cases in 2009 to 101,929 reported cases in 2011. Property crimes have been listed as one of the 5 police priority crimes in recent years, together with assault, murder, drug-related crimes and common robbery. This report also indicates that over 220,000 murders have taken place in South Africa in the last decade.

Crime has therefore been a major cause for concern over the past years. These statistics have not gone unnoticed, and can directly be linked to the increased demand for gated developments in recent years. Figure 2.3 below illustrates the results of a study where people were asked to indicate the one crime people were most afraid of, and the data prove that individuals were most

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afraid of murder and house breakings. It is therefore a common perception that gated communities are a rational response with regards to crime statistics. However, do gated communities actually reduce the risk of being exposed to all forms of crime?

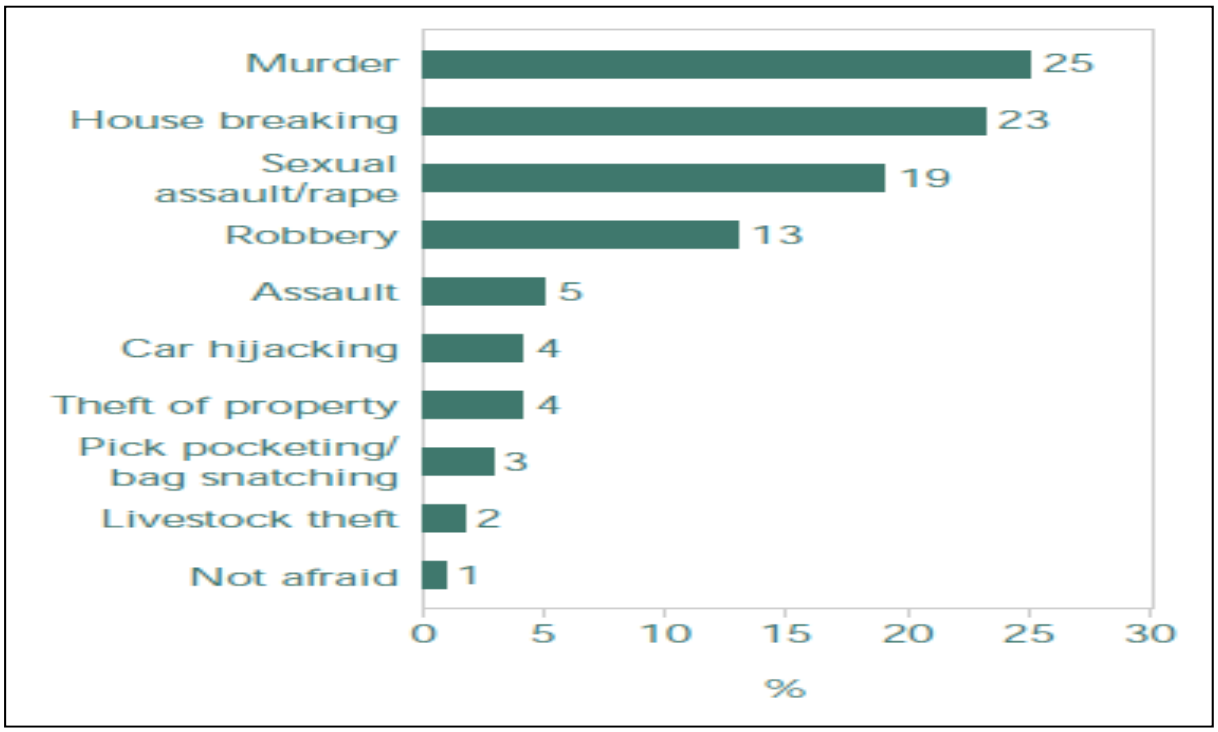

Figure 2.3: The one type of crime South African citizens is most afraid of in the area where they live (Mistry, 2004: 20)

In South Africa, research has not found a concrete agreement that gated communities actually minimize crime in these areas. In fact, research shows that gated developments do not necessarily curb crime in these areas and that in contrast, can actually attract crimes in certain cases (Breetzke, et al., 2013). Further, Helsley and Strange (1999) show that in past decades, the presence of gated communities merely diverted crime to other parts of the neighbourhood that were not 'privatized' at the time. Blakely and Snyder (1997), on the other hand, argue that gated communities do in fact keep crime rates noticeably low inside of these communities, but only if the gated developments does not hinder employment opportunities. It is often only the common belief of residents that the physical barriers of gated communities will keep intruders at bay that is causing the demand for gated developments (Coetzer, 2001: 2-3). The perceived safety that

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physical barriers could provide is often used as an advertising tool by selected property developers and estate agents, thus adding to the perceived benefits of gated developments (Rawson Properties, 2015; Seeff Properties, 2015). It should be noted that most residents are not concerned with the long term effects of crimes such as burglary and murder, but are rather concerned with their immediate safety and therefore gated communities are perceived as the immediate solution to crimes in this respect, both in past and present times.

Due to urbanisation and increased crime, gated developments have been established as a perceived alternative to normal housing options, which could potentially curb the perceived insecurity problem. There is however a number of other forms of secure development that could be explored as alternatives to gated developments, such as 'Crime Prevention Through Environmental Design' (CPTED) (Coetzer, 2001).

As has already been demonstrated in this chapter, gated developments are very popular in society today and it must be accepted that gated developments will be a form of development for many years to come. It is thus safe to say that instead of just aiming to curb the development of these communities, it would be more beneficial to analyse the impacts that these developments have on society, and thus address these impacts directly where such developments are approved.

2.4.2 Social effects of gated developments

Gated development can lead to a number of negative social effects, such as social isolation or exclusion, promoting further inequality or fragmentation, while in certain cases it can also lead to positive social inclusion within developments.

Social isolation, exclusion and fragmentation

Business Dictionary (2015) defines social effects as: "The effects of an activity on the social fabric of the community and well-being of the individuals and families". One social effect of gated communities is the fact that it allows for social isolation, which ultimately leads to social exclusion. Members of society use gated developments to isolate themselves from the rest of the urban society, by creating spatial boundaries for various reasons as discussed earlier in this chapter. When spatial boundaries are created, it often leads to segregation and exclusion, which

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again leads to social inequalities (Landman & Schonteich, 2002: 80). Most urban cities show stark disparities in the income levels of its residents and further evidence suggest that it is mainly those individuals on the top of the income charts that have the resources to be able to reside in these gated developments. This further excludes the 'urban poor' from various economic opportunities and thus creates a type of class inequality (Bartlett et al. 2015: 2).

The excluded members of society are further characterised by the secluded through crime and other social ills. The fact that these gated communities operate with a combination of state policing and private security, leads to the assumption that the security of the vast majority of urban dwellers outside of the gated communities are neglected. Gated developments are secured by various means; booms, intercoms, gates, cameras and most popularly by security guards which monitor the entrances to these developments. One can argue that this is job creation in itself, but more importantly, it means that residents inside these gated developments are not using private and public safety resources by means of security guards and public police (Blakely & Snyder, 1998: 54-55). Blakely and Snyder (1998: 58) state that in reality, crime is far more realistic and evitable for the poor members of society, due to the higher class members having the above mentioned resources as means of protection. Thus these protection measures create larger inequality and a higher sense of social insecurity amongst the secluded members of such a society.

The democratised urban settlement planning strategy is largely ignored when it comes to establishing focus points of these gated communities. The journal article written by Ramoroka and Tsheola (2014: 58-68) argue that the implementation of gated communities in a former apartheid country in fact supports marketization, privatisation and commoditisation of various public spaces; which in turn further worsens previous legacies of social exclusion and social fragmentation. Previously excluded groups were often removed to less serviced neighbourhoods, where poverty was rife. This social exclusion also leads to other negative effects, such as unaffordable transport. Excluding certain races and classes, and placing them outside the urban edges, meant that these classes were not able to afford the transport which was needed to access the urban centre (Seekings, 2010: 4).

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Social inclusion

It should also be noted that there are counter arguments regarding the social exclusion caused by gated developments. Aalbers (2001: 1-27) depicts how the physical gating off of these developments can lead to both social exclusion as well as social inclusion. Residents of gated developments have the opportunity to become part of various social groups purely on the basis of being a homeowner inside a specific gated community. Residents inside of gated communities have the option to join the Home Owners' Association, which in turn provides not only social benefits, but possible financial benefits.

2.4.3 Economic effects of gated developments

The economic effects of gated communities include effects on economic opportunities and on municipal budgets and can also include positive spin-offs.

Lack of integration and economic opportunities

Landman (2002: 2) is of the opinion that present governments in South Africa are faced with the challenge of addressing and upgrading existing underdeveloped areas, in order to provide better standards of living to the poor in these areas. The government can improve the conditions in these underdeveloped areas by providing the necessary infrastructure and services; but most importantly by linking these areas to the rest of the city. If indeed these areas are linked to the rest of the city, it allows for greater integration, which in turn will create employment opportunities and changes in landscape which will hold its own economic opportunities (Spoctor, 2013: 57). In the light of the above, it must be noted that gated communities are often the main physical cause that prevents the linking of various parts of a city by acting as physical barriers. Gated communities are therefore depriving the urban poor from access to various economic opportunities by means of segregation.

Effect on municipal budgets

It should also be noted that the economic effects of gated developments are not just carried by the individuals directly or indirectly affected by the development itself, but also by municipalities that need to provide various services to the these types of developments. Mahabir (2011: 125-127) states that more than half of municipal expenditure is for bulk services, such as

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water and electricity infrastructure. Gated developments seems to be a controversial grey area when it comes to municipal expenditure, in the sense that although residents in gated developments pay taxes and levies, more often than not these taxes are not sufficient to cover the costs of these services for the relevant municipalities. In return, municipalities need to allocate other parts of the budget on providing and sustaining service delivery to gated developments, meaning that municipalities have to create an overdraft on their budgets, or that service delivery to lower income areas receive less allocation of the budget. This is emphasised by the fact that residents of gated developments are often from a higher income class and thus demands good service delivery. Future Cape Town Summit (FCTS) (2013: 6) mentions that the dispersive nature of gated developments means that the same services are now provided, at the same cost, but are only accessible to smaller population figures that would be in more compact areas of the city.

Positive economic effects

Discussions around economic effects of gated communities mainly highlight the negative effects of gated communities. However, there are many positive effects that arise as a consequence of this type of fragmentation. Le Goix (2005: 1-20) illustrates how property values have increased inside gated communities. Although the increase of isolated property values can have negative effects, the positive effects that blossom from these happenings are deemed by him to be far superior. Increased property values means that the country becomes more attractive to international investors, but could also then inflate the prices of property to such an extent that local members of society cannot afford property (which seem to be the situation in certain parts of South Africa, including Stellenbosch). Although the above mentioned can be either positive or negative, it is important to have the option of foreign investment.

Another positive effect within the threshold of gated communities is the fact that the maintenance burden of these areas is lifted off the shoulders of local governments. Most gated communities are managed by Home Owners Associations or Rate Payers Committees. This means that the associations or committees are then responsible for the maintenance of these areas, both financially and operationally. This in turn can create various employment opportunities in itself and lift heavy financial burdens off the shoulders off local municipalities.

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2.4.4 Environmental effects of gated developments

Gated developments have been blamed for a number of environmental effects, such as privatisation of public spaces, fragmentation of habitats and increased heat island effect. Golf estates are especially problematic and each of these issues will be discussed below.

Privatisation of public space

Most literature on gated communities concern itself with the privatisation of public space. Glazse *et al.* (2006: 1-8) state that public spaces such as parks, dams, rivers, sidewalks and streets are being privatised by gated communities and as a consequence, residents outside of these gated communities are being deprived of these public spaces and the public resources enclosed in these areas. Gated communities are again contradictory to what the South African government is trying to enforce under the label 'public resources'. Residents outside of gated communities are being deprived from fishing, recreational activities, aesthetic values of natural areas and access to public roads. De Zalze Golf Estate is one example of this type of privatization, with dams, wetlands and rivers being privatized inside this development.

Fragmentation of habitats

Because of the fact that gated communities are fenced off by walls, fences and other measures, it has consequences for wildlife. These physical barriers often prevent migration or can disturb breeding areas. In many cases in the Western Cape, environmental authorisations are forcing new developments to comply with certain design standards during the construction phases of these developments, in order to allow for movement of various faunal and floral species. One example of this would be Chapmans Bay Estate in Noordhoek, where one of the conditions of the Environmental Authorisation state that an ecological specialist must approve the design of the boundary fence during the construction phase of the development. If the fences or walls of gated communities do not allow for this type of movement, the natural habitats of various species might become fragmented and this can have detrimental effects on wildlife species in the Western Cape.

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Heat island effect

The 'heat island effect' is another environmental effect which is prevalent in urban centres in recent times. The 'heat island effect' refers to when surfaces are hardened, meaning that green spaces are reduced and this increases the general temperature (Taha, 1997: 99-103). The heat island effect is merely one environmental effect that has received due attention from researchers. Various other effects are just as detrimental and are just as demanding to manage. It must be noted that the heat island effect does not only occur in gated developments, but also in all other developments.

Effects of Golf Estates

Another effect of concern to this study is the effect that golf courses and golf estates have on the environment. The Department of Environmental Affairs & Development Planning (DEA&DP) drew up a guideline document for golf courses, golf estates, polo fields and polo estates in the Western Cape. This guideline document specifically states that golf courses or golf estates would only be appropriate in the following circumstances (only a selected few are relevant to this study, thus only the relevant guidelines has been highlighted in this section): "(a) in or immediately adjacent to the urban area, where it assists in defining an urban edge; (b) where it forms part of the municipal open space system; (c) where residential components are added to existing amenities in urban areas, as a form of general/overarching densification, on condition that the recreational and open space/green lung function of such amenities is not compromised and provided that – (iv) the site does not fall within an area that has been identified as being of conservation significance, within the urban context; (vii) the water demand for the development is in accordance with the municipality's water services plan (should such plan have been prepared and available) and that there is no risk of stress being placed on the municipal water supply; and (x) the development will not result in the removal of traditional access used by local communities, particularly where they are dependent on such access for their livelihood or recreation (e.g. fishing, rivers, mountains, commonage or grazing and other natural or man-made features), unless agreed to by all Interested and Affected Parties" (DEA&DP 2005b: 25-26).

The above mentioned paragraph mentions various effects surrounding golf courses and golf estates in urban areas, as well as the effects that they pose to the environment. The first effect of

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importance to this study is the large amounts of water that golf courses require to maintain a sufficient and aesthetically attractive green course. According to the Wilderness Foundation (2015) South Africa is home to roughly 700 golf courses, which each consumes over 350,000 litres of water per year. It is said to be the equivalent of the annual consumption of 840,000 individuals. This becomes a significant environmental problem due to South Africa already being a water scarce area.

Table 2.1 provides a list of the most evident positives and negatives of golf courses in general. Many of the above mentioned items have been mentioned in table 2.1 which also identifies some aspects which have not yet been mentioned, due to them not being important in South Africa or not being of relevance in the context of this study.

One disadvantage of golf courses mentioned in table 2.1 deserves some attention due to the potential detrimental impacts it can have on the environment, and that is the disadvantage of using excessive amounts of fertilisers on golf courses. The turfgrass of golf courses needs approximately 16 different types of chemicals in order to flourish and grow in the fashion desired for the best possible golf experience (Plantscience 2015). Nitrogen is the chemical that makes up the largest percentage of the fertilisers needed to maintain the turf of a golf course; however, Nitrogen can be detrimental when ground water or surface water is contaminated. Water resources are normally contaminated on golf courses due to runoff of fertilisers or incorrect irrigation practices. This means that streams and dams are intoxicated with excess amounts of Nitrogen (N). This is a major human health risk as it can cause ‘Blue Baby Syndrome’. ‘Blue Baby Syndrome’ occurs when an individual consume water with high amounts of N, causing a shortage of oxygen in the blood; which is mainly only a health risk for infants under the age of 6 months, for pregnant mothers or for the elderly population (Addy et al., 2005: 2). Nitrogen can also cause algal growth in water resources, which can lead to euthrophication[1] in extreme cases.

[1] Euthropication is the process of excessive nutrient enrichment of waters that typically results in problems associated with macrophyte, algal or cyanobacterial growth.

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Table 2.1: The environmental pros and cons of golf courses

Pros and Cons of Golf Courses	
Advantages	**Disadvantages**
Employment and income benefits, both direct and indirect	Loss of biodiversity
Tax benefits to local, regional and national governments	Euthrophication of river or seawater through use of fertilizers
Attracts new firms to the region	Heavy user of water for irrigation
Health and social benefits. Careers can benefit through 'networking'	Biocides used to maintain the greenness of the 'greens', controls insects, fungicides and weeds, contaminate both the air and water
Attracts the higher-spending social groups	Golf clubs often portray an elitist and exclusive lifestyle
Increases local property values	Raises property prices beyond the reach of local young people

Source: Adapted from: Barcelona Field Studies Centre (2015)

2.5 Theories guiding the management of development

By looking at the various effects of gated developments it becomes evident that both short and long-term management of gated development is needed in order to either prevent the effects or to manage them. It must again be emphasised that although gated developments are largely perceived in a negative light, various trickle-down effects of gated developments may influence society in a positive way. Identifying the effects of gated developments is only half of the process towards achieving Sustainable Development. Another vital component is the management of the identified effects.

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Landman (2004: 1-38) focuses on preventative rather than reactive strategies to prevent the need for gated developments, by highlighting the political efforts to provide safer neighbourhoods. Various initiatives have been created to address individual site specific effects, such as the planting of trees in order to combat the effects of the heat island effect inside of gated communities. Another management tool is highlighted by Welgemoed (2009: 115), when he illustrates that a sense of community should be created in various residential areas. This would provide a sense of safety, which would in the long run lead people away from the need for gated developments. These are the types of management initiatives that this research study would investigate in more detail. Before these tools are discussed, it is however important to discuss certain concepts that can influence the management of gated developments, such as benefit-sharing, including benefit-sharing in food-markets.

2.6 Benefit sharing

The objective of managing the effects of gated developments is not necessarily to mitigate the negative effects by means of using management tools, but also to promote the positive effects that stem from development activities. It is often argued that only a selected number of stakeholders share the collective benefits of a developments project, with the community often left to bear the negative consequences thereof. One way of promoting the positive effects is by sharing the benefits equally between all affected parties. An example of benefit sharing can be found in Canada, where they have Impact and Benefit Agreements (IBAs) in place to formally contract the impacts of a proposed project, the responsibilities of all parties and how the affected local communities will share the benefits of a proposed development. Although this is not a legal agreement, it is based on good practices and a duty to consult the community (Miningfacts, 2015). The concept of benefit sharing is also becoming important globally and has been included in international agreements such as the Nagoya Protocol on ‘Access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the Convention on Biological Diversity’. Benefit sharing is also being explored in other fields, such as in dam-building and forestry projects (Lindhjem, Aronsen, Braten & Gleinsvik, 2010).

This is not only a way of including the public in decision-making processes, but also to ensure that the benefits are shared between all stakeholders; ultimately leading to less opposition

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towards a proposed development by the local community. Although there is no law that binds parties to form such an agreement in South Africa, it is a useful way with which to manage social, economic and environmental issues that originated from developments.

Food markets are an important element of benefit-sharing and job creation. An example of a concept important for planning is the concept of 'Slow-food'. Slow-food is an international eco-gastronomic organisation that has become a global phenomenon in the past 25 years. The focus of the organisation is to provide 'good, clean and fair' food. This organisation has highlighted the need of sustainable food systems and this idea has become extremely popular in Stellenbosch in recent years. Nevertheless, current slow-food markets are contributing to the fragmentation between income classes in Stellenbosch due to the mismanagement of the ideal of such a system. Slow food markets are ideally said to be economically, environmentally and socio-culturally sustainable markets where produce is acquired in a clean, good and fair manner (Slow Food, 2013: 3-4).

Currently slow-food markets in Stellenbosch have become largely commercial and exclusionary. They are thus catering for a higher-income group than original farmer markets catered for in the area. Re-routing slow-food markets back to its origins will mean that foods are not only high in quality, but they also generate long-term income and create fair opportunities for both suppliers and buyers of the products. Slow-food markets should be part of a larger sustainable and equitable food system and if effectively management, can help address environmental, social and economic effects. Slow food markets can also be a form of job creation for members of the local community if they are managed correctly.

2.7 Conclusion

The literature discussed in this chapter firstly explored how Sustainable Development as a concept came into being, to how Sustainable Development is viewed today and why there is a need for Sustainable Development. Gated developments as a modern type of development was discussed in more detail and ultimately linked to Sustainable Development in the sense of how gated developments might oppose the objectives of Sustainable Development. This led to a

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discussion about what factors drove this perceived need for gated developments and because gated developments are so popular, this means that they cannot be eradicated or prevented in the short-term, thus they need to be dealt with in a different light.

As an alternative to gated developments the concept of inclusive development, or inclusionary housing, will be discussed in the next chapter, as well as the potential of using inclusionary policies to better manage some of negative effects of gated developments.

It is proposed that instead of only findings ways to prevent this type of development, it would be more efficient to understand what the impacts of gated developments are and then aim to address these effects as part of the approval process. Therefore the different effects of gated developments should be identified and the management of these effects be given the deserved attention.

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Chapter 3: Management Tools and Techniques

3.1. Introduction

This chapter will explore the various planning, environmental, social and economic management tools and techniques mentioned in the literature, which could be used to manage the development of gated communities and group housing developments. These management tools include those which could potentially help in the decision-making process with regards to whether to approve such developments in specific locations or not, as well as tools to help manage the day to day operation of these developments.

There is a clear contrast between what the aims of existing policies are, and what practical management techniques are needed to actually manage the effects at hand. It must also be noted that the management of effects does not only refer to the management of negative effects. It is also of vital importance that the positive effects of gated communities also be maintained and properly managed; otherwise these positive effects might diminish.

For the purpose of this study, management tools will refer to any law, policy, programme, plan, idea, structure or concept that can be used to guide social, economic and environmental effects towards an alternative desired outcome. Management tools in this sense will not only refer to tangible tools, but rather to hypothetical theoretical tools as mentioned above. Rigby (2013: 10) explains the use of management tools in business terms by stating that:

> "The current environment of globalization, rapid technological advances and economic turbulence has increased the challenges executives face and, therefore, the need to find the right tools to meet those challenges. To do this successfully, executives must be more knowledgeable than ever as they sort through the options and select the right management tools for their companies. The selection process can be as complicated as the business issues they need to solve. They must choose the tools that will best help them make the business decisions that lead to enhanced processes, products and services – and deliver superior performance and profits".

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In terms of the above quote, the executives can be seen as any person that has the authority to make decisions that might have an effect on any social, economic or environmental relations. Although Rigby (2013:13) refers to a business, this quote is still applicable as the 'business' here refers to the environmental practice or any entity that might have an impact thereon. This explanation of management tools depicts how management tools will be interpreted for this study.

By the above given example it becomes clear that one does not need to design new management tools to address the various effects created by gated developments; however, existing structures need to be altered in order to ultimately benefit a wider audience and help this be more sustainable.

This study will explore the use of management tools, to manage the various effects of gated developments on Jamestown, Stellenbosch. The fact that Environmental Management Systems and Environmental Management Plans are used mainly for the management of physical development or construction means that various other tools will need to be used in order to effectively address all the identified effects with the most appropriate tools possible. For the purpose of this study and this chapter, environmental management tools will include environmental concepts that aim to address various environmental aspects in practice, acting as general guidelines for the 'Do's and Don'ts' of development.

Another major part of development is the planning phase. If one can restrict certain activities which could potentially negatively impact society at a later stage, during the planning stage, it could ensure that such activities are mitigated and thus not implemented. Therefore general planning guidelines or concepts which have the ability to address negative activities during the planning stage will also be classified as planning management tools for the purpose of this study. What is important is that almost all development in South Africa is preceded by various applications for approval in terms of planning, land use and environmental legislation, and ideally these approvals should be preceded by a planning policy or plan guiding the future development of the area.

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One of the vital planning tools in South Africa are integrated development plans (IDPs) with their associated spatial development frameworks (SDFs), as well as town planning schemes (also known as zoning schemes or land use schemes or land use management systems (LUMS). In the past land development was also managed through title deed restrictions, and such restrictions on land uses and development parameters are still found in many title deeds today. Specific planning policies and guidelines, such as for gated developments, inclusionary housing, mixed use and corridor development; as well as density guidelines are additional tools that can be used to ultimately restrict and guide development in a desired direction and thus ensure that development takes place in a sustainable manner.

Besides planning tools there are a number of environmental management tools that can be used to manage development, such as Integrated Environmental Management (IEM), Environmental Policy Integrations, Environmental Impact Assessments, Strategic Environmental Assessments, Environmental Management Frameworks, Environmental Management Systems and Environmental Management Plans. In addition there are management institutions, such as Home Owners Associations (HOAs) and trusts that can be used to manage effects.

This chapter will take a closer look at the role and influence that these depicted management tools can play in guiding development in a more sustainable and inclusionary direction in South Africa, and more specifically Stellenbosch.

Gated developments often include common areas and open spaces that have to be managed for the benefit of all the owners of the development, and these common areas and common property require the establishment of management organisations, as well as the payment of maintenance fees and levies, in addition to rates and taxes paid to the municipality. Institutions used to manage the day to day organisation of gated developments include the concepts of Home Owners Associations (HOAs) or body corporates, with their associated constitutions and management rules. More recently the concept of Special Rates Areas (SRAs), managed by non-profit companies (NPC) have also become relevant. SRAs were previously known as City Improvement Districts.

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This chapter will look at different tools that are mentioned in the literature to manage the various compulsory approvals needed for development and development planning, as well as those that can be used as management tools to deal with both the positive and negative effects arising from gated developments.

3.2 Environmental management tools

3.2.1 Integrated Environmental Management (IEM) and Environmental Policy Integration(EPI)

In order for the environment to be considered in all aspects of a project, a framework needs to be in place, which ultimately forces environmental consideration by all stakeholders involved in a project. A number of such policy frameworks are in use in the world, with Environmental Policy Integration (EPI) and Integrated Environmental Management (IEM) being used in the European Union, and Integrated Environmental Management (IEM) also in South Africa, Australia, New Zealand and other countries (DEAT, 2004a: 2).

Integrated Environmental Management (IEM) is a type of philosophy that ensures that a balance is enforced between development and the environment (Enviropaedia, 2007; The City of Cape Town, 2015a). The concept of IEM has been promoted in South Africa since the 1980s and has since received widespread attention. IEM in South Africa was initially associated with various different authorisations of controlled activities, but has been evolved in recent years to become more of a 'way of thinking' that should be integrated into all processes of environmental assessments. DEAT (2004a: 2) defines IEM as: "an holistic framework that can be embraced by all sectors of society for the assessment and management of environmental impacts and aspects associated with each stage of the activity life cycle, taking into consideration a broad definition of environment and with the overall aim of promoting sustainable development". What is important about IEM, is that it provides for a whole range of tools to promote integration, such as Environmental Impact Assessments (EIAs); Strategic Environmental Assessments (SEAs); Environmental Management Frameworks (EMFs); Environmental Management Plans (EMPs) etc.

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Based on internationally agreed principles, IEM is subject to various principles in South Africa. DEAT (2004a: 9-10) unpacks these principles and lists them as follows: “i) Accountability and responsibility; ii) Adaptive; iii) Alternative options; iv) Community empowerment; v) Continual improvement; vi) Dispute resolution; vii) Environmental justice; viii) Equity; ix) Global responsibility; x) Holistic decision-making; xi) Informed decision-making; xii) Institutional co-ordination; xiii) Integrated approach; xiv) Polluter pays; xv) Precautionary approach; xvi) Rigour; xvii) Stakeholder engagement; xviii) Sustainability; xix) Transparency”.

The underpinning principles of IEM in South Africa should trickle down into other environmental management (and planning) tools and become embedded in their defined objectives, seeing that these principles cover all the required aspects for a management framework of system to promote sustainability. It is also acknowledged that IEM provides these principles and a suite of assessment, as well as various management, tools in order to ultimately promote sustainable development. It is a well-known fact that some of these management tools such as Environmental Impact Assessments (EIAs) are an international concept adopted by South Africa; while other environmental management tools are more situation specific and are still in the developing stage (DEAT, 2004a: 2). Some of these tools will be discussed in the sections below.

3.2.2 Environmental Impact Assessments (EIAs)

Environmental Impact Assessment (EIA) is an analytical and report based process or management tool subject to IEM, which is undertaken to ensure that any potential environmental issues are highlighted prior to any project, which might affect the environment, being undertaken. An EIA process not only aims to identify any aspects that may potentially affect the environment, but also aims to provide realistic and plausible mitigation measures for these effects (FOA, 2015). Andersson (2000: 3) defines the roles of EIA as a tool that: “considers the environmental load of a proposed action and identify the effects and find an agreement between the stakeholders of the best solution”. As is evident from the above mentioned statement is that the EIA process is also used to inform the public of any possible effects that a given project may have on the environment. It can thus be seen as a technical tool also used to ensure that the

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public and other decision makers make informed choices. This being said, the EIA process does not ensure that a given project will be modified or even rejected by the relevant authorities even if the identified effects are deemed to be harmful to the natural environment. It is therefore only an informative process rather than a determining aspect for approval of a given project.

The EIA process can be traced back to the promulgation of the National Environmental Protection Act (NEPA) in the United States in the early 1970s. This is deemed to be the first attempt at environmental assessment as has since been adopted by many countries around the world. EIAs in South Africa were only promoted since the later years of the 1980s and are still a pivotal management tool today (DEAT, 2004a: 4-6). This can be largely attributed to the clearly visible benefits of the EIA process. Environmental Law Alliance Worldwide (ELAW, 2015: 19) lists some of the benefits of the EIA process as:

- "Potentially screens out environmentally-unsound projects;
- proposes modified designs to reduce environmental impacts;
- identifies feasible alternatives;
- predicts significant adverse impacts;
- identifies mitigation measures to reduce, offset, or eliminate major impacts;
- engages and informs potentially affected communities and individuals; and
- influences decision-making and the development of terms and conditions".

The EIA process is a complex, costly and time consuming process involving various role-players such as the general public, various governmental departments, environmental consultants and various environmental and often social specialists. It has been a huge driver towards sustainable development across the world and has subsequently been adopted by many countries around the world (Weaver, 2002: 1-5). Figure 3.1 below indicates what Cashmore et al. (2004: 307) depicts as the way in which the EIA process is an agent of change towards sustainable development, namely through stakeholder empowerment, as well as through changes in institutional arrangements, corporate changes, design, engineering and scientific changes.

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Figure 3.1: Characteristics of the EIA process as a driver towards sustainable development (Cashmore *et al*., 2004: 307).

As part of the EIA process, various environmental specialists must be appointed to provide inputs on their specified field of expertise. Specialists include amongst others: freshwater specialists, landscapers, architects, planners, engineers, geologists, botanical specialists, zoologists, social specialists, geotechnical specialists and wetland specialists. Depending on the nature of the proposed project, the relevant specialists assess the aspects pertaining to their field of expertise. These specialists are then required to write a report indicating what the potential effects are that they highlighted and then also how the project should be changed in order to mitigate the potentially negative environmental effects. These reports, findings and recommendation of the specialists are included in the final integrated EIA report and are then considered by the relevant department as part of their decision-making process. Another

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management tool that operates in unison with the EIA process and worth mentioning is Strategic Environmental Assessment (SEA).

3.2.2.1 Strategic Environmental Assessments (SEAs)

SEAs have been viewed as tools with which to inform decision-making at policy, planning and programme levels and are deemed to have the ability to assess cumulative impacts from several projects simultaneously (Runhaar & Driessen, 2007: 2). The roles of SEAs are largely determined by its place in the decision-making process. The fact that SEAs are often done as part of the EIA process might be slightly misleading, seeing that SEAs has the ability to inform decision-makers about the best development type suitable for a certain area, prior to development proposals being introduced. Due to its role, SEAs have been defined as: "a systematic process for evaluating the environmental consequences of proposed policy, plan or programme initiatives in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision-making on par with economic and social considerations" (Sadler & Verheem, 1996). So in essence, the idea of an SEA is to assess the anticipated impacts of a combination of developments in a given area and then to have the EIA process identify the proposed impacts in relation to the individual projects. Although EIAs and SEAs identify potential impacts that might arise from various development types, another tool is needed to determine which activities may be best suited for various pocket of land, especially with regards to agriculture, in order to assist in promoting sustainable development. In the South African context such a tool exists and is referred to as an Environmental Management Framework (EMF).

3.2.2.2 Environmental Management Frameworks (EMFs)

"An EMF is a study of the biophysical and social-cultural systems of a geographically defined area to reveal where specific land-uses may best be practiced and to offer performance standards for maintaining appropriate use of such land" (A&RD, 2015). EMFs are said to assist in the decision-making process for the issuing of Environmental Authorisation in areas that are subject to increased numbers of development applications, with specific focus on sensitive areas and land use areas under the mandate of the Department of Environmental Affairs and Development Planning in the Western Cape (DEAT, 2010: 4-6). An EMF document is usually commissioned to state the activities and impacts that might occur due to development in a specific geographical

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area. This differs from the EIA process as an EMF is a general document for a geographical area, whereas the EIA report is case specific done for a specific development.

An EMF document not only looks at environmental factors, but also aims to respect the provisions of NEMA and local and provincial spatial planning aspects, while also promoting environmental conservation. Thus an EMF document can assist in the decision-making process by taking both the environment and development factors into consideration and creating a framework within which development can take place, covering a specified geographical area. EMFs includes maps to which areas the EMF applies, identify various aspects of the environment which need to be preserved, indicating priority areas, and the specific land use types that would be best suited in these areas. It also indicates the socio-cultural values that need to be promoted in the area. If proposed developments fit within the ambit of the EMF, then development can be considered by the relevant department. Thus EMF documents identify land uses and planning aspects, whereas other tools such as SEAs and EIAs focus mostly on environmental impacts. Through the integration of these different tools, most aspects of development will be identified and mitigation measures can be identified accordingly.

However, for development projects to be individually managed within such a geographical area, the EIA process includes yet another significant management tool in its process, called an Environmental Management Plan (or an Environmental Management Programme).

3.2.2.3 Environmental Management Systems (EMSs) and Environmental Management Plans (EMPs)

EMPs are included to ensure the successful implementation of the mitigation measures as highlighted during the EIA process. The idea is to have EIAs, SEAs and EMFs identify the potential impacts and then identify various mitigation measures, with EMPs then ensuring the implementation of these mitigation measures; thus promoting environmental sustainability in the process. Having the theory of a process in place is one thing, however, without proper implementation; the planning part of a process becomes insignificant. Therefore EMPs have become pivotal management tools in the environmental field.

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EMPs are part of an Environmental Management System (EMS), which has become a requirement of many businesses in recent years, as South Africa is becoming increasingly environmentally conscious. Integrated Environmental Management uses Environmental Management Systems as a tool for managing potential environmental impacts. An EMS in itself is a tool for managing the impacts of an organisation's activities on the environment as it is a cyclical process which ultimately allows an organisation to achieve improved environmental performance. "The International Standards Organisation has issued the International standard ISO 14001, to provide an agreed definition of a sound EMS. ISO 14001 is one of a series of environmental standards, covering areas such as the environmental management of operations. ISO 14001 makes it possible for operators to obtain independent certification to prove that their environmental management system (EMS) meets the requirements of the standard" (DEAT, 2004c: 4).

For the purpose of this study, the organisations referred to above are the developers responsible for the development of gated developments, although it must be noted that this responsibility is often handed over to a Home Owner Association (HOA) once a development is in its operational phase; after which these developers then withdraw from management responsibilities. In order to meet the standard such an organisation must have several of the following in place: an environmental policy; environmental objectives and targets; the relevant environmental documentation approvals; environmental responsibilities; environmental audits; and an EMP (Australian Government, 2015). ISO is deemed to be an internationally accepted guideline for EMSs. Figure 3.2 below illustrates how EMPs are integrated into the EMS structure. This study will focus mainly on EMPs as management tools and being part of an EMS, rather than on what the functions of an EMS are. An EMP is focused on ensuring the implementation of some of the objectives of an EMS and is therefore deemed to be a more relevant tool for managing potential environmental effects caused by gated developments.

The Western Cape Department of Environmental Affairs and Development Planning (DEA&DP, 2005a) describes an EMP as: "an environmental management tool used to ensure that undue or reasonably avoidable adverse impacts of the construction, operation and decommissioning of a project are prevented; and that the positive benefits of the projects are enhanced". Other sources

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(MER, 2015) implies that an EMP can also be viewed as a site-specific document containing information about how to manage the potential environmental effects highlighted during the EIA process for a given project. The EMP document is also said to be a monitoring document which is often included as a requirement in the environmental authorisation issued by the relevant authority.

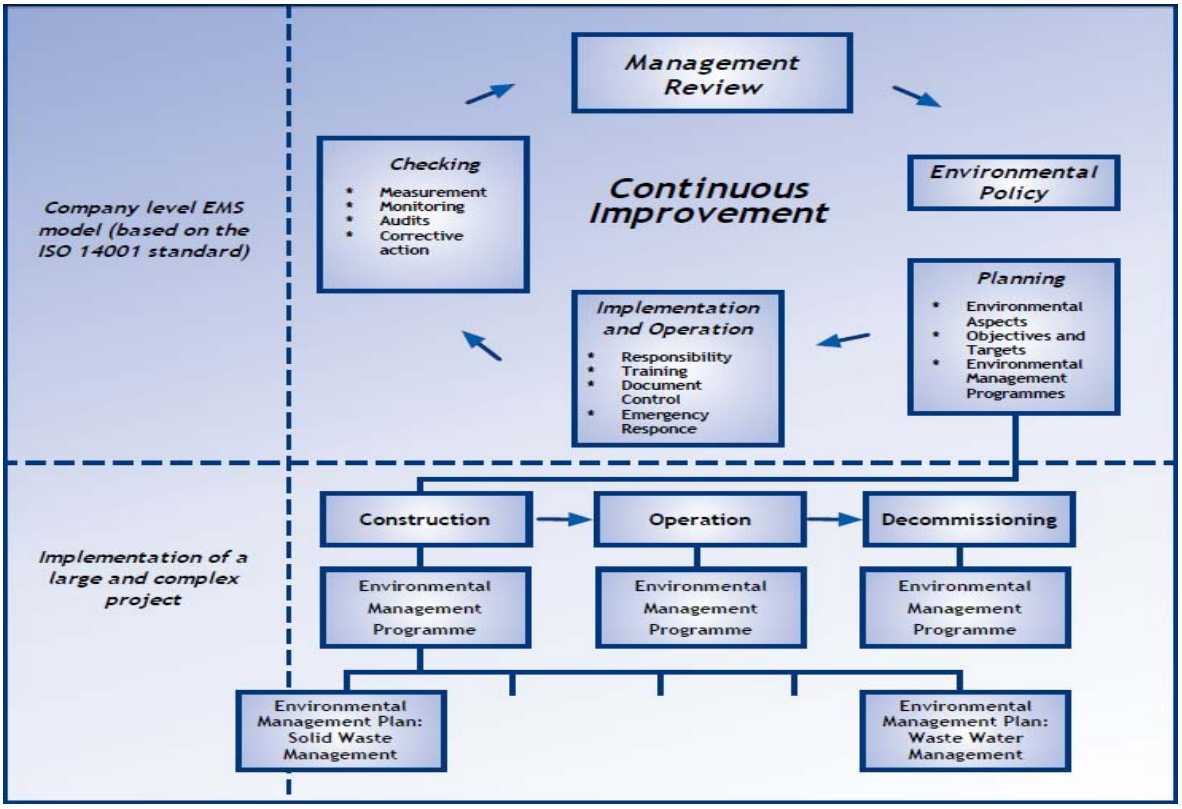

Figure 3.2: Integration of EMSs and EMPs (DEAT, 2004a: 5)

Due to an EMP having the purpose of identifying possible environmental impacts as well as providing measures for the minimisation, mitigation and management of the identified effects, EMPs are the ideal tools with which environmental effects of a project can be managed in both the construction and operational phases of a given project. In chapter 5 of this study it will be explored if EMPs are effective environmental management tools which can be used to ensure that activities take place in ways that would ultimately encourage sustainable development.

The potential role that the different parts of the EIA process can play, if implemented correctly, is very important in practice. All the parts of the EIA process have been discussed as different

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management tools which could all potentially manage case specific environmental issues. However, other elements also need to be managed in order to lessen the environmental effects of gated developments, thus mitigating the need for the use of management tools with which to address these effects.

Together with the EMP stating what environmental matters must be addressed and implemented; it must also be stated who the responsible party will be for this implementation. One generally established entity which could take responsibility for environmental upkeep during the operational phase of a development would be the Homeowners Association (HOA). A HOA is usually instituted in gated developments, as well as in any group housing project where there are common open areas. This means that HOAs are not solely confined to gated developments; however, most gated developments have a HOA, and therefore the HOA is a potentially important management tool. The next part will unpack the general roles and responsibilities of a HOA.

3.3 Homeowners Associations

A Home Owners Association (HOA) is the governing body of various types of developments. These developments normally include townhouse complexes, gated communities, leased land properties or in some cases even a normal subdivision. The HOA is usually a non-profit organisation that is initially established by the relevant developer prior to the advertising as well as sales of the residential units within the development in question. Once a specified number of residential units are sold, this association is then handed over to the homeowners (HOA-USA, nd: 3). HOAs are then given the authority to enforce certain rules, conditions and restrictions upon those over which it governs. When an individual buys a residential unit in an area governed by a HOA, that individual then automatically becomes part of the given HOA. All homeowners will have the right to vote for an executive board, which will be in charge of the association and will answer to all homeowners (NCLEG, 2012: 3).

Each HOA has its own governing documents ranging from a constitution, to EMPs, to general house requirements. The HOA is generally responsible for preserving the architectural integrity

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of a specific development, managing the funds of the development; ensuring that the general upkeep of the development is given the necessary attention; and that all residents respect all the specified guidelines and regulations (NCLEG, 2012). It is common practice that the conditions of a land use approval and Environmental Authorisation require that a HOA be established prior to the first residential unit of the development in question being sold (Pearl Valley Golf & Country Estate, 2014: 1).

Upon establishment of any HOA, a legal document is drawn up and signed by all members, stating what the rules and regulations of this relevant development would be. Such a document would also include the rights of the HOA in order to protect all residents from abuse by the HOA members. An example of this document would be the De Zalze Winelands Golf Estate – HOA rules document (DZWGE, 2011) which sets out the obligations and authority rights of the HOA as well as the general rules of the De Zalze Golf Estate. If both the HOA and the rules documents are efficient and thoroughly detailed, the HOA can be an effective management tool that can be used to manage potential effects of a development during the operational phase.

3.4 Planning tools

For the purpose of this study, planning tools refer to policies and plans which are used to guide development planning in a desired direction. Planning is legally required to operate within a given framework in South Africa. This framework is made up of various policies and plans, which ensures that all development is subject to the same laws. This requires all development in SA to occur in a similar manner; thus promoting the task of making development more sustainable and controllable (Forbes, 2011: 2), although there will be differences between requirements in different provinces and municipalities. These policies and plans within the planning framework can be viewed as planning tools. These different planning tools must operate in unison with each other, and there are several policies or plans that can be seen as overarching tools. The following section of this study will lay out the roles of the various planning tools used to guide development planning in South Africa.

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3.4.1 Spatial Development in South Africa from 1994-2010

After 1994, the ANC government was faced with the daunting task of spatial planning for a country with high inequality, vastly varying standards of living, geographically scattered economic opportunities as well as a significant amount of public debt. With justifiable spatial planning fairly high on the agenda list for the newly elected ANC government, the RDP Office was established. It was initially thought that the RDP office would bring much needed economic interferences. Sadly, with an evident lack of international investments leading to a lack of funds, the office was decommissioned in 1996. Officials from the office were deployed into the different spheres of government and the idea of spatial development planning framework also vanished at that time (Oranje, 2010: 58-59). Just before closure of the RDP office, the National Spatial Development Framework (NSDF) was however issued.

The NSDF was believed to be the first attempt at planning national spatial development in South Africa. Oranje (2010: 60) goes on to explain that the main aim of this national spatial development planning attempt was to map and track where investments were being spent in the country. It was believed that this framework was needed to integrate and guide expenditure and infrastructure investment efforts in a predetermined general direction. This attempt had a fundamental flaw in the sense that sectors of government were not keen on the idea of having investments allocated to future development, and therefore this planning scheme was ultimately unsuccessful. Platzky (1998: 9) further illustrates that various additional attempts at spatial planning also failed to holistically grasp all the components of spatial planning at the same time. Platzky (1998: 9) shows that the Spatial Development Initiative (SDI) was one such an attempt which was successful in aligning development corridors over large areas; but that the SDI wrongly focused on highlighting the importance of social and economic investment only in areas with high potential for growth. Only once these areas were addressed, would the focus be shifted onto more marginal areas.

As is evident from the above mentioned, unsuccessful government initiatives to guide investments and development spending in an effective direction, eventually lead to the development of the 2006 National Spatial Development Perspective (NSDP). The principles of the NSDP was stated as follows:

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> "The ultimate purpose of the NSDP in the South African setting is to fundamentally reconfigure apartheid spatial relations and to implement spatial priorities in ways that meet the constitutional imperative to provide access to basic services and economic opportunities to all, to alleviate poverty and inequality. To this end, the document examines the spatial dimensions of economic potential, social exclusion and inequality, and their implications for the achievement of the broader growth and development policy objectives of government. It recognises the burden that unequal and inefficient spatial arrangements place on communities, especially on the poor who incur huge transaction costs by having to commute large distances to and from work" (The Presidency, 2006: 5).

The Department of Trade and Industry (2007) also came up with a way to assist with the identification of areas with economic potential, in the form of the Regional Industrial Development Strategy (RIDS).

The RIDS went hand-in-hand with the identification of areas outside of metropolitan areas which had good economic potential. Oranje (2010: 62) however, argues that the RIDS recognised 'regional inequality' being created by previous initiatives. RIDS refers to 'regional inequality' as the process of starving areas outside of the urban edges of economic opportunities.

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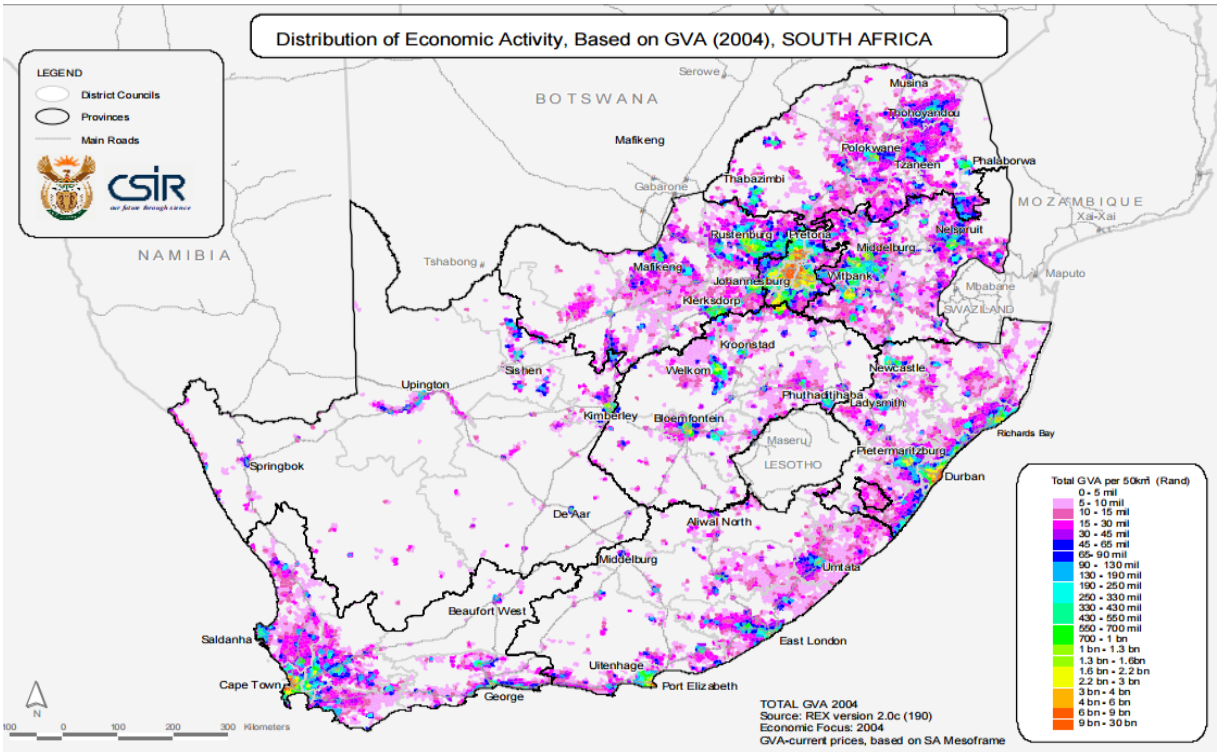

Fig 3.3: Distribution of economic activity in South Africa (Department of Trade and Industry, 2007)

Figure 3.3 illustrates how unequal the actual distribution of economic opportunities/activities in South Africa are. Figure 3.3 is calculated on the Gross Value Added (GVA) and place emphasis on the high amounts of economic activity in major metropoles. Figure 3.3 also acts as a very visual representation of the push and pull factors for urbanisation in South Africa.

The above mentioned section highlighted the evident challenges in the planning sector in South Africa and the fact that opportunities were not being created in areas which they are often most needed. What has been positive is that it has been demonstrated that planning has the ability to manage things such as providing opportunities in selected areas as well as promoting sustainable development through implementing relevant changes to the existing concepts and systems. One management tool that deserves the necessary attention is the Integrated Development Plan (IDP). One of the main functions of an IDP is to integrate various planning management tools, thus addressing the fragmentation which has been highlighted before (ETU, 2015).

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3.4.2 Integrated Development Plans

Integrated Development Plans (IDPs) are plans giving guidance on economic, social, physical and other dimensions of an area and is thus viewed as one of the dominant planning tools used by municipalities in South Africa. In SA IDPs are seen as strategies which aims to involve a given municipality and its citizens, in order to find the best possible way of ensuring good long-term development. An IDP identifies which factors need to be accounted for when development takes place, thus delegating various tasks to the relevant spheres of government and ultimately allocating a budget with which to perform these tasks at hand. An IDP document should consider physical development as well as social and economic development.

Council has to approve the IDP document prior to its implementation, after following a public participation process. An approved IDP has a lifespan of 5 years, but is reviewed once a year. During this review, the necessary changes are suggested and the document is then amended accordingly. An IDP is important due to the following reasons:

- It ensures the effective use of resources – once the available resources at local level has been identified, an IDP document allows the municipality to ensure that these resources are allocated towards addressing the most important needs of the community over which the municipality has jurisdiction.
- It has the potential to attract funding injections – stakeholders are likely to invest in areas which have a good IDP in place as they can then also clearly see how their funds will be allocated after they have invested.
- It can ensure better service delivery – due to the fact that the public has been part of the process; it helps to identify areas that are in need of improved service delivery. The possible provisions of these services are made possible by the budget plan in this document.
- It has the ability to address past injustices – the IDP document identifies the areas that were previously disadvantage and as a consequence do not enjoy the benefits of the required services and infrastructure, and thus extends these services to the poor accordingly.
- It informs the municipal budget, which has been referred to as “planning-led budgeting”

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- It can lead to a more democratic community. The IDP document ensures the participation of all the involved stakeholders, making for democratic decision-making and implementation.
- It ensures improved communication and co-ordination between the various spheres of government. Planning required by the IDP needs all levels of government to co-operate with one another in order to mitigate any overlaps that may exist in the development sphere (ETU, 2015).

The above information illustrates that an IDP document is essential for future development planning and thus can be seen as an essential management tool with which to eliminate possible negative effects caused by developments in any given municipal area. When an IDP aims to shape the development pathway of a certain area, it needs other detailed policies to support its vision. An IDP document often includes a chapter specifically focusing on different aspects which are complex and significant. One example of this would be the housing chapter (NHC, 2009) which focuses on housing plans which can be implemented by the relevant municipality and is thus operates as a function or part of the IDP. Other important features of the IDP are the Infrastructure Plan, as well as the Spatial Development Framework, which is ultimately designed to provide more clarity on the specification for spatial development in the areas dealt with in the IDP.

3.4.3 Spatial Development Framework

A Spatial Development Framework (SDF) is a technical document which is designed to act as a council policy. An SDF document mainly aims to assist in achieving the desired spatial form of a given municipality by guiding land use and land development decisions for a municipality. With an IDP being the overarching document which aids decision-making, development and expenditure in a municipality, the SDF must indicate how the implementation of an IDP document will occur in space, again assisting in achieving the municipalities' desired spatial form. Table 3.1 below illustrates some of the vital aspects which must be covered in an SDF document.

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Table 3.1: Compulsory components of an SDF (Adopted from: Rural Development & Land Reform, 2013: 6)

COMPONENT
The desired spatial form and pattern of land use for the municipality, which must be visually represented (i.e. a plan)
The desired direction and nature of growth – this should include vertical (in urban areas) and horizontal growth
Major movement routes
Areas targeted for redressing past imbalances and spatial reconstruction
Conservation of the built and natural environment
Where particular land use types will be encouraged and discouraged
Areas where development intensity could be increased or decreased
Urban edges
Where development and infrastructure investment (both public and private) should take place
Where strategic intervention is required and priority spending should be directed
Objectives, strategies and policies to achieve the desired spatial form
Programs and projects for the development of land

As is evident in table 3.1 above, an SDF needs to clearly give all information with regards to spatial development and also needs to be aligned with both the objectives and goals of an IDP. Ideally, an SDF should also be aligned with other plans, such as transport plans and infrastructure plans.

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3.4.4. Zoning or Town Planning Schemes

In the various provinces of South Africa these schemes are known under different names, with zoning schemes used in the Western Cape since 1985. Such a scheme can also be referred to as a land use scheme or a town planning scheme and is usually prepared in terms of a Provincial Ordinance or Act. A recent national Act - the Spatial Planning and Land Use Management Act (SPLUMA) 16 of 2013 has brought in the names of Land Use Management Systems (LUMS) and Land Use Schemes (LUS), while 'town planning scheme' is the name used in most other provinces and prior to 1985 also in the Western Cape. These zoning, town planning or land use schemes are used to manage rights in land. Most developments usually requires a rezoning application, depending on what use the land was zoned for. If the proposed development is to take place on land that is not zoned for the intended use, then a rezoning application would need to be submitted and approval granted prior to the development being developed on this land. Later in this section, the different types of land uses and how they are used in South Africa, will be explored.

The City of Cape Town (2015b) defines a zoning scheme as: "a legal document that records all land-use rights on properties in its area of jurisdiction. It includes regulations and restrictions on such rights and how they can be exercised". The main aim of a zoning scheme is to designate types of activities to specified zone; or else put, what activities may take place in a specified zone (Forbes, 2011: 8). Each defined zone has its own development rules as well as provisions which clearly set out for what purpose any given property may be legally used as well as how this property may be developed (such as heights of buildings, coverage, building lines, parking requirements, etc.). Zoning schemes work in unison with various planning legislation, and plans such as the IDP and SDF and can be applied to any structure, land or building (The City of Cape Town, 2007: 7-10).

A scheme includes various zoning categories and provisions, for example:

a. "Land Use Zoning – the scheme map with its designated zones.
b. Types of Zones (and Reservations)
    i. Residential (Low, Medium, High, Planned Unit Development, etc.)
    ii. Commercial (Shops and Offices)

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iii. Industrial (Service, Light, General, Heavy, Noxious, Extractive, Mining)
iv. Open Space (Private, Active, Passive & Conservation)
v. Administration
vi. Institutional
vii. Educational
viii. Mixed
ix. Agricultural
x. Special Zones (for complex developments or where a land use does not readily fit into one of the above categories).

c. Permitted Land Uses
    i. Free Entry Uses
    ii. Consent Uses
    iii. Prohibited Uses (Forbes, 2011: 11).

Various types of zonings and zoning schemes can be identified. Traditionally zoning schemes were based on what was called ‘Euclidean zoning’ in the USA. This is a general form of zoning that was widely implemented all over the world, and is based on single-use zonings where different land uses (such as single residential, general residential, group housing, or business uses) were separated from each other, with similar land uses being grouped together. The zoning schemes then regulated different types of development by setting out land use classifications and supporting standards. These classifications were similar to the classifications currently used in South Africa: single family residential, commercial, industrial, institutional and recreational. Dimensional standards apply to each of the land uses mentioned above and these standards usually regulate the heights of structures, erf sizes, setback lines etc. These standards often promoted low densities, in addition to the single use zonings.

This types of zoning schemes have been criticized for not being flexible enough in the sense that it does not take different scenarios into consideration and could be seen as an outdated method of planning (PZCC, 2013: 1). These traditional zoning schemes were also criticised as being exclusionary, which lead to the development of alternatives inclusionary zonings. The following

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section discusses exclusionary versus inclusionary zoning schemes, where-after a number of specific types of zoning schemes (known as zoning codes in the USA) are discussed.

3.4.4.1 Exclusionary Zoning Schemes

With its roots located in the United States, exclusionary zoning schemes were used in the past to exclude certain portions of the populations from a particular geographical area. Exclusionary schemes in essence are the "limitation of residential development over large areas, and even entire cities or towns, to single-family housing on large lots" (Liberty, 2003: 581). Mangin (2014: 91) provides a more specific definition of exclusionary zoning: "The term 'exclusionary zoning' is understood to apply only to suburbs, where municipalities dominated by homeowner cartels anxious about property values and taxes demand land use regulations that prevent certain kinds of development and raise housing costs above what low-income families can afford to pay".

Liberty (2003) then further explains how exclusionary housing in the United States was a way of legal social exclusion and was advantageous in the sense that property values in such areas were often higher due to its geographical isolation, and normally only high income households could afford to live in such areas. However, on the other side, it clearly excluded lower income households and encouraged urban sprawl (due to longer distances between residential and other areas, such as businesses). It was thus also disadvantageous to the environment. Cervero and Duncan (2004: 3) found that it was not only the effect that exclusionary zoning had on market values, but it also promoted racial segregation and exclusion in certain zones.

From the various takes on exclusionary zoning mentioned above, it is clear that exclusionary zonings are not aligned with increasing the supply of affordable housing units, nor does it promote a sustainable urban form. It would thus fail as management tool in South Africa. Instead, a more realistic management tool would be one that includes all income households in order to create better opportunities and thus promote sustainable development.

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3.3.4.2 Inclusionary Zoning Schemes

The alternative to single use, exclusionary zonings, would be schemes that promote mixed land use and mixed income housing, as well as higher densities. As part of a bigger housing plan, various zoning ordinances in the USA make use of inclusionary zoning schemes which ultimately requires developers to develop a percentage of the residential units in a specific area into low or medium cost housing. This is thought to enable government to leverage private sector resources in a way that ensures that less government expenditure needs to be spent on public housing subsidies (Dustin & Read, 2008: 3-24). In this way the supply of low cost housing units will be increased and the geographical location of these units will be more dispersed (Mekawy, 2014: 1928). This in turn means that lower income households will have better access to employment opportunities.

However, there are also several disadvantages that flow from inclusionary zoning. In some instances, inclusionary zoning has been the direct cause of lowered residential development in such areas, as low cost housing units often act as a disincentive for developers as the profits per low cost unit is often significantly less than that of high income residential units (Dustin & Read, 2008: 24). Inclusionary zoning can also directly affect the market values of other residential units within the same development, as well as affect the market value of unused land in neighbouring areas. Governments should insure that sufficient incentives are put in place to incentivise developers to want to develop inclusionary housing as an integral part of the larger development. Only then will zoning schemes be seen as an effective management tool from which all parties can benefit and not purely a forced tool used to increase the supply of low cost housing. Examples of inclusionary housing projects in South Africa are Cosmo City in Johannesburg, as well as Blythedale located on the fringes of Durban (South African Government, 2014).

Looking at the positives of inclusionary housing schemes, it is evident that developments should become more compact and dense, thus making it easier for spatial plans to stay within the urban boundaries and not encourage urban sprawl (Smit & Purchase, 2006: 11). Inclusionary housing can also directly lead to the decentralisation of poverty. This in its own rights can grant individuals trapped in poverty the chance to access more sought after jobs, transport and opportunities for education. Incentives for inclusionary housing projects should be put in place to

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attract developers to the idea of inclusionary housing developments. Some of the potential incentives include housing subsidies, shortened developmental approval timeframes, infrastructure rebates and relaxed zoning restrictions (WCPSDF 2009: 13).

3.4.2.3 Types of zoning codes

As is evident from the above sections is that South Africa needs new approaches to land use zoning in order to eliminate the shortcomings of current practices (such as Euclidean Zonings) and ultimately better promote the desired outcomes of zoning in South Africa. Several zoning ideas or codes are used internationally and if correctly implemented in South Africa, can be seen as efficient management tools to address the problems of the current zoning schemes. The next section of this study will briefly look at three alternatives to Euclidean zoning schemes, illustrating both the positives and negatives of these types of zonings and it will then be determined if indeed one or more of these codes could be applied to development in South Africa.

i) Form-based codes

"Form-based codes address the relationship between building facades and the public realm, the form and mass of buildings in relations to one another, and the scale and types of streets and blocks. The regulations and standards in form-based codes, presented in both diagrams and words, are keyed to a regulating plan that designates the appropriate form and scale (and therefore, character) of development rather than only distinctions in land-use types" (FBCI, 2015).

Due to the level of detail needed for this code to be efficient and correctly implemented, it has not been implemented in many places over the world. Miami in the United States is one example of a town that is currently implementing form-based zoning; however, in such a big city the code needs to be of high quality and is thus deemed complex and difficult to administer and interpreted (PZCC, 2013: 1).

ii) Incentive zoning

Incentive zoning is based on a rewards system. Rewards are offered to the developer if the developer ensures that the local community benefits from a development in some form or

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another. The incentive could for example potentially include the rights to develop to higher densities than would have been allowed under present zoning schemes. The developer must however, provide things such as extra open spaces or promote public goals in any way through the development. The fact that this scheme grants special permission in certain cases for the exchange for a wide spread of community improvement types, means that such codes hold the potential for developers to exploit the system and must thus be thoroughly administered (Seattle Planning Commission, 2007: 2; PZCC, 2013: 2).

iii) Performance zoning

ITRAC (2011) defines 'performance zoning' as: "an approach to land use planning that is based on quantifiable performance standards that regulate the intensity of land use to prevent adverse impact on abutting and nearby properties. Traditional zonings regulate general classes of land use. This site specific method of zoning provides significantly more flexibility than traditional use based zoning. With its roots in building codes, performance standards were established (e.g. walls must be constructed to contain a fire for 1 hour) instead of specification standards (e.g. walls must be constructed of 15cm thick masonry or stone)".

Furthermore, performance standards are divided into two categories, firstly, site standards, and secondly, activity standards. Site standards are normally used to regulate the appearance of units in order to ensure that community character is maintained, such as landscaping, floor surface areas etc., whereas activity standards usually regulate the intensity or outputs of a use, such as water uses, waste types generated, traffic patterns etc.

Performance zoning is also highly focused on protecting the natural environment by protecting open space, encouraging high density as well as the minimum impervious surfaces (ITRAC, 2011). It therefore has great potential as a concept to promote sustainability.

3.5 Conclusion

This chapter explored the different management tools that could make substantial impact in the battle to better manage the effects of gated developments in South Africa. As mentioned

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throughout this chapter, each management tool has its own set of criteria for optimal performance; thus making it extremely difficult to align all these tools and to get them to operate in unison without any overlaps or grey areas. Having a better understanding of what it is that these management tools aim to achieve, makes it easier to identify the shortcomings in desired outcomes in the sustainable development field. Thus it is necessary to look at how these different management tools are applied in specific areas, as well as what laws shape these tools in South Africa. Although this chapter highlighted the general ideas and objectives of possible management tools, it must be noted that planning and environmental laws may have a significant influence on the way these objectives can possibly be met; therefore, these management tools are often criticized for being idealistic and not always focused on efficient implementation. As this chapter has illustrated, a combination of these management tools could significantly improve the sustainability of development as a whole in South Africa. However, the planning, design and implementation of these tools have to be efficient.

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Chapter 4: Laws, Policies and Plans

4.1 Introduction

In South Africa, national and provincial legislation govern both the administration and regulation of planning and development, and municipal decision-making and municipal planning have to be aligned with this national, provincial and local legislation. Any South African municipality must promote the conservation of all natural and cultural environments through creating improved social and economic opportunities for the public; and by so doing, contributing to sustainable development. The previous chapters identified the potential management tools at the government's disposal with which to achieve this desired outcome. It is therefore important that various Acts, policies, plans and regulations are in place to ultimately guide decision-making. This will ensure that the efficiency of such management tools are optimised and also that no party would be exempt from the desired development patterns. This chapter will look at the relevant national, provincial and local laws, policies and plans which influence the respective planning and environmental fields. The effects these laws have on the management tools, identified in the previous chapter, will be given some attention, due to influence it can have on ultimately addressing the sustainability of gated developments in South Africa, and more specifically Jamestown in Stellenbosch.

Most laws, policies and plans which are currently in place in South Africa, aim to address past injustices as far as practically possible. It is important to understand the framework within which various laws and policies operate; however, for the purpose of this study, this chapter will only identify the most important and relevant laws, policies and plans that affect gated developments, either directly or indirectly on a national, provincial and local level.

Figure 4.1 below illustrates all the relevant laws, policies and plans that influence development planning at the different levels, all of which will be discussed in this chapter. Firstly, the laws, policies and plans at National level need to be understood, which then flows down into laws, policies and plans at Provincial level. Lastly, the analyses of the local municipal by-laws and plans that influences on gated developments, will round off the chapter.

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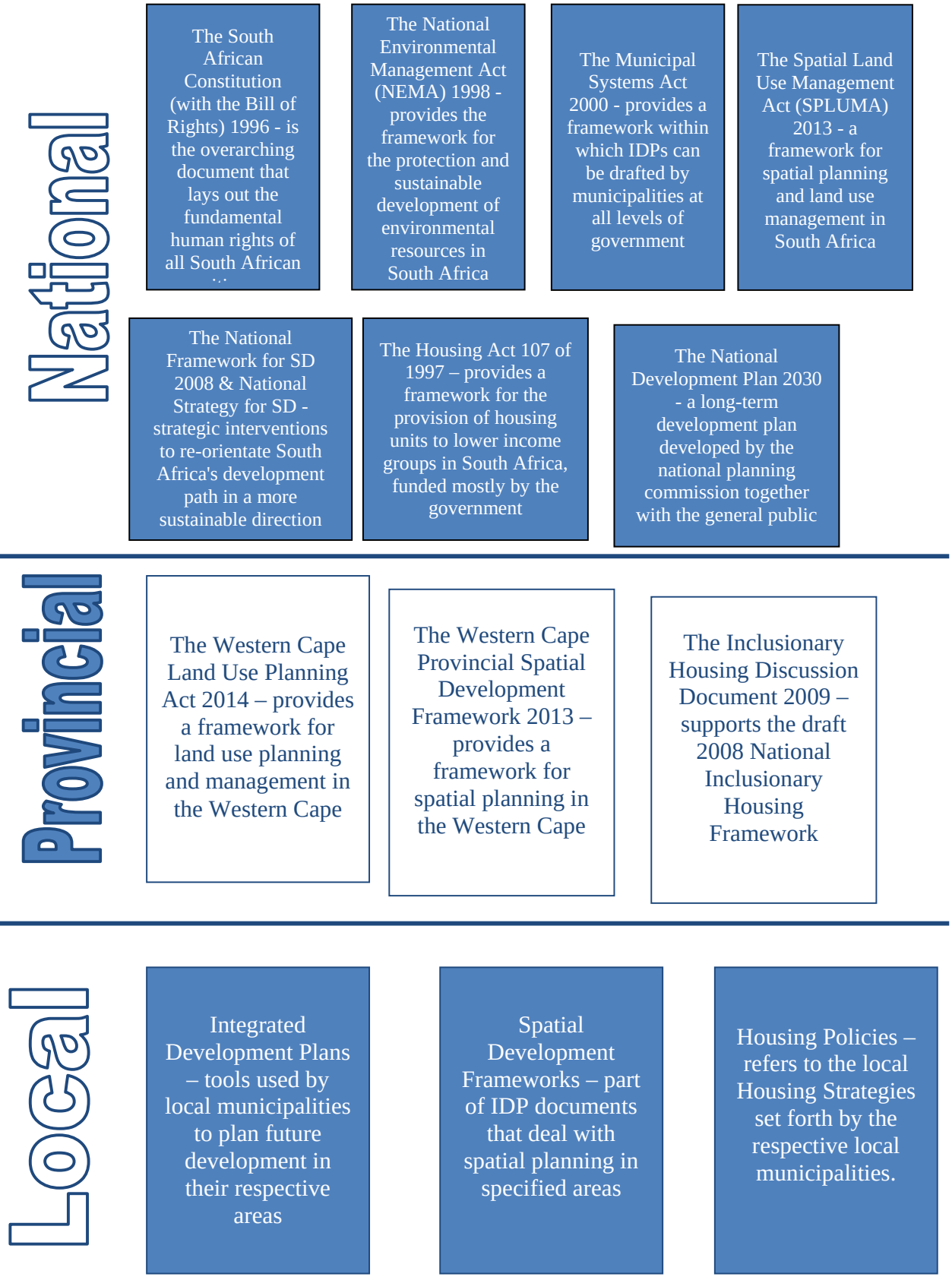

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4.2 National Laws, Policies and Plans

The international agreements that influence sustainable urban development, such as Agenda 21, 'The Future We Want', as well as the Habitat Agenda, have already been discussed as part of the literature review of this study. In addition to ideals set forth by these documents, there are a number of laws, policies and plans at national, provincial and local level, which also tries to promote sustainable development in South Africa. It is important to look at the different laws, policies and plans individually; while also exploring how they are linked and integrated, if at all. Deals of what is desirable development has evolved in South Africa in recent years, meaning that the national laws, policies and plans also need to be updated accordingly. The following national laws, policies and plans play a role in guiding and restricting development in order to develop in a way that is both sustainable and suitable to all members of society.

4.2.1 The Constitution of the Republic of South African of 1996

South Africa's Constitution (RSA, 1996) was promulgated to address past injustices in South Africa, and also provides guidelines to address these past injustices (Tshikotshi, 2009: 41). As illustrated in Figure 4.1, the Constitution (which includes the Bills of Rights) is the over-arching Act that takes superiority over all other laws, acts, policies and regulations in South Africa. Henrard (2002: 24-29) states that the Constitution supersedes all other national, provincial and municipal acts, while setting out all the various duties of South African citizens and the fundamental relationships between government structures needed to successfully implement this Constitution in practice (RSA, 1996).

The Constitution (RSA, 1996) (makes provision for three spheres of government that are "distinctive, interdependent and interrelated" (section 40) and the concept of cooperative government, which requires the three spheres of government to co-operate with one another. Co-operative government needs to have underpinning principles in order to make such a relationship between the different levels of government plausible, without having the actions of one sphere negatively influencing or impacting the activities of another sphere. The Constitution (RSA, 1996) (section 41) lists a number of principles of co-operative government as well as the intergovernmental relations that need to be established between these 3 spheres, while acting distinctive, interdependent and interrelated at the same time. One of the first principles is to

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"preserve the peace, national unity and the indivisibility of the Republic". When combined with the second principle, which is to "secure the well-being of the people of the Republic", it becomes evident that the main idea of this relationship is to work towards serving the people. Further principles focus on how these 3 spheres can effectively co-operate and align their respective tasks to achieve the goals of the government as a whole. What is of importance here is the fact that the Constitution does not value the contributions of one sphere as superior over another, and aims to create the best possible platform for each sphere to perform at a maximum capacity, without interfering other activities of another sphere. This idea must be carried over into policy and planning of the different fields of development in order to create a system which is both efficient and sustainable.

The preamble of the Constitution (RSA, 1996: 1247) makes reference to equality, and in Section 9 on the Bill of Rights (BoR) it is stated that all persons are equal and that no one may be excluded or discriminated against on the basis of race, sex, gender, ethnic or social origin, culture etc. From a social standpoint, this might be the most relevant factor which is not being taken into account when gated developments are designed, seeing that gated developments often have the sole purpose of exclusion.

The Constitution states that all residents have the right to enjoy all their rights and freedoms (RSA, 1996: 5). Section 7 states that "the Bill of Rights is a cornerstone of democracy in South Africa". It also enjoins the state to "respect, protect, promote and fulfil the rights in the Bill of Rights". The existence of a Bill of Rights creates a new type of relationship between the state and its citizens, in that citizens may claim these rights as set out in the Bill of Rights.

Section 10 makes reference to human dignity. This section again emphasizes that everyone is entitled to inherent dignity. Section 12 of the Constitution deals with the right to freedom and security of all residents of South Africa. Section 14 of the Constitution refers to the right of privacy, whereas section 21 deals with the right to freedom of movement, residence and entrance to any public area. Section 26 of the Constitution claims that all South African citizens have the right to access to adequate housing and that all parts of government must ensure that the provision of this right is strongly pursued (RSA, 1996: 11). This ties in directly with the aim of

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the recent Spatial Land Use and Management Act (No 16 of 2013), as well as policies such as the Inclusionary Housing Policies, all of which are further discussed in this chapter. Another section of the Constitution worth noting is Section 33, which deals with the right to just administrative action (RSA, 1996: 6-33).

Sections 9, 10, 12, 14, 21, 33, 40 and 41 of the Constitution are of significant importance to this study and ultimately highlight what development in South Africa should aim to achieve. Gated developments in particular create a contradiction between the some of the sections of the Constitution, for example, the right to freedom can directly be contradicted by the right to security. The Constitution also states that any limitation on any of the above mentioned rights must be fully justifiable and reasonable (RSA, 1996: 16).

The Constitution (RSA, 1996) further provides for a number of state institutions supporting constitutional democracy, also known as Chapter 9 institutions. These institutions include the Public Protector, the Commission for Gender Equality; the Electoral omission, as well as the South African Human Rights Commission (SAHRC). The purpose of the SAHRC is to promote respect for human rights, and monitor the observance of human rights.

The above mentioned sections of the Constitution (RSA, 1996) must thus all be taken into account in decision making and can be compared with the findings of chapter 4, thus identifying where relevant shortcomings and infringements of current laws are evident in practice. This will then also highlight where the management shortcomings are in terms of gated developments.

4.2.2 National Environmental Laws and Policies

4.2.2.1 National Environmental Management Act (107 of 1998)

South Africa has an advanced legal framework that aims to protect the environment and to achieve environmental sustainability. However, prior to the National Environmental Management Act (107 of 1998) (NEMA) being promulgated in 1998, regulating laws were largely implemented in an ad hoc basis and the environment was not always considered worthy of protection in decision making processes. With the above mentioned in mind, it must be noted

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that environmental concerns have been raised since the 1940s; however, legitimate legal frameworks and structures to address these concerns were not yet in place and various environmental assessments was undertaken purely on a voluntary basis. It was only in the 1970s that a worldwide increase in environmental awareness triggered the amendment of the Environmental Conservation Act (ECA) (73 of 1989) (RSA, 1989) in South African law. Throughout the following years the need for a better controlled and defined environmental legislation arose and eventually the National Environmental Management Act (107 of 1998) (RSA, 1998) was promulgated (Paschke & Glazewski, 2006: 120-121; MER, 2015).

The National Environmental Management Act (NEMA) (107 of 1998) (RSA, 1998) can be seen as the overarching environmental legislation which enables all other laws, policies and plans to be structurally implemented under the framework of NEMA. NEMA defines sustainable development in the following way: “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” (RSA, 1998; Van Wyk, nd.).

The definition of the sustainable development given in the NEMA in essence encapsulates one of the main aims of the Act. NEMA was promulgated in order to set out fundamental principles that would guide environmental decision-making in a direction which is both sustainable and just to all members affected by the decision-making process and the outcome thereof. By being the overarching Act, the aim is not to enforce burdensome requirements, but rather to be the engine of a national environmental management system that enables other policies, plans and programs to be implemented effectively under the ruling of NEMA. Therefore NEMA makes use of various other management tools that assist in environmental decision making, such as Environmental Impact Assessments (EIAs) and Environmental Management Plans (EMPs). NEMA required projects to acquire environmental authorisation before legally commencing with activities; and authorisation can only be granted by the relevant government departments. Therefore, EIAs and EMPs are informative management tools which these authorities use to make informed decisions with regards to issuing approval for projects.

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NEMA is also largely driven to achieve Integrated Environmental Management (IEM), thus using several management tools to achieve this IEM in practice. These tools are used to achieve various outcomes at various stages of a project. These different tools must operate in unison to each other and should not contradict each other, in order to avoid any grey areas that might exist as a consequence. Some of the most effective and important environmental management tools include Environmental Impact Assessments (EIA), Environmental Management Systems (EMS), Environmental Management Programs and Environmental Management Plans.

The National Environmental Management Act (NEMA) (RSA, 1998) ensures that the environment is taken into consideration during the decision-making process with regards to various types of developments. NEMA restates section 24 of the Constitution, that "everyone has the right to an environment that is not harmful to his or her health or well-being; the State must respect, protect, promote and fulfil the social, economic and environmental rights of everyone and strive to meet the basic needs of previously disadvantaged communities; and everyone has the right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that – prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development" (RSA, 1998: 2).

Gated developments are often justified in the sense of protecting the environment, through means of privatisation. Although gated developments privatise environmental resources, it has also been argued that gated developments promote conservation, through privatisation of these environmental resources.

The overarching underpinning of NEMA is to ensure that environmental resources are correctly and sustainably used, while simultaneously linking integrated environmental management (IEM) to the objectives of NEMA. Throughout the Act, the importance of compliance with this Act is a recurring theme, also stating the incentives and penalties for compliance with this Act (RSA, 1998).

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Gated developments are centre to the above mentioned in that this Act has several guidelines which need to be followed in order for the Western Cape Department of Environmental Affairs and Development Planning to issue any applicants with an Environmental Authorization for any proposed development (RSA, 1998). During this application process, all the environmental (and, in theory, social and economic) effects of the potential gated development are considered and are then used as the deciding factors in deciding the environmental approval or rejection of such a development.

4.2.2.2 The Environmental Impact Assessment process

NEMA uses what is known as Environmental Impact Assessments (EIAs) as a tool to ensure minimal environmental damage occurs and to promote sustainable development with regards to all developments in South Africa. EIAs are extensive impact assessments that are done for a proposed development by independent environmental consultants. The EIA considers all the possible effects of a certain development in report form, which are subjectively identified by various relevant environmental specialists. The EIA process also serves as an opportunity for the public to raise any concerns or objections to a proposed project, over which the relevant authority then has the final decision (Saidi, 2010: 4). Through this public participation process, the interested and affected parties of a particular development have the chance to be included in the final design of the development, thus simultaneously acting as an inclusionary and independent assessment which will ultimately lead to the least negative environmental, economic and social impacts.

In terms of gated developments – prior to such a development being approved, an EIA process would need to be undertaken, if it is deemed to be a listed activity. The EIA would investigate all the proposed environmental impacts identified by various specialists. If it is deemed that the development would not have detrimental impacts on the environment; if no interested and affected parties have legitimate reasons to oppose the development; the proposed development is in line with all relevant laws and; the proposed development will be largely beneficial, then Environmental Authorisation can be considered by the relevant authorities. The EIA process would also take socio-economic aspects into account and would also strongly consider the public opinions received, prior to making any decisions. If the relevant government department deems

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the proposed development to be favourable, the Environmental Authorisation (previously known as the record of decision (ROD)) would include a certain set of conditions that would need to be complied with in order to render the Environmental Authorisation as suitable. As can be seen above, NEMA forces all environmental aspects to be considered, before any gated developments are approved. In theory it thus eliminates any controversial aspects and also ensuring the proposed gated developments are confined within legal frameworks (Warburton, 2014: 1-124).

The EIA report needs to include alternative proposals, unpacking all the different options for the development in question. This means that the option which carries the least potential negative effects for the environment, and which is the most practicable, will ultimately become the preferred alternative and the report will mainly focus on illustrating the impacts of this alternative.

The EIA report has a general framework according to which all reports must be set up, irrespectively of what environmental consultant is employed to do the impact assessment. This framework is suggested in the EIA regulations and includes the following compulsory items:

- Firstly, a detailed background of the area for development must be given. This includes the geographical area, the history of the area, socio-economic aspects of this area and the intention of the proposed development.
- The report needs to also include a section on the required engineering services. This would include items such as the supply of water, how and where waste is to be disposed of, where the development will acquire its electricity from, and how traffic will be accommodated.
- The third compulsory part of the document is generally based on the actual EIA process that has been undertaken, such as the public participation process and the public meetings that was undertaken.
- Fourthly; the EIA report needs to also contain a section which deals with all the planning contexts into which the report itself fits, such as the relevant provincial spatial development framework and the relevant IDP etc.
- The next section highlights all the legal documents to which this report, as well as the development itself, is subject to.

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- The next section generally deals with the various specialist studies that was undertaken during the assessment process. This would include items such as heritage assessments, archaeological assessments, traffic impact assessments, visual impact assessments and town planning guidelines. All the relevant specialist reports would also be added to the EIA report as separate annexure.
- Lastly, the report would include a section that deals in detail with the specific issues that could arise if the development is approved. Here, things like possible urban sprawl, increased crime, formation of dust and increased noise levels are discussed and considered.

Included as an annexure in the EIA report is the Environmental Management Plan (EMP). An EMP is a document which is implemented during the construction and operational phases of the development for which the specific EIA report have been written. EMPs are management tools/documents used to ensure that the development is done in a specified way, as set out in the EIA report.

It must be noted that all the aims and goals of NEMA are embedded into the EIA process in the sense that if any part of the development goes against that of NEMA, the Environmental Authorisation usually does not get granted, unless the EIA report can successfully justify why the development should be approved otherwise. Although the above mentioned seems to cover all the environmental aspects connected to gated developments, it must be remembered that the EIA process itself often has many shortcomings (Andersson, 2000).

4.2.3 The Municipal Systems Act (32 of 2000) (MSA)

The role of the Municipal Systems Act (MSA) is summarised as follows:

> *"To provide for the core principles, mechanisms and processes that are necessary to enable municipalities to move progressively towards the social and economic upliftment of local communities, and ensure universal access to essential services that are affordable to all; to define the legal nature of a municipality as including the local community within the municipal area, working in partnership with the municipality's political and administrative structures; to provide for the manner in*

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> *which municipal powers and functions are exercised and performed; to provide for community participation; to establish a simple and enabling framework for the core processes of planning, performance management, resource mobilisation and organisational change which underpin the notion of developmental local government; to provide a framework for local public administration and human resource development; to empower the poor and ensure that municipalities put in place service tariffs and credit control policies that take their needs into account by providing a framework for the provision of services, service delivery agreements and municipal service districts; to provide for credit control and debt collection; to establish a framework for support,, monitoring and standard setting by other spheres of government in order to progressively build local government into an efficient, frontline development agency capable of integrating the activities of all spheres of government for the overall social and economic upliftment of communities in harmony with their local natural environment; to provide for legal matters pertaining to local government; and to provide for matters incidental thereto*" (RSA, 2000: 2).

With the roles of this Act (RSA, 2000) in mind, the MSA is essentially a national document which caters for municipalities on the local level of government. Municipalities, as organs of State, are subject to the principles of cooperative governance, as stated in the Constitution (RSA, 1996). In order to allow municipalities to do this, the Constitution grants these organs of state various executive and legislative powers, according to the sphere they represent. In turn, municipalities are then "subject to certain conditions and the minimum standards for municipalities, they have the rights to govern themselves and to establish certain legislation (called by-laws) for their areas. They may only exercise authority within their own boundaries, unless there is an agreement with another municipality, and municipalities must follow proper procedure in order for a by-law to be valid" (Open Source Softward (OSS), 2015). The MSA makes provision for the above mentioned to be implemented on a local level. Amongst other issues, the MSA also ensures that local communities are granted access to fundamental services, through laying out policies which ultimately enables local municipalities to deliver these services to their respective communities.

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The MSA makes reference to local municipalities, thus each municipality operates independently in terms of by-laws, but the Act (RSA, 2000) ensures that integration takes place between the different local municipalities. The Stellenbosch Municipality has had several by-laws approved by the municipal council in recent years, but one by-law that is of particular interest for this study is the 'By-Law on Municipal Land Use Planning' which was drafted on 22 April 2014. This by-law will be studied in more detail under the local sphere section later in this chapter. Prior to being able to understand the full effect of this by-law, legislation regulating land use planning in South Africa needs to be better understood. Although the Municipal Systems Act (RSA, 2000) might operate on national level, the fact that it specifically addresses local municipalities means that the effect of the MSA on local municipalities will also be further analysed later in this chapter.

It must be noted that the MSA was originally the overarching framework in terms of laying out aspects which need to be included in Integrated Developments Plans (IDPs) by all municipalities, which in turn would also include a Spatial Development Framework (SDF) as a function in the IDP document. However, since the promulgation of SPLUMA (below), this responsibility with regard to spatial planning has shifted from the MSA to SPLUMA. The Spatial Planning Land Use Management Act (16 of 2013) (RSA, 2013) does not only aim to take over the responsibility in terms of spatial development frameworks, but also address the review of zoning schemes and inclusionary housing.

4.2.4 The Spatial Planning and Land Use Management Act (16 of 2013)

The Spatial Planning and Land Use Management Act (SPLUMA), (16 of 2013), replaced the Development Facilitation Act 67 of 1995 (RSA, 1995), of which two chapters were found unconstitutional by the Constitutional Court in 2010. SPLUMA came into operation on 1 July 2015 and is a framework act for all spatial planning and land use management legislation by all three spheres of government in South Africa. In the long title of the Act two of the purposes of the Act are set out as "to provide for the inclusive, developmental, equitable and efficient spatial planning" and "to address past spatial and regulatory imbalances" (RSA, 2013).

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SPLUMA sets out 5 principles that apply to all the organs of state, as well as any authorities that are responsible for the successful implementation of legislation which guide: "(a) the preparation, adoption and implementation of any spatial development framework, policy or by-law concerning spatial planning and the development of use of land; (b) the compilation, implementation and administration of any land use scheme or other regulatory mechanism for the management of the use of land; (c) the sustainable use and development of land; (d) the consideration by a competent authority of any application that impacts or may impact upon the use and development of land; and (e) the performance of any function in terms of this Act or any other law regulating spatial planning and land use management" (SPLUMA) (RSA, 2013: 14). These 5 principles are the principle of spatial justice; the principle of spatial sustainability; the principle of efficiency; the principle of spatial resilience and the principle of good administration.

Firstly, the principle of spatial justice is based on redressing historical spatial and development injustices, mainly through widening accessibility to land, while simultaneously making a concerted effort to align all policies in a way which provides opportunities for previously excluded individuals to reap the benefits of spatial planning in the future. A large focus area of this redressing is informal settlements, homelands areas and areas of extreme poverty. This being said, the Municipal Planning Tribunal is prohibited to use the potential of increased property values as a deciding factor when taking decision on planning applications. This means that the potential effect of a proposed development should not be the deciding factor, but rather the relevance of the type of development.

The principle of spatial sustainability aims to integrate with the principle of spatial justice; however, it is based on the promotion of land development that complies with the objectives of all other legislation. Sustainability is emphasized in this principle by aiming to link land use measures with the objectives of environmental management tools, and in so doing, also aim to protect agricultural land and promote land markets. This principle also addresses the issue of accountability with regards to infrastructure provision, a theme that will contribute to discussion in later chapters of this study.

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Adding to the above mentioned aspects of infrastructure provision, the principle of efficiency states that future development of land must maximise the use of infrastructure as well as available resources. Further, this principle strives to make development applications efficient in terms of timeframes and process, thus also leading to decision making which minimises potential negative impacts (environmental, social and economic impacts).

The principle of spatial resilience aims to ensure that spatial systems, policies and plans are commissioned in a way that allows flexibility, mainly to adapt in order to effectively address the impacts that the most vulnerable communities might face.

Lastly, the principle of good administration deals with the administration of planning policies, land use systems and other relevant procedures, by stating that these must all be integrated across all levels of government. Public participation must be done in an honourable fashion and must ultimately empower the public. This principle ties in with the concept of cooperative government, as described in section 40 of the Constitution and which is a fundamental part of the MSA.

After unpacking the 5 principles listed in SPLUMA in more detail, the principle of spatial justice is evidently very relevant to this study. Spatial justice in part refers to the above mentioned concepts of redressing past spatial imbalances through access to land; however, spatial justice also refers to the importance of municipalities and spatial land use schemes to include all geographical areas within its jurisdiction. Gated developments, to the contrary, contradict the fundamentals of spatial justice as gated developments lead to privatisation of land and are mainly exclusionary.

By understanding the objectives of the above mentioned 5 principles, it is justifiable to assume that SPLUMA (RSA, 2013) aims to counteract the promotion of gated development by instilling these principles, which ensure that spatial justice is a fundamental right of all individuals (RSA, 2013: 15). These principles aim to ensure that spatial planning and land use management systems are designed to maximise the equality of all individuals with regards to access to agricultural land and to ensure that land development is done as inclusionary as possible.

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By making spatial justice an integral part of SPLUMA, it means that inclusionary housing will need to shape the future of spatial planning in South Africa. In SPLUMA (RSA, 2013: 31) mention is made of inclusionary housing in 2 places. Section 21(i) requires that every municipal spatial development framework must "identify the designated areas where a national and provincial inclusionary housing policy may be applicable". Schedule 1 of SPLUMA refers to matters that may be addressed in provincial legislation and section (h) of this schedule mentions that provincial legislation may "provide measures related to the approval of a development application which requires the use of land for identified inclusionary residential and economic purposes, and which is subject to any national policy".

As has been a recurring theme in this chapter, this Act also aims to provide a platform from which all spheres of government can effectively implement efficient and sustainable land use, while simultaneously promoting social and economic inclusion and redressing past injustices and inequalities (RSA, 2013: 12). SPLUMA (RSA, 2013) includes a chapter (Chapter 5: Land Use Management) specifically focusing on Land Use Management over the various spheres of government. This section states that a land use scheme must be drawn up after consultation with the public. This land use scheme will take areas into consideration which were previously not listed under past schemes. This is one way of addressing past injustices and inequalities. This viewpoint is further emphasized in this chapter when special reference is made to the land use management of rural areas, areas subject to traditional leadership, informal settlements and slums. Chapter 5 of SPLUMA (RSA, 2013: 33-35) is also written with the focus of effective implementation of policies, thus again emphasizing the importance of effective management of land use across all spheres of government.

Chapter 5 of SPLUMA is shaped by the fact that land use schemes are presently being used as the main entity for land use planning. All areas must be subject to a land use scheme; of which all users of land, municipalities, organs of state within this area, and land owners will be subject to. The relevant land use scheme of relevant areas will then govern all planning under the scheme, including temporary town planning, until this too is subject to a land use scheme. Land use schemes may be amended only by a Municipal Planning Tribunal, and after public

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consultation under the following conditions: "(a) in the public interest; (b) to advance, or is in the interest of, a disadvantaged community; and (c) in order to further the vision and development goals of the municipality" (RSA, 2013: 36).

The previous paragraph highlighted the tight laws around land use schemes and the amendment thereof. SPLUMA (RSA, 2013) uses these clearly defined laws as a measure of ensuring uniformity across all spheres of government. Within the land use schemes are more defined prescriptions which are then ultimately used to deal more specifically with the different types of developments in South Africa. It must be noted that SPLUMA is a framework act, which ultimately means that it will need to operate in tandem with provincial planning laws and municipal planning by-laws. SPLUMA has also made a concerted effort to align its objectives in a way that ultimately promotes sustainable development. Another national plan/framework that is important for sustainable development, is the National Framework and the National Strategy for Sustainable Development.

4.2.5 The National Framework for Sustainable Development and National Strategy for Sustainable Development and Action Plan

The National Framework for Sustainable Development (NFSD) is a framework document originally approved by the Cabinet in 2008, designed to guide development in South Africa in a way that is both sustainable and obtainable. This framework document expressed its aims in the following way: "South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations, and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration" (NFSD 2008: 8).

The NFSD was replaced by the National Strategy for Sustainable Development and Action Plan for 2011 to 2014 (NSSD1) which was approved by the Cabinet in 2011, building on the NFSD by adding to its strategic priorities. Figure 4.2 below illustrates the similarities and the differences between the priorities of the NFSD and NSSD 1.

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NFSD strategic priorities	Reformulated NSSD 1 strategic priorities
Priority 1: Enhancing systems for integrated planning and implementation	**Priority 1:** Enhancing systems for integrated planning and implementation
Priority 2: Sustaining our ecosystems and using natural resources efficiently	**Priority 2:** Sustaining our ecosystems and using natural resources efficiently
Priority 3: Economic development through investing in sustainable infrastructure	**Priority 3:** Towards a green economy
Priority 4: Creating sustainable human settlements	**Priority 4:** Building sustainable communities
Priority 5: Responding appropriately to emerging human development, economic and environmental challenges (including climate change, rising oil prices, globalisation and trade)	**Priority 5:** Responding effectively to climate change

Table 4.1: The difference in priorities between NSFD and NSSD 1 (RSA, 2011: 14)

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As can be seen from figure 4.2 above, priorities 1 and 2 are the same for the framework and for the action plan. Both documents aim to improve the quality of planning and implementation structures, as well as to improve the way in which natural resources are used. Priority area number 3 sees the first difference between the objectives of these two documents. On the one hand NFSD is very specific by aiming to develop infrastructure which is sustainable in the long term. NSSD 1, in this regards, defines its objectives in a broader sense by stating that it aims to achieve a 'green economy'. This refers to the sustainabilityof all economic opportunities, rather than having a special focus. In the NFSD, priority 4 is again more specific by prioritising the creation of human settlements, while the NSSD 1 states that it prioritises the need for sustainable communities as a whole (which would include social, economic, and built environment sustainability). The last priority is slightly more different, as the NSSD1 purely aims to respond to Climate Change. This is due to climate change being deemed to be the biggest threat to sustainable development and the fact that the definition of climate change has been altered slighty and currently includes all the factors mentioned in the NFSD document (RSA, 2011: 14-31).

Irrespective of the technical differences, it is clearly evident that the NSSD 1 has learned from the implementation stage of the NFSD and has altered its priorities accordingly. The NSSD 1 document looks at several challenges that stand in the way of sustianable development. They range from the large population figures that lives in informal settlements to the lack of general access to water and sanitation in various low income neighborhoods in South Africa. This issue is addressed in more detail by housing Acts and policies which are active on all spheres of government in South Africa. One challenge is that this NSSD and its strategic action plan have lapsed at the end of 2014 and it has not yet been updated.

4.2.6 Housing Act (107 of 1997)

The role of the Housing Act is: "*to provide for the facilitation of a sustainable housing development process; for this purpose to lay down general principles applicable to housing development in all spheres of government, to define the functions of national, provincial and local governments in respect of housing development and to provide for the establishment of a South African Housing Development Board, the continued existence of provincial boards under*

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the name of provincial housing development boards and the financing of national housing programmes; to repeal certain laws; and to provide for matters connected therewith" (RSA, 1997: 1).

Section 26 of the Constitution (RSA, 1996) states that every South African has the right to adequate housing and that the government must provide this housing using the available resources. The Housing Act (RSA, 1997) was consequently drawn up as a measure of ensure that this becomes a reality in South Africa. Despite this, large percentages of South Africans still live in informal settlements and the backlog of housing provision is ever increasing. The Fuller Housing Centre Report (2014: 3) indicates that although the South African government has provided approximately 2.8 million formal housing units between 1994 and 2010, there is currently still a backlog of 2.1 million houses, affecting a total of over 8 million people. Together with the increasing population figures, these housing backlog figures are rather alarming.

There are several reasons for the low number of South Africans with access to formal housing, which is directly linked to the poor provision of formal housing by the government.

- There is a large lack of affordability, meaning that low-income groups can ill afford to pay for housing with their low average wages and high rates of unemployment.
- There is an evident lack of capacity to address the housing issues in South Africa. Government does not have the financial capacity or the human resources available to more adequately address the backlog.
- A large percentage of house owners do not pay back their loans. Initially this was done to boycott the government; however, in recent years house owners do not always have the funds to pay back bonds, loans and rents, ultimately contributing to the lack of financial capacity of the government to address the housing backlog with.
- There is also a shortage of adequate land. In order for government to provide the 200,000+ houses a year, a significant amount of adequate land is needed for the new provision of this land. The shortage of government owned land that can be used for this purpose is posing serious problems in this regards and is forcing government to build new housing units in peripheral areas, which in turn reinforces the apartheid patterns.

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- Inappropriate housing standards created unrealistic targets. In order for housing units to conform to housing standards, there are several minimum requirements (electricity connection, running water and other sanitation entities) that must be provided as part of a housing unit. These are believed to be unrealistically advanced for the most basic forms of housing, thus making it difficult for government to provide the necessary amounts of these housing units (Fuller Housing Centre Report, 2014: 3-4).

As mentioned above, there are a large percentage of households which cannot afford housing or cannot attain the necessary credit needed to acquire a house. With increased social pressure on the government to provide its citizens with the resources that would allow them to acquire housing units, granting housing subsidies were thought to be an obvious solution. Based on certain minimum qualification requirements, government gave grants to low-income individuals with which they could acquire housing units, as part of a solution to the rising problems of affordability. However, as mentioned above, bonds, loans and rent were not being paid back to the government, increasing the shortage of available resources with which to provide housing units to households in South Africa.

Due to this large backlog and the need for addressing this backlog, coupled with bond and loan repayment challenges, the government needed to implement policies and plans that would assist in the provision of housing units in South Africa. As a consequence, all levels of government were made to create plans and implement them according to their capacity and authority. The first note-worthy effort of significance to this study is the Inclusionary Housing Policy (2005).

4.1.7.1 Inclusionary Housing Policy

At national level, the beginning of an Inclusionary Housing Policy (IHP) was set in motion in 2005 at the Housing Indaba in Cape Town, which was followed by an Inclusionary Housing Framework in 2008, but is yet to be followed up by legislation, as was promised. The objectives of an inclusionary housing policy and other inclusionary schemes, also known as mixed-income housing in many countries, is that housing developments include housing units accessible for all members of society. The main idea was to have: “every commercial development including housing developments that are not directed at those earning R1,500 or less, spend a minimum of

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20% of project value on the construction of affordable housing (currently defined as housing targeting households earning between R1,500 and R8,000 per month)" (IHP Framework, 2007: 3).

4.1.7.1. Social Housing Policy

One of the national policies that align closely with the IHP is the social housing policy, due to the two policies having largely similar objectives. This is highlighted by the Social Housing Policy (SHP) as it objectives, as set out in the National Housing Code, reads: "Firstly, to contribute to the national priority of restructuring South African society in order to address structural, economic, social and spatial dysfunctionalities thereby contributing to Government's vision of an economically empowered, non-racial, and integrated society living in sustainable human settlements. Secondly, to improve and contribute to the overall functioning of the housing sector and in particular the rental sub-component thereof, especially in so far as social housing is able to contribute to widening the range of housing options available to the poor" (NHC, 2009b). Social housing thus refers to rental housing provided by the government and non-governmental organisations for people who earn between R2,500 and R7,500 per month. These homes, which usually take the form of apartments, are usually built on government owned land in partnership with the municipality's accredited social housing institutes. Funding is provided by National Government's Social Housing Subsidy (Odia, 2012: 1-4).

4.2.4 National Development Plan – Vision for 2030

The National Development Plan also referred to as the 'Vision for 2030' acts as a guideline document for development in South Africa until 2030. The National Development Plan (2011: 24) states that the most integral part of its design was the desire for national equality and poverty reduction. Further on the plan expands onto items of more immediate concern for this study. The National Development Plan (NDP) nominates various objectives which it wants to achieve by the year 2030, and some of them are relevant to gated developments The NDP wants to increase the sustainability of environmental resources; the plan aims to transform various human settlements in order to integrate all levels of government with efficient spatial planning systems; and the plan aims to provide all individuals with social protection by also building communities which are safe (RSA, 2011: 63-76).

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One aspect of the NDP that needs to be applauded, is the call for community participation in all aspects of developmental decision-making. The plan requires all levels of government to provide incentives for residents to participate and engage, as this will increase the levels of democracy in development decisions, ultimately having the power to reverse various exclusion shortcomings brought forth by existing development frameworks, policies and plans (RSA, 2011: 76). This objective fits the objectives of an Inclusionary Housing Policy, the legal requirements of the NEMA, the objectives of the Western Cape Provincial Spatial Development Framework (WCPSDF) and the overall vision of the Integrated Development Plan (IDP) of Stellenbosch (of which the latter two concepts will be discussed later in this chapter).

Chapter 4 of the National Development Plan (RSA, 2011: 65) is concerned with the future economic infrastructure in South Africa. It makes specific reference to the aimed improvement of transport systems. This is relevant to gated developments due to the fact that gated developments are said to increase the complexity of public transport systems. The fact that gated developments are mostly located on the edge of urban spaces, means that commuting for social and economic activities has to take place from the relevant development to the urban centre. Landman and Badenhorst (2012: 25) explain how gated developments in Johannesburg, South Africa, are the main cause of traffic displacement to neighbouring areas. The rapid expansion of gated developments exceeds the upgrading of infrastructure, thus the increased amount of traffic is not accommodated by the existing road infrastructure. The NDP addresses this issue by referring to the need for improved and alternative types of transport systems, including public transport (RSA, 2011: 65).

Chapter 8 of the NDP, *Transforming Human Settlements*, places specific focus on creating efficient planning systems, which include all spheres of government. This can be achieved by making available sufficient resources with which to upgrade all informal settlements which are situated on decent and well located land. Another aspect of this chapter is to bring more people closer to their place of employment, while simultaneously providing an increased amount of jobs inside urban townships. All of the above should be accompanied by high quality transport systems by the year 2030 (RSA, 2011: 68).

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The objectives of chapter 12 of the NDP, 'Building Safer Communities', read as follows: "In 2030 people living in South Africa will feel safe and have no fear of crime. They feel safe at home, at school and at work, and they enjoy an active community life free of fear. Woman can walk freely in the street and the children can play safely outside. The police service as a well-resourced professional institution staffed by highly skilled officers who value their works, serve the community, safeguard lives and property without discrimination, protect the rights of all to equality and justice" (RSA, 2011: 73). This ties in directly with what an Inclusionary Housing Policy has planned for the future. While gated developments could contribute to a reduction in fear of crime, unless they promote greater equality, they would not be in line with the overall policy framework.

Figure 4.2: The Development Cycle (RSA, 2011: 26).

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After examination of the NDP, it becomes evident that this plan is aimed at addressing many of the current shortcomings in South Africa. With many objectives aimed at improving the state of the nation for all of its residents, the NDP envisages an ideal country by the year 2030. As highlighted in this section of this study, gated developments might create obstacles for achieving these ideals in some instances; however, gated developments also have the potential to realize these objectives if used in the rights way. They should therefore not be written off in any way, shape or form. Figure 4.2 above also illustrates how various items needs to become part of a system, being interlinked with other parts of society in order for gated developments to not be a liability for spatial and residential development, but rather a stepping stone for improved quality of living in South Africa by 2030.

4.3 Provincial laws, policies and plans

4.3.1 Introduction

For the purpose of this study, the focus will be on Western Cape provincial laws, policies and plans due to the fact that the case studies used in this study are all located in the Western Cape and Stellenbosch. Due to the fact that provincial levels of government only govern their respective provinces, policies are more site specific than for national laws, policies and plans. It also means that provincial government does not have the authority to include certain aspects which can be seen as national responsibilities. However, the Constitution (RSA, 1996) is not that clear about the division of planning (and environmental) functions between the spheres of government, which has led to a number of Constitutional Court cases clarifying the powers. Provincial policies should be aligned with national policies.

4.3.2 Western Cape Planning Legislation

4.3.2.1 Land Use Planning Act (3 of 2014)

In terms of the Constitution (RSA, 1996), regional planning and development, urban and rural, is a concurrent legislative function of national and provincial government, which means that provincial governments can draft their own planning legislation. The previous Western Cape Land Use Planning Ordinance (15 of 1985) (WCG, 1985) was replaced during 2015 with the Land Use Planning Act (3 of 2014) (WCG, 2014). On 12 February 2014, this new draft Land

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Use Planning Ordinance (LUPA) was opened for comment by all parties and was then amended to accommodate these comments and to be aligned with SPLUMA (Centre for Environmental Rights, 2013). The Western Cape Land Use Planning Act (3 of 2014) (WCG, 2014) was promulgated during 2015 and states that its objectives are to engage and regulate modernised systems which will be used to guide future land use planning with strong foundations in sustainable development (WCG, 2014: 41).

Similar to the Land Use Planning Ordinance (15 of 1985), the Western Cape Land Use Planning Act (LUPA) as set out in Provincial Gazette Extraordinary no 7225 focuses on seven different objectives: "*Firstly, it consolidates legislation in the Province pertaining to provincial planning, regional planning and development, urban and rural development, the regulation, support and monitoring of municipal planning and the regulation of public spaces and municipal roads arising from subdivisions. Secondly, it makes provision for provincial spatial development frameworks. Thirdly, it provides for minimum standards for, and the efficient coordination of, spatial development frameworks. Fourthly, it provides for minimum norms and standards for effective municipal development management. Fifthly, it regulates provincial development management. Sixthly, it provides for land use planning principles, and lastly it repeals certain old-order laws*" (WCG, 2014: 41).

4.3.2.2 The Western Cape Land Use Planning Ordinance (LUPO)(15 of 1985)

Although LUPA is the new legislation impacting on planning , the Land Use Planning Ordinance (15 of 1985) (WCG, 1985) is of particular interest to this study as this ordinance was the ordinance or land use planning law in place when the case studies for this study were being established. According to the City of Cape Town (2015) "One of the most important pieces of legislation for land use management in Cape Town, the Land Use Planning Ordinance (15 of 1985) (LUPO) applies to the entire Western Cape and includes sections on structure plans (forward spatial planning), zoning schemes (i.e. the regulation of development), the way in which applications may be made for new development rights, appeal rights etc.".

This Ordinance was originally promulgated on 22 November 1985 and commenced on 1 July 1986. In addition to the above mentioned description of LUPO, it can be simplified by stating

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that LUPO (15 of 1985) was an ordinance which acted as a framework for municipal planning in the Western Cape and some parts of the Eastern Cape which previously fell within the Cape Province (Centre for Environmental Rights, 2013). Due to development expanding at such a rapid rate and the fact that urban sprawl is occurring at a rapid rate, land uses will need to be changed in certain cases to accommodate this expansion mentioned above. LUPO is the main document that regulates the land uses and makes provision for how designated land uses may be amended in order to ensure that sustainability is maintained. Therefore this ordinance also deals with zoning schemes which also play an integral part in land use planning.

4.3.2.3 The Western Cape Provincial Spatial Development Framework

Due to the effects of apartheid structures still embedded in planning, it is imperative that new approaches to development be investigated and implemented. Outdated environmental, economic and social approaches have been highlighted in recent years and thus the Department of Environmental Affairs and Development Planning commissioned the Western Cape Provincial Spatial Development Framework (WCPSDF) in order to address these issues. The WCPSDF was originally commissioned and approved in November 2005 and then updated during 2009. It acts as a structure plan in terms of the LUPO (15 of 1985) (WCG, 1985). The purpose of this document is to:

- “Be the spatial expression of the Provincial Growth and Development Strategy (PGDS);
- guide municipal (district, local and metropolitan) Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs) and provincial and municipal Spatial Development Plans (SDPs);
- help prioritise and align investment and infrastructure plans of other provincial departments, as well as national departments' and parastatals' plans and programmes in the Province;
- provide clear signals to the private sector about desired development directions;
- increase predictability in the development environment, for example by establishing “no go”, “maybe” and “go” areas for development; and,
- redress the spatial legacy of apartheid” (WCPSDF, 2005: 1).

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This document does not abolish the rights to land, but rather guides government as to how it must allow the use of land in the Western Cape in order to guide development towards sustainability and equity. This document aids decision makers about the desirability of a proposed development in terms of LUPO by considering environmental, economic and social aspects which might be affected by development. The WCPSDF is based on the goals of sustainable development and is also aligned with the NSDP.

Of particular concern for this study is the fact that the WCPSDF makes specific reference to the management of various environmental resources that will be encountered later in this study, such as rivers, biodiversity and agricultural land. The WCPSDF further looks at the management of settlements, sprawl, and spatial development structures, transport systems, future growth potential, as well as housing. It is in this section that this document explains how development is currently taking place further and further away from town centres and that the poor is being pushed to the outer skirts of towns, taking them further away from economic opportunities. The WCPSDF refers to the town of Stellenbosch throughout the document and illustrates how the negative aspects of development are visible in and around the town of Stellenbosch. This document makes specific reference to how Jamestown is contributing to the creation of apartheid urban settlements, using the Stellenbosch Square Shopping centre and De Zalze Golf Estate as examples of this type of negative growth. The WCPSDF thus proposes that similar types of developments must be considered more carefully in future by the relevant authorities and recommends that 'out-of-town' developments, such as those in Jamestown, must trigger an SEA with the aid of relevant specialists. It is argued that developers target local government authorities, with their limited budgets, by making claims that if such an 'out-of-town' development is approved, it will contribute positively to both their budget and other factors of concern in these areas (WCPSDF, 2005: 104).

In contradiction to current development patterns, the WCPSDF promotes short- and medium term urban development processes which take place inside existing urban edges, although this idea might be opposed by developers as the economic profits will be less. The WCPSDF suggest that professionals should be educated regarding the benefits and practices of inward orientated urbanisation (WCPSDF, 2005: 105). This is arguably one of the main objectives of the

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WCPSDF, as it argues that if spatial restructuring does not take place in the Western Cape, the spatial legacy of apartheid will continue to grow in areas such as Stellenbosch. Another objective of the WCPSDF, which is stressed in the document, is the fact that this document must guide the IDPs and SDFs of local municipalities, so that they are aligned with the objectives of provincial governments as well as national spatial plans (WCPSDF, 2005: 106). Together with the above mentioned, the WCPSDF (2005: 106) places strong emphasis on the "need for predictability". It is stated that if there is a sense of predictability, it would make it easier for government to determine and agree on where and how development may take place.

The WCPSDF is focused on restructuring and reshaping the way in which development is currently taking place, as so mitigate the effects that have been created in the apartheid era. It will take time to implement this new SDF and to ultimately see if the objectives of this document have been realised; however, the reference the document makes to environmental, economic and social responsibility and implementation cannot be questioned. If this document is implemented strictly, the mitigation of sprawl as well as the management of development would be the most evident positive changes. This document also makes reference to Inclusionary Housing, which has been a recurring theme throughout this study. The next section will look at how inclusionary housing can be addressed on a provincial level and will refer back to the WCPSDF where relevant.

4.3.2.4 Inclusionary housing at provincial level

As part of the WCPSDF, the Western Cape Government brought out an Inclusionary Housing Discussion document in March 2009, in order to support the 2008 National Inclusionary Housing Framework (IHF). This discussion document (PGWC 2009: 1-4) highlights the aim of legislating the development of inclusive neighbourhoods. The aim is that housing developments that cater for all income groups (and perhaps then also for various cultural groups) would create an environment which acts as a disincentive for social exclusion. Another positive ideal of such development would be that it would aid in the alleviation of the backlog for low income housing in South Africa. By mixing various income classes in one development, economic and social integration is achieved; however, this might come at a certain cost. Incentives for inclusionary housing projects are recommended to attract developers to the idea of inclusionary housing

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developments. Some of the incentives are: housing subsidies, shortened developmental approval timeframes and infrastructure rebates (PGWC, 2009: 13).

The suggestion was that 20% or more of a development be set aside for inclusionary housing units, applying to developments consisting of more than 10 units (PGWC, 2009: 7). At the provincial level, inclusionary housing policies aim to include social and subsidy housing into future private property developments, instead of solely targeting the provision of affordable housing as in national inclusionary housing policies (PGWC, 2009: 6). One aspect which policies at provincial level have not paid attention to, is the provision of incentives for developers to adopt the inclusionary housing concept in new developments. Although there are certain limitations in terms of what monetary incentives provincial policies can offer developers, the following list of incentives were included in the Inclusionary Housing Discussion Document and could potentially be offered if this policy is set in motion: "speeding up the release of superfluous provincial land; amending the provincial Model Zoning Scheme By-law to allow for enhanced rights in inclusionary projects; allocating housing subsidies; and investing in bulk infrastructure in areas eminently suitable for inclusionary housing (e.g. through the Municipal Infrastructure Grant (MIG), assuming national allocations for this purpose)".

Although inclusionary housing seems to be in response to current housing problems, many critics display their discomfort with various aspects of inclusionary housing at this level. Smit and Purchase (2006: 13-15) examined the possibility of higher income groups not wanting to share their geographical location with lower income groups due to the possible negative effect on property values and based on other social differences. Some disincentives for inclusionary housing developments include, amongst others:

- The perceived belief that this would decrease the market attractiveness of large scale developments amongst developers;
- a perceived loss in terms of land value per unit returns;
- a shortage in private sector finance based on the sale of market units in a fluctuating economy;
- lack of implementation capacity at local government level; and

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- a small percentage of beneficiaries from such developments (due to the inclusionary housing units being only approximately 20% of a development) (PGWC, 2009: 14-15).

After distinguishing between the objectives of the national IHP and the existing IHP guidelines at provincial level, it is evident that more integration and alignment is required to ensure that overlaps between the two policies are mitigated. The provincial IHP seems to be more recent than the national IHP document and could mean that the investigations of such a policy could be done based more on provincial research. Although the provincial level of government does not have all the rights and resources to implement all relevant incentives for developers, the national policy could create this platform, onto which the provincial policy could then latch. Also evident in this Inclusionary Housing concept is the accountability that the local government would need to illustrate in order to ensure that all aspects of such a policy are implemented effectively. What must be noted is that no such policy has been turned into law yet and the probability of the implementation of such a policy is still debatable.

4.4 Local municipal by-laws and plans

4.4.1 Introduction

Thus far this chapter has identified the laws, policies and plans that affect environmental, economic and social factors both on a national and provincial level. With this study specifically focusing on Jamestown in Stellenbosch, the local factors which influence development would now need to be identified. As is evident by looking at laws, policies and plans on both national and provincial level, implementation is often left for the local sphere of government. Local municipalities are the relevant authorities in this case and therefore the activities of Stellenbosch Municipality in specific will be analysed. As identified earlier in this chapter, municipal by-laws are designed by local municipalities, together with their responsibility to draft IDP and SDF documents which are to be implemented in the area governed by the local municipality. The IDP document is one management tool which controls various factors in the municipal area and will now be described in order to understand the general development direction implemented by the Stellenbosch Municipality.

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4.4.2 The Integrated Development Plan of Stellenbosch Municipality

Integrated Development Planning (IDP) documents are pivotal tools used by local municipalities to plan future development in their relevant areas. IDPs should take the available resources into account, identifying problem areas in the relevant geographical areas, and together with public participation then plan how development should take place in order to best suit the needs of the entire community. IDPs should aim at guiding both social and economic development, as well as identifying the required type of infrastructure, land uses, environmental conservation and services. The IDP of a municipality is thus the guiding framework of all developments in its area and should be revised and upgraded on an annual basis (ETU, 2015).

The IDP of Stellenbosch states that the municipality of Stellenbosch governs over an area approximately 900m2 in size and includes approximately 155,000 residents. Stellenbosch is the second oldest town in South Africa, being in existence since 1679 (Stellenbosch Municipality, IDP 2015: 11). This means that Stellenbosch is a town heavily affected by past injustices, and the IDP places lots of emphasis on addressing these past injustices. The IDP also focuses on addressing these injustices by guiding future developments in the right direction. Key sections of this document are the budget allocation as well as the objectives of the document: "1) Striving to make Stellenbosch the preferred town for investment and business, where investment inflows and new enterprise translate into jobs and prosperity; 2) Establishing the greenest municipality which will not only make Stellenbosch attractive for visitors and tourists, but will also provide a desirable environment for new industries; 3) Ensuring a dignified living for all Stellenbosch citizens, who feel that they own their town, take pride in it and have a sense of self-worth and belonging; 4) Creating a safer Stellenbosch valley, where civic pride and responsibility supplant crime and destructive behaviour; 5) Entrenching good governance, which implies compliance with and adherence to mandatory policies and procedures and is the hallmark of a well-run municipality" (Stellenbosch Municipality, IDP, 2015: 7). If the above mentioned objectives of the IDP are not aligned to the actual needs and desirability of Stellenbosch, then one cannot expect the outcomes of the IDP document to address matters differently. These objectives also guide the municipal budget allocation; as these are two key functions of any IDP document.

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Previous Stellenbosch IDPs did not make much reference to the way in which future resources will be managed and stored. Only recently has the IDP included some information on the way in which available resources are currently being managed in order to promote the sustainable use thereof. However, in its entirety the document still does not adequately address issues such as: a lack of infrastructure and how additional infrastructure will be provided in the future; how will provision be made for the storing of water or for the better treatment of water in the future; and how the current and future lack of housing will be dealt with. The IDP should make stricter reference to these above mentioned items and provide more detail on how these could be addressed (Stellenbosch Municipality, IDP, 2015).

Another alarming factor relates to public queries about the (lack of) ethics behind the establishment of the IDP document. Figure 4.3 below is from a 2010 study by Cash and Swatuk (2010), which indicates that various stakeholders and decision-makers believe that the Stellenbosch Municipality IDP process is flawed and thus is not a true reflection of the needs and responses which are required in the Stellenbosch area.

According to these stakeholders and decision-makers, the following were key issues identified with regards to the Stellenbosch Municipality IDP: 1) “The IDP is a wish list; 2) Lack of integration in the IDP process; 3) Funds from budget are not allocated to community’s wishes, instead it is driven politically; 4) Community’s wishes do not match capital priorities; 5) Political volatility causes a lack of continuous vision at a higher level, resulting in wasted time, effort and resources; 6) Perspective that the municipality is still racially divided; and 7) Lack of review/evaluation” (Cash & Swatuk, 2010: 61).

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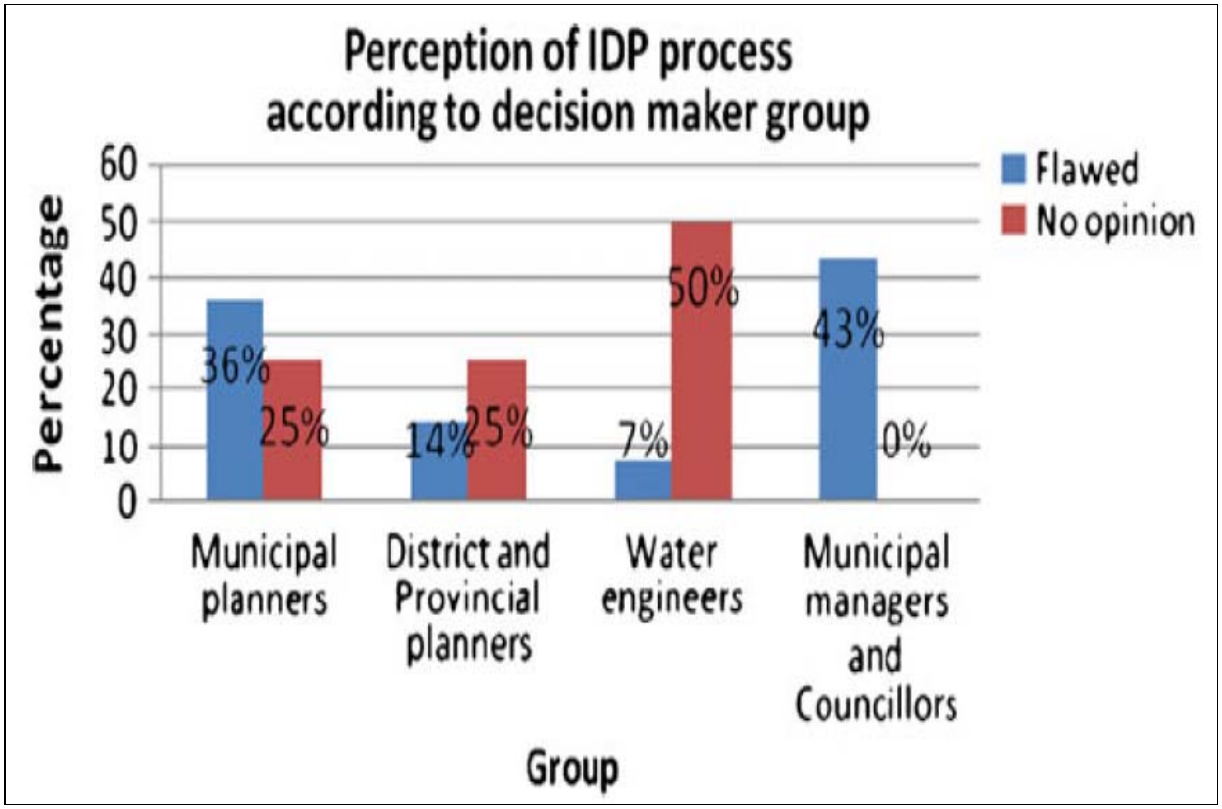

Figure 4.3: Perception of IDP process according to decision maker groups (Cash & Swatuk, 2010: 60)

It is argued that a major flaw in the Stellenbosch Municipal IDP process is the Public Participation Process (PPP). The IDP document must be based on public participation as it is a framework which is used to inform decision-makers of the public opinion on matters in the Stellenbosch area.

As is evident from table 4.1, the Stellenbosch Municipality IDP is deemed to be unreliable and biased and the PPP which is supposed to be the cornerstone of the IDP document is flawed in its own nature. This is concerning, since the IDP is the overarching document, which ultimately should guide development at the local level. If this document is not transparent and the objectives of the document are influenced by decision-makers, it could mean that development issues are not being correctly addressed and thus will be implemented accordingly. If gaps exist in this document, it will translate into practice and the consequences could be detrimental.

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Environmental degradation, social pressures, economic wastefulness could all be the consequence of a flawed IDP process.

However, it must be noted that the concepts and issues raised in this document are largely aligned to the policies and objectives of documents at higher levels of government, with regards to housing provision, job creation, service delivery etc (Stellenbosch Municipality IDP, 2015). It must be noted that these are only the opinions of stakeholders and decision-makers, but it still need to be given the necessary attention.

Key issue	Details
Lengthiness of process	The public process delays projects by years, which is costly to the investor.
Processes too complex	Planners hired by the developers continually alter plans in response to appeals. Continuously reviewing updated development plans and complicated maps is extremely time-consuming and confusing for even the educated.
Lack of education	There are key concepts that are used in planning presentations that requires some level of understanding of key concepts. This creates a barrier to the historically disadvantaged.
Empty promises made to communities	Promises are made to communities to achieve buy in but are not delivered in the end.
Benefits to few community leaders	Benefits go to only a few community leaders that were chosen to rally community buy in.
Lack of capacity	Public meetings can be intimidating for even the empowered. Historically disadvantaged people must rely on NGO's and community activist to represent their needs.
Unaware of meetings	Many people are not aware of public meetings and/or rely on their employers to address their needs. Developers often deal directly with those who are most likely to counter their proposal/those who have capacity.
Hesitancy in speaking due to power relations.	Concern about speaking against a development when your livelihood is at stake, including both employees for the developer and workers for surrounding businesses whose owners support the development.

Table 4.2: Problems of the PPP according to the Stellenbosch public (Cash & Swatuk, 2010: 69)

With the IDP document being the overarching framework for development, other developmental documents are bound to the IDP document and thus basically become a sub-section of the IDP. The Municipal SDF is a document that forms a part of the IDP document, as required by law.

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4.4.3 Spatial Development Framework of Stellenbosch Municipality

Spatial Development Frameworks (SDFs) are important parts of the IDP documents of a municipality. SPLUMA sets out a guideline of what SDFs at all levels of government must aim to achieve in future. One of the first guidelines places emphasis on the fact that a long term vision must be incorporated into the SDF, for when development and planning decisions are made. The above mentioned goes together with the aim of creating a structure which will be attractive for long term international investments.

The SDF of Stellenbosch municipality is of special concern to the aims of this study. The SDF lists several key aspects which need to be noted and they are addressed by the 2013-2014 SDF of Stellenbosch. They are listed as follows:

Interconnected Nodes: Current developments are shaping scattered informal settlements and developments that are not contributing to a dense suburb. This means that the SDF now aims to form developments around railway routes alongside road intersections as well as main road routes. Each node should be home to all classes of residents, while private residential developments should include gap housing into its designs and plans. Land use should also be decided based on how the land in question could best be used over the long term, instead of how the land can be best used for large financial gains.

Car Free Living: The SDF suggest that the number of cars on the road has increased dramatically and this has naturally led to increased traffic congestion. Therefore the SDF suggests that car-free transport facilities, together with improved public transport be designed and used in conjunction with each other. Development policies should aim to ensure that various desired activities take place close to residential developments, which should act as incentive to live without motorized transport in the town of Stellenbosch. If the town is denser, it would also eventually mean that private transport would largely outweigh the costs of public transport, also discouraging further vehicular use.

Inclusive Economic growth: Stellenbosch is home to two clearly separated economies; those of higher income and those of lower income. This has meant that the value of the housing market has increased dramatically, making it impossible for lower income groups to acquire housing units in certain areas of the town, thus contributing to social exclusion and segregation. The SDF

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aims to counteract this phenomenon by highlighting the importance of developing affordable housing units near to economic opportunities, as well as creating the chance for low income groups to become part of the economy. Land reform plans must also be better designed to include agriculture and retail spaces into the urban edge.

Optimal Land Use: Much of the municipal land in around Stellenbosch is currently being used for agricultural purposes. With this in mind, the housing backlog will require many more additional housing units to be built on municipal land. Due to the SDF wanting to keep the identity of the town, this means that densification of residential units would be the preferred alternative with regards to land use. The current land reform policies have also suggested that private land needs to be acquired in order to accommodate the housing backlog; however, this has meant that private land has become unrealistically expensive. Stellenbosch needs to create space for an additional 6,000 housing units without expanding the urban boundaries, meaning that optimal land use needs to be implemented and enforced during the design and application process of future developments.

Resource Custodianship: Due to the expected / desired increase in residential units in Stellenbosch over the next few years, vast amounts of resources would need to be acquired. Current trends suggest that not enough financial resources can be made available to acquire the necessary infrastructure. Solid waste, waste water, energy, fresh water and construction materials are five items, as listed by the Stellenbosch SDF, that require extensive attention if large scale transformation and upliftment is to take place in Stellenbosch.

Food and Agriculture: Stellenbosch is largely dependent on its large scale wine industry for economic income. When arable land is subject to inefficient zoning schemes, this means that the land is no longer being used in a productive manner, which in turn means that attracting foreign capital becomes problematic. This trickles down to further unemployment of low-skilled farm workers. The SDF thus suggests that approximately 10,000 ha of land should be used for the sole purpose of food production for local consumption. This land should be the arable land located outside of urban settlements.

Heritage: The SDF plans to avoid changing the character of Stellenbosch at all costs. Stellenbosch has built a heritage that consists of rich history, architectural prowess in his building structures and environmental ecosystems that are unique to this region. The SDF states that from a heritage perspective, development may only take place according to specific spatial

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plans, zoning schemes and IDPs, which will regulate things such as building heights, setback lines, etc. (Stellenbosch Spatial Development Framework, 2012: 5-10).

Another aspect of concern for this study, which the SDF specifically refers to, is the challenge of waste water management in Jamestown. The SDF states that the 7 Waste Water Treatment Works (WWTW) of Stellenbosch Municipality are currently struggling to meet the demands of the community and the concern is that future developments will also bargain on the use of the WWTW systems. Jamestown and De Zalze are specifically identified as areas which are currently using the existing WWTW, an aspect which will be looked at in more detail in Chapter 5 and 6 of this study (Stellenbosch Spatial Development Framework, 2012: 24). Together with WWTW shortages, the SDF also indicate that certain areas of the town do not have capacity in terms of water, electricity and waste disposal sites. This is an indication of the lack of resources available to service new proposed developments.

The SDF further highlights the spatial planning of the town of Stellenbosch, and Jamestown, as a potential problem area. The SDF states that it aims to prevent sprawl by creating an urban edge which must be strictly respected in order to limit the outwards expansion in the future. One alternative to urban sprawl is the concept of development proposed in the SDF (Stellenbosch Spatial Development Framework, 2012: 4-6). The SDF suggests conceptualizing the town into 5 interdependent ‘urban villages’. These villages would divide the current town into 5 sections - North, Centre, West, East and South. Each of these separate villages would include mixed-use and mixed-income areas, and would be linked by public transport corridors, lined with higher density development. This would allow for better transport systems, better control with regards to water supply and it would allow zoning schemes to densify these areas more effectively. With the SDF defining Jamestown (Stellenbosch Spatial Development Framework, 2012: 30) as being a “disjointed semi-rural settlement on the outskirts of Stellenbosch town consisting of three isolated components: a historic Rhenish mission village (Jamestown), an out of town shopping centre (Stellenbosch Square) and an upmarket golf estate (De Zalze)”, it becomes clear that the type of development which has taken place in Jamestown is not part of the desired outcome of the SDF. The SDF further states that Jamestown is fragmented due to the gated developments

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and this causes traffic difficulties. The Blaauklippen River has also been largely affected by a loss of sustainable agricultural activities and poor development in adjacent areas.

With the above mentioned key aspects in mind, the SDF also notes that these aspects are of concern and has highlighted the need to address these issues accordingly. The current issue in Jamestown, and perhaps other parts of Stellenbosch, are not in line with these requirements and unless implementation of these SDF requirements are prioritised, the ill-advised development will continue to dominate Jamestown and the negative effects associated with these developments will be exacerbated. The gated developments in Jamestown are also non-inclusive and thus hold very limited opportunities for the low-income residents of Jamestown. It must be noted that the SDF also makes reference to inclusive development; and this will be explored in the next section of this chapter.

4.4.4 Housing policies in Stellenbosch

Stellenbosch has a Housing Strategy (as required as part of their IDP) but does not at present have an Inclusionary Housing Policy or a policy with regard to gated communities. The Stellenbosch 2017 Housing Strategy was presented to the municipality in 2008. This strategy proposed that Stellenbosch should establish 20,546 new housing units by 2017, across various nodes, hamlets and projects. Using incremental formal housing, social housing, RDP housing, formalised home ownership, private rental agreements and employer provided housing types, the suggestion was that this goal could be achieved by the year 2017. This strategy also regarded the objectives of Sustainable Development as very valuable and Sustainable Development is thus an integral part of this strategy. The objectives of this strategy were as follows:

- “Enable housing provision in terms of the constitution;
- enable housing provision through broad partnerships;
- promote socially mixed integrated and sustainable neighbourhoods;
- ensure sustainable use of scarce natural resources and eco-system services;
- locate sustainable neighbourhoods in relation to development corridors and nodes; and
- preserve the sense of place that distinguishes the Greater Stellenbosch region”.

The principles of the strategy were stated as follows:

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- "To promote a single, integrated housing market;
- to facilitate access for the poor to work and life opportunities;
- to maintain appropriate, functional norms and standards that meet sustainability criteria; and
- to mobilise additional resources for housing and development" (TSI, 2008: 4-5).

Although this strategy was proposed for medium term development (from 2008 to 2017), currently no part of it has yet been formulated into more detailed policies or strategies. This strategy addresses both the required facets of a proposed development and the aspects which need to be given the necessary attention in order to ensure that development takes place in a sustainable manner. The lack of implementation of policies and plans by government spheres is no more evident than in this case. This Stellenbosch 2017 Housing Strategy also included cost figures and predictions in order for the municipality to more easily compare this strategy to current available funds and identify possible sources of funding. This strategy was aligned with the alleviation of most of the housing issues addressed in this study, however, a lack of implementation has prevented this strategy from being a real role-players in the alleviation of the pressing housing issues faced by both the residents and municipality of Stellenbosch.

Due to the detrimental effects that gated developments can have on the structure, characteristics and planning of urban towns, their types and their spread must be regulated. In Stellenbosch Municipality's SDF there are a couple of statements that support the idea of inclusive development. As mentioned in the previous section, the SDF makes reference to the fact that recent development has only benefited high-income households in Stellenbosch, thus encouraging inequality between the residents of Stellenbosch (Stellenbosch Spatial Development Framework, 2012: 4).

Another attempt to address the development divide in Stellenbosch is the By-law on Municipal Land Use Planning promulgated by the Stellenbosch Municipality. Although this by-law is mainly focused on controlling land use in areas proposed for development, and it in this way control the expansion of new high-income developments, the by-law also states that a representative from the housing department must be on the project committee and serve as a

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fulltime member (Stellenbosch Municipality, 2014: 7). This by-law further reserves the right to exempt a development from compliance of this By-law in order to significantly reduce the financial burden of "the provision of housing with the assistance of a state subsidy" (Stellenbosch Municipality, 2014: 45). In the above mentioned ways, the by-law bodes well for the development of low-income and subsidised housing by relieving such developments of various restrictions, thus incentivising this type of development in the Stellenbosch area. However, this will probably not be enough to stimulate low-income housing development.

Regarding gated developments, Stellenbosch Municipality could perhaps look at what the City of Cape Town has done with regards to regulating and controlling the rapid expansion of gated developments in Cape Town. The City of Cape Town implemented a gated development policy in 2007, which acts as a guideline for future decision-making on gated developments in the areas. This policy document aims to better inform decision-makers as to "when, where and how" gated developments should be allowed or disallowed (GDP, 2007: 1). This document encourages open and inclusive zones, thus it is not in favour of promoting exclusiveness and separation. This document also deals with developments which may be enclosed by measures other than physical gates, including the closing of pedestrian lanes, footpaths and alleys.

In summary the objectives of the document identify the focus areas highlighted in this document:

- "Clearly set out Council's position on gated communities and settlements and the framework within which applications involving such elements are assessed and decided, thereby establishing uniformity of approach;
- support Council's IDP objectives of 'Meeting the city's integrated access and mobility challenge', 'Building strong communities' and being a 'Safe and caring city';
- recognize uniqueness and diverse needs of individual areas, while reasonably balance security concerns of local communities with the broader public ideals of integration, accessibility, equity and inclusivity;
- clearly articulate the preconditions, criteria and procedures (including guidelines for mitigating adverse impacts) that are to be adhered to and complied with where gated developments or retrospective conversions are to be permitted;

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- provide guidelines to applicants and developers and guide decision makers on applications involving gated communities and retrospective conversions" (GDP, 2007: 7).

This document goes further in suggesting alternative measures for security, as opposed to gates and other physical barriers. Looking at the objectives of this document it becomes clear that this document is not intended to curb the practice of gated developments in its entirety, but rather to promote and align development in a way as set out by the municipal SDF and other policy documents. By reasserting the desires of other Municipal documents, it strongly urges development to take place in an inclusive manner, but does not place requirements on the municipality itself. The Stellenbosch Municipality could perhaps adopt a similar policy to control the expansive growth of gated developments in Stellenbosch. Although this does not conform any stakeholders to certain activities, it acts as a basis on which the municipality can build arguments for approval or rejections of application for new gated developments. This could potentially act as an incentive for developers to look at other safety measures and thus not resort to developments with physical barriers, but rather look at alternatives suggested in such a document. This would ultimately allow Stellenbosch to maintain its character and sense of inclusion.

4.5 Conclusion

This chapter illustrated that although spatial justice is seen as an important element of the South African planning framework, there are still a number of gaps in the legal system, such as the lack of a detailed inclusionary housing policy at national, provincial and local level. The fact that the 3 spheres of government operate independently of one another, implementing policies and plans accordingly, makes it very difficult to align and integrate these policies across all three spheres of government. This is further complicated by the different task that the various spheres need to perform. If ethical issues dominate a certain aspect of government, it can have detrimental effects for other spheres as indicated in this chapter.

It is necessary that the national laws, policies and plans operate as a framework within which provincial and local policies and plan can function. For sustainable development to be achieved

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in both the short and long term, it is pivotal that all laws, policies and plans are clearly defined and correctly implemented, otherwise selective key aspects of sustainable development might be neglected and the ramifications thereof will trickle down to other policies and plans.

Due to the need for integration between environmental, economic, social, planning and governance aspects that sustainability requires, all the above mentioned laws, policies and plans need to be aligned towards collective objectives and outcomes. The fact that various documents provide for specific outcomes and implementation of these guidelines is then not adhered to, means that any gaps in the legal system could potentially lead to a lack of sustainability and ill-informed decision-making in national, provincial and local level.

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Chapter 5: Case Studies: Jamestown, Stellenbosch

5.1 Introduction

In this chapter, the aim will be to identify real life social, environmental and economic effects of gated developments by looking at case studies of gated developments in Jamestown, Stellenbosch. Using De Zalze Golf Estate and Aan De Weber Residential Estate as main case studies, together with La Clemence Retirement Village and Stellenbosch Square Shopping Centre as contributing elements, this chapter will explore how these gated developments have more specifically affected the area known as Jamestown. Chapter 2 has looked at the potential theoretical effects that gated developments could pose, and thus this chapter will aim to connect this to a more practical understanding of these effects.

5.1.1 The town of Stellenbosch

After Cape Town, the town of Stellenbosch (established in 1679) is the second oldest settlement in South Africa. The town of Stellenbosch has a long history and culture, as well as lush scenes of breath-taking nature in the forms of mountain ranges and rivers. Stellenbosch is also known for its architectural legacy and its historical buildings (Grundlingh & Scott, N/A: 1-2). Stellenbosch is situated on the border of a metropolis, although it retains the character of a vivacious small town. The municipality of Stellenbosch does not only govern over the town of Stellenbosch, but includes a 900 km^2 area, with areas such as Jonkershoek, Franschhoek, Klapmuts, Kylemore, Pniel and Johannesdal. The majority of the municipal area is reserved for agriculture; which in itself is mostly wine farms (Stellenbosch Municipality, 2015).

According to a 2011 survey (Statistics SA, 2011) it was found that Stellenbosch was home to a population of 155 733 with a population growth rate of 2.71% over the decade prior to the study. Stellenbosch has a population density of 187 persons per km^2 and 43 420 households with an average of 3.3 persons per household. Of all the households that have access to housing, 75.1% have access to formal housing. The unemployment figure of Stellenbosch is 15.2%. Figure 5.1 below illustrates the greater municipal area of Stellenbosch.

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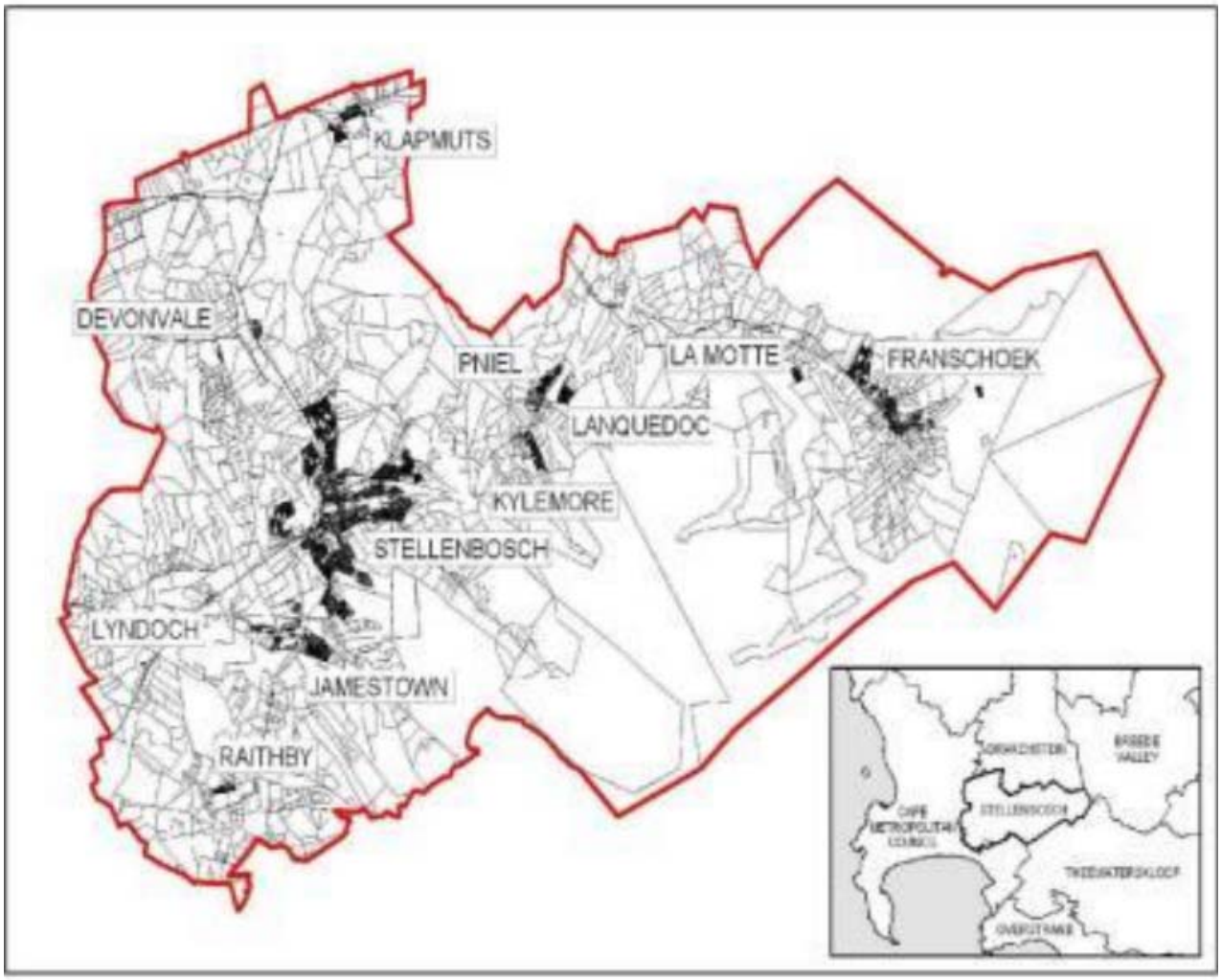

Figure 5.1: Map of the Stellenbosch Municipal area (Stellenbosch Zoning Scheme, 2012: 24)

The Stellenbosch IDP indicates that almost 43% of households receive an income of between R19,000 - R154,000 annually. 2.1% of households in Stellenbosch have an annual income of between R1 – R5,000 annually while 4,415 households fall in the third bracket, which would make these households ideal candidates for a social housing project (Stellenbosch Municipality IDP, 2015: 25). This statistic indicates that a significant percentage of households in Stellenbosch would have the financial resources to be able to utilise and benefit from a social housing project for example.

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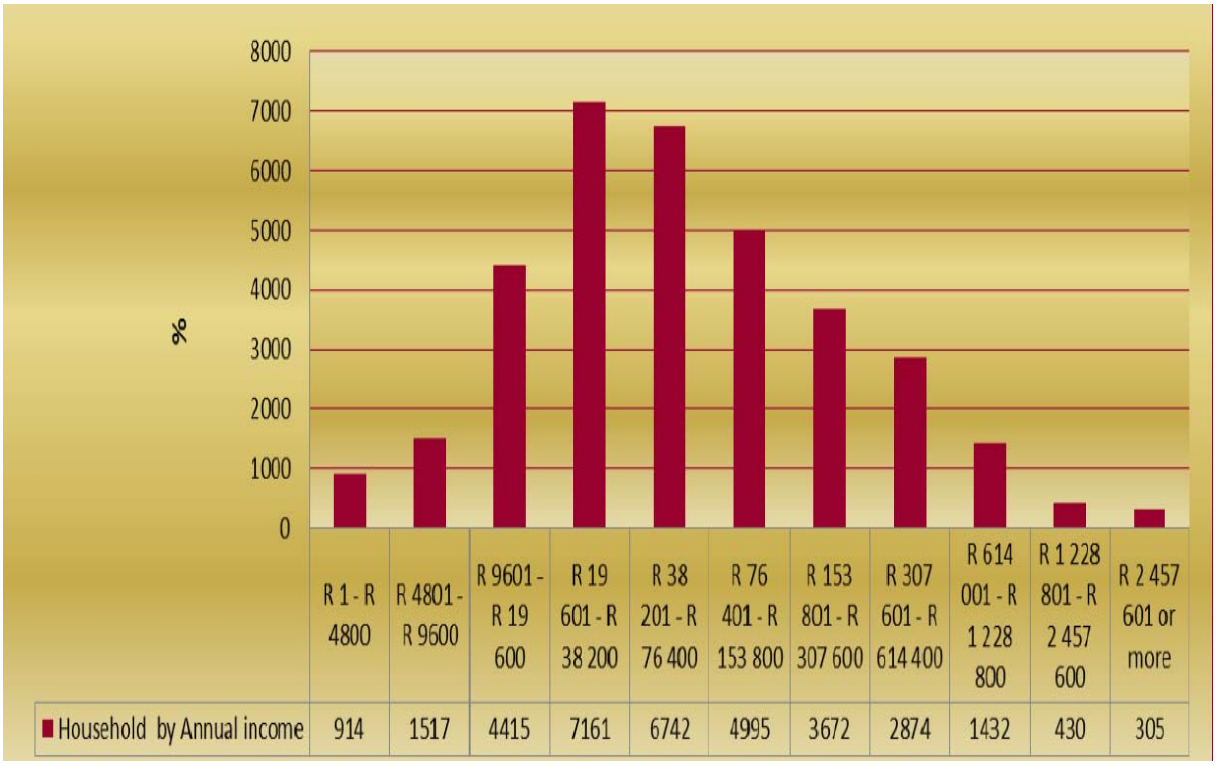

Figure 5.2: Number of households' distribution by annual income for Stellenbosch (Stellenbosch Municipality IDP, 2015: 25)

Spocter (2013) did an extensive study based on how rural gated developments directly contributed to economic growth in rural areas in the Western Cape and during this study it was found that Stellenbosch municipality had the most gated developments embedded in its footprint, compared to any other municipal area in the Western Cape. Spocter further indicates that this can be attributed to the desire for leisure and increased housing developments amongst the economic elites of Stellenbosch (Spocter, 2013: 79).

5.1.2 Jamestown

Jamestown, also known as 'Weber's Valley', came to existence through two men called James Rattray (a butcher in Dorp Street) and Jacob Weber (a Rhenish missionary). Jacob and James were believed to have owned this land, then a part of the Blaauwklippen farm, when they decided to divide this land into 25 different plots which stretched over their two farms. They built various houses on these plots and sub-let it to members of the Rhenish church. After a certain time of paying rent, the housing units would then become the property of these tenants

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(Zollner, 1991: 198-199). Over time these residential units have been passed down the family tree from father to son, thus leading up to the strong heritage and feeling of a family village in Jamestown. Jamestown was also one of the first places in the Western Cape to farm strawberries on a large scale and large portions of the Jamestown residents were employed on these strawberry farms (Visagie, 2012). After 1994, Jamestown was included into the greater Stellenbosch municipal area. As can be seen in figure 4.1, Jamestown is located in ward 17 and is basically located on the urban edge of Stellenbosch.

In 2011, Jamestown was a mere 1.62 km^2 in size with a population of only 2,840. Of the 2,840 residents, 89.75% of them were Afrikaans speaking and 2,408 individuals were of the coloured population group ((Statistics SA, 2011). In recent years new developments have been established in the Jamestown area, such as De Zalze Golf Estate, La Clemence Retirement Village, Aan De Weber Residential Estate and Stellenbosch Square Shopping Centre. The potential growth of Jamestown has been severely hampered by these developments and the residents of Jamestown have recently become aware of this. This chapter will aim to highlight the effects of these gated developments in the area by looking at case studies of gated developments in Jamestown.

5.2 Gated developments in Jamestown

5.2.1 Aan De Weber Residential Estate

Aan De Weber Residential Estate is a residential estate on the eastern boundary of Jamestown. It is located on a portion of portion 552 and a portion of the remainder of portion 38 of Farm Blaauwklip No. 510 and comprises 102 single residential erven on the site (Withers & Jasson, 2006: i).

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Figure 5.3: Locality map of Aan De Weber Residential Estate (Google Earth, 2015)

Construction of the Aan De Weber Residential Estate was started in the year 2007 and was to last approximately 10 years, making it the most recent gated development in Jamestown. Aan De Weber is designed in a modern style and is heavily protected with security, walls and booms, as illustrated by figure 5.4.

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Figure 5.4: Security entrance to Aan De Weber Residential Estate (By author, 2015)

5.2.1.1 Social effects of Aan De Weber Residential Estate

Withers and Jasson (2006: 37) identified several aspects of socio-economic concern that might be affected by the Aan De Weber Residential Estate, both positive and negative. As part of the identification process of the Environmental Impact Assessment, a specialist study was done to identify all the possible socio-economic aspects of this development.

5.2.1.1.1 Employment opportunities

Firstly it was identified that this development would create various employment opportunities both in the construction and operational phases of this development. The developer, Messrs Promptvest 21 (Pty) Ltd. placed strong emphasis on the use of local labour during the construction phases of this development. All contractors and sub-contractors were made to make use of as much possible local skilled and unskilled labour as possible and had to prove that they

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had BEE certificates. Table 5.1 below indicates how much workers were used during the development of the Aan De Weber Residential Estate. As is made evident by this table is the fact that this development would allow for a large percentage of the population of Jamestown to be employed at one time during the construction phase of this development.

Table 5.1: A breakdown of the direct employment during construction phases (Withers & Jasson, 2006: 38)

CATEGORY OF WORKER	**CIVIL SERVICES**	**BUILDING OF HOUSES***
Skilled (foreman)	5	2 X 10 = 20
Artisans	7	10 X 10 = 100
Semi-skilled labour	16	10 X 10 = 100
Unskilled labour	36	12 X 10 = 120
Finishing Specialists	5	4 X 10 = 40
Managers	2	1 X 10 = 10
TOTAL	**+- 70**	**+- 400**

*It is assumed that 10 houses will be built at any one time.

In the operational phase, this number will decline drastically; however, the operational phase will in turn allow for more permanent employment and for another sector of the Jamestown labour force. The operational phase could provide up to 40 domestic employment opportunities and up to 20 gardening employment opportunities (Withers & Jasson, 2006: 39).

5.2.1.1.2 Community upliftment

In addition to direct employment opportunities, the developer of Aan De Weber has vowed to create additional social benefits for the town of Jamestown. The developer aims to identify various fundraising events of which all money raised will be dedicated to several social

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upliftment projects, including a public library and a public swimming pool. During the EIA process, the residents of Jamestown had a chance to provide comments and raise their opinion of the development. Several comments were of a positive nature, including the fact that the community would benefit from the development as mentioned above; however, the community had several concerns of a larger nature.

5.2.1.1.3 Public concerns

Although the public took well to the promises of upliftment mentioned above, various members of the community had concerns about how the development might affect the local community of Jamestown. One of the comments that were received during the initial public meeting was the problem of exclusion. The comment raised was that if the development is to be gated, it would not allow public access and it would thus create a town within a town. The residents of Jamestown strongly feel that the development should be integrated together with the rest of Jamestown in order to avoid fragmentation of the town. Withers and Jasson (2006: 4) indicates that if indeed the town is to be fragmented by this development, then the character of Jamestown would be dramatically altered. This was expanded by another I&AP by stating that Jamestown is unique in the way which locals use plots for agriculture. The concern here is that if this development does in fact alter the property values, it would act as an incentive for the residents to rather sell the property than to continue with agricultural practices, thus further destroying the unique character of Jamestown.

Other social reasons for the residents opposing to the development of Aan De Weber included:

- The public participation process as part of the EIA process was inadequate. The opportunity that residents had to raise their opinion was correctly advertised according to the legal process; however, this system is said to be flawed. The development was advertised in the local Jamestown shop and in the relevant newspapers; however, the locals claim to not make use of the shop or newspapers, thus they were not aware of this opportunity. This is evident through the fact that only 10 residents were present in the public meeting.

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- The 10 residents that attended the meeting were not experts in the field and did not have a fair understanding of the potential effects of the development, thus they feel that their opinions were undermined.
- It was strongly felt that the entire character and 'sense of place' of Jamestown would be altered, with only a select few stakeholders benefitting from this development (Withers & Jasson, 2006: 4) (See also Annexure 4d).

One social aspect that always surfaces when gated developments are mentioned is the safety aspect. One of the I&AP's at the first public meeting raised the issue that if residents that do not belong to the Jamestown community are employed on the project, this would jeopardise the safety of the local residents. Withers and Jasson (2006: Table 1) responds to this comment by claiming that the influx of high-income residents might combat crime in the area by being able to pay for private policing. No further promises or discussion resulted from this comment. It would seem that from a social aspect, there would be enough employment opportunities from which this community would be able to benefit, which could in turn arguably help with the overall upliftment of the Jamestown community. This could potentially directly influence the economic state of most of the residents.

5.2.1.2 Economic effects of Aan De Weber Residential Estate

The EIA that was done for the Aan De Weber Residential Estate also includes the identification of economic effects for the town of Jamestown. It must be noted that most of the population of Jamestown fall within the low –middle income group, meaning that economic opportunities are of vital importance to these residents (Arendse, 2014: 7).

5.2.1.2.1 Direct monetary income opportunities

In the section above it was highlighted that the residents of Jamestown would receive employment opportunities through the Aan De Weber development; however this was looked at from a social perspective. From an economic perspective, employment opportunities for local residents have to be seen as one of the positive effects sprouting from this development. The financial income that will be provided to these workers is the obvious positive aspect; however, Withers and Jasson (EIA, 2006: 37) argues that the positive economic effects of employment

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will eventually trickle down further into the economy of Jamestown. This is said to take place when the initial income from these employees are subject to the multiplier effect, where this income is spent on other items in the area, thus again circulating to other parts of the economy. An example of this would be the local supply industries in Jamestown as they would need to provide the supplies for the new development. This could be in the form of building supplies, gardening services, financial services, security services and wholesale traders.

5.2.1.2.2 Improved economy

Another economic incentive would be that the economy of Stellenbosch will benefit significantly from the income attained through the sales of these properties. Withers and Jasson (EIA, 2006: 38) illustrates that one erf inside of the Aan De Weber Residential Estate would cost approximately R450 000 and then a further R900 000 for the construction of the housing unit. This means that at an average of R1.35 million per unit, the development would equate to a capital injection of approximately R137.7 million into the local economy of Stellenbosch.

5.2.1.2.3 Property values

Another aspect which deserves attention is the property values that might be heavily influenced by the Aan De Weber development. It is known that new infrastructure and services that accompany gated development means that the property values of these units, as well as surrounding properties, could potentially increase (Roitman, 2010: 35). If surrounding property values in Jamestown are in fact positively affected by the presence of the Aan De Weber Residential Estate, this might in turn act as an incentive for local residents to subdivide their properties and thus contributing to the compaction of the city. Contrary to popular belief, Le Goix (2005: 323-343) shows that gated developments could potentially affect the values of surrounding non-gated properties in a negative way. Increases in property values means a natural increase in rates and taxes, which could in turn lead to the locals of Jamestown no longer being able to afford property in Jamestown.

5.2.1.2. Public concerns

During the public meeting, as part of the EIA public participation process, some of the I&AP parties also raised concerns with regards to the potential economic effects that Aan De Weber

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might bring to Jamestown. One of the major concerns raised was the fact that high-income housing developments normally attract expensive shops and shopping centres, which would mean that local residents can no longer acquire local produce at affordable prices, and that the shopping centres in this area will only be beneficial for the higher income residents in the area (Cash, 2014: 132). New shops might also replace farmers markets that are currently in circulation in the area.

Another aspect that needs to be remembered is the additional provision of services to the area. The cost of this provision will be placed on the local municipality and might thus affect their budget in such a way that less money is available for the provision of other public services. The Municipal Services and Finance Model (MSFM, 2012) shows a predicted increase in total expenditure on infrastructure for Stellenbosch Municipality; however, this cannot be directly ascribed to the increase in gated developments such as Aan De Weber Residential Development. As long as development takes place in Stellenbosch, the municipality will always need to provide new services. The only issue is due to Jamestown being located on the urban edge, municipal services would need to be especially installed for this development, unlike other developments which can just tie in with existing services and infrastructure.

Figure 5.5: Predicted capital expenditure on infrastructure for Stellenbosch (MSFM, 2012)

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5.2.1.3 Environmental effects of Aan De Weber Residential Estate

Wither and Jasson (2006) were largely focused on identifying the environmental effects that Aan De Weber would have on the environment of Jamestown, due to the sensitive nature of the residents towards environmental resources in the area. Due to the EIA process largely being an environmental assessment, it would naturally bode well if environmental protection and consideration is high on the priority list of the developer.

5.2.1.3.1 Visual impact

One of the first things that are generally assessed is the visual impact that such a development would have on its surroundings. The fact that Jamestown is claimed to be of aesthetic value to its inhabitants makes this a daunting task for the relevant specialists. The conclusions of this study found that: “the analysis of visual impacts reveals that the project has a moderate local impact. It will not be a major visual intrusion in the area but will block some local views. This site is not easily visible from the surrounds but can be seen in certain arcs within 1-2km. It may be possible to retain some of the views that will be potentially lost close-up from the Torrey Avenue side, however, this depends on whether the open spaces there are privately owned or not” (Withers & Jasson, 2006: 30 of Appendix 13). Although some local views will be blocked, the development seems to only have a medium visual impact.

5.2.1.3.2 Traffic impact

However, in terms of traffic impacts, the development would also not have a detrimental impact in this regard. The traffic impact study (Withers & Jasson, 2006: Appendix 11) indicates that out of the 101 residential units proposed for the Aan De Weber Residential Estate, approximately 152 trips will be made on a daily basis. This is not deemed to have a significant impact on the traffic patterns, thus there is no immediate need to upgrade the existing roads infrastructure. The development only has one access point, meaning that all residents would need to access Webersvalley road off the R44. Due to children and other pedestrians in the area, a small traffic circle or three-way stop is proposed at the development access point. One thing that was not taken into consideration is the fact that increased traffic means increased pollution in an area.

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Table 5.2: Average emissions and fuel consumptions per passenger car per year (EPA, 2008: 4)

Pollutant/Fuel	Emission & Fuel Consumption Rates (per mile driven)	Calculation	Annual Emission & Fuel Consumption
VOC	1.034 grams (g)	(1.034 g/mi) x (12,000 mi/yr) x (1 lb/454 g)	27.33 lb
THC	1.077 g	(1.077 g/mi) x (12,000 mi/yr) x (1 lb/454 g)	28.47 lb
CO	9.400 g	(9.400 g/mi) x (12,000 mi/yr) x (1 lb/454 g)	248.46 lb
NOx	0.693 g	(0.693 g/mi) x (12,000 mi/yr) x (1 lb/454 g)	18.32 lb
PM_{10}	0.0044 g	(0.0044 g/mi) x (12,000 mi/yr) x (1 lb/454 g)	0.12 lb
$PM_{2.5}$	0.0041 g	(0.0041 g/mi) x (12,000 mi/yr) x (1 lb/454 g)	0.11 lb
CO_2	368.4 g	(368.4 g/mi) x (12,000 mi/yr) x (1 lb/454 g)	9,737.44 lb
Gasoline Consumption	0.04149 gallons (gal)	(12,000 mi/yr) / (24.1 mi/gal)	497.93 gal

As per table 5.2 above, it is evident that the general idea on the amount of pollution from motor vehicles is exaggerated, however, for the average person, using a motor vehicle will probably be the most polluting factor that person will incur on a daily basis. If the above figures are multiplied by the expected 152 cars that will use the Webervalley road on a daily basis, it can be seen that pollution is most certainly a factor to be accounted for. The EIA done for Aan De Weber does not take pollution from increased traffic into account. To a certain extent noise pollution can be tied in with increased vehicular usage in the area.

5.2.1.3.3 Noise impact

Although increased amounts of traffic can considerably contribute to noise pollution, this was not given special consideration in the EIA process. It is felt that this should have been given some attention due to the fact that Jamestown is located on a slope, meaning that noise can travel easily up or down this slope. The EIA done by Withers Environmental Consultants did not include a noise impact study; however, noise impacts are mentioned in this report. The EIA

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report states that the implementation of traffic calming measures in the area would force a decrease in travel speed and thus also minimize noise from vehicles. Other noise would only take place during the construction phase of the development and this would be limited by the municipal by-laws which restricts builders to only work within certain hours and minimize work over the weekends (Withers & Jasson, 2006: Table 1).

5.2.1.3.4 Vegetation clearing

Another environmental aspect that was assessed in Withers and Jasson (2006) EIA report is the presence of indigenous vegetation. The concern with regards to these types of developments is usually that conservation worthy vegetation patches is destroyed in order to develop the land for development. The report claims that landscaping will be designed and implemented in a way which promotes the presence of indigenous plant species which will ultimately maintain the agricultural character of Jamestown. This will be achieved through the planting of vines, citrus trees and olives. Kweek and Buffalo grass would also be the preferred alternative to the more invasive and water intensive Kikuyu grass type. If kikuyu grass is removed correctly at the time of land clearing, this could bode as a significant positive effect stemming from this development, as Kikuyu grass is known to be a problem species due to its water intensive, dominant and adaptive nature.

5.2.1.3.5 Public concerns

At the first public meeting for residents of Jamestown, several of the 10 attendees raised additional environmental concerns to the above mentioned aspects, which were believed to stem from the Aan De Weber Residential Estate development. The first issue raised was that of the presence of various bird species. It was stated that Jamestown is home to a large number of bird species and that although they are not all indigenous, the development will displace these bird further away from Stellenbosch and Jamestown in particular. The EIA found that there were no natural bird habitats on the property prior to construction, thus this would not have an effect on bird life in the area. In contrary to this belief, the study also claimed that landscaping would in fact attract birds to the area and that if existing bird species were in fact present, the proposed dam on site would allow them to not have to relocate (Withers & Jasson, 2006: Table 1).

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The Western Cape Water Supply System is the sole supplier of water to Jamestown. Water is led via the tunnel outlet at Paradyskloof and is purified at the Paradyskloof Treatment Works, prior to being stored in the Jamestown Reservoir (Reconciliation Strategy for Jamestown, 2011: 1). In 2008 the total unaccounted-for water has indicated losses of up to 26% together with internal water transfer losses for the year at 14% and it is further assumed that the new development would increase these percentages (Reconciliation Strategy for Jamestown, 2011: 4). In this regard, the Reconciliation Strategy for Jamestown requires that:

- Stellenbosch local municipality submitted an updated Waste Master Plan for the area by 2012;
- That the WWTW be upgraded urgently as this was already running close to the maximum capacity by the year 2008 (Reconciliation Strategy for Jamestown, 2011: 5).

In light of the above, it must be noted that Withers and Jasson (2006) does not make reference to these concerns. The EIA report simply states that according to the municipality there is sufficient water to serve this new development and that the municipality has the labour capacity to operate the additional required infrastructure. According to comments from local Jamestown residents at the first public meeting, with regards to Aan De Weber Residential Estate, the supply of water was also raised as a concern. In contrast to the EIA report, the Reconciliation Strategy for Jamestown (2011: 6) makes a strong statement about the 2006 water status with regards to new developments: “Any major new residential development will place significant pressure on the existing water resources. It is important for the availability of water resources and the water supply infrastructure to be considered fully before commencing any new developments. If the current water supply infrastructure is not sufficient to meet the anticipated high-growth requirements, steps must be put in place to develop it in time”. This statement was made based on data from 2006, which is the same year in which the EIA for Jamestown was conducted. The fact that these two documents are opposing to each other with regards to water supply is a matter for concern, and according to public comments, the public were aware of this matter at the time.

Analysing the potential effects of the Aan De Weber Residential Estate, it becomes evident that various aspects need to be carefully studied prior to making decisions. The negative effects highlighted above seem to be of a low-impact and judging by the responses of the EIA process to

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the public concerns, these effects can easily be dealt with. However, it could be that these effects are further exuberated by the presence of additional gated developments in the area. Using De Zalze Golf Estate as an additional case, the validity of this claim can be assessed in more detail.

5.2.2 De Zalze Golf Estate

The De Zalze Golf is a total size of 2,944,684 m^2 and comprises of 481 Erven and 522 properties in total. The Estate includes 120 ha of vineyards, an 18 hole golf course and various dams that are home to various fish species as well as a variety of bird species (De Zalze, 2015; Estate Report, N/A: 1). De Zalze Golf Estate is located on the Western boundary of Jamestown, on the opposite side of the R44 highway. The boundaries of the De Zalze Golf Estate are indicated by the red polygon in figure 5.6.

Figure 5.6: Locality map of De Zalze Golf Estate (Google Earth, 2015)

Upon investigation, it has been found that the municipal and regional services council officials initially commented negatively on the proposed development plan of De Zalze Golf Estate, as this development was considered to oppose the vision of growth inside of the urban edge of Stellenbosch (Cash, 2014: 134).

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Spier Holdings initially got involved with the De Zalze development, wanting to integrate various sustainability initiatives together with the development; also aiming to create a mixed use residential community. “Spier agreed to execute the development but then the property owners formed a home owners association (HOA) and took over the management of the property” (Cash, 2014: 134).

It must be noted that De Zalze Golf Estate was approved in the years prior to the Environmental Regulations being activated. The above mentioned means that the developers of De Zalze Golf Estate, De Zalze Development Company (Pty) Ltd., did not have to apply for environmental authorisation for the development, thus no EIA or BAR was submitted to the Department of Environmental Affairs and Development Planning at that time. All information in this section will be obtained from the EMP done for Spier Holdings, which includes the De Zalze Farm, the Environmental Management System submitted in April 2002 by Dennis Moss Partnership (DMP), together with other additional available studies.

Figure 5.7: Security entrance to De Zalze Golf Estate (By author, 2015)

5.2.2.1 Social effects of De Zalze Golf Estate

Developers are to known to avoid social responsibility when it comes to responsibility towards the local communities where a development is proposed for. However, due to the DEA&DP

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looking at social benefits as a decision-making tool with regards to issuing Environmental Authorisation, developers often have no choice but to commit to social upliftment of the local communities. De Zalze Golf Estate is no exception and was made to consider various social aspects in the planning stages of this development.

5.2.2.1.1 Social exclusion

Social exclusion is one of the first issues that arise when looking at the social effects that De Zalze has on Jamestown. It is believed by local residents of Jamestown that De Zalze Golf Estate conflicts with the ideals of post-apartheid development in Stellenbosch. Local residents as well as municipal officials feel that the gated nature of De Zalze causes fragmentation in the area and that the development is solely aimed at the high-income individuals. De Zalze allows public access in the form of the golf club; however, the local residents of Jamestown cannot afford the golf club and its amenities, therefore they are still excluded in this sense (Cash, 2014: 135). The De Zalze development aimed to include the local populations of Jamestown by promising to initiate various Corporate Social Responsibility (CSR) functions such as the establishment of a junior golf academy to which young residents could be submitted; however, until now there are no such CSR initiatives in operation.

5.2.2.1.2 Employment opportunities

De Zalze has however, created various employment opportunities during both the construction and operational phases of the development. As was the case with Aan De Weber Residential Estate, the construction phase offered various construction jobs to the local residents of Jamestown. In the operational phase, various gardening and domestic cleaning jobs have been created. Most of the golf caddies at De Zalze golf estate also reside in Jamestown (Cash, 2014: 135). The caddies are also allowed to play free golf during off-season times and receive golf lessons from the golf club on occasion. This is deemed as an employment benefit. Being a golf club and a residential development, together with various agricultural activities, De Zalze is able to create significantly more employment opportunities than other developments in the area. This also means that employment during the operational phase would be higher. Another employment opportunity is in relation to safety.

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5.2.2.1.3 Security measures

De Zalze prides itself as one of the safest residential locations in the area with the following security measures in place: (1) Thorburn Security controlling the access point to the development; (2) Thorburn Remote Monitoring response units situated inside of the De Zalze development; (3) Xone Security Services being in charge of control rooms with various monitors inside of the De Zalze development; (4) the Dennebos Neighbourhood Watch patrolling the entrance from the R44; (5) a fulltime onsite security manager; and (6) the South African Police Service (Safety & Security Manual, 2015). The literature review made reference to the fact that residents that do not reside inside of gated developments feel that their safety is deemed as inferior to those residents inside of gated developments which receive 'double security'. With all the security measures in place at the De Zalze Golf Estate, it hard to argue against this point, seeing that the residents of Jamestown are excluded from all these security benefits, except for the South African Police Service. As Helsley & Strange. (1996) argues there is no concrete evidence that gated developments offer decreased crime rates, crime could just perhaps be redirected to other non-gated areas.

Various crimes has been reported from inside of the most prestige gated developments in South Africa in recent years, although it is often the residents of these gated developments themselves that commit the crimes. An example of gated developments not ensuring residential safety is the case of the infamous axe murder that recently occurred within the De Zalze Golf Estate. At this moment no arrests have been made in this regard (News24, 2015). Another example is the famous Oscar Pistorius case, where the South African athlete has been convicted of culpable homicide for shooting his girlfriend inside of their luxury villa in a gated development in Pretoria (News24, 2014). Although it can be argued that both these crimes were perhaps committed by residents of the respective gated developments, it still shows that gated developments cannot guarantee safety and does not guarantee the feeling of safety, as incidents are known to happen within these developments.

5.2.2.2 Economic effects of De Zalze Golf Estate

As previously mentioned, it must be noted that most of the population of Jamestown fall within the low to middle income group, meaning that economic opportunities are of vital importance to these residents (Arendse, 2014: 7). As was the case for Aan De Weber Residential Estate, one of

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the main economic benefits to the local community of Jamestown would be the creation of job opportunities. Other economic aspects were also identified and are discussed below.

5.2.2.2.1 Travel costs

As with the section on Aan De Weber Residential Estate, the De Zalze Golf Estate would create employment opportunities that would act as economic opportunities for the local residents of Jamestown. In addition to this it must be stated that De Zalze did not include increased public transport into their development plans for these employees to be able to access their employment locations at an affordable rate. This means that employees would still need to make use of private transport, in turn again adding to pollution figures in the area, as discussed earlier in this chapter. On the other hand, it could be argued that De Zalze is located right opposite the R44 from Jamestown, thus the local community would not need to make use of transport to get to the workplace. This would simply mean that employees not residing in Jamestown would need to travel to work using the existing public transport system.

5.2.2.2.2. Tourism

The fact that the most of Stellenbosch's economic potential is based on tourism means that the abundance of heritage, natural resources, winelands and golf courses are favourable for the De Zalze Golf Estate, seeing that Stellenbosch is thus a huge tourist attraction as a consequence; and the De Zalze estate provides many activities to these tourists (Stellenbosch Municipality, 2015). The economic benefits that De Zalze gains from the tourist industry could perhaps be more equally distributed to ensure that the area maintains its sense of character, thus being a sustainable tourist attraction; however, the economic benefits of tourism does not seem to trickle down to the local communities in this area. The way the De Zalze Golf Estate's website is set out, illustrates that it arguably aims to attract tourists, by highlighting the superior nature of its golf course and club house, as well as other facilities (De Zalze, 2015).

5.2.2.2.3 Trust

Cash (2014: 135) claims that a senior manager from Spier Holdings confirmed that the initial agreement, as part of the approved zoning conditions, was that 1% of every residential property sale would be placed in a trust. Upon further investigation it was determined that the De Zalze

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development, contrary to the belief of local residents from Jamestown, is not obliged to spend this money in the trust on improving the welfare of the residents of Jamestown. Instead this trust is being used for the management and upkeep of the De Zalze Golf Estate itself. This has again caused disjuncture between the residents of Jamestown and the residents of De Zalze Golf Estate (Cash, 2014: 135-136).

5.2.2.2.4 Services

With regards to service provision, Arendse (2014: 101) argues that the sprawl caused by developments such De Zalze Golf Estate, is accompanied with increased property taxes and increased costs for services such as water, electricity and sewage as a cause of these areas now being zoned as urban instead of agricultural. This could mean that lower-income residents in Jamestown might not be able to afford these sudden influxes in prices, which could lead to these residents having to sell their properties. Arendse (2014: 101) also feels that lower-income residents aren't always aware that these increases might take place and that the contributions for these services should be divided according to the property value of residents. This would mean that the high-income residents would contribute more towards these services, thus making it less detrimental to the long-standing local residents.

5.2.2.2.5 Increased property values

Of economic concern is the inequality present between the various residents of the town. Various properties in the De Zalze Golf Estate are valued at over R25 million (Homes, 2012). Arendse (2014: 119) indicates that over the past decade property prices in Jamestown have dramatically increased because of the presence of higher-income developments in the region, so much so that landowners in Jamestown could have: "sold a 500m^2 plot in 2000 for about R150 000 to R180 000, but the same piece of land can now easily go for up to R800 000 depending on its location within Jamestown" (Arendse, 2014: 119). This might seem to be largely to the benefit of local residents as they can now get great value for their property; however, it also means that the local population might not be able to afford new property in the area and thus be forced to buy elsewhere, again jeopardizing the historical culture of Jamestown. Another downside to this is that the increased costs of taxes and services due to the presence of high-income developments such as De Zalze, around the year 2000 already then forced many owners to sell their properties,

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meaning that they did not extract the benefits of the economic 'property boom' that soon followed in Jamestown (Arendse, 2014: 120). The above being said, it must be noted that De Zalze alone did not cause these fluctuations in property value; however, it contributed heavily.
In order to be able to afford the types of bonds that accompany houses in the De Zalze Golf Estate, it can be assumed that residents of De Zalze Golf Estate are the minority of Stellenbosch households that earn more than R2457601 on an annual basis, indicated in figure 5.2. If this is compared to the average income of the local residents of Jamestown, the inequality in income becomes clearly evident.

5.2.2.3 Environmental effects of De Zalze Golf Estate

The literature review explains how the different IEM tools are integrated. The EMS document for the De Zalze Golf Estate was written by Steward Scott International (SSI), now known as Royal HaskoningDHV, in terms of zoning condition 12 and DMP designed and wrote the EMP for De Zalze Golf Estate. The EMS and EMP operates with one another in order to manage the De Zalze Golf Estate in the most sustainable way possible. As is usually the case, the EMS states that a Home Owners Association (HOA) is to be established and is to take charge of all environmental requirements laid out by documents such as the EMS and EMP. The De Zalze HOA has since been established and is, amongst others, responsible for the management of environmental aspects of the De Zalze Golf Estate after the construction phase (during the operational phase) of the development.

In 2010, SSI updated the De Zalze Golf Estate EMS to ensure that it includes the latest best practices. The 2010 EMS includes models and objectives, but more specifically focuses on including mitigation measures of environmental effects which were not considered in all cases of the previous De Zalze Golf Estate EMS. The new EMS deals with various environmental aspects.

5.2.2.3.1 River maintenance

With regards to river maintenance within the De Zalze Golf Estate, the EMS (SSI, 2010: 14-17) specifically states that it will choose to eliminate any exotic plant species and keep only the indigenous species in this area, while simultaneously acknowledging that this might compromise

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the historical character of the area. The EMS then further states that the upkeep or management of the river area will be done on a regular basis as required. The maintenance of the river corridor and vegetation in the corridor is done by employees of the estate. This again supports the objectives of the social responsibilities that the De Zalze Golf Estate aims to establish in the area, seeing that this is mostly members of the local community of Jamestown. In this sense De Zalze Golf Estate ensure that this part of the river is always in a good condition. It must be noted that although this is in their best interest, the effects that trickle down from this maintenance is largely positive for the community of Jamestown. De Zalze Golf Estate does not only deal with pollution flowing from up the river, but also ensures that this part of the river is not susceptible to things such as erosion and sediment build-up. The EMS makes provision for soil erosion by managing the discharge points of the river. The EMS also states that engineering designs ensure that stormwater runoff does not cause sediment to build up in the river, thus ensuring effective flow of the river (EMS, 2010: 14).

5.2.2.3.2 Dams and wetlands

With regards to the wetlands and dams on the estate, De Zalze prides itself in its management techniques which include ecological wetland rehabilitation and maintenance plans as well as the prevention of algal pollution by means of chemical or biological controls. Habitat loss is also mitigated by updated landscaping plans and monthly on-site assessments of these areas. Bird hides are also constructed as a requirement by the qualified specialists who form part of the environmental team at De Zalze Golf Estate (EMS, 2010: 16). De Zalze Golf Estate also controls the small mammal populations and adapts the planting of vegetation in these areas accordingly. So as is evident from the above paragraphs, De Zalze Golf Estate takes special care of natural features in the area. The fact that natural features such as the river, dams and wetlands are maintained and in some cases upgrades is definitely beneficial to the community at large; however, the aesthetic value thereof is only enjoyed by those that enter the estate, again leaving local community members to ask how they are being directly benefitted.

5.2.2.3.3 Sewage and waste water system upgrades

Another positive effect stemming from this development is the upgrades to the sewerage disposal system and the effective treatment of waste water. Fully functional sewerage systems put in

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place by De Zalze Golf Estate takes severe pressure of the municipality, in the sense that De Zalze did not need to connect to the already problematic sewage plant that exists in the area (Cash, 2014: 137). In accordance with the Water Act 36 of 1998, De Zalze Golf Estate has an agreement in place with the local municipality, which allows them to reuse treated wastewater. This means that water for irrigation does not have to be potable water, but the fact that the wastewater has been treated will ensure that it does not hold disease when used for irrigation purposes (EMS, 2010: 18). Water for agricultural purposes is obtained from the river and dams which are filled by water run-off by means of a servitude (EMP, 1997: 11).

5.2.2.3.4 Public concerns

It must be noted that public participation was not undertaken prior to approval of this EMP, thus the public did not have a chance to comment on any issues or concerns that they could possibly have. The EMP for the Spier Holdings area supports this statement by saying that all other documents that have been previously constructed for this development, was not consulted prior to the compilation of this EMP and as a consequence, fragmentation and overlap between the various documents could be a possibility (EMP, Spier Holdings, 2005: 6).

The EMP generally specifies how various environmental aspects could best be managed, without transgressing any requirements of the applicable Acts, policies and plans. These items and management requirements were identified after a list of specialists inspected the site and made the required recommendations. One thing to note when looking at the some of the roles of local government, stated in this EMP, is the obligations set out by Agenda 21. The De Zalze EMP claims to live up to the objectives of Agenda 21 by claiming that the De Zalze Golf Estate will place specific emphasis on the management of land resources that promotes sustainable benefits to all of Stellenbosch through the successful implementation of the requirements of Agenda 21 (EMP, 1997: 79; EMP Spier Holdings, 2005: 13). With all the above mentioned natural features and potential in this area in mind, one has to wonder if the approval of a high-income gated development is in the best interest of all community members of Jamestown.

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5.3 Other contributing developments in Jamestown

5.3.1 La Clemence Retirement Village

Figure 5.8: La Clemence Retirement Village locality map (Google Earth, 2015)

La Clemence Retirement Village is located on the Eastern boundary of Jamestown, directly east of the R44 road and north of the Webervalleipad. This luxury retirement village includes 138 housing units, a communal clubhouse as well as a health care centre (Dennis Moss Partnership, 2014: 32-33). La Clemence is a secured gated development with a great focus on security. The retirement village is protected by high boundary walls and electric fencing, as well as a 24 hour controlled access entrance.

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Figure 5.9: Security entrance of La Clemence Retirement Village (By author, 2015)

Dr. Johan Neethling from Johan Neethling Environmental Services was the appointed environmental consultant which applied for authorisation for Le Clemence Retirement Village. Due to the fact that the application was submitted prior to the new environmental regulations, this development was not listed in terms of the old environmental regulations. A letter from the DEA&DP during 2005 reads:

> *"This letter serves to inform you that the proposed development does not constitute a listed activity in terms of GN R. 1182 of 5 September 1997, as amended, ("listed activities"). Written authorization in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989) is therefore not required from the relevant authority (as defined in GN No R1183 of 5 September 1997, as amended), prior to the undertaking of the proposed development. This determination is based on the following:*
>
> - *No change in land use as contemplated in GN R.1182 is envisaged. The property is zoned Agriculture 1, but has not being used for agricultural purposes since 1959.*
>
> *However, should the proposed development involve any other listed activities then an application for authorization must be submitted to this Department and authorization obtained before such activity(ies) may commence" (DEA&DP, 2005c).*

The above mentioned approval means that the development was not subject to the EIA process, and therefore no specialist studies were done at the time. La Clemence Retirement Village was

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thus approved without providing local community members the opportunity to raise their opinion on the development, as was the case with the Aan De Weber Residential Estate discussed earlier in this chapter. In addition, the La Clemence Retirement Village has contributed directly to inequality and fragmentation in Jamestown, in the same way as other gated developments in the area. This divide is clearly evident in the town, as the informal settlement known as 'Kreefgat' is located directly to the east of the La Clemence.

Figure 5.10: 'Kreefgat' informal settlement located next to La Clemence Retirement Village (By author, 2015)

Figure 5.10 clearly depicts the fragmentation caused by the La Clemence development, as the electrified wall is the sole divider between the retirement village and the Jamestown informal settlement. From an environmental perspective, the northern boundary of the La Clemence Retirement Village runs just south of the Blaauklippen River. This means that the development does not necessarily have any responsibilities toward the upkeep of the river, which could arguably have been the case had the development been subject to an EIA under the new environmental regulations. Together with the rise of high income developments in the area, came the demand for a shopping area. This led to the development of the Stellenbosch Square Shopping Centre.

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5.3.2 Stellenbosch Square Shopping Centre

Arendse (2014: 78) writes about the history of the Stellenbosch Square Shopping Centre, stating that the mall was approved in the early 2000s. Arendse (2014: 78) states that not all members of Jamestown were in favour of the development of the mall, nor were the Stellenbosch Municipality. Irrespective of the viewpoint of the local residents of Jamestown, the presence of high-income developments in the area lead to the need for a shopping mall and thus the Stellenbosch Square Shopping centre was approved. "The centre, designed in a Cape Vernacular architectural style, aims to be a niche lifestyle and convenience centre that caters for the affluent shopper" (Norris, 2004: 4). This suggests that this mall did not consider the local residents of Jamestown and was strictly aimed to cater for the residents of the new high-income developments in and around Jamestown. Although the mall would aim to employ residents of Jamestown, this contributed to the growing sense of fragmentation between the various income class residents of Jamestown.

The intention of the Stellenbosch Square Shopping centre to cater for the high-income residents in the area, meant that most of the shops found in the mall was high end retail stores such as Woolworths, home and décor stores, Mugg & Bean, Avante, Billabong, health and beauty stores and a flight centre. However, in recent years, many of these high end stores closed down due to a lack in sales, leaving various stores vacant. Arendse (2014: 80) writes that the lower income residents of Jamestown feel that they could actually make use of the mall if it included stores such as Mr Price, Edgars and Steers. These stores do not necessarily contribute to the desired A-class aura that the mall intended, thus these franchises have not yet been opened here. This in turn means that most of the lower-income residents of Jamestown resort to using Eikestad Mall as well as Somerset Mall, again leading to the increased use of public transport to access these malls outside of Jamestown.

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Figure 5.11: Aerial image showing the locations of Aan De Weber (blue polygon), Stellenbosch Square Shopping Centre (yellow polygon), La Clemence Retirement Village (red polygon) and De Zalze Golf Estate (orange polygon). (Google Earth, 2015)

Together with the mall, a Shell filling station and the Donford BMW Dealership was developed, as illustrated in figure 5.11 above. One point to note is that new developments, such as a shopping centre, can often attract crime. New developments create new crime opportunities and malls are easy targets for vehicle burglary and other petty crimes. As shown by the SAPS crime statistics for Jamestown, this is largely evident and SAPS Stellenbosch (2014) indicated that in the month of March 2014, Jamestown was listed on the list of 'crime hotspots' in the greater Stellenbosch area; showing that "burglary and malicious damage" was the most reported crimes in Jamestown. It must be noted that although it cannot simply be assumed that these crimes took place outside of the gated developments in Jamestown, there is no evidence to suggest that these crimes took place inside of any gated development in Jamestown.

The combination of De Zalze Golf Estate, Aan De Weber Residential Estate, La Clemence Retirement Village and the Stellenbosch Square Shopping centre has meant that the spatial

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growth potential of Jamestown has been significantly hampered. Van der Merwe *et al.* (2005) and Van Niekerk *et al.* (2010) explain that Stellenbosch is viewed as having the biggest growth potential, seeing that spatially it possesses an abundance of soft spaces such as winelands, mountains and rivers, as well as hard spaces such as an university, nightlife and restaurants. The hampered development potential of Jamestown, caused by the above mentioned gated developments, is an indication of the poor spatial planning in the area. Donaldson (2014: 6) refers to gated developments discussed in this chapter by stating that: "Although Stellenbosch does not have many gated developments yet, the existing ones on the periphery of the town already dramatically scar the rural landscape and transform the rural spaces into urban quarters of homogeneity".

5.4 Conclusion

This chapter has used gated developments in Jamestown to illustrate the social, economic and environmental effects that arise from these developments. The available data was often limited due to these developments not always being required to follow a detailed assessment process, due to a shortcoming in old laws and policies. Although many of the reports focus on the positive effects, the negative aspects are evident throughout this chapter. Another noteworthy point is that many of the effects are recurring in most of the developments identified in this chapter, whereas others were more site specific.

A recurring theme is the public concerns raised by local residents of Jamestown about being excluded from the decision-making process, as well as feeling that exclusion is enhanced by these developments (Withers &d Jasson, 2006: Table 1). Other factors range from a loss of character in Jamestown, to a lack in community upliftment. The fact that these developments have severely limited the growth potential of Jamestown means that future developments of the same nature will need to be much more regulated. Fortunately the laws, policies, regulations and plans currently in place should ensure that development in this area will be regulated by additional processes, with stakeholders given an opportunity to comment. One sure thing is that these effects should mainly be managed at the planning stage. There also seem to be a clear lack of management tools and methods with which to address both the public concerns as well as the

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social, economic and environmental effects (positive or negative) highlighted in this chapter. The next chapter of this study will aim to address the management in this area by aiming to use the laws, policies and plans identified in chapter 4, together with other management tools, to suggest how the specified effects can more accurately be managed; ultimately promoting sustainable development in the process.

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Chapter 6: Discussion of Findings

6.1. Introduction

Chapter 1 of this study identified the objectives of this study as follows:

- To identify the social, economic and environmental effects associated with gated developments in Jamestown, Stellenbosch;
- To try and identify realistic management tools which could be applied in these areas to either address the negative effects, or enhance the positive effects of gated developments in Jamestown, Stellenbosch.

This chapter will now aim to align the findings of the study with these objectives. By analysing relative laws, policies and plans, and comparing them with the literature review, as well as the use of a number of case studies, this study has illustrated what is needed and what can be done in order to address the identified positive and negative effects of gated developments in Jamestown, Stellenbosch, with the ultimately aim of achieving sustainable development in this area.

By looking at the key themes identified throughout this study, various management tools can be implemented to address the above mentioned social, economic and environmental effects. Based on these findings, relevant recommendations are given through which sustainable development could possibly be achieved.

6.2. Jamestown: The situation at hand

This study found that in order for development to occur sustainably, it is imperative that laws, policies and plans are implemented efficiently from the planning to implementation stages of any type of development. Gated developments in Jamestown are posing similar effects to gated developments on the national, as well as the international stage. In addition, Jamestown faces several unique socio-economic and environmental challenges, placing further emphasis on the need for sustainability within the local community of Jamestown. Using current laws, policies, plans, structures and ideas correctly, the individual effects (be it social, economic or

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environmental) could be better managed to possibly mitigate the negative effects and emphasize the positive effects of gated developments in Jamestown. Although this study has thus far identified many management tools in various forms, it does not mean that all of them can be used to address the above mentioned effects of gated developments. However, they all have a role to play in the overall regulation of gated developments, and by so doing can contribute in some form to address these effects either directly or indirectly. Chapter 5 of this study identified several effects of gated developments and this chapter will use to the identified management tools to address the identified social, economic and environmental effects.

6.3. Identified effects of gated developments

Table 6.1 identifies the social, economic and environmental effects highlighted by the case studies in chapter 5. These effects are summarised to create a general idea of how they are interrelated; where-after specific management tools will be explored to address each of these effects.

Table 6.1: Identified effects of gated developments in Jamestown

Social	Economic	Environmental
Crime & Safety	Income Opportunities	Resource Conservation
Social Exclusion	Economy Upliftment	Access to Land
Public Participation	Property Values	Services (Waste & Water)
Community Upliftment	Infrastructure Provision	Visual Impacts
Employment Opportunities	Transport Systems	Traffic Impacts
Housing Provision	Tourism	Noise Impacts

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6.3.1 Social effects

6.3.1.1 Crime and safety

As indicated in the literature review, it is argued that crime and safety is often viewed as the most significant driver for the perceived need for gated developments in South Africa. Although is debatable whether or not gated developments displace crime to non-gated areas, or whether gated developments provide a feeling of safety; gated developments have become a popular development style in South Africa, and Jamestown is no exception. Crime statistics indicate that crime is prevalent in the area and that there is reason for concern. The fact that gated developments mostly cater for high-income groups means that these developments are highly secured and in some cases several measures of safety are in place, ranging from booms to private security services. Residents outside of these protected gated developments often feel that their safety is disrespected seeing that they do not share the benefits of the increased security that the residents inside these gated developments enjoy. This in turns contributes to the feeling of social exclusion in Jamestown. It is recommended that use be made of the concept of 'Crime Prevention Through Environmental Design' (CPTED) in planning documents such as Stellenbosch SDF (Coetzer, 2001) and that the idea of benefit sharing also be used to improve security benefits for lower income areas.

6.3.1.2 Social exclusion

Gated developments are often characterised as exclusionary due to physically being barricaded off from spaces outside of these developments. In Jamestown, exclusion from these areas is prevalent and it is felt that this exclusion in Jamestown is exacerbating present class, race and cultural divisions. Jamestown community members that do not reside inside gated developments feel that they are being excluded from both the environmental and economic resources and opportunities that have been privatised by the gated developments, with the benefits thereof only being enjoyed by those residing inside these developments.

6.3.1.3 Public participation

Efforts towards promoting equality rely on the premise that all individuals should enjoy the same rights and that no individual may be viewed as superior. This means that all members of the public share the right to participate in processes which might affect them or their property. At the

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planning phases of developments, the public is usually given the opportunity to raise concerns or highlight ways in which a proposed development might affect them or their livelihoods. The general public of Jamestown has largely opposed the gated developments in the area, as was illustrated in the public meetings mentioned in chapter 5. Although the public process has recently become a legal requirement of many assessment processes, the public of Jamestown still feel that the Public Participation Process (PPP) is flawed and that their concerns are not being valued, although they did raise valuable concerns at public meetings (Withers & Jasson, 2006: Table 1).

6.3.1.4 Community upliftment

One of the biggest concerns raised at the public meetings mentioned above was the need and desirability of community upliftment of the local community of Jamestown. The community has often raised opinion about the higher-income classes infiltrating their town by means of construction of gated developments, but yet the local community did not benefit from this. In return, the developers of these types of developments often make promises to upgrade or improve public services in Jamestown, and by so doing, uplifting the local community. These promises are often not fulfilled once these developments have been authorised and thus it either leads to a further division in the community or resentment towards the inhabitant of these gated developments. Promises of social upliftment highlighted by the case studies in chapter 5 concerned the upgrading of traffic circles, commissioning of a public pool and a public library. In some cases these promises have been kept, but in other cases they have not. One way of creating community upliftment opportunities is by creating employment.

6.3.1.5 Employment opportunities

It has been indicated that many residents in Jamestown have an average income within the lowest bracket and also that unemployment rates in Stellenbosch amount to almost 15%. One of the biggest positive effects that stemmed from the construction of gated developments in Jamestown was the temporary and permanent job opportunities created in both the construction and operational phases of these developments. By developers aiming to use mostly local labour in the commission of these developments, it would suggest that various employment opportunities would be created for members of the local community. Several factors suggest that

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this was often not the case or that the jobs did not suit the skillset of the community members. The employment promises was thus only a tool used by developers to convince the authorities to approve the given developments. If however job opportunities are really created, it could not only address the unemployment rates, but also contribute to community upliftment stemming from an improved local economy.

6.3.1.6 Housing provision

The inequality in Jamestown is no more evident than in the divide between the La Clemence Retirement Village and the Kreefgat informal settlement illustrated in chapter 5. On the one side of the wall is the retirement village, with free standing housing units as well as a medical clinic; whereas on the outside of this development is the Kreefgat informal settlement. According to the Bill of Rights, every person has the right to access to adequate housing and the literature has given clear indication of what would suffice as adequate housing. Although the residents of Kreefgat are occupying municipal land, they are not being provided with housing alternatives and thus have no alternative but to reside in this area. The South African housing backlog is also outgrowing the provision of state housing, thus displacing these residents would not contribute to equal development.

6.3.2 Managing the identified social effects

6.3.2.1. Benefit sharing

Although 'benefit sharing' is not a formal management tool, it is a concept which could be implemented to ultimately address various effects of gated developments. As illustrated in the literature review (Lindhjem et al, 2010; Miningfacts, 2015), benefit sharing can be done in the form of a formal agreement, by which the potential benefits of a proposed development would be unpacked and the agreement would then state how these benefits can be shared between all stakeholders involved. Such an agreement could be established at the planning phase of a proposed development. Public consultation would be required to get an understanding of how the community would like to benefit from such a development. This would allow for integration between the various stakeholders, thus allowing for better informed planning practices.

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One aspect that the community of Jamestown would arguably like to benefit from is the increased security facilities available in the area. This study has highlighted the many security measures made available by the gated developments in the area. Although this security is provided by private security companies paid for by the residents of these developments, it shouldn't exclude the possibility of benefit sharing in this regard. Although such a proposal would be based purely on speculation due to a lack of evidence of such agreements, it could be assumed that any form of increased security would be welcomed by the local community of Jamestown. One way of regulating this would be to have an agreement in place which provides for these private security companies to do additional patrols through the non-gated areas in Jamestown at desired and agreed to times. Increased security measures would not only address some of the crime issues in Jamestown, but would also be a means of limiting the exclusion experienced by the members of Jamestown.

Although the costs of these services would be solely carried by the residents of these gated developments, this would be an example of how benefit sharing can contribute to social inclusion by simply addressing security issues; a social concern carried by all members of society. If such agreements can be put in place without jeopardizing the intended benefits of such services, the concept of benefit sharing can dramatically spread the positive social positive effects, such as community safety. By doing so, it would also contribute to the general upliftment of the community. Although crime and safety issues were used as an example of how benefit sharing can be implemented, it must be noted that benefit sharing might be difficult to implement due to the complex nature of agreements. One example of a complication of benefit sharing is the fact that such agreements require the public to participate; an aspect which in itself raises several concerns.

6.3.2.2 Environmental Impact Assessments (EIAs)

As is evident in the previous chapter, the local community of Jamestown feel that they are not being included in decision-making processes and this leads to them often having to face the consequences of projects in which they had no say, making them believe that their opinions are being disregarded. This could be ascribed directly to a lack of public participation during most phases of a development. The Environmental Impact Assessment process can be used to alleviate

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this shortage of public participation, due to this assessment process being legally bound to the inclusion of a PPP process. Although the EIA process is mainly an environmental process, it includes the assessment of various social aspects together with environmental aspects.

The EIA process is an integral part of NEMA, used in the planning phase of proposed developments. It is also one of only two (together with zoning approvals) processes that legally requires public participation as part of its process. This PPP is what is of particular interest for this part of the study, as it allows the local community to raise not only environmental concerns, but also social concerns. Public participation must be an integral part of all planning and implementation activities linked to a given project, as public participation can ensure that local and indigenous knowledge receive the necessary attention to assist in the decision-making process, as well as enhance corporate social responsibility amongst the developers. The PPP may seem like the ideal way of including the public and addressing possible social issues; however, the PPP has several shortcomings in the way it was conducted as part of the EIA process. One of the concerns with Jamestown in this regards is the extent to which the public is involved and their comments valued during the PPP.

Members of the public of Jamestown argue that they were often not informed of public meetings and in cases where these meeting were advertised, they were advertised in locations which the local community could not access and thus they often miss the chance to be present in these public meetings. Another concern with this process was that the few individuals that do attend the public meetings do not always possess the relevant knowledge to make valuable comments. For these reasons, it is suggested that the PPP be reconsidered. One way to deal with the above mentioned shortcomings is to have a member of the relevant authority present at these public meetings. Although all authorities are given the chance to also comment on the proposal of the development, if they are present at the public meetings, they could ensure that all raised concerns are assessed. This would also benefit the local community, seeing that the department would now ensure that all concerns are legitimately assessed. Another benefit of the increased presence of authorities during this process would be the increased communication channels between the community and the authorities.

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By improving the PPP in the EIA process according to these suggestions, it would ultimately allow for better integration between social and environmental assessments as well as ensure sound communication channels between the influenced parties and the parties that ultimately poses the authority to ensure implementation. The PPP could be an effective management tool with which to address social exclusion and ensure that the social concerns of the community are at least given the necessary attention. Furthermore the EIA process could be used to address additional social effects in Jamestown, such as ensuring that employment opportunities are created.

The EIA process has been illustrated to be one of the most effective management tools due to its ability to address social, economic and environmental issues and have in depth assessments done on any potential impact deemed necessary. In the case studies in chapter 5 it was illustrated that the EIA reports for the respective gated developments in Jamestown included job creation as a way of arguing for approval. Special reference was made to how many jobs would be created and in what sectors of the development these job opportunities would be created. The EIA reports also state that 60% of employees will be local labourers. With employment opportunities being the most significant positive social effects that gated developments would offer for the local residents of Jamestown, it is an issue that as many as possible local community members would want to benefit from, without the developer having to go elsewhere to acquire labour. As illustrated in chapter 5 of this study, Aan De Weber Residential Estate alone would generate an estimated 400 temporary jobs during the construction phase and an additional 70 permanent jobs during the operational phase of this development. For this development, construction started in 2007 and would last for approximately 10 years (Withers & Jasson, 2006: 8). It can thus be assumed that if Aan De Weber Residential Estate, De Zalze Golf Estate, La Clemence Retirement Village and the Stellenbosch Square Shopping centre made use of mostly local labour, as was claimed would be the case, hundreds of temporary jobs would have been created, spinning off into several hundred permanent jobs in the operational phases of these gated developments.

Evidence from the case studies suggests that this is not necessarily the case and that many members of the community are unemployed at this moment in time. One way to manage job

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creation is by conducting a census during the planning phase of a proposed development, whereby the skill sets of the unemployed local residents are recorded. This census could then identify the type of skills available to the developer. Skills that are not readily available in the community and that people cannot be trained for, may be outsourced to other neighbouring areas; however, the skills readily available in the community must be acquired from these members. This will establish a relationship between the community members and the developers and will open further employment opportunities for future projects. Community members could then feel as if the development is directly benefitting them and that they are helping to ensure that quality efforts are being put into the area. This has been the case with Aan De Weber, but the EIA simply stated that 60% of labour will be local labour. If this was included as a condition of approval in the Environmental Authorisation, it is more likely that this would be implemented in practice and would offer a means of monitoring by the same authority that is monitoring overall compliance with the conditions of the Environmental Authorisation.

6.3.2.3 Management Institutions

As indicated earlier in this section, the public felt that developers often make promises to address social matters, but after the developer has received his approval for the developer, these promises do not actually realise. One management tool with which to ensure that these promises are carried out is by the establishment of a trust, with very specific provisions for the running of the trust set out in conditions of approval. Often during the EIA process, the developer suggests that a trust will be established, even identifying social projects for which this trust will be used. In the case of Stellenbosch Square Shopping Centre and the car dealership, Cash (2014:33) writes that a trust which would benefit local residents was promised and used to obtain approval for the development from the relevant authorities. Cash (2014:33) found that a local councillor was in charge of the establishment of this trust; however, by the end of 2014 the councillor was still investigating what had happened to this trust. This lack of implementation regarding the trust, requires attention and better guidelines and legislation.

It must be noted that a trust can only be a beneficial management tool if it is managed correctly. Arguably the most effective way to manage a trust is to embed it into a homogenous legal framework. This could be done by means of the home owner's association (HOA) constitution.

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Generally, the relevant developer sets up a HOA constitution prior to handing the HOA over to the actual Homeowners. It is at this time that the constitution should be approved by an agreed upon authority. As is currently the case, a HOA constitution is solely agreed upon by the developer and the relevant members of the HOA committee. In this constitution the establishment of a trust, funding of this trust and allocation of funds from the trust must be strictly stipulated together with an action plan indicating how the trust will be allocated to address the social objectives it initially intended to address. De Zalze Golf Estate was approved on the condition that a trust be established; however, according to Cash (2014: 103) the senior planners at the Stellenbosch Municipality currently claim that the file containing the original decisions are missing. Cash (2014: 103) claims that after investigations into this matter, it turns out that 1% of each property value sold goes into the trust which was initially set up to maintain and establish environmental and agricultural elements in Jamestown. The money was in fact placed in this trust, but the HOA of De Zalze is using this trust to improve, maintain and upgrade the environmental resources inside the De Zalze development itself. This indicates that the original intended beneficiaries of this trust are not benefitting from the trust, possibily because these issues were not clearly dealt with in the conditions of approval of the development.

If the constitution of the HOA is made subject to approval by the relevant authority, it would mean that the management of the trust will become a condition of approval, making it possible for relevant authorities to monitor the implementation of the objectives of the trust; enabling this authority to take action if the trust is mismanaged or does not reach its intended targets, as is the case with the De Zalze Golf Estate trust. A trust is a potential way of benefit sharing and could accurately address the specific issues that needs to be addressed in the area of Jamestown; however, the trust needs to be managed by an authority to enforce its establishment and implementation. Currently the trust is not enforced as originally promised and the ramifications are that the social effects of gated developments in Jamestown are not getting addressed as promised. Effectively applying the funds available in the trust for social upliftment and community upliftment efforts could also lead to the mitigation of social exclusion in Jamestown to a certain extent. Further community upliftment could also be achieved by housing policies as management tool.

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6.3.2.4 Housing policies, strategies and plans

The Constitution of South Africa (RSA, 1996) deals with basic human rights, in which it is stated that every person has the right to access to adequate housing. Evident through the presence of the Kreefgat informal settlement, as well as the statements made by members of the local community at the Human Rights Day Protest (HRDP, 2013) is the fact that several members of the Jamestown community is being deprived of their basic rights by not having access to adequate housing. Although the Kreefgat informal settlement has been subject to controversial eradication proposals by the Stellenbosch Municipality, the fact remains that these individuals residing in Kreefgat do not have access to formal housing. As identified in chapter 4, the housing act aims to provide a sustainable housing development process which can be used as a framework for housing policies on all levels of government. However, at this time, no sphere of government has formulated a final Inclusionary Housing Policy, and while there is a Social Housing Policy, it is very difficult to operationalise.

Stellenbosch Municipality has a housing strategy; however, this is not sufficiently implemented and no strategies have been designed to address this matter. The original housing strategy clearly indicated how sustainable efforts could be made and how it would be possible by taking the municipal budget into account. However, this strategy appears to have failed due to a lack of policy, and implementation of available strategies and plans. A lack of policy at all levels of Government means that the housing backlog will continue to grow. Creating policies that align the objectives of housing provision strategies over all spheres of government could make for increased rates of housing provision and ultimately lead to community upliftment. As is evident from the lack of IHPs, is the fact that although many laws (The Constitution and the Housing Act) and plans (National Development Plan 2030) address housing issues, it does not necessarily mean that the implementation of these ideals will be realised (RSA, 1996;; RSA, 2011).

It is necessary to mention that Government is in fact providing significant amounts of housing through the use of housing subsidy schemes; however, these current schemes do not bind any stakeholders to the delivery of a set amount of houses to a set location in a set timeframe. A Housing Plan should be able to bind the stakeholder to set targets and timeframes, and in so doing, leave less room for a lack of implementation.

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6.3.2.4.1 Zoning

Together with the shortage of housing provision, other ways of management have been looked at in order to possibly change the system more radically and to provide housing units through the use of planning management tools. One such management tool which could be employed by the Stellenbosch Municipality is to update their zoning scheme in line with the concept of 'inclusionary zoning schemes' which closely relates to the concept of inclusionary housing. This type of zoning scheme opts for inclusionary and mixed zonings which would mean that instead of current exclusion due to developments in Jamestown, new developments should include a percentage of low and medium cost housing units inside the development. Not only will inclusionary housing efforts then be more dispersed but it will alleviate some pressure off the government with regards to housing provision.

6.3.2.4.2 Spatial Development Framework

The Stellenbosch Municipality must finalise an SDF for Stellenbosch town, which highlights workable suggestions with which to implement the 'urban village' concept identified earlier in this study. The urban village concept suggested in the current Stellenbosch Municipality SDF (for the wider municipal area) is basically the direct opposite of gated developments such as the ones in Jamestown. This urban village concept is aimed at inclusive sustainable living. This would allow for easier provision of municipal services and could mean that various social issues be mitigated in the process. The SDF for Stellenbosch Town has however not been finalised and thus the precise details of these 'urban villages' are not yet defined.

6.3.2.4.3 Gated developments policy

One management tool used by the City of Cape Town to regulate the sprawl and nature of gated developments is the 'Gated Development Policy' for Cape Town. Stellenbosch municipality could perhaps learn from the success of such a policy and draw up a similar policy to help make decisions on the approval or rejection of gated developments in Stellenbosch. Such a policy would also ensure that public places are not privatised, also promoting inclusion while simultaneously maintaining the character of hamlets such as Jamestown. The more gated developments are regulated by policies such as the 'gated development policy', the more

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developers would be dis-incentivised to resort to such a type of development and instead aim to look for alternatives.

Ultimately it must be understood that although not all laws, policies and plans will directly assist in the management of the effects of gated developments, better strategic planning and regulating documents will contribute to the bigger management system which regulates development in Jamestown, and by adapting the system, ultimately drive development in a way that resolves the negative effects of current development types. Thus although there are management tools which specifically address certain effects that arise from the presence of gated developments in Jamestown (be it social, economic or environmental effects); some management tools should aim to address a combination of effects by changing the integrated system used for development planning.

6.3.3 Identified economic effects

6.3.3.1 Income opportunities

The previous section has identified the creation of job opportunities as a social effect; however, this is very much an economic effects as well as a social effect. Previous chapters have indicated the average income per household of Stellenbosch and the average household in Jamestown earns incomes which are generally situated towards the lower end of the income scale. With unemployment also being prevalent in the area, additional income opportunities are welcomed. If developments in Jamestown create significant amounts of income opportunities, it might be worth considering by the relevant authorities. Income opportunities from these developments does not only come in the form of physical labour, but also provide opportunity for the supply of materials.

This study has also mentioned that entrepreneurial opportunities in the area have declined in recent years. One example from the case studies is local markets that have largely become commercialised and thus suppliers and buyers of these markets are not the local community members as in previous years. By affecting entrepreneurial opportunities, developments can significantly promote or harm the economic status of low-income households in Jamestown.

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6.3.3.2 Development of the local economy

Through the development of the local economy, the livelihoods of local members of Jamestown can be significantly improve. Much of this development needs to be done by the municipality; however, municipal funds are often lacking and insufficient. As the case studies indicated, developments in Jamestown amount to hundreds of millions of rand, which would indirectly act as a major boost for the local economy. If correctly managed, this could in turn be used to benefit the entire area governed by the relevant municipal authority. One such a development might not be deemed sufficient to affect the local economy, but the combination of several developments might. New developments could not only contribute to the development of the economy through monetary injections, but also by bringing more money into circulation in Jamestown. Local stores are potentially the biggest beneficiaries of the presence of the higher income residents in Jamestown. Another effect on the economy is the fact that the presence of these developments directly affects the property values of other properties in Jamestown.

6.3.3.3 Property values

As identified by the case studies in chapter 5, the presence of high-income residential developments in Jamestown, together with a new shopping mall development, have dramatically increased the general property values in the area. This could both be positive and negative. Positive in the sense that the property owner now has an asset which has increased in value (in some cases increased six fold in value in the last 15 years). Although the increased property value is a massive financial advantage for the local residents which own property in the area, on the other hand it might mean that local community members might not be able to afford to buy or rent property in Jamestown any more, and thus it will contribute to fragmentation of the local community. It also means that rates and taxes are increased, which various residents might not be able to afford. They could potentially then be forced to sell their property or have to relocate, further encouraging the loss of character of Jamestown.

6.3.3.4 Infrastructure provision

When a new development is approved, the general practice is that the developer install infrastructure for services within the boundaries of the development and then tie in to the infrastructure provided by the municipality, while also paying a contribution for the bulk

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services. The municipality is then further responsible for the maintenance and upgrading of this infrastructure on their own account. Although municipal budgets make provision for such costs, the Stellenbosch Municipality has indicated in several policy documents that they do not have adequate capacity to deal with new developments. It must be noted that some the developments in Jamestown might have been established at a time when the municipality still had adequate capacity in this regards; however, future developments would need to be carefully planned in order for the Stellenbosch Municipality to provide them with services such as waste , water provision and other basic amenities. Part of infrastructure provision is transport systems, discussed below.

6.3.3.5 Transport infrastructure

Part of exclusion and spatial restrictions is displacement and restriction of access. This means that people are often placed further away from economic opportunities if access through a certain area is restricted, meaning that it requires longer traveling distances. Many residents of Jamestown commute to other areas in order to access income opportunities. The presence of gated developments in Jamestown has meant that more cars are in use in this area, due to the higher-income residents making use of private cars. Not only does the increased number of cars lead to pollution concerns, it also means a significant amount of traffic in Jamestown, which is problematic due to Jamestown only having one entrance and being restricted by the R44 main road. Public transport is also required in this area. However, in some cases it is argued that new developments shoul contribute to the provision of public transport infrastructure, instead of making this the sole responsibility of the government.

6.3.3.6 Tourism

Effective public transport systems could attract greater volumes of tourists due to increased and affordable accessibility. Jamestown is located in a scenic part of Stellenbosch, rich in history, architecture, natural resources and aesthetic attraction. Golf Estate developments, such as De Zalze Golf Estate, are also a major tourist attraction, combined with the famous wine industry of Stellenbosch. Thus Stellenbosch is a major tourist attraction; and new developments in Jamestown are benefitting from tourism through the provision of leisure activities and accommodation, but benefits are not being shared by all members of the community. Benefit

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sharing should be an integral part of the tourism industry in Stellenbosch but currently the local community members are not seeing any benefits and argue that financial benefits from tourism should be used to further improve tourist attractions in the area.

6.3.4. Managing the identified economic effects

6.3.4.1 Slow-food markets

The literature review has illustrated how the concept of slow-food markets has the potential to promote sustainable food supply and demand systems. However, gentrification has pushed out poor farmers in Jamestown, and the new higher-income residents of Jamestown have led to the development of an upmarket shopping centre and the commercialisation of local farmer markets, such as the Root 44 slow-food market. These changes eventually accumulate and mean that local suppliers and buyers cannot afford these commercialised markets and are thus being deprived of crucial employment and entrepreneurial opportunities in the area. It is recommended that existing commercialised local farmers markets in the area be made aware of their exclusionary nature, and that the rules of the game be changed so that these markets can again become the basic town amenity for the local community of Jamestown to buy and sell without exclusion.

The Stellenbosch SDF also made a suggestion that all shopping centres in Stellenbosch should provide spaces for small traders and informal traders to do business in. This concept is present at other malls in Stellenbosch; however, it has not been witnessed at the Stellenbosch Square Shopping centre.

6.3.4.2 Stellenbosch IDP

The Stellenbosch IDP is the leading document in terms of planning future developments in Stellenbosch, therefore the desired direction of future development must already be known in order to align the IDP document accordingly. The IDP has to be updated yearly and it is felt that further additions are needed to this document in order for it to act as an effective management tool. The current IDP lacks in pivotal areas and these gaps affect the large number of gated developments in Jamestown.

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The first aspect to consider is the proposed inclusion of a policy which addresses the shared costs of infrastructure (which would possibly also require updated provincial policies). Current systems of infrastructure management do not allow for fair sharing of infrastructure costs, as presently the municipality must provide the resources to provide, maintain and upgrade bulk infrastructure to which private developments can connect. Due to the responsibility of these factors being placed mainly on the municipality, there is a shortage in the municipal budget year after year. It is also not fair that the current policy which has been in place since the 1980s requires the municipality to contribute to the infrastructure of the high-income residents, while funds run out with which to maintain the infrastructure that services the poor. Current provincial and local policies should be updated to promote agreements which would ultimately free up municipal funding with which necessary areas could be serviced, such as the Kreefgat informal settlement in Jamestown. It is not only a case of funding but also about justice in some sense. How much of the municipal funds should be used to service the rich and how much must be allocated to improve the living conditions of the poor?

6.3.4.3 Western Cape Land Use Planning Act

Although this study has focused on both the LUPO and the LUPA, it is important that land use systems move towards the objectives of LUPA. In order for development to make advancements it is necessary that LUPA be implemented in order for the effects to become evident as soon as possible. LUPA regulates land use planning and also provides for zoning schemes. This could mean that if the principles of LUPA are implemented with regards to future developments in Jamestown, the shortcomings of LUPO (in use at the time of the present gated developments) could be mitigated. LUPA could potentially also contribute to preserving the remaining agricultural areas in Jamestown, by implementing its 5th principle, which is to regulate provincial development. This could mean that new land use planning mechanisms should not easily allow for the conversion of agricultural land into residential land, also restricting this conversion through use of the various zoning principles found in this Act.

One effect that the prevention of rezoning from agricultural land to residential could address, is the effects that follow a sudden increase in property value. As indicated by the case studies, when property values in Jamestown increased, it acted as incentive for property owners to sub-

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divide their plots to either build a second unit on the property, or to rent out for additional income. This sub-division usually lead to agricultural land being offered up in the process, ultimately leading to a change in the character of Jamestown, as bemoaned by several residents during public meetings. Using the fundamentals of LUPA in the planning process, these types of land uses could be strongly dis-incentivised.

6.3.4.4 Shared benefits

Benefit sharing has been proposed as a way of dealing with various social effects earlier in this chapter and this is again the case when it comes to dealing with economic effects of gated developments (Lindhjem et al, 2010; Miningfacts, 2015). Benefit sharing is often linked to the sharing of economic benefits, due to the fact that economic benefits can more accurately be predicted prior to the actual agreement being put in place. In Jamestown it was predicted that Aan De Weber Residential Estate would generate approximately R137 000 000 which could significantly boost the local economy. This could be viewed as a positive indirect economic benefit; but only if such a financial investment would eventually be put back into the intended areas. A different and more direct way of benefit sharing working to the advantage of the poor is through job creation. Job creation in itself has been discussed earlier in this chapter; however, employment opportunities are essential to the development of all low-income areas, especially in Jamestown. Another way of shared benefits is the supposed alterations to the policies regulating the provision of services and who should be held accountable for delivery, maintenance and upgrading of which parts of the system. In relations to services, this benefit sharing would occur more between the poor and the municipality as the municipality will save on costs and the poor will be serviced with the additional funding then available to the municipality..

6.3.4.5 The Municipal Systems Act

The Municipal Systems Act (RSA, 2000) is the main enabling act in terms of which a municipality is managed, including the effective management of the economic effects of gated developments in Jamestown. One of the main roles of the MSA is to ensure that all mechanisms are in place to allow local municipalities to guide development in a sustainable way, which also leads to social and economic upliftment. Using the MSA the local municipality should ensure that policies are drawn up which could ultimately regulate gated developments in Jamestown.

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The MSA is also a good place to implement the fundamental legalities needed for a benefit sharing agreement to be agreed to and be efficiently implemented.

The Stellenbosch Municipality also requires a policy regarding traffic assessments and payment for improved road infrastructures to be created as part of the municipal conditions for approval for new developments. The gated developments and the shopping centre have been highlighted as contributing to traffic problems in Jamestown, and the commissioning of a small three-way circle was seen as the solution to the problem. This should be expanded to accompany the needs of the municipality in terms of infrastructure for public transport or similar.

Economic gains through tourism should ideally also be managed through benefit sharing agreements which are regulated as part of the MSA. The MSA ascribes various roles to the local municipalities and one such role could be to manage benefit sharing agreements at grassroots. Agreements should be in place for economic benefits from tourism activities in the area of Jamestown. Developments such as De Zalze and Stellenbosch Square Shopping centre are examples of activities that will benefit from tourist contributions and that also rely on the condition and character of Jamestown for the attractiveness off its own activities. In other words, if Jamestown becomes a community with poor aesthetic beauty, it could potentially affect the attractiveness of the golf course or the shopping mall. Therefore it would be fair that some of the economic benefits from tourism are used to further uplift the community of Jamestown, preferably in an economic form.

Irrespective of how precisely the benefits are shared and how the community benefit economically, the idea is that a benefit sharing agreement can be delegated to local municipality based on the principle of the MSA. This again indicates how the various management tools do not always directly contribute to the management of social or economic effects; but that it plays a part in an intricate integrated system of laws, policies and plans that guide development in a direction which aims to illuminate the potential negative effects that arise as a consequence.

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6.3.5 Identified environmental effects

6.3.5.1 Access to land

Access to land in South Africa is a heavily debated topic, with zoning types playing a significant role in the allocation of land. Jamestown is located in largely agricultural surroundings, and the root of the Jamestown community is firmly planted in agriculture. With new developments in the area, agricultural land is being re-zoned as residential, meaning that the character of the town is being dramatically affected and altered. Together with this the increased property values were mentioned above. The case studies indicate that as a consequence of increased property values, residents might be incentivised to sub-divide plots and generate additional income in the process. This would mean that further agricultural land would be lost as an effect of the presence of gated developments in Jamestown.

6.3.5.2 Resource conservation, upkeep and management

Stellenbosch is home to an array of environmental resources, ranging from mountains, rivers, wetlands and dams to a vast variety of birdlife and indigenous vegetation. The first thing connected with new development proposals is the destruction of resources. The local community of Jamestown, having their roots in agriculture, have problems with the idea of losing natural resources to developments in Jamestown. Due to the economic situation of several of these residents, they are often reliant on these resources, either for sanitation, income or livelihood needs. As raised by the public, the biggest environmental concern with regards to developments in Jamestown is the protection of natural resources. The responsibility of conservation, upkeep and maintenance of these resources has consequently been allocated to various stakeholders of a development team, subject to various environmental conditions. This means that resource protection and management in Jamestown is currently being given the necessary attention, and as a consequence might be benefitting more people than in past years. Resource conservation for future generation is also the essence of sustainable development, and is therefore of vital importance.

6.3.5.3 Services relating to waste and water

Another environmental aspect mentioned in the case studies is the poor water quality of rivers in Stellenbosch. Although poor water quality in rivers can be ascribed to various causes, the fact

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that rivers in Stellenbosch are polluted does not bode well for the residents of Jamestown, and especially the residents of Kreefgat. As was made clear during protests in Jamestown, the residents felt that they have previously highlighted the issue of illness due to poor water quality, but no action has been taken. In this regard, developments can alleviate this problem in the area, as is the case with the De Zalze Golf Estate. This development did not connect to the sewage plant, but rather put the necessary measures in place to be able to use treated wastewater. As far as other developments in the area go, they are not as self-sufficient and as a consequence it becomes the responsibility of the municipality to provide the necessary services to the households in Jamestown. Current systems might also by running at full capacity, posing another problem for the Stellenbosch Municipality.

6.3.5.4 Visual impacts

One of the first things that usually come to mind when thinking about environmental matters is the visual impact that a proposed activity could have. Due to the aesthetic beauty that Jamestown possesses, visual impacts were going to be a concern which would need to be addressed. Visual impact studies are usually undertaken as part of environmental processes and the impacts are then mitigated. Visual impacts could range from the visibility of tall buildings to the way in which vegetation should be planted in order to 'hide' structures from the road. Due to gated developments making use of physical barriers such as walls and large steel fences as security measures, it could often impose on the characteristics of agricultural areas. The effects of gated developments used as the case studies have all been identified to be of permanent duration and of medium intensity, with a low to medium visual significance. It was also mentioned that the architectural design of these developments could be altered to minimise the visual impacts. It must also be noted that the visual characteristics can also contribute to the character of the town. If the character of a town has been lost, as is arguably the case in Jamestown, it would be largely impossible to regain the sense of place and ultimately the character of the town.

6.3.5.5 Traffic impacts

Due to the nature of the developments in Jamestown, a significant amount of residential units was built in each of the identified developments. This meant that increased amounts of traffic would need to be considered and it would need to be determined how this would impact on the

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public roads which grant access to and from Jamestown. With Jamestown only having one entrance point off the R44, traffic might significantly increase. The case studies have found that it is most likely that the influx of high-income residents would mean that private vehicles would be the preferred mode of transport by these individuals. It was found that the combination of developments would still not significantly alter the traffic patterns; however, increased vehicular movements could mean that pollution statistics might indicate a large increase in various pollutants. The study then further indicated that although vehicular uses are the largest form of pollution by the average person, it would still not be significant quantities. A mini circle was proposed to aim and ensure increased safety to the residents of Jamestown. Another environmental factor which is often directly tied to transport is noise pollution.

6.3.5.6 Noise impacts

Noise impacts are difficult to determine due to the lack of evidence of which activities will contribute and how significant the noise levels emanating from these given activities will be. The fact that a shopping centre has been included in these developments in Jamestown was arguably the biggest concern. Municipal by-laws often regulate the allowable noise levels (Db) and also stipulate at which hours increased levels or decreased levels of noise will be allowed. Although shopping centres attract large quantities of vehicular movement, the fact that that the shopping centre would not be operating during the night was deemed as reasonable in the case of Stellenbosch Square Shopping centre. With the other developments all being mainly residential means that normal noise level regulations would apply in this area. One concern is during the construction phases of developments. Jamestown is located on a slope/hill and therefore noise could easily travel up or down this hill affecting residents in faraway areas. The concerns from the public did not often make mention of noise pollution; however, increased amount of traffic might be reason for concern in this respect.

6.3.6 Managing the identified environmental effects

6.3.6.1 Environmental Impact Assessments

6.3.6.1.1 Assessing the impacts on natural resources

Environmental Impact Assessments was listed earlier in this chapter when it was suggested that the PPP as part of the EIA process must be improved. When looking at management tools with

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which to address environmental effects, the EIA process itself could arguably be the best management tool, with the help of the different aspects it has embedded in its process. The EIA process is initiated at the planning phase of the development and it is the responsibility of the environmental consultant to identify what potential impacts might arise from the proposed development and then decide what impacts must be further assessed by relevant specialists. Although the EIA focuses on social and economic aspects, it is fundamentally an environmental process which is tied down by the NEMA and other principles and objectives embedded in the environmental conservation of resources. Therefore an EIA report makes significant efforts to protect natural resources such as indigenous vegetation, dams, wetlands, rivers and the likes. This is evident in the EIA report done for the Aan De Weber Residential Estate. This EIA process made use of a botanical specialist which placed emphasis on how, where, which, where and what type of vegetation is conservation worthy and which must be rescued. This botanical specialist then also suggested what indigenous vegetation must be replanted by the landscaper after construction has taken place. This process was applied in relation to other environmental resources in Jamestown such as the wetlands and the dam in the De Zalze Golf Estate. All these environmental resources were assessed and alternative development proposals were made, each indicating the potential impacts of different development techniques on the natural resources. According to these findings, decisions are then made on what would be the preferred development style. All environmental resources assessed by the respective EIAs have been given the necessary attention and is being managed under the ambit of other management tools, which will be discussed later in this section.

6.3.6.1.2 Neglecting to identify a specific resource

The one environmental resource which did not get the necessary attention is the quality of the Blaauwklippen River. Evidence of this can again be seen in the EIA report of Aan De Weber Residential Estate (Withers & Jasson, 2006: Table 1). One of the I&APs at the public meeting raised concern about who will take responsibility for solving the water problems in Jamestown. This time the environmental consultant simply responded by saying that this was the responsibility of both the developer and the municipality and that this should be addressed if this becomes a problem. By shifting the responsibility of this issue onto other parties, this was not assessed as part of the EIA process. The HRDP (2013) video suggests that poor water sanitation

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is now a major problem in Jamestown and that the residents' health is suffering as a consequence, as also illustrated in chapter 5 of this study. In this video, residents also suggest that this has not received the desired attention along with other issues such as other a lack of sanitation facilities (HRDP, 2013). Although it is not necessarily the responsibility of the environmental consultant to ensure that all such matters are addressed, if more attention was given to this issue, a relevant assessment would have been done by a qualified freshwater specialist and recommendations would have been made regarding the management of this river. It could be argued that this river does not necessarily affect the Aan De Weber Residential Estate, and that therefore it was not assessed as part of the EIA process, or it could have been a shortcoming of the EIA process that this aspect was not assessed.

Due to only one consultant being responsible for commissioning the EIA report, mistakes can often be made. These mistakes could lead to a certain aspect not being investigated or being biased in a certain way, either because of personal beliefs or by the fact that consultant are being paid by the developer and therefore promotes approval by being unethical and not applying the principles of best practice. What is important to note is that the relevant authority (in this case DEA&DP) makes the decision to approve of, or reject a development based solely on the information contained in the EIA report. Therefore the environmental consultant responsible for commissioning the report cannot afford to not be 100% accurate and truthful in the EIA report.

6.3.6.1.3 From planning to implementation

The EIA is based on the planning phase of a proposed development, assessing the potential impacts that the development might have and then formulating these findings in a way that suggests how these impacts might be mitigated. Once all assessments have been undertaken and the proposals have been put into the report, the report is then sent to the DEA&DP for decision making. SEAs are also often used as a more detailed assessment of how development in a general area can be guided to most likely ensure environmental sustainability. Other methods such as EMFs can also be used to guide environmental assessments, both of which were discussed as management tool in earlier chapters of this study. What is of concern to this part of the study is the way in which the recommendations in the EIA report are actually implemented

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during the development. One way of ensuring that the identified mitigation measures are actually enforced is by means of EMSs or EMPs.

EMSs are systems which ultimately aim to align implementation processes to fit within the guidelines of IEMs. Development organisation usually has an EMS in place with which to address the impacts that the proposed development might present and by so-doing, ensuring improved environmental performance. Due to the fierce competition in the development field, companies usually benefit from being environmentally conscious and therefore often resort to having an EMS in place. Due to a lack of available information, it could not be assured that the development companies responsible for the development in Jamestown, actually worked according to an EMS. However, in most cases they did have EMPs to ensure environmental compliance.

The EMP is a requirement as part of the EIA process. The EMP contains general rules and guidelines ensuring that construction activities do not affect the environment. The EMP also contains the mitigation measures set forth by the EIA report. The fact that the EMP is implemented during construction phases means that by then the development has been approved on the basis of the findings and requirements of the EIA report, making the EMP purely an implementation tool.

De Zalze Golf Estate has an EMP commissioned which was implemented during the construction phase, which guided construction in a way that would not cause detrimental environmental impacts in itself. This document is not in use any longer and was replaced by a more substantial EMS document. This document is a good example of how effective implementation documents can be. This EMS document makes specific reference to the upkeep and maintenance of all the environmental resources within the De Zalze Golf Estate. This is deemed a vital component or management tool to ensure that the EIA process covers all environmental aspects, ranging from the planning phases to the physical construction activities of a development. Another aspect of the EMP document is that it includes instruction for the operational phase of a development. After completion of construction activities, the environmental resources still need to be managed and maintained in order to ensure that the

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benefits of these resources are not lost and neglected. The EMP has specific methods and plans on how to maintain these resources during the operational phase, as well as who is responsible for ensuring that proper maintenance is in place. The EMP usually assigns this responsibility to the HOA of the development. The HOA in itself is viewed as an effective management tool in this study and its characteristics will therefore be discussed.

6.3.6.2 Homeowners Associations

As depicted in the earlier chapters in this study, the HOA is a committee which is established once a development is initiated. The HOA is the responsibility of the developer until the first residents start occupying units in the given development, and then the HOA becomes the responsibility of the actual home owners of a development. Funding for activities is obtained by means of levies paid by the home owners in the development, as set out in the constitution of the HOA. This constitution contains the roles and responsibilities of the HOA committee as well as the residents. De Zalze Golf Estate is once again a good example seeing that they have a large HOA, which is responsible for the general maintenance of the development. The HOA of De Zalze also provides for an environmental manager, responsibly for the environmental management of the development. The EMS document stipulates ways in which the resources must be managed and lists several activities, together with timeframes, that must be implemented by the HOA.

Activities include the maintenance of the part of the river that flows through the property, maintenance of the treatment plants, habitat creation in the wetlands and dams as well as the landscaping of the development. One issue with the EMS is that there is no regulating authority to ensure that the requirements of the EMS are in fact implemented. However, the environmental authorisation of gated developments normally stipulates that an environmental audit is undertaken every 6 months and the person undertaking the audit then reports back to the authority with regards to compliance with the EMS.

As is evident from the above, environmental resources should not only be managed during construction phases of developments, but also during operational phases. Therefore the EMS or EMP document is a vital management component of the overall EIA process. To stress the

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importance of these documents, the example of the La Clemence Retirement Village can be mentioned. Due to this development being approved under the old EIA regulations, the development did not need to undergo an EIA process and subsequently has no EMS or EMP in place. The HOA of this development is therefore not responsible for ensuring environmental sustainability in any way. This should not be allowed to happen in future developments as several benefits are lost without such an environmental management document.

6.3.6.3 Trusts

As mentioned earlier in this chapter, the HOA is usually responsible for the management of a trust, if it is set up. The trust was discussed in terms of addressing social issues; however, the trust can often be used for maintenance of upgrading of environmental factors, or in some cases solely to address the environmental effects that might arise as a consequence of the given development, as per effects highlighted above. The mismanagement of the trust was highlighted in the previous sections; however, the mismanagement of the trust can also occur in relation to environmental matters. In the case of De Zalze Golf Estate, the trust is being used to cover the costs involved in fulfilling the requirements of the EMS document. Although the environment is benefitting, it is mainly to the benefit of resident of the development itself, as members of the public do not have access to these resources. In the case of river maintenance, it could however be argued that pollution stemming from up-river is being addressed by the maintenance of the river in the De Zalze Golf Estate and therefore using the trust in this manner is somewhat justified, as it contributes to the greater good.

Although such an argument might be valid in some cases, it would allow for even further mismanagement if the HOA of all developments were left to decide over the allocation of the funds in the trust. If promises were made regarding benefit-sharing, this should be written into conditions of approval and strictly enforced by the municipality.

Therefore it is also imperative that the requirements in the EMP or EMS document are clearly planned and stipulated and that the compliance with this document by the HOA is monitored. In this regard the EMP documents, together with the functions of the HOA are pivotal management tools which can ultimately ensure the sustainability of the positive effects of gated developments.

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6.4 Conclusion

This chapter has aimed to summarise the core social, economic and environmental effects of gated developments in Jamestown, based on findings of the case studies in chapter 5 of this study. After putting these effects into perspective, this chapter aimed to explore how to address these effects by means of management tools. Several management tools were used to either directly address a given effects, whereas other management tools were highlighted as contributing tools to support the greater management systems, frameworks or plans to more successfully address the identified effects. It must be noted that this chapter has been based on the premise that the goals, objectives and principles of the relevant laws, policies and plans as unpacked in detail in chapter 4, be applied to address the mostly case specific effects of gated developments in Jamestown.

After unpacking the different effects, it became evident that the outcome of these effects often stem from interactions with other effects, which cannot always be addressed directly. It has also been found that some management tools can address more than one issue, often in more than one dimension, such as EIAs, EMPs, IDPs and LUSs. Also evident is that all the identified laws, policies and plans have a role to play in regulating development in some way or another.

This chapter has also aimed to make recommendations and suggestions as to how laws, policies and plans of all spheres of government can be adapted and implemented to allow for the mitigation or promotion of the identified effects. Some management tools were very case specific, such as SDPs and HOA Constitutions, and others could be applied to gated developments on a national level. One thing that is concrete is the fact that the lack of implementation of provisions in existing legislation was often found to be the main reason for the existence of these social, economic and environmental effects. The increased involvement of authorities is one way of further ensuring implementation. Increased responsibility and accountability by authorities would also ensure better integration between environmental decision making and developmental decision making, which in turn would ensure that one aspect is not traded-off for another.

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One aspect that has not received much attention in this chapter is sustainable development. It must be understood that sustainable development is an overarching concept which entails certain objectives, goals and principles towards which these management tools must strive in order to shape development in a way that will ultimately lessen the negative effects and enhance the positive effects of gated developments in Jamestown. Only once all management tools have been aligned and shaped in a way that allows and enforces social, economic and environmental effects to be managed in a way that is sustainable, will society as a whole benefit and future generations not be disadvantaged as a consequence.

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Chapter 7: Conclusions and Recommendations

7.1 Conclusions

Urbanisation in South Africa has led to increased crime levels, as well as increased perceptions of crime, and this in turn has led to increased numbers of exclusionary developments. Jamestown in Stellenbosch is no exception and is now home to various upmarket gated developments. These developments have led to various issues and challenges that affect the local community of Jamestown.

This study has aimed to provide an interpretive theoretical base and historical perspective of gated developments in South Africa, by illustrating the various types of gated developments in South Africa, as well as how gated developments have become a major role player in development patterns in recent years. Furthermore this study explored the various factors which led to the popularity of these development types, with crime and insecurity being the most evident reasons for residents selecting these types of developments. Although there is a debate whether gated developments do always guarantee the safety of its residents, these developments are perceived to create a sense of safety and have thus become very popular. This study has found safety as one of the biggest positive elements of gated developments, together with other factors such as increased protection of natural resources and in some cases giving back to the local community in the form of trusts.

On the other hand, exclusion was found to be the biggest negative element of gated developments. Gated developments in Jamestown have hindered the development possibilities for poorer communities in the area, and have also caused a further divide between the classes of people currently residing in Jamestown. These developments have also caused the characteristics of the town to change from agricultural to residential.

This study has explored the current laws, policies and plans at national, provincial and local levels of government which play a role in guiding development into a desired direction. Various acts and policies play a role in decision making; however, they might not necessarily address development directly. Some of the main management tools identified in this study are summarised in table 7.1 below.

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Table 7.1. Most significant management tools with which to manage gated developments.

Instrument	**Title**	**Description**
Law	NEMA	Provides the framework for the protection and sustainable development of environmental resources in South Africa
Law	SPLUMA	A framework for spatial planning and land use management in South Africa
Law	WCLUPA	Provides a framework for land use planning and management in the Western Cape
Policy	IDP	Tools used by local municipalities to plan future development in their respective areas
Policy	SDF	Part of IDP documents that deal with spatial planning in specified areas
Plan	WCSDF	Future document still to be finalised, which will deal with spatial planning in the Western Cape

By looking at a wider scope of laws, policies and plans, it has become evident that there is a need for all these documents to be better aligned in order to achieve the desired outcome. There is evidence of fragmentation across the laws, policies and plans of the different spheres of government and this ultimately affects the implementation of these laws, policies and plans.

Additionally this study identified the possible effects of gated developments in the Western Cape, and more specifically in Jamestown. By looking at Jamestown from a planning perspective, the contrast between low-income households and high-income developments are very apparent. Other effects stem from this type of inequality; but social exclusion often creates a volatile atmosphere between the residents of these new gated developments and the original residents of the town. Although these developments also offer positive effects and opportunities to the local communities, concerns and issues often overpower the positive outcomes. Benefit-sharing is an important element that requires more attention and clearer guidelines and conditions.

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This study specifically focused on highlighting and identifying the possible effects (positive or negative) that gated developments impose on Jamestown, not only by studying the literature, but also by examining practical examples of these types of developments in Jamestown. Using De Zalze Golf Estate, Aan De Weber Residential Estate, La Clemence Retirement Village and the Stellenbosch Square Shopping Centre as case studies, chapter 6 of this study identified the various effects that arise from these developments. It is apparent that some effects are general, while other effects are very site specific. Some of the most significant effects are highlighted in table 7.2 below.

Table 7.2. Summary of significant effects highlighted in the case studies in Chapter 5.

Source	Social Effects	Economic Effects	Environmental Effects	Management tools with which to address these effects
All case studies	Increased security in all gated developments; Residents outside of gated developments are excluded from social opportunities; A lack of public participation means that local community members do not always have a say with regards to these developments. A lack of benefit sharing is also a crucial effect that has been noticed in discussion in chapters 5 and 6. Increased benefit sharing need to be prioritised.			More effective PPP as part of both the LUPO/LUPA process and the EIA processes will give community members a chance to raise concerns prior to approval of these types of developments.
		Construction of these developments		The EIA process should clearly indicate what

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		means increased employment opportunities for local community members; Property values and taxes of all properties increase due to the presence of these high-income developments.		percentages of workers must be employed from the local community as well as identify a local supplier of building materials if possible. This will ensure that the local community benefits from these economic opportunities.
			Resource conservation inside these developments is a positive element for the environment. Various local community members are being deprived of access to land. Visual, traffic and noise impacts from these types of developments might negatively affect areas such as Jamestown.	Local community members must be informed by the PPP process that this is private land on which these developments take place, thus they would have had no access in any case. In turn, HOAs of these developments must be held responsible for the conservation of natural resources within the boundaries, and must do so at their own cost. The EIA process should determine the visual, traffic and noise impacts prior to approval of these developments, and also provide ways in which to minimise these effects.

As is evident from table 7.2 above, all the case studies lead to very similar general social, economic and environmental effects, with one or two site specific issues. Existing management

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tools cannot necessarily be used to curb the negative effects directly; but all tools mentioned in the study shape the way in which development is allowed to take place, thus ultimately indirectly having an effect on the social, economic and environmental effects discussed throughout this study.

This study also explored the management tools found in the identified laws, policies and plans (in chapter 4) and in the literature, with which to guide the planning, construction and operation of these developments in a sustainable manner and manage the effects identified in chapter 5. The aim was not only to mitigate negative effects, but also to maintain or improve the positive effects. It was found that although many of these management tools do address the identified effects, there are often gaps in the tools or they are not always being implemented effectively. Although this might illustrate a bigger problem in the planning system, it is evident that there is still a need for laws, policies or plans to be implemented, but that it is also an example of how important it is to align all laws, policies and plans at all levels of government, in order to effectively use these management tools to address the effects that have arisen as a consequence of the presence of gated developments in Jamestown.

7.2 Recommendations

Lastly this study in its entirety aimed to ultimately guide development in a way which would mitigate the effects connected to exclusionary types of developments and by so doing, promoting sustainable development. Sustainable Development as a concept has been discussed, together with what is required to achieve sustainable development. When looking at development laws, policies and plans in South Africa, a concerted effort has been made in recent years to move in a more sustainable direction.

One thing that must again be noted is that although the identified effects can often be addressed by the management tools identified in this study, the preferred option should have been not to approve these types of developments in specific sensitive areas such as Jamestown. Together with the promotion of sustainable development, there is a need to maintain the character of historic South African towns and villages. This is being dramatically altered by allowing the development of exclusionary types of developments in such areas. Instead of allowing gated

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development in such areas, more inclusive solutions should be considered. Various inclusionary and social housing policies have been in development at all levels of government. However, these policies have not yet been finalised and implemented. It is recommended that these policies be fast tracked and that every municipality develop a gated development policy. Once such policies are in place, they can be used as additional management tools. Access to housing is one of the fundamental human rights mentioned in the Constitution, which can provide a platform for achieving higher standards of living, but only if the housing is part of inclusionary development.

This study has not specifically aimed to create a new understanding of the effects of gated developments, or to contribute new research in this regards, but rather to clarify what the effects of gated developments are. With the use of case studies it has been illustrated in practice how these effects play a role in shaping the characteristics of Jamestown. Prior to future gated developments being approved, this study might be helpful in understanding what some of the major effects are in regards to gated developments, which in turn would allow for these effects to be given the necessary attention in the planning phase of a project. This study thus suggests that although the case studies mentioned above are already in operational phase, future developments similar to these can be better managed. The findings of this study suggest that most of these social, economic and environmental effects can be minimised during the planning phase of future developments, and by making sure all promised improvements are clearly written into the conditions of approval. Once a development has been approved, developers have to respect the conditions on which approval was granted. Thus it is of vital importance that these effects be dealt with prior to approval, meaning in the planning stages of such a project.

Only if the goals and objectives of sustainable development are clearly defined and aligned throughout the management tools of all spheres of government, will development take place in a more sustainable manner. In order to increase the positive effects and mitigate the negative effects of these developments, more strategic planning is recommended to guide the planning, construction and operation of these developments in a sustainable manner. Although some of the discussed management tools are already being used to address some of the effects in some cases, the case studies of Jamestown have identified aspects that were not receiving the necessary attention and which need to be addressed in order to manage the sprawl, fragmentation and

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exclusion associated with gated developments in chapters 5 and 6. This is needed in order to make planning more sustainable in the long run.

7.3 Future Research

It is suggested that future research be conducted based on the findings of this study. Having identified the effects of gated developments, future developments could perhaps be assessed with the findings of this study in mind. This could prevent the negative effects highlighted in this study to be carried over into new developments. The positive effects highlighted in this study can be used to assist future studies with enhancing approval criteria for future developments. Further research could be conducted in regards to the more general effects highlighted in this study, making the findings of this study more usable for all developments types.

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