

**Relationships between Conservators, Community Partners and Urban
Conservation Areas: A Case Study of Nature Reserves on the Cape Flats**

Lameez Eksteen

2646105

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Supervisor: Professor Sally Peberdy

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Abstract

Relationships between conservators, community partners and urban conservation areas: A case study of nature reserves on the Cape Flats.

Cape Town is a unique city. It has a global biodiversity hotspot, in the midst of an urban area. Historically, nature conservation practice excluded and marginalized certain groups of people based on their race and class. This has led to peoples' disconnection from nature. Rapid biodiversity loss is a major concern for conservators. In the last three decades, there has been a paradigm shift in conservation practice in certain parts of the world. The Cape Flats Nature programme based in Cape Town followed suit and aimed to stimulate a bottom-up participatory approach to conservation and replace the traditional top-down management strategy. The programme was tasked to reconcile the challenges of complex and conflicting relationships between urban poverty, unequal access to resources and biodiversity conservation.

This study was aimed at investigating the relationships between conservation management, community partners and urban conservation areas. These relationships are vital for the progression of new conservation practice in places where people live and work. In addition, the transformative aspects of conservation in relation to social inclusion and the shift in conservation approaches was investigated. The study was conducted at five of Cape Town's nature reserves, Edith Stephens Wetland Park, Macassar Dunes, Harmony Flats, Wolfgat and Witzands Aquifer Nature Reserves. Data collection included in depth interviews with key informants from various conservation organizations, the Cape Flats Nature Programme team, the managers of the selected reserves and community partners. Others included observational methods and analysis of secondary data.

It was found that relationships between conservators and local communities are not easily created and maintained but relationships regardless of its depth are equally beneficial to communities and the conservators. Balancing social needs with conservation needs is a struggle for conservators but many successes came in cases where this balance was realized. In addition, the transformation of conservators' identity has changed community perceptions of conservation practice holistically. Although, many informants feel that transformation continues to remain unequal.

Keywords

Biodiversity conservation

Community conservation

Community ownership

Conservation managers

Community partners

Urban conservation area

Cape Town

Transformation



Abbreviations

ANC-African National Congress

BEE- Black Economic Empowerment

BotSocSA- Botanical Society of South Africa

C.A.P.E- Cape Action for People and the Environment

CBC- Community-Based Conservation

CBNRM- Community Based Natural Resource Management

COCT- City of Cape Town

CFN-Cape Flats Nature

CFR-Cape Floristic Region

ECA- Environmental Conservation Act 73 of 1989

IUCN- World Conservation Union

NEMA- National Environmental Management Act 107 of 1998

NEMBA- National Environmental Management Biodiversity Act 2004

NEMPA-National Environmental Management Protected Areas Act 2003

NGO- Non Governmental Organisation

SANBI- South African Biodiversity Institute

SanParks- South African National Parks

TMF- Table Mountain Fund

WWF- World Wide Fund for nature

Dedication

This dissertation is dedicated to my parents, for understanding the value of education and instilling a passion for learning within your children.



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Declaration

I declare that *Relationships between Conservators, Community Partners and Urban Conservation Areas* is my own work, that it has not been submitted for any degree or examination at any other university and that all sources I have used or quoted have been indicated and acknowledged by complete references.

Signature:.....

Date:.....



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Chapter 1: Introduction

South Africa is a country well-endowed with natural resources and rich cultural diversity. The indigenous people of the country have for centuries implemented various forms of traditional conservation systems to regulate natural resource use. Western conservation methods have attempted to replace these traditional conservation systems in the last 200 years (Matowanyika, 1991). European settlers caused a dramatic increase in hunting activities, particularly hunting big game and, in response to the rapid reduction of resources; they introduced their own conservation systems (Carruthers, 2007). Natural landscapes were officially proclaimed as preservation areas and were consequently fenced off to keep people out. As a result, communities native to these areas were dispossessed of their place of birth (Kepe, 2004). The apartheid system further excluded black people from visiting and working in managerial positions of nature conservation areas (Carruthers, 2007). This created a generation of people who would increasingly become disconnected from nature and consequently, many black¹ people's perception of nature conservation over the years was that it is a career and recreational activity for white persons only.

In some places where poverty, inequality and marginalisation co-exist with nature, communities tend to rely directly on the conservation areas for sustenance (Pisupati, 2004). This contributes to the prevalence of illegal poaching activities, unsustainable harvesting of natural resources and an increase of species extinction. In urban regions, where land is limited, nature conservation areas encounter the additional challenges of competing for land for infrastructure and housing. The pressure is exacerbated when population growth is on the rise and the gap between poverty and wealth becomes greater.

The population of Cape Town is estimated at 3, 8 million people (Stats SA, 2011). In addition to this, the population is growing rapidly. Parnell *et al*, (2006: 2) suggest that "Cape Town is the migration capital of South Africa, migration to the city accounts to 2.6 percent of its growth rate." The city's population grew by 20.9 percent between 2001 and 2007 (CoCT, 2010). Cape Town is also one of the most unequal cities in the world (McDonald, 2008). The difference between rich and poor is continuously expanding. The highly segregated and

¹ Here black refers to the Statistics South Africa race categories of Black inclusive of black African, Coloured and Indian/Asian people

racialised nature of Cape Town sets it apart from any other city in the world (McDonald, 2008). The city faces increasing urban poverty and is characterised by overcrowded and impoverished dormitory settlements (Parnell *et al*, 2008). The consequences of social factors such as rapid population expansion and the increasing urban poor on Cape Town's natural environment are therefore vital to consider. This is corroborated by Holmes *et al* (2012: 28) who suggest, "Rapid growth of Cape Town is eclipsing critical biodiversity areas and the ecosystem services they deliver." It also places further pressure on remnant biodiversity for urban development.

The city is located within the Cape Floristic Region (CFR), which is geographically the smallest of the six floral kingdoms in the world but has the most species diversity (COCT, 2008a). The city is situated within an area of high biodiversity and conservational value and is deemed a "global urban conservation hotspot with no parallel" (COCT, 2008a: 4). Yet, Cape Town has the world's highest rate of plant extinctions within an urban area (COCT, 2008c:15). Conserving these endangered ecosystems is therefore critical for Cape Town. South Africa is signatory to international agreements² to reduce biodiversity loss and is mandated by national policy to conserve biodiversity. Cape Town also generates revenue through tourism activity attracted by its natural resources.

Biodiversity protection faces a great deal of challenges. Conservation in South Africa has historically taken a fortress protectionist approach, keeping people out and preserving fenced off nature in its most 'pristine' form. When people are excluded from nature it results in a disconnected relationship between people and nature. This is an environmental and conservation injustice to both the people and the natural landscape. Accompanying this, post-1994, is the restitution of protected land back to dispossessed communities.

The study therefore focuses on a new visionary approach to conservation practice that aims to reconnect people with nature. Biodiversity conservation policies at international, national and local government level suggest that conservation should be used to reduce poverty and provide direct benefits from biodiversity to disadvantaged communities (CBD, 1992; NEMA, 2003; NBA, 2004; NEMPA, 2003). However, there remain huge gaps between policy and implementation.

² These include World Charter for Nature (1982), the Rio Declaration on Environment and Development (1992), and the Convention on Biological Diversity (CBD, 1992)

In the last thirty years, a different approach to natural resource use and conservation was developed called Community Based Natural Resource Management (CBNRM). CBNRM and its related acronyms³ have been implemented especially in rural communities of third world countries where the local community lives within or adjacent to natural resources such as freshwater, marine ecosystems, minerals, forests and biodiversity. Based on the broader principles of CBNRM, a progressive experimental programme called Cape Flats Nature (CFN) (from here on referred to as the programme), was established in Cape Town.

The CFN programme was established in 2002 in collaboration with various conservation organisations in South Africa including the City of Cape Town's Biodiversity Management branch, South African National Biodiversity Institute (SANBI), WWF-SA's Table Mountain Fund (TMF), and Botanical Society of South Africa (BotSoc) (Pitt and Boule, 2010). The programme introduced a new vision and challenged the way in which conservation was traditionally practiced. As part of their transformational vision for conservation, the identity of the conservator also needed to change in order to change local peoples' perception of conservation practice and possibly society's holistic perception of who the custodians of nature are. The programme was implemented at five partnership sites managed by the City of Cape Town. They include Wolfgat, Macassar Dunes, Harmony Flats, Edith Stephens and Witzands Aquifer Nature Reserves. These nature reserves, along with their associated managers and community partners have been selected as a focus group and study area sites for the purpose of this research (see Figure 1).

The Cape Flats Nature programme has subsequently closed during the course of this research process in 2011, but this created an opportunity to evaluate the programme's effectiveness after closure and establish lessons learnt, mainly since it was the first of its kind, in South Africa's urban environment. In addition, it was also an opportunity to assess whether conservators⁴ at implementing sites continued to carry out the programme visions. The research particularly focussed on CFN's relationship building strategies and its emphasis on transformation in the conservation sector. The conservation areas are multipurpose sites, not

³ There are variants of CBNRM i.e. Community-Based Conservation (CBC) and Conservation Development Initiatives (CDI)

⁴ In the context of this research conservators refer to the managers of conservation sites, while conservationist refers to the general participants involved in conservation practice i.e. scientists, practitioners, members of conservation movements etc.

only are they intended to conserve biodiversity they also serve as a social space for community to interact with and engage with each one another.

This study is aimed at investigating the extent of community involvement in decision making and management of the respective conservation areas. If there is involvement, how does it influence the conservation goals for the space? In addition, I shall look at what role transformation⁵ has played in developing relationships with the community partners. In doing so, I shall examine the relationships between conservation managers, community partners and their related conservation areas in the urban landscape. These relationships are deemed to be important for the new approach to conservation and are vital for the success of long term conservation in Cape Town.

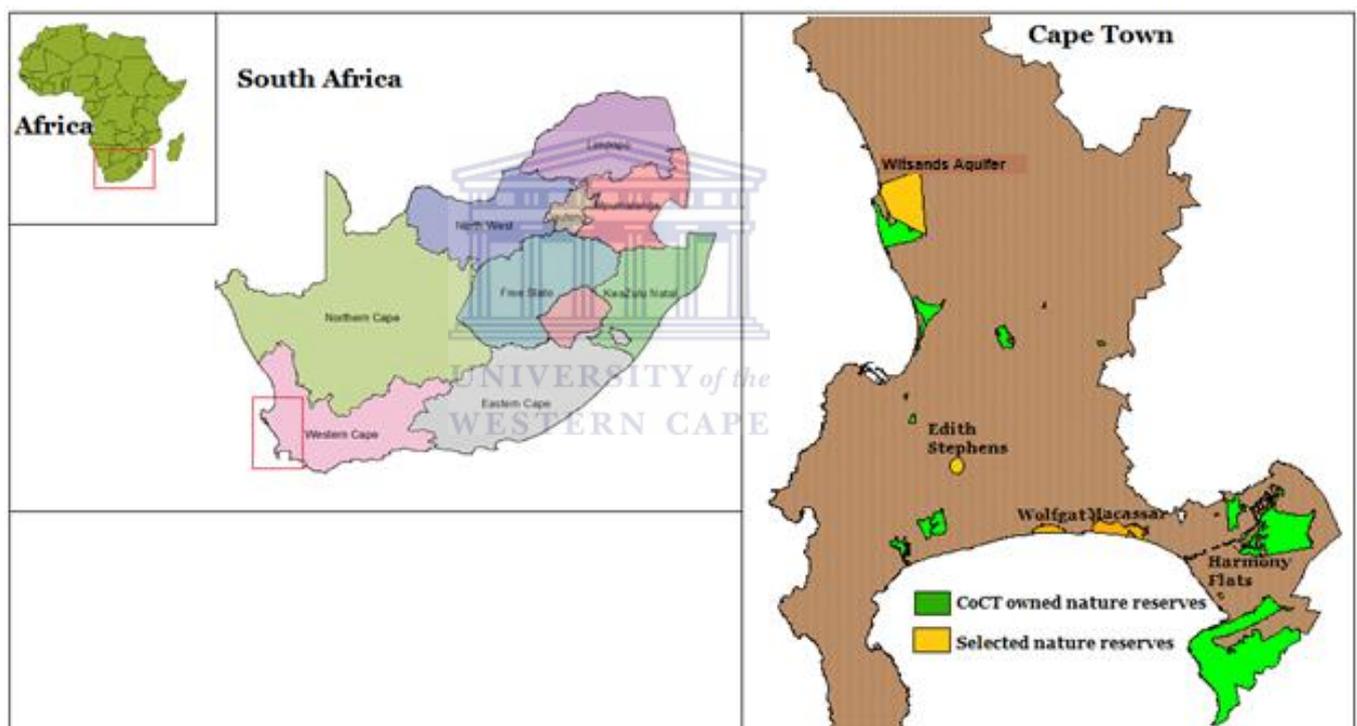


Figure 1 Study Area
(Source: Eksteen, L. 2011 using ArcGIS)

1.1 Rationale

People and the environment are usually seen as two separate entities. Although extensive research has been done on CBNRM and CBC in rural areas, very little focus has been placed on urban conservation areas (Child, 1993; Fiallo & Jacobson, 1995; Gadgil, 1992; Galvin *et*

⁵ Here transformation refers to the demographic inclusivity as well as the notion of inclusivity of people in conservation

al, 2006; Hill, 1983; Ramutsindela, 2004a; Pit & Boule, 2010; Western & Wright, 1994). Furthermore, very few successful CBC projects occur in South Africa and when they do, their focus is on rural areas where land is arguably cheaper and less contested than the urban environment. Central components of a successful CBC system are relationships of trust between stakeholders (i.e. conservators, communities, funders and scientists). The relationships between conservators, as ‘the face’ or representatives of conservation and the local communities, have been relatively unexplored. Conservators have an essential role in society, as they are the agents who link local people with local nature reserves and the environment at large through their day-to-day interaction with communities. The success of these relationships has the potential of developing long term, sustainable community development initiatives whilst ensuring preservation of vulnerable ecosystems.

1.2 Aims and Objectives

This is an in-depth case study of the relationship between conservators, the local community and the associated conservation area. The purpose of the study is to provide a detailed description of the relationships between conservators, community partners and their associated conservation area. The aim of the research is to determine whether relationships do exist and the benefit if any to the stakeholders. In addition, it explores the aspect of transformation in terms of how it is practiced (shift from traditional to inclusive) and demography (gender, race and class). The study therefore aims to achieve the following:

- Define the locational variables of selected nature reserves in terms of their socio-economic, cultural and political contexts;
- Investigate the relationships between conservation managers and the conservation area which they manage;
- Explore whether community participation occurs at the reserves and to what extent;
- Analyse the relationship between the conservators and the community partners;
- Investigate whether transformation in conservation practice has occurred at the selected sites
- Investigate whether demographic transformation has an influence on relationships between conservators and community partners as representatives of the broader community.

1.3 Chapter outline

The main considerations in the following chapters are outlined below:

Chapter 2: Contextualises the research problem by introducing an overview of people's relationship with the environment and the conservation history of South Africa. The chapter also highlights current thinking in the Community Based Conservation field and attempts to situate it in an urban context. In this chapter, Community Based Conservation refers to community initiatives which are set up by the community or the conservators in and around the conservation areas. This is done either to strengthen or uplift the community or to improve conservation efforts. In addition, the chapter explores transformation in South African conservation practice post-1994.

Chapter 3: Contextualises the discussion through an examination of Cape Town's social-economic-political and environmental characteristics. In this chapter the Cape Flats Nature programme is discussed in greater detail, giving insight into the aim, the successes and the closure of the programme. The research sites are also described in this chapter in terms of its historical overview, conservational significance and constraints.

Chapter 4: Describes the methodology used during the data collection process. The instruments are explained, including sampling methods, data collection process, data analysis and the limitations encountered in the research process.

Chapter 5: Presents an interpretation of the results obtained during data collection.

Chapter 6: Presents an overall conclusion of the study, an overview of main findings as well as recommendations made by both the respondents and the researcher.

Chapter 2: Literature Review

2.1 People and the Natural Environment

2.1.1 Complex Relationships

The relationship between people and the natural environment is delicate and complex. For centuries there have been various factors that influenced and completely altered this relationship. However, one thing remains, is peoples' unequivocal reliance on nature. There have been significant transformations over time which bring forth the current human-environment nexus. Hunter (2000) and Buscher and Whande (2007) attribute this to key factors such as population increase, improvements in technology for exploitation, the increasing distance between production and consumption, policy and cultural forces, environmental changes such as climate change and land use change. Over time, from hunter-gatherer societies through to the late industrial society, people have altered the way they use and interact with nature and consequently their perceptions of the natural environment. These have collectively contributed to the current state of the environment.

2.1.2 Evolving Relationships

Historically, it is assumed that pre-colonial societies had minimal impact on the environment. This is because they had low population densities, as well as unsophisticated agricultural and hunting practices. Kimble (1962) confirms this notion and said that before the 19th century, land in Sub-Saharan Africa was mainly used for hunting, gathering, herding and shifting cultivation. Murombedzi (2003: 1) however contradicts this and argues:

Pre-colonial Southern African societies were in fact consolidated with very high population densities. Agricultural and other resource extraction activities were very sophisticated and adapted to the requirements of specific resources and ecosystems over time.

Although this does suggest that pre-colonial societies had a greater impact than people initially believed, they also developed sophisticated mechanisms in conjunction with advanced technologies to regulate resource use. When population sizes became too large,

or they encountered economic pressure, they usually responded by moving to new uninhabited areas which had areas of great resource abundance and allowed the stressed area to replenish itself. This pattern does exhibit early forms of sustainability (Murombedzi, 2003).

In southern Africa, during colonialism, the indigenous people were introduced to Western ideas of nature that were previously unfamiliar to them. Ramutsindela (2004a: 5) suggests that “post-colonial societies were required to absorb Western concepts of nature. They were forced to observe relations between society and nature in ways that were, and in fact still are, alien to them.” This shows that indigenous peoples’ conservation practice methods, although not explicitly expressed as conservation, were not acknowledged and most probably were deemed insignificant by westerners who enforced their own ideas of conservation practise onto the locals.

2.1.3 The Western Relationship with Nature

The Western relationship with nature and related perceptions of conservation practice has influenced the way South Africans have practised and perceived conservation. Plumwood (2003: 54) categorises the relationship between colonisers and nature. For instance he argues, ‘Radical exclusion’ establishes the other as separate and inferior. Nature is treated as ‘other’, and humans are separated from nature and animals. At the same time, the colonizing groups associate themselves as masters of nature.

These classifications of the early Western perception of nature portray evidence of the Western perceived dichotomy between nature and people. Colonisers deemed themselves to be dominant and superior to nature. Since indigenous people were deemed to be as uncivilised as nature, the colonisers therefore dominated them as well. This suggests that ‘civilised’ (white) humans are at the top of the ‘food chain’ and they therefore have the power to control and manipulate nature (and black people) that was created to serve them. Pietarinen (1994) further identified Western relationships with nature in modern time i.e. Utilism: which evolved from seventeenth century modernism, and has been blamed for many of the social and ecological crises facing the world today. Again, humankind is the dominant faction and nature serves it.

If one compares Plumwood's (2003) colonial relationship with nature to that of Pietarinen's (1994) modern perceptions of nature, one can observe how the relationship between Western society and nature has evolved in the last 100 years. The influence of the Western conceptualisation of nature remains in present day African society and affects the way conservation is practised. These two schools of thought on Western relationships with nature have shown that their dominance of nature continues and even though its value is acknowledged nature is still believed to be a sub-order. This again alludes to the separated perception of the nature of the human dichotomy which Ramutsindela (2004a) refers to.

2.1.4 Relationships with the natural environment

Peoples' relationship with the environment varies with individuals. People all over the world express different concerns for nature, the environment and wildlife and these may not be in line with the views of conservators (Bolton, 1997). Not only does peoples' profession influence their perception but also their personal history and encounters with the environment. There are various influencing factors i.e., where people were raised, whether it was in an urban or rural area or whether their parents or others around them portrayed a positive or negative attitude towards the environment. Peoples' perceptions of nature ultimately determine how they interact with nature and the 'type' of nature which they prefer to interact with.

Modern societies are realising more and more the value of nature, in recent decades greater emphasis has been placed on green open spaces in urban areas in order to improve communities' quality of life (Miller, 1996). This has resulted in an emphasis and desire for urban conservation. As the city becomes more developed and urbanized so will peoples' desire for urban vegetation and remnants of natural areas. The preservation of urban natural areas is driven by different factors. The drive for conservation is dependant of the role player and their goals. From a city planning and economics perspective it is important for provision of eco-system services. Scientists use natural space as a platform to analyse and respond to environmental change. Psychologists might argue that the space is valuable for human well-being. The way in which people perceive nature and the values they attach to nature have never been static. Peoples' cultural values may remain for a given time but history has

shown that change is the rule rather than the exception, especially in recent times (Miller, 1996). Peoples' socio-economic characteristics and their cultural values may all influence how they interact with one another, with people of other cultures and with the natural environment (Miller, 1996).

For thousands of years human beings were directly dependent on nature for sustaining their livelihoods. Over time, there has been a gradual shift from living with nature in rural areas to living in built up urban areas. (Miller, 1996) suggests that as this shift took place, human beings redefined their relationship with the natural world continually to accommodate new discoveries and new modes of economic interaction. (Miller, 1996) further identifies the periods in which major change occurred globally. This included the transformation between the agricultural, industrial and the information eras. The introduction of agricultural technologies was revolutionary. People were able to control how and what they grow. This altered their relationship with the environment; their survival was no longer directly dependant on the environment. As change continued, so have the associated values to reflect socio-economic systems and different perceptions of people's and their relationship with nature.

Sinton (1971 cited in Miller, 1996) describes urban societies' value of nature. He distinguishes between people who directly draw sustenance from nature to people who spend their entire lives in urban areas and have periodic contact with nature in order to rejuvenate themselves. Then there are people who prefer a controlled form of nature. They only prefer occasional contact with nature such as having a few plants in their homes or visiting a zoo. These values determine the extent to which people prefer to interact with nature or are able to. Additionally, there is the common perception that nature merely exists in order to be exploited for the survival of humankind. Miller (2000) argues against this by saying academics are now beginning to understand the multiple effects of human intrusion and that the impacts of most of these 'intrusions' are unpredictable. Further Miller (2000) suggests that ideally we would like to reduce and mitigate the impact we have on nature and help nature speed up the self-healing process. This indicates that some people are conscious of their influence on nature and therefore aspire to act accordingly in order to reduce the harmful impacts on nature. While on the other hand there are also people who perceive nature solely for its economic, cultural or recreational resource use.

Wilson (1984) hypothesized the biophilia theory. He suggests that humans have an innate tendency to focus on life and life-like processes. Biophilia also proclaims a human dependence on nature that extends far beyond the simple issues of material and physical sustenance to encompass the human craving for aesthetic, intellectual, cognitive and even spiritual meaning and satisfaction (Wilson, 1984). Innate means hereditary or in-built and hence people are ultimately part of nature Wilson (1984: 32) suggests:

when human beings remove themselves from the natural environment the biophilic learning rules are not replaced with a modern version equally well adapted to artifacts. Instead they persist from generation to generation, atrophied and fitfully manifested in the artificial new environment. For the indefinite future more children and adults will continue to visit zoos as they do now, the wealthy will continue to seek dwellings on prominences above water amidst parkland and urban dwellers will go on dreaming of snakes for reasons they cannot explain.

This suggests that although people view themselves as greater than nature or find themselves estranged from nature in urban spaces inherently they seek to be a part of the natural landscape for reasons they sometimes cannot articulate.

There have been significant improvements in peoples' environmental consciousness. The big environmental issue of the 1980's was the announcement of the big hole in the ozone layer. The 1987 Montreal Protocol subsequently banned CFC's, the substance which caused the damage. Manufacturers and society were forced to use alternative products and this resulted in partial replenishment of the ozone layer (Shanklin, 2010). An example of changing environmental consciousness in South Africa was the governments ban on the free distribution of plastic bags. With issues such as global warming and climate change, people are constantly being urged in the media and other platforms to live sustainably and become socially responsible towards the living and non-living environment. International environmental conferences have highlighted attention on environmental issues to governments and the people. They include the 1972 Stockholm declaration of the United Nations Conference on the Human Environment, the 1992 Rio Earth Summit, 2002 World Summit on Sustainable Development and to date seventeen Conference of the Parties (COP) which started in Berlin in 1991 (UN, 2011). However, in some cases environmental problems need to have a direct impact on people before they become concerned with it. Therefore, if

people hear about environmental problems in the media or from someone else it does not have the same impact on them as if they were to directly experience it first-hand.

People and natural areas are usually seen as separate entities. One of the views is that pristine natural areas should exist as if they never had any interference from human beings. Other views encourage people to live in harmony with nature. However, Ramutsindela (2004a) suggests that “it is fruitless to encourage the development of practices that foster the society-nature nexus while our thought systems emphasise the society-nature dichotomy.” Therefore Kaimowitz & Sheil (2007: 567) argue that “conservation activities designed to meet people’s basic needs deserve more attention.” They argue that in the past nature conservation has only been focused on nature as an entity existing in isolation, when in reality there are people living within and around these areas and these are the people who directly interact with nature on a daily basis. It is important for thought systems to change. Environmental education is often relayed in abstract and not relevant to peoples’ specific contexts.

The notion of people living in harmony with natural areas such as nature reserves is not new. There has been immense research on nature conservation practice which aids community development, particularly in rural areas (Child, 1993; Fiallo & Jacobson, 1995; Gadgil, 1992; Galvin *et al*, 2006; Hill, 1983; Ramutsindela, 2004a; Western & Wright, 1994). These studies lobby for a change in perception of nature and for the inclusion rather than exclusion of people. Kidner (2001 cited in Ramutsindela, 2004a) argues that the destructive behaviour of society towards the natural environment is consequent of the frustration arising from the failure to integrate society and nature. This new approach to nature conservation is arguably not new because indigenous societies have historically sustained themselves and protected nature. It is however new to the Western ideology of nature conservation. Thus, the focus is shifted from a fortress, protectionist conservation practice to Community Based Natural Resource Management. This is done in an attempt to allow society to re-imagine and reconnect with nature. The question of who needs to re-imagine nature arises? Is it rural black societies who continue to be excluded from their ancestral land? Or wealthy tourists who go on romantic safaris on private reserves where wild animal are poached? The model of CBNRM targets rural poor, but what model is used for the urban wealthy?

2.2 An overview of Conservation in South Africa

2.2.1 Romanticised past

The conservation history of South Africa has romanticised the past (Khan, 1994; Ramutsindela, 2004a; Murombedzi, 2003). There are controversies about the history of the conservation movement of South Africa because many have claimed ownership of it. The important factors which shaped the contemporary socio-political context have been omitted or simply glossed over (Khan, 1994: 499). Some authors suggest conservation in South Africa started with Jan van Riebeeck's *placaatens* (Van der Merwe, 1962; Hey, 1977). Others argue that the British had a bigger role to play (Beinart, 2008; Carruthers, 2007). However, conservation has been practised in South Africa for many centuries before the colonial settlers arrived (DEAT, 1996). There is a misconception that pre-colonial societies lived in perfect harmony with the environment. It is however true that they had conservation methods in place to preserve natural resources (Khan, 1994; Carruthers, 1995; Murombedzi, 2003; Carruthers, 2007). (Khan, 1994: 158) further suggests that:

European perceptions of Africa and Africans as 'uncivilised' and whites as harbingers of progress and civilization were incorporated into the developing conservation ideology. This credo, as a reflection of the social attitudes of white cultural superiority, thus also incorporated the subordinate status of blacks within society.

It is for this reason that McDonald (2002: 1) regards the history of the environmental policy of South Africa as a cruel and perverse one, which was used as an explicit tool for racially, based oppression.

2.2.2 Pre-Colonial Conservation

Indigenous African societies such as the Khoi, San and Nguni tribes have practised natural resource management for centuries and they implemented various rules and procedures which regulated resource utilisation. Their methods included rich folklore, customs, taboos and religion which demarcated sacred spaces and isolated certain natural resources which effectively protected the environment (Khan, 1994; DEAT, 1996). In fact, much of African cultures and social consciousness is ultimately based on people's oneness with nature. Early conservation methods were developed in response to crises situations caused by natural disasters and not excessive extractive activities of humans (Murombedzi, 2003). Murombedzi (2003: 3) suggests that "local communities developed intimate knowledge of their ecosystems and used this knowledge to tailor systems of sustainable resource use and management that were appropriate for these systems." Khan (1994: 501) confirms this and provides examples of the Zulu people where, "both before and during the reign of Shaka, large forested and grassland areas were reserved for the exclusive use of royalty." Certain groups of the Basotho did not kill their totem animals, while others preserved certain insects (Hean and Mokhehle 1948 cited in Khan, 1994). The Batswana reserved a number of bird species solely for traditional healing and this effectively protected those species from being destroyed (Suping and Collisson 1988 cited in Khan, 1994). In Southern Zimbabwe, peasant farmers left trees untouched in cultivated areas (Wilson 1989: 502 cited in Khan, 1994). These methods may not have been formal but they were successful in avoiding resource depletion. These are all evidence that "Africans adhered to a well-developed traditional land ethic which was founded in the belief that the individual was an integral part of nature, not separate from it" (Khan, 1994: 502). This ideology is entirely opposite to Plumwood's (2004) and Pietarinen's (1994) categorisation of Western ideologies of nature discussed in section 2.1.

2.2.3 The Start of Western Conservation

Colonisation has not only changed the way in which nature was conserved but also the way nature was perceived by indigenous communities. Ramutsindela (2004a: 2) suggests that "post-colonial societies were required to absorb Western concepts of nature... they were

forced to observe relations between society and nature in ways that were and in fact still are alien to them.” By the end of the nineteenth century, the wildlife of South Africa was seriously depleted. This was caused by the intensification of sport and subsistence hunting, the acquisition of guns and domestication of pasturing cattle, goats and sheep (DEAT, 1996; Carruthers, 2007). Wildlife such as the quagga, blue antelope, addo elephant and cape mountain zebra, were becoming extinct and in response to this, numerous game reserves were created. Murombedzi (2003) explains that it was only when the numbers were depleted that nature conservation started. Conservation came with a consequence. McDonald (2002: 1) explains:

Under colonial and apartheid governments thousands of blacks were forcibly removed from their ancestral lands to make way for game parks and billions of rand were spent on preserving wild flowers while people in the townships and homelands lived without food, shelter and clean water.

In South Africa only the special interest wildlife was preserved. Predators like the lion were perceived to be vermin and were killed by game park rangers and farmers who believed they were a threat to their livestock (Carruthers, 2007). Murombedzi (2003: 10) confirms this by suggesting that “wildlife was considered vermin by the settler farmers that constituted a threat to cattle and agriculture and was destroyed.” The primary objectives of these game parks were therefore to rebuild the stocks of special interest wildlife, such as elephant and springbuck of which they used the hides, horns and meat for biltong (Murombedzi, 2003). Their goal was therefore not specifically conservation based but more a concern for certain commodities which was masked as conservation (Carruthers, 1995; 2007, 2008).

South Africa’s first national park managers were politically appointed. They were not scientists and did not need to have a zoological interest. They needed only conform to the political will of the time (Carruthers, 2007). Other than mining, commercial livestock and crop farming was the country’s main economic income and anything which threatened these were to be exterminated. This included wildlife animals which were predators and thought to carry disease. Evidence of this can be found in the tsetse fly and trypanosomiasis control and wildlife policy which allowed sport hunters to exterminate all wildlife in areas that had livestock from the 1920’s through to the 1940’s (Khan, 1994; Murombedzi, 2003). Foot and mouth disease also called for the elimination of all buffalo in proximity of cattle producing areas (Murombedzi, 2003). Often game reserves were perceived as worthless and agriculturalists lobbied for it to be converted into productive land. It was only by the late

1930's that botanists advocated that biodiversity should be conserved holistically across geographical borders and ecologically all species should be protected, not only special interest species. This was however opposed by the National Party government of 1948 who deemed that commercial agriculture was more important than nature conservation (Carruthers, 2007). The conservationist who was genuinely concerned about the depletion of the wildlife was left powerless. By the 1960's preservation policies had intensified in South Africa (Murombedzi, 2003). Despite this, scientists continued to struggle as their work had been disregarded. The people who were in control of conservation were the friends of politicians (Carruthers, 2007).

Later during the apartheid era more national parks were created and (Mackenzie 1988: 24 cited in Murombedzi, 2003) implies that the government's vision of conservation was "a vast outdoor zoo, an African rural idyll, designed to show a combination of urbanized whites what the 'real' Africa was like." Tourists however, wanted to see lions, which previously were seen as vermin, but now became one of the national parks biggest attractions. By the 1960's "Afrikaner nationalist mythology concerning the origins of national parks was promoted. Together with this was the adoption of new ideas of conservation biology and management that rejected the balance of nature ideology to a command and control mentality" (Carruthers, 2007: 213). Nature conservation ideology in South Africa was completely transformed once again which in the 1930's was preservationist, now the Afrikaner, the dominant, controlled where artificial waterholes would be placed, when the vegetation should be burnt and which wildlife to fence in. Ramutsindela (2004a: 2) therefore says that "Western concepts of nature and the practices emanating therefrom were codified in the national park idea." This is reiterated by McDonald (2002: 8) when he says "the national park system was the epitome of racist conservation in South Africa under colonial and apartheid regimes. The park system is now struggling to overcome its institutional and ideological past." The very concept of the national park seems to re-enforce power. To prove that, this 'space' filled with animals is deemed more valuable than a black African.

2.2.4 Conservation for Whites Only

When the apartheid regime was in full swing black South Africans were further displaced off their land and moved into homelands which were overcrowded and where soils were poor

and which didn't allow for agricultural practice. The game protectionist movement sought to exclude blacks by using the justification that claimed blacks were responsible for excessive killing. As a result the stereotyping of blacks as innately destructive of the environment and its resources was inevitable. This was the depiction of blacks as destructive to nature by many of the early writers. By this time conservation was adopted as the brainchild of Afrikaners and they therefore sought to employ only white people to work in national parks. Black people were not allowed to enter the parks as visitors, even if they could afford to. The Afrikaners wanted power completely unto themselves, not shared with English speaking white people. This required the restructuring of the civil service. Carruthers (2007: 221) explains that “this was an extremely important element in consolidating Afrikaner power... it was achieved by employing more Afrikaners in the National Park system.”⁶ Unfortunately this resulted in chaos as the conservation sector was characterised by disorganisation, fraud, laziness, drunkenness and the incompetence of wildlife managers (Carruthers, 2007).

The white citizens of the country were encouraged to have a strong nature ethic. Carruthers (2007: 213) suggests “Afrikaners deemed themselves as custodians of natural areas and therefore included them in their cultural ambit.” They felt a kinship with the natural landscape; it was therefore reflected in their art and poetry. The government had environmental education programmes, which taught white people about the indigenous flora and fauna. This meant that baseline information regarding species habits, distribution and interrelationships needed to be collected in order to disseminate the information to the people. Carruthers (2007: 218) suggests that “wildlife management was a science that linked wildlife and place in pursuit of nationalism. It was a scientific passion of a specific kind embedded in the idea of Afrikaners as outdoorsmen, but nonetheless men of science and of whites as custodians of well managed natural landscapes free of black Africans.” In 1965, the first academic training in wildlife management began at the University of Pretoria.

2.2.5 Separating People and Nature

The disconnection between people and their surrounding natural space started during the colonial era. Western nature conservation practice meant that national parks were to be

⁶ This was the start of ‘baantjies for boeties’, which translates into jobs for brothers. This was a strategy used to maintain power.

officially proclaimed, fences needed to be built and people had to stay out. This meant that many communities were displaced off their birth land. Murombedzi (2003: 7) suggests that “from the outset game legislation introduced a class and racial character to the exploitation of game by limiting access to owners of land who could only be the European settlers.” Some indigenous communities such as the San were allowed to stay in the reserves in the Kalahari and Gemsbok National Parks. This meant that in this case indigenous people were seen as part of the landscape and were just as wild and untamed as the animals. Carruthers (2007) confirms this as she suggests that the ministers who governed black people were also in charge of the wildlife and in some cases black people were even regarded as lower on the hierarchy than wildlife. It is for this reason that Khan (1994: 499) suggests “the environmental interest and attitudes of blacks have been ignored. This has most clearly been demonstrated by the prevailing reluctance to deal with facts which caused blacks to be hostile to conservation in general and to game reserves in particular.” McDonald (2002: 1) argues that “black South Africans and anti-apartheid activists paid little attention to environmental debates during the apartheid era... the environment was seen as a white suburban issue of little relevance to the anti-apartheid struggle.” Khan (1994: 499) further argues “that the colonial process of land dispossession through conquest and expansion, by physically alienating blacks from the land and by spiritually estranging them from their cultural and religious links with the environment had an extremely negative effect on the environmental perceptions of blacks.”

The meats of wildlife were to be excluded from black people’s diet. Murombedzi (2003: 14) suggests that “the enjoyment of game meat had to be a by-product of sport hunting and the game law was specifically designed to keep Africans away.” Despite the vast amount of white poaching activities recorded in game parks and the pro-hunting position of the government, blacks were still perceived as more destructive to nature. Evidence of this can be found in Stevenson-Hamilton (1937: 48 cited in Khan, 1994: 500) who argues that “black men were even more destructive to game than the white men”. In addition, Wolhunter (1948: 265 cited in Khan, 1994) who further says that “natives and game do not make congenial neighbours... they are completely callous to animal suffering in their insatiable lust for meat.” The black people who worked in national parks were referred to as native police while their white counterparts were game rangers. These job titles were racially discriminatory because the two did the exact same work. Ramutsindela (2004: 8) confirms this by suggesting that “racism in national parks was and still is articulated in different ways”. He further

explains (Ramutsindela, 2004: 8) that “National Parks provided the stage on which racial stereotypes and attendant practices could be played out as national parks became the arena for racial exclusions and domination.” Khan (2000: 151) says that blacks experienced a deepening sense of alienation from the environment as a result of their deliberate exclusion from the enjoyment of protected natural areas. This exclusion was particularly evident in national parks, where blacks were only tolerated in the role of menial workers and seldom as visitors, despite the fact that the National Parks Act of 1926 stated that national parks had been established for the benefit of the South African public as a whole. Ashwell (2010: 38) suggests that although “non-governmental organisations e.g. the wildlife societies and the parks conservation departments in some homelands provided non-racial nature-based education programmes, with the political changes in the 1990’s came the will to leave behind approaches that were considered vestiges of apartheid institutions and attitudes.”

2.3 Value of Urban Conservation Areas

2.3.1 Imagining the Urban



Urban areas are not usually associated with nature conservation areas. This is corroborated by Graves (2008: 1) who says “ecologists and conservators have historically tended to associate nature and biodiversity with rural areas and not something found in cities.” Instead, cities are defined by their high population densities, high-rise buildings, overcrowding and pollution (Miller, 2003; UNEP, 2002; Pacione, 2005; UN, 2006). The United Nations Children’s Fund (UNICEF) (2012: v) suggests that by “2050, 70 percent of all people will live in urban areas. Already, one in three urban dwellers lives in slum conditions; in Africa, the proportion is a staggering six in ten”. This value is expected to increase as the natural growth rate and the migration rates to urban areas are high, especially in developing countries. Urban areas are therefore under increasing pressure as growth occurs naturally or through the migration of rural populations into urban areas (UN, 2011). This has harmful environmental implications as the growth of population, their consumption patterns, travel behaviour and their urban economic activities, place increased pressure on natural resources and land availability for housing and landfill sites (UNEP, 2002). Cities Alliance (2007: 1) highlights the positive and negative impacts of cities:

cities are centres of excellence, bringing together innovators, entrepreneurs, financiers and academics. They attract a rising tide of humanity, of people hoping for a better life for themselves and their children. Cities provide opportunities, economies of scale, a future with more choices. And yet cities have also been blamed for causing environmental catastrophes, for marginalising communities, for diminishing the quality of life of the poor. They have been castigated as centres of disease, social unrest and insecurity. Cities are also at risk from industrial hazards, natural disasters, and the spectre of global warming.

Beyond the challenges faced by cities, there are also opportunities to address the challenges faced in cities and across the world. The city can be imagined as the brains of the world where there is a hub of expertise, knowledge, culture, learning and technological development. The city can be a country's access portal to the rest of the world and vice versa. Urban areas are also where major political decisions are made and since it is where the majority of the world's populations live, it is the ideal place to implement sustainable development ideologies, which ideally will infiltrate beyond the city's periphery and into the rural areas (UNEP, 2002). However, cities have long been viewed as places where nature ends and where urbanism begins, a perspective still prevalent today in many urban policy practices (Swyngedouw & Cook, 2009). We therefore need to change the way that the city is imagined to incorporate natural systems as part of the city's culture and functioning.

2.3.2 Why Conserve Biodiversity in Urban Areas?

Kidd (2008: 45) considers the need for biodiversity conservation vital because "not only do biodiversity and its components have intrinsic value, but also ecological, genetic, social, economic, scientific, educational, cultural, recreational, and aesthetic value." Furthermore, the Convention on Biological Diversity (CBD) (1992: no page number), in its preamble, recognizes that "biodiversity requires conservation because of its critical importance for evolution and for maintaining life sustaining systems in the biosphere." Further, the preamble recognises that the fundamental "requirement for the conservation of biological diversity is the in-situ conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings" (CBD, 1992: no page number). In an urban area this may be challenging because it requires setting aside nearly undisturbed space for purely conservation intentions in an area where space is highly competed for.

Despite being contested space, it is important to conserve remnants of natural areas because the rate of deterioration is increasing and it “contributes towards conserving biodiversity heritage for our and future generations’ enjoyment” (COCT, 2008a). Beyond the enjoyment Graves (2008) says nature in urban areas is essential to the quality of life, yet by its definition these spaces are filled with people and is therefore subject to greater pressure by development. Without conservation efforts the natural remnants will disappear from the city, taking along with it essential ecosystem services which are difficult and extremely costly to provide artificially. But how does a conservator justify the need to preserve land in a city where space is needed to build a school or a hospital? How is conservation prioritized politically and socially? Conservation therefore needs to provide tangible benefits which people can understand. Benefits where poverty exists should usually be economic value for it to be perceived as tangible to politicians and people. However, conservation areas are economic deficits to the country. It is only the Kruger National Park and the Addo Elephant National Park which produce a surplus income (Sisitka, pers. comm., 2012). Conservation therefore needs to produce a basket of values and the conservators have the added responsibility to get buy-in from people with emphasis on benefits and their usefulness.

It is important not to base the sole interest of conservation significance on economic value. The commodification of nature and marketing its service is a massive transformation of the human-environment relationship (Buscher and Whande, 2007). This is due to neoliberalism which conceptualises land, flora and fauna into natural resources where its principle value is the exchange and its right to exist is based on what people are willing to pay in monetary terms (McAfee, 1999 in Buscher and Whande, 2007). It is therefore important to reassess justifications of conservation areas, particularly in urban areas.

2.3.3 Urban Nature Conservation

Nature conservation in urban areas is able to link people with the environment instead of it being viewed as two separate entities which seem to exist in isolation of one another. Miller and Hobbs (2002) argue that very little research has been undertaken on conservation in urban areas. This is attributed to researchers who “held people as separate from nature and viewed natural systems undisturbed by human as balanced.” (Miller and Hobbs, 2001:331) For most city dwellers urban conservation sites may be the first and main contact with nature.

Ashwell (2011: 27) goes further “in South Africa with pressing socio-economic challenges, little research has been conducted into the value of nature for human well-being.” Borgstrom (2003: 1) argues “urban nature provides local ecosystem services such as mitigation of air pollution, reduction of noise, and provision of places for recreation and is therefore crucial to urban sustainable development. Nature conservation in cities is also part of the global effort to halt biodiversity decline.” The Boston Metro Ecological Unit (<http://www.umass.edu/urbaneco>: no page number) has developed a conceptual framework for human environment interaction in an urban area (Figure 2). The framework shows how all factors are interlinked and affect one another, especially in an urban context. The centre places emphasis on the critical role and need for research feedback. Particular emphasis is placed on direct feedback from ecosystems and human health. The framework shows the direct relationship between the present and future state of ecosystems on socio-economic, biological and biochemical outcomes. The state of ecosystems is however influenced by the socio economic processes which are driven by socio economic drivers. This again emphasises the major influence which socio-economic drivers have on the environment and their related benefits.

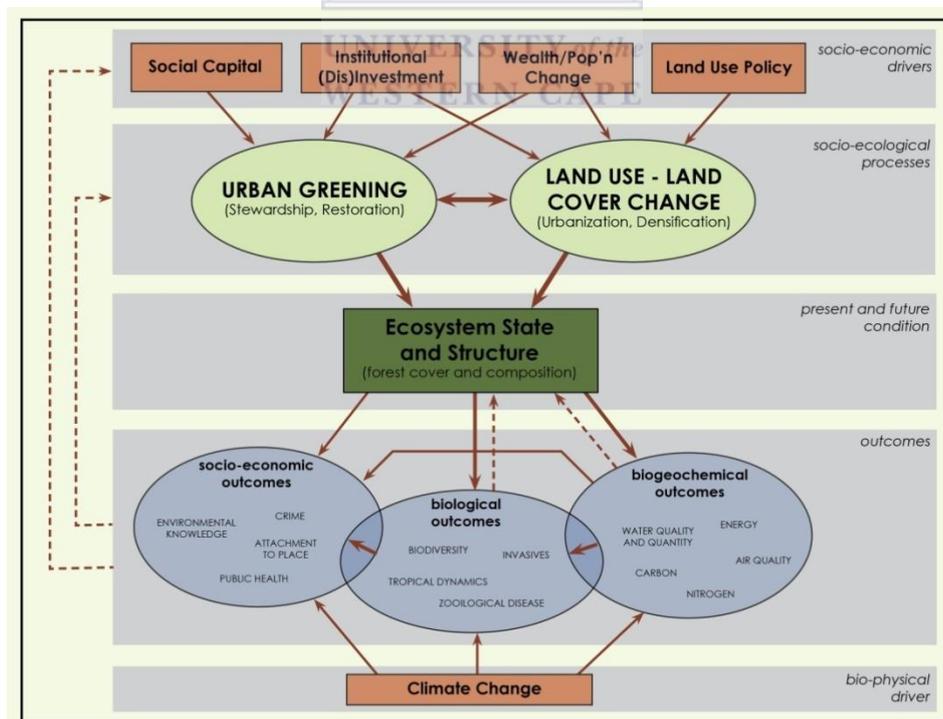


Figure 2 Ecosystem state and structure framework

(Source: <http://www.umass.edu/urbaneco/index.html>, 2011: no page number)

The concept of urban nature conservation may be difficult to understand initially. Kendle and Forbes (1997: xi) suggest that “urban nature conservation in itself can seem like an oxymoron.” This is because the urban area is deemed to be a human-made landscape, characterised by human activities. On the other hand, nature conservation is a “focused activity that addresses species under threat or decline” (Kendle and Forbes, 1997: xi). On the surface, conservation is the protection and preservation of endangered or threatened species. Yet, those threats are attributed to human induced activities such as habitat destruction and urbanization. The very nature of the urban area is to grow. Wheater (1999: 55) suggests “urban areas are not static - they are constantly changing and expanding.” The implications of such growth are often “increasing unemployment, environmental degradation, lack of service delivery, overburdening of existing infrastructure and lack of access to land, finance and adequate shelter” (UNEP, 2002: 240). In some instances the remnants of natural environments survive, yet in most cases it is further threatened by urban development. It is these natural remnants that are vitally important for the urban area ecosystem services.

Conservationists also tend to have a negative attitude towards biodiversity conservation in urban areas - this is because urban environments are generally perceived to be unnatural and unbalanced (Hamblen, 2004). This is because ecologists and conservators usually associate biodiversity with rural areas because it is more natural and therefore more worth protecting than that in cities⁷ (Glaves, 2008). Glaves (2008) further suggests that the idea that nature in the rural environment is seen as separate from the human urban environment dates back to the earliest settlements and therefore lost direct contact with nature. Negative attitudes towards biodiversity conservation in the urban areas are widespread because these areas are generally highly unnatural (Hamblen, 2004). The physical characteristics of the urban area, the concrete jungle (see Figures 3 and 4), conflict with what people perceive as natural. It is for this reason that Miller and Hobbs (2002: 332) say that conservators feel “the battle has already been lost in urban areas and their efforts are better spent elsewhere.” The perception of the conservator is an important one as they are the urban populations’ link to the conservation area. They can make every effort to attempt to educate, support and reconnect people to conservation if they themselves understand the value.

⁷ The terms city and urban area are used interchangeably.



Figure 3 (Left) City of Cape Town CBD with fragments of natural open space. (Right) New York CBD portraying imagery of the urban jungle

(Source: www.capetown.gov.za/en/2010/gallery/publishing/images/Cape%20Town%20Images/CT_01.jpg 2011 and <http://cbuddefreefr/spip.php?article102>, 2011: no page numbers)



Figure 4 (Left) Images of utopia and pristine nature. (Right) Rondevlei Nature Reserve- nature without people

(Source: www.avoidingthevoid.wordpress.com/tag/nature, 2011: no page number and Eksteen, 2009)

2.3.4 Conservation Value to Urban Areas

Natural environments such as nature conservation areas have tremendous benefits for an urban area. These include ecosystem services and health benefits for residents of the urban area. Biodiversity serves as the lungs of the city, removing most of the carbon dioxide which is produced in a city (COCT, 2008a). In addition, Cartwright (Pers. comm cited in Holmes *et al* 2012: 4) says “well-functioning natural ecosystems will help to buffer the city from extreme weather events, which are predicted to increase under climate change.”

Nature conservation areas offer opportunities for environmental education and recreation. Usually the value of conservation sites is based on the conservation rarity, extent, naturalness, range of species, genes and distribution but this is not important for urban areas. Graves

(2008: 5) argues “Campaigns to save local urban sites have not been concerned with size per se but its very existence, location and use by local people... the lack of such sites, not their extent, is an issue.” Goode (1989: 859) corroborates this argument saying “nature conservation in urban areas differs from traditional approaches to conservation in several respects...less emphasis is placed on rare and endangered species or habitats and considerable weight is given to value and benefits.” Cities Alliance (2007: 4) provides the following list of critical services which nature provides to urban settlements:

- Clean air is essential to a healthy environment.
- Rivers and water bodies provide drinking water and act as natural pollution filters.
- Biodiversity is essential for food, materials, medicine and improved quality of life, not just locally but also globally. Biospheres range far beyond the boundaries of a city, and urban activity in a single location can damage forests thousands of kilometres away, or disrupt migratory patterns. Biodiversity increases the resilience of ecosystems to environmental/climate change.
- Forests serve as watersheds, habitats, carbon sinks, leisure amenities and tourist destinations. If managed sustainably, forests are also a source of energy and building materials.
- Wetlands filter and process waste and act as a nursery for fisheries.
- Sand dunes, coral reefs and mangroves protect cities from storm surges, prevent erosion and siltation, and in the case of the latter two act as nurseries for fisheries. Attractive coasts draw tourism.
- Parks and greenbelts act as sinks for carbon dioxide (CO₂) and counteract the heat island effect of large built-up areas. They also provide essential open space for urban residents, flora and fauna, counteract traffic noise and improve the general ‘liveability’ of a city.

The value and benefits described in most instances are for people. Milward (1987: 23) agrees, “urban people appreciate and indeed demand access to nature parks in urban areas... they are valued for their natural character and features.” People living in urban areas have a desire to interact with nature. Miller (1996: 6) suggests “during the past few decades individuals and society have placed a much greater emphasis on urban vegetation in an attempt to improve the quality of life in communities.” Nature conservation in urban areas can therefore be used as a platform for sustainable community development, especially where poor neighbourhoods

exist. Swilling (2006) suggests that sustainability in the city is not given the attention it deserves. The sentiment is reiterated by McDonald (2008) as he suggests that the desire to make Cape Town a world class city overshadows the need for sustainability. UNEP (2007) says that the natural environment is an asset to urban areas and it should not be last on urban managers' list of priorities. Instead, to achieve the familiar triple bottom line Pieterse (2010) and UNEP (2007: 18) suggest that "a successful city cannot operate efficiently in isolation from its environment. It must balance social, economic and environmental needs."

There are a number of studies focused on the value of nature to human health and well-being in the city context. Maller *et al* (2002) suggest that green nature can reduce crime, foster psychological well-being, reduce stress, boost immunity, enhance productivity, and promote healing." Kuo and Sullivan (2001) found that the presence of trees reduced crime in inner city neighbourhoods as there is less aggression and violent behaviour. Sherer (2006 cited in Ashwell, 2010) found that there are more cases of juvenile delinquency within urban areas which have little or no urban green space. This was corroborated by Fuller *et al* (2007 cited in Ashwell, 2010) study on mental disorders in urban areas who also found that the lack of nature increased the probability of mental disorders in the city. In addition, Berger and Blomquist (1988) say that the quality of life generally improved in urban areas which had natural areas.

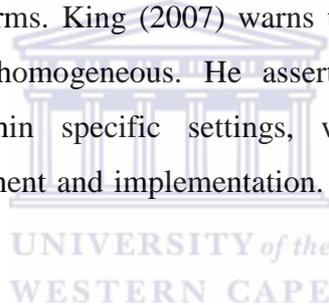
Child (2004) suggests that to bring alignment with their constituents, parks (conservation areas) must provide what societies need, which in this context are usually values that are more tangible than normally associated with conservation areas. This concept reiterates what Ramutsindela (2004a) highlighted previously about how human dominance over wildlife and conservation areas must somehow benefit people. In addition, (Child, 2012: 17) continues by suggesting "parks have had a dual purpose almost since their inception in Southern Africa...they are areas reserved to conserve nature and for outdoor recreation." This notion alludes to the multiple non-conservation uses of nature reserves and conservation areas. Further Child (2004, 3) adds by saying "on a political level we need to learn how to make parks answerable to society while avoiding problems of elite predation." But conservation areas are not only valuable to people. Conservation sites ensure the preservation of key species. If one species becomes extinct then all those flora and fauna which depend on that

species in the ecosystem become threatened. Therefore conservation is not solely valuable for people, it is equally, if not more valuable for biological diversity.

2.4 Role of Communities in Conservation

2.4.1 Conceptualising the Community

The notion of what constitutes a community varies widely. Glen (1993: 217) defines communities as “groups who share a location or physical space or who have common interests, traits or characteristics.” Cohen (1985: 12) agrees saying “the thing held in common distinguishes them in a significant way from the members of other possible groups.” Agrawal and Gibson (2001) suggest that communities can be defined in a spatial unit, as a social structure and a shared set of norms. King (2007) warns that there is a misconception that communities are generic and homogeneous. He asserts that this obscures the social differentiation that exists within specific settings, which subsequently shapes the effectiveness of project development and implementation. This could in turn affect resource management outcomes.



The question of who represents the community needs clarification. In certain instances a group is formed to represent the community and work towards the common interest of the entire community but often the group only has a few members and these members represent the community at forums where other stakeholders are present. The question is, are those few members who account for less than five percent of the community’s total population able to represent the entire community? Can the voices of a few speak as the voice of all? Another essential factor to consider is the motivation for participation. Are members who represent the entire community participating because they have a common interest? Are they forced to participate? Is there equal sharing of benefits and are the interests really for the greater good of the community? The motivation for participation is identified in Allen *et al* (2002 cited in Trotman, 2008: 9) participation continuum (see Table 1).

Table 1 Participation continuum

| Types of engagement | Description |
|---|--|
| Manipulative participation (co-option) | Community participation is a pretence, for example with community representation on official boards who are unelected and have no power. |
| Passive participation (compliance) | Communities participate via being told what has been decided or has already happened. |
| Participation by consultation | Communities participate by being consulted or by answering questions, with no share in decision making. |
| Participation for material incentives | Communities participate by contributing resources such as labour in return for material incentives such as food or cash. |
| Functional participation (cooperation) | People participate by forming groups to meet predetermined project objectives and may be involved in decision making, but only after major decisions have been made by external agents. |
| Interactive participation (co-learning) | People participate in joint analysis, development of action plans and formation or strengthening of local institutions. As groups take control over local decisions they have a stake in maintaining structures or processes. |
| Self-mobilisation (collective action and empowerment) | People participate by undertaking initiatives independent of external institutions. They may link with these institutions for resources and advice, but retain control over what is done and how resources are used. Self-mobilisation may or may not challenge existing patterns of wealth and power, and can spread if governments and NGOs provide an enabling framework. |

(Source: Trotman, 2008: 9)

2.4.2 Community-Based Conservation

Community based conservation (CBC) builds on the fundamental principles of Community Based Natural Resource Management (CBNRM). In the case of CBC the focus is conservation of biodiversity and benefits are derived from conservation activities. According to Trotman (2008: 6) “conservation is fundamentally about restoring, protecting and

maintaining natural processes and ecosystems. Community conservation initiatives involve local communities and interest groups undertaking this restorative and protective work.”

The thinking around community-based conservation is rather than excluding communities and perceiving them as the threat to conservation, instead they co-manage conservation areas. Agrawal and Gibson (1999: 630) suggest “the poor conservation outcomes that followed decades of intrusive resource management strategies and planned development have forced policy makers and scholars to reconsider the role of community in resource use and conservation.”

Involving communities in conversation is essential because “ecologists have underscored the limits of the state in protecting natural resources; as rules and regulations do not ensure compliance and states do not have the power to enforce perfectly” (Agrawal and Gibson, 1999: 642). This is certainly true on the Cape Flats where fortress conservation methods were applied in areas such as Harmony Flats Nature Reserve. Authorities of the time sought to exclude the ‘other’ (local communities) from conservation decision making and conservation practices even though they were living in areas surrounding conservation areas. Western (2000:60) argues that “top down government conservation approaches can be simplistic and take approaches that communities do not understand, don’t agree with, or don’t have the skills or capacity to do anything about”. CBC therefore tries to avoid this situation and encourages bottom up solutions. The seven principles of CBNRM as defined by DEAT (2003: 21) are:

1. Different ways of earning a living are maintained, to minimise risk in case of natural and economic disasters.
2. The natural resource base is maintained and even improved so that the natural resources can continue to provide livelihoods to people in the future.
3. Local organisations, including local government and community organisations, work effectively to manage local resources for the benefit of local people and the environment.
4. People receive benefits-economic, social, cultural and spiritual-from managing the resources wisely.
5. There are effective policies and laws and these are implemented, wherever possible, by local people’s legitimate representative organisations.

6. Outside assistance is provided to facilitate local projects. Local people's knowledge and experience is respected.
7. There is a good understanding of local leadership and local leadership fully supports CBNRM projects (DEAT: 2003:21).

These principles may seem simple and, on paper, could be seen as a win-win situation, but when CBNRM is in practice the principles may need alterations to suit specific communities and resources. Not every community is the same and the management of certain resources are complex e.g. water or minerals, particularly when many stakeholders are involved and each stakeholder has different expectations of benefits.

King (2007) suggests that there is a growing disenchantment with community conservation within academic and policy communities resulting from concerns that these initiatives are largely ineffective in meeting their ecological and social goals (see also Balint and Mashinya, 2006). In a review by Wilshusen et al. (2002 cited in King, 2007) they argue that international conservation is increasingly typified by a resurgent protectionism. Chapin (2004) confirms this, suggesting that leading international conservation agencies are less willing to participate with local communities and are using science and sophisticated technologies to push for larger-scale projects, including hotspots, ecoregions, and living landscapes. The consequence has been a move away from locally based conservation projects that include a development component. Furthermore, implementation, analysis and evaluation of CBNRM has focused on its role in rural conservation areas rather than urban conservation areas where social, economic, production and land issues are often very different (see Blaikie, 2006; Balint and Mashinya, 2006; Tyman, 2000). While tangentially relevant much of the literature on CBNRM fails to grapple with the issues that emerge in a transforming conservation sector managing reserves in an urban area.

The concept of Community Based Natural Resource Management has become popular in Africa, particularly in rural areas. See for example Zimbabwe's CAMPFIRE⁸ programme (Frost & Bond, 2008), Namibia's LIFE⁹ project (USAID, 2006), Zambia's ADMAD¹⁰ programme (Gujadhur, 2000). In many cases conservation organisations argue that CBNRM is the only way forward for conservation practice on the continent as people and animals are

⁸ Communal Areas Management Programme for Indigenous Resources

⁹ Living in a Finite Environment

¹⁰ Administration Management Design

often in competition for land and resources. The focus has really been on communities managing wildlife and gaining an income through hunting or tourism management. CBNRM in an urban context can draw on crucial lessons learnt from rural African contexts such as community cohesiveness, entrepreneurial skills to generate employment opportunities, and profitable yet sustainable income sources. There is not a defined method for CBNRM, each context has to be assessed in light of its circumstances whether rural or urban. The urban context brings particularly complex socio-economic-political and environmental characteristics which contrast the rural environment and although cognisant of the basic principles CBNRM almost needs to be turned on its head and develop its own principles in order to accommodate the urban context.

As discussed in Section 2.1, historically communities were viewed as a source for spoiling pristine nature and therefore were excluded. However there have been recent efforts to include communities in conservation, attempt to rescue this negative perception of the communities' role in conservation. However, Agrawal and Gibson (1999: 631) suggest "the rescue project has itself come under attack by new anthropological and historical research which suggests communities may not, after all, be as friendly to the environment." This is due to pressures such as globalisation, rapid urbanisation, overpopulation and climate change. Despite this, international agencies have found the value of community conservation including the World Bank, IDRC, SIDA, CIDA, World Wide Fund for Nature, Conservation International, the Nature Conservancy, the Ford Foundation, the MacArthur Foundation, and USAID and UNEP. Enormous sums of money and effort are directed toward community-based conservation and resource management programmes and policies.

Agrawal and Gibson, (2001: 7) suggest:

The vision of small, integrated communities using locally evolved norms and rules to manage resources sustainably and equitably is powerful...because it views community as a unified organic whole this vision fails to attend to differences within communities and ignores how these differences affect resource management outcomes, local politics and strategic interactions within communities as well as possible layered alliances that can span multiple levels of politics.

This notion again begs the question, who represents a community? Pearce *et al* (1996) identify three key criteria to help identify social representations. The first is commonality and

consensus; in terms of community conservation this notion acknowledges that representation will have a variety of responses and perhaps conflicting ideas but rather than focusing on individual differences and opinions the community should identify and work with similarities. The second is connection and links, not only amongst community members but with external groups as well and care should be taken in maintaining and nurturing these connections and linkages. Third is viewing the social representation of the community as an imagined outcome. What is the imagined achievement for the group and what steps will be taken towards achieving those imagined goals? Once these criteria are met in social representation, the next step would be decision making. Is the community's holistic interest represented in the decision making process? Forgie (2001 cited in Trotman, 2008:8) created a framework of community involvement in decision-making (see Table 2 below). The framework helps community with the decision-making processes and work together towards desired outcome. In this case, decision-making refers to an agreed upon action which the group will implement.

Table 2 Community decision making

| Low (full control by agency in charge) | | High (full control by stakeholder) | | | |
|--|---|--|--|--|---|
| Process | Information sharing | Consultation | Deciding together | Acting together | Supporting independent community initiatives |
| | Awareness building, telling people what is planned | Identifying problems, offering solutions and getting feedback. Increasing the knowledge base from which decisions are made | Encouraging interested stakeholders to contribute ideas and options and together decide the best way forward | Different interests decide together what is best and formalise an organisational structure to carry it out | Groups are helped to do what they want within a framework of grants, advice and support provided by the resource holder |
| Outcome | Understanding | Legitimation | Participation | Participation | Determination |
| Tools (to achieve desired outcome) | Public relations Education material Informal Feedback | Submission making Voluntary projects Conservation Corps Focus groups | Working groups Action planning* Citizens juries | Community based conservation initiatives e.g. Landcare groups, Trusts, Partnerships | Independent community based conservation initiatives |

(Source: Trotman, 2008: 8)

* Action planning is a process whereby experts, agencies and community members work together to look at issues in a holistic way.

Further, according to Agrawal and Gibson (2002: 12), to accurately depict communities and their relationship with natural resources, attention must be shifted to three critical aspects: the multiple actors and multiple interests that make up communities; the process through which these actors interrelate; and especially the institutional arrangements that structure their interaction. In this regard, the community should not be viewed in isolation from the environment and one actor should not be separated from the other, instead there should be a holistic approach in the relationship between communities and the conservation area which they partner with (Agrawal and Gibson, 2002: 13). Furthermore, actors within communities seek their own interest in conservation programmes and these interests may change as new opportunities emerge.

The benefits derived from a community based conservation initiative are crucial. In order to get the involvement of community there needs to be tangible benefits for them and importantly they need to be relevant to them. Buchan (2007: 2) analysed the social and economic benefits of three community-led environmental restoration projects in New Zealand. These included:

- Social and psychological benefits for volunteers.
- Increased social capital through strengthening connections between community groups, business interests and local and central government.
- Development of leadership, skills and confidence.
- Personal development and increased quality of life through socialising and recreation opportunities, and raised awareness and appreciation of the natural world.
- Generation of new income earning employment opportunities.
- Economic benefits for local businesses.
- Benefits for socially dysfunctional youth, including improved attitudes, behaviour change and social well-being through engagement with the natural environment.

The cornerstone to the success of a CBNRM project is relationships, relationships between people and nature, and people and people. This is evident in the CBNRM principles defined above. Language used to express the relations include: ‘natural resources can continue to provide’, ‘work effectively.’, ‘people receive’, ‘outside assistance’, ‘respect’ and ‘understanding’ Relationships in CBNRM are about ‘give and take’ from various role

players, nature included. Capra (2004) suggests that lessons about social relationships can be taken from nature itself. An ecosystem is a system where different species of plants and animals form an interdependent community providing food and shelter to one another. Similarly a community of people from different cultures and backgrounds also form interdependent communities. Capra suggests (2004: no page number) “understanding the ecosystem, then leads us to understanding relationships. This is a key aspect of systems thinking.” He further says that relationships are difficult to understand because they cannot be “measured and weighed like traditional scientific enterprises in Western culture” (Capra, 2004: no page number). Understanding the strengths and weakness of social relationships can help us improve and transform the entire system if needs be.

2.5 Transformation in conservation post-1994

It is important to note that in the context of this research, transformation does not only refer to race and gender transformation but also a transformed way of practicing conservation. Demographic transformation refers to race, gender and socio-economic status, and involves people who were previously excluded from managing and making decisions about space and natural space. Transformation in the way conservation is practiced is a focus as well, considering the paradigm shift from a fortress protectionist approach to one which is accessible and inclusive of all people. This section does however place emphasis on racism in conservation because it was highlighted during data collection as a big challenge in the conservation sector.

2.5.1 Overview of Racism

Racism is described as hostile or negative feelings of one ethnic group or individual toward another and the actions which result from such attitudes (Fredrickson, 2002). Fredrickson (2002: 1) further explains that “sometimes the antipathy of one group towards another is expressed and acted upon with single-mindedness and brutality that go far beyond the group-centered prejudice and snobbery that seem to constitute an almost universal human failing.” Racism has been around for centuries when certain groups of people were treated differently because of a difference in their physical appearance or cultural heritage. Sadly, South

Africa's history is rooted in racism. Fredrickson (2003: 2) explains "the one racist regime that survived the Second World War and Cold War was South Africa." The regime came into full effect in 1948 when government legislation formally banned all interracial marriages and sexual relations between different races. The different population groups i.e. Whites, Indians, Coloureds, and black Africans¹¹ were required to stay in their respective separate residential areas (Durrheim *et al*, 2011). Racism and its underlying processes have shaped South Africans' current perception of their own identity and the identity of the other. It is therefore a contentious issue which needs to be explored. According to Peberdy (2009: 5):

the majority of South Africa's recent geography and history has focussed not surprisingly on South Africa's stark history of racial discrimination, oppression and exclusion. The racist practices of the South African state that created division amongst black, coloured, Indian and white have driven the examination of colour defined racial difference and its representation.

Racism is still a very real issue in South Africa. Legislation only made it illegal but it transpires in obscure ways. We often hear people ask "is it because I'm black?" always questioning the motivation for actions of the 'other'.

2.5.2 Racism in Conservation

In Section 2.2 it was discussed that conservation had a very strong racial undercurrent since its inception in South Africa. It was designed to keep people, specifically black people, out of pristine natural areas which were to be enjoyed by white tourists and white citizens (Carruthers, 2007). Bonner (1993: 23) concurs "Africans have been ignored, overwhelmed, manipulated, and outmanoeuvred - by a conservation crusade led, orchestrated, and dominated by white westerners." The consequence is that the majority of the county's citizens have a bleak perception of conservation. Khan (1994:499) further explains:

during the twentieth century the environmental perceptions and attitudes of blacks continued to be distorted, and their sense of alienation deepened, through the implementation of segregation practices (such as the establishment of exclusively black locations for which guidelines were provided under the Natives Urban Areas Act of (1923) and apartheid measures (such as the Group Areas Act of 1950 and the Reservation of Separate Amenities Act of 1953) as a result, the

¹¹ The racial hierarchy was also in this order in apartheid state literature

South African environmental movement today faces such major obstacles to its growth as apathy and hostility on the part of many blacks.

Post-Apartheid South Africa proudly maintains its conservation ethic and practices. Conservation sites exist but how do we change the ways they are managed? How do we ensure that discrimination does not occur? Legislation prohibits discrimination but how can this be managed in practice, particularly a sector where discrimination was the norm. Carruthers (2007: 304) confirms “fresh ideas have more recently come to permeate national park management in South Africa that provide a series of alternate system states that change over time.” These changes range from who conserves to how conservation is managed and practised. Black people who were previously excluded from conservation were encouraged to work in various positions alongside their white counterparts. Although literature on explicit racism in conservation is limited, the author relied on anecdotal accounts by black conservators (see Chapter 4 section 4.4). However, (Ramutsindela, 2004a: 7) confirms that racism in conservation does exist and explains that:

racial discrimination in protected areas might appear to be historical but the persistence of racial stereotypes in the other facets of life suggests that contemporary national parks as a strategy for national parks are not yet immune to those stereotypes. Such stereotypes are more serious because the foundations on which national parks were built have strong racist undercurrents.

Despite the tremendous changes made in the conservation sector post-apartheid, people still perceive conservation as a past time for white citizens only. Figure 5 demonstrates two sets of people involved in conservation. The image on the right would have been almost inconceivable during apartheid but at present it is becoming a norm rather than the exception.

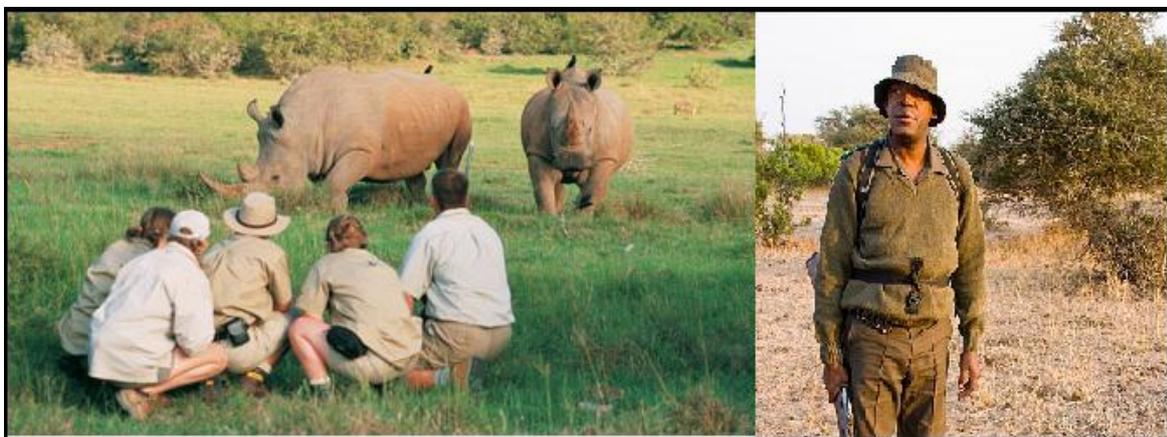


Figure 5 Old perceptions of who conserves

(Adapted from <http://www.southafricablog.co.za/category/game-lodges/> and http://blog.travelpod.com/travel-photo/saraphilo/2/1251581626/42_kruger-national-park.jpg/tpod.html, no page numbers)

South African conservation and political history is similar to that of the southern United States. Its segregation laws and environmental policies excluded African Americans from nature conservation sites and national parks displaced native-American people. Khan (2000: 167) confirms:

there are close similarities in the history of the environmental movement in the United States during the 1980's and the way the movement was to develop in South Africa during the 1990's. In both countries the history of racial discrimination which institutionalized black poverty and political powerlessness, are central to the environmental discourse.

A study by Finney (2008) explores African-Americans' relationship with the environment and conservation space. The research is entitled 'Black Faces, White Spaces: African-Americans and the Great Outdoors' and it speaks of the natural environment being seen as a past-time for white Americans only. This is attributed to the depiction of the outdoors in the media and its conservation and cultural history. One of Finney's (2008: 5) respondents explains:

Regardless of where African-Americans live geographically, our common history of slavery, segregation and racism appears to inform our perceptions and attitudes about the environment. Issues of fear, exclusion, and little sense of ownership and lack of awareness all come into play.

Finney (2008: 5) suggests that racism in conservation and the general perception that natural space is white space not black space can be changed if the following principles are adopted by African-Americans:

- Need for greater recognition of network of black environmentalists
- Continued acknowledgement of black stories and why stories shouldn't only be framed within usual framework of white context/gaze and/or featured only during Black History month
- Greater representation in the popular media and national park exhibitions and materials. In *Outside Magazine* over a ten-year period from 1991 to 2001, the magazine published a total of 6980 pictures; of those 4602 were pictures with people on the landscape. Out of the 4602 pictures with people in them only 103 had African Americans.



Figure 6 Black people feel they were excluded from parks but want to be acknowledged as part of national parks

(Source: from: <http://www.outdoorafro.com/2009/11/ever-see-a-black-hiker-before>, 2011: no page number)

Similar discussion forums exist on ‘outdoor afro’, (<http://www.outdoorafro.com/>) an African-American interactive blog website that discusses pertinent issues of black people’s place in natural space (see Figure 6). An example of a similar discussion can be seen in Figure 7). The website aims to break the colour barrier in the natural environment by reconnecting black people to the environment. They organise and embark on various outdoor activities such as hiking, rock climbing, camping, biking, fishing, gardening and skiing. Members and commentators on the blog report that they often feel like outsiders when out in nature and participating in the aforementioned activities. They describe instances where they are stared at and where people ask whether they are lost, because it is unusual to see black people in such a context. Although they do not explicitly refer to it as racism they are actively trying to change perceptions of all people, both white and black (see Figure 8). Durrheim (2011: 39) explains “black people are often confronted with profound doubt about whether they are victims of racism because there is often an uncertainty about whether racist acts are not simple coincidence... but racial expressions are often specifically designed to allow people to deny that they are being racist.”



Figure 7 The outdoor Afro website home page, its focus is to specifically attract black people to nature

(Source: <http://www.outdoorafro.com/>:no page number)

Racism transpires in various forms and although there are policies in place to prevent or eradicate racism it's not always effective. Affirmative action or BEE type policies may have good intentions as they require representivity of all race groups involved in all economic activities in the country, but they cannot force behavioural change amongst people. Finney (2008: 5) explains:

African-Americans continue to feel frustrated with the environmental movement and the national park system. Diversity is only an expression of political correctness or as a goal that has to happen within certain financial and time constraints. Policies within environmental organizations are often about lip service - when funding cuts are made, diversity is usually the first to go.¹²

This might echo what happened with Cape Flats Nature programme, this will be further addressed in Chapter 3.

In addition, the study reveals there is a general disconnect between African-American environmental professionals and their white counterparts regarding the perception of exclusion and racism within an environmental context. One of the biggest frustrations many African-Americans had is the continual struggle with how to deal with the racism in practical terms in conversations and decision-making contexts. Many stressed the importance of black people seeing a black person doing this work (Finney, 2008) (see Chapter 4, Section 4.5). However, Khan (1994: 177) suggests that:

environmental illiteracy is widespread and there is a dearth of qualified and experienced black scientists and environmentalists... it would be true to say that the skills expertise and resources are largely concentrated in the hands of

¹² This raises questions about the end of finding for CFN.

mainstream environmental NGO's whose staff and membership base are still mainly derived from the white sector of society.

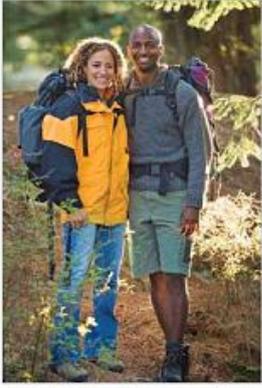
This could be due to black hostility towards conservation because of the embedded history that divided people from the environment. Finney (2008: 6) explains, "people mentioned the issue of black identity and the inherent contradictions around environmental issues. On one level, there is a feeling that being involved with the environment is 'something white people do'." In addition, young black school leavers seeking tertiary education have no point of reference for a career in conservation because few people in their own communities have entered the field.

It is important that people, particularly black people, are beginning to have the discussion about their place in nature. This could be an indication of positive transformation in the environment sector and conservation sub-sector. Figure 8 shows a discussion about black people's place in natural space. They raise issues that are being discussed in this research. These include, prioritisation of nature, where does it rank in relation to other socio-economic issues i.e. health, poverty and education; relevance of nature to poor people, telling people to conserve a species when they don't know where their next meal will come from; using real nature experiences as an environmental education tool; lack of access to nature; exclusion from green jobs; urban poor communities' link with nature; value of nature to all people regardless of skin colour; thinking that black people are ignorant and therefore don't care about nature and understanding the link between nature and the resources you derive from it i.e. basic water provision, food and energy.

OUTSIDE MAGAZINE, JULY 2011
WEDNESDAY, JUNE 15, 2011

WHAT'S RIGHT WITH THIS PICTURE?

Diversity in the outdoors: our panel runs down the challenges, including the unwavering white face of adventure media.



Of 6,986 photos that appeared in 44 issues of Outside between 1991 and 2001, only 103 showed African-Americans. Photographer: Jeremy Woodhouse

Stephen Lockhart: Why should this issue even matter? We face so many other struggles every day: economic challenges, education, social justice. What puts the outdoors on the top-ten list?

Juan Martinez: In my previous job, I was a housing-rights organizer. How do you explain to a single mom with three kids, living on welfare and about to be evicted, that nature should be a part of her and her children's lives? It really made me more aware of what the messaging was around our connecting with nature. Conservation traditionally calls for an exclusion of people from the land. But how can somebody conserve something if they don't understand what they're conserving? We focus a lot on creating something that's not there, and that's the wrong way to engage communities.

Audrey Peterman: Many people have said to me about the outdoors over the years, "Black people don't do that." I saw my first national park in 1995; it was Acadia, in Maine. I saw that expansive, untouched beauty, and that experience has not left me. I compare it to living in a mansion. Until that time, I'd only seen the kitchen, which is very serviceable, but then I felt like I had wandered into the grand living room. Oh, my God! That's what people need to remind themselves of: who we are as human beings and who we are as a country.

Jarid Manos: The stereotype that we don't care about the environment is a complete falsehood. People want access. People want work. They want green space and healthier communities. It's a matter of letting people make those connections and helping them through. Even if we're in the 'hood, we still live on the prairie.

Lockhart: We've talked about communities of color, particularly in urban environments. Is it possible to find a connection with the outdoors if you live in the city? How do we make that link?

Manos: The first step is not seeing nature and the outdoors as separate. If it just becomes taking people out someplace without it being relevant, then it will still be seen as separate. There was a study published in *The Lancet*, the British medical journal, that said access to the natural environment can modify pathways through which low socioeconomic position can lead to disease, while health inequalities related to income deprivation were lower in populations living in the greenest areas. We need to bring it back home, central to our own health. We need to help people feel part of something bigger so they can trust it right there in their daily lives.

Peterman: In Atlanta, when we took members of local communities into the Chattahoochee River National Recreation Area and showed them that the forest is where their water comes from, the forest purifies their air, etc., you'd be amazed at how fast those people began to talk to elected officials about wanting to keep the land protected and wanting positive action on behalf of the environment. But if almost half the population doesn't know and doesn't feel involved, we're reducing our chances of dealing with these critical issues.

Peterman: I'd like to talk about the word *biophilia*—E. O. Wilson's theory that human beings need nature not just for recreation but as a physical reality. We need nature for all our processes to work, for us to be fully human. It's important to recognize that when we talk about how race, ethnicity, and culture affect our relationship with nature, in America it's different. The racial aspect is different. For example, I grew up in Jamaica. No Jamaican I know is in any way intimidated by the great outdoors. The difference for African-Americans who grew up here is the cultural history in which people were enslaved and had a very vicious relationship with the land. People are afraid of atrocities that were perpetrated against people of color on the land.

Figure 8 Online magazine dialogue discussing black people's place in the environment

(Adapted from <http://www.outsideonline.com/outdoor-adventure/politics/Whats-Right-with-This-Picture.html?page=all>)

2.5.3 Transformation in Progress

The post-apartheid government of South Africa has committed itself to achieve fundamental transformation in the country. Policies and measures have been in place since 1994 and aim to bring about goals of equality and redress, and to enhance democracy and participation of all groups in development and decision making processes at all levels. Khan (2000: 156) argues "the country has undergone dramatic political changes in recent years, transforming itself from racial autocracy to a democratic society in which discrimination on racial and other grounds is forbidden and the principle of equality is enshrined in the constitution." It is acknowledged that the democratic government has accomplished a lot within 18 years of democracy and has made numerous strides in enhancing equity, redress and social injustice; bringing about democratisation and development; and enhancing effectiveness and efficiency (Rembe, 2005). McDonald (2002: 2) suggests that "post-apartheid saw the redefinition of the term environment to include the working and living space of black South Africa" because before 1994 "environmental policy was seen as an explicit tool of racially based oppression."

Khan (2000: 156) has said “the political change has been reflected in the environmental sector which similarly has transformed its wildlife-centred, preservationist approach (appealing mainly to the affluent white minority) to a holistic conservation ideology which incorporates social, economic, and political as well as ecologic aspects.”

Conservation in South Africa is sometimes still perceived to be a career and pastime of white South Africans. Khan (1994: 499) suggests a reason for this is “South Africans, both black and white, have had their perceptions of the environment shaped by the political forces of the past.” Policy has changed and environmental/conservation organisations have made several structural changes to incorporate the new policy ideologies. Today we find a number of black males and females employed in the conservation sector. Ashwell (2010: 39) confirms this saying “during the 1990’s, South Africa’s political transition resulted in many conservation organisations experiencing institutional restructuring, staff changes and budget cuts... As the social and economic development aspects of conservation became increasingly important, some organisations established new social ecology departments.” An example of this structural change is the environmental NGO World Wildlife Fund South Africa (WWF-SA) who changed their name to World Wide Fund South Africa to demonstrate that their focus is not solely on species but is in fact people-centred. In addition, one of their goals is to transform the environment sector to include representivity of all races. (Raven, pers. comm, 2012). South African legislation outlines government’s transformation¹³ objectives. They include:

Chapter 2 of the Bill of Rights: no person may be unfairly discriminated against, that people have a right to equality, and that everyone has the right to have their dignity respected and protected (Articles 9 and 10).

Section 24 (a): provides the right to an environment that is not harmful to their health or well-being.

Section 24 (b): provides everyone with the right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures.

¹³ Transformation in this case refers to the people centred approach to conservation and representivity in the sector.

Section 9: provides everyone with the right to be equal before the law and has the right to equal protection and benefit of the law.

Section 9 (i): the state may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth.

Growth, Employment and Distribution policy (GEAR): provides for cooperation agreements for environmental management.

The White Paper on Education (1995): involving an inter-disciplinary, integrated and active approach to learning is a vital element of all levels of the education and training system, in order to create environmentally literate and active citizens and ensure that all South Africans, present and future, enjoy a decent quality of life through the sustainable use of resources.

National Environmental Management: Biodiversity Act 107 of 1998: protected areas should include community conservation areas and contractual parks. It makes provision for the collection of biological resources for own consumption from protected areas. The management authority managing a protected area may enter into an agreement with a local community for the co-management of the areas by partners. The Act provides access to sites of cultural or religious significance.

The promulgation of the aforementioned legislation is aimed at protection of the environment and promotion of social cohesion. The need to address environmental and social inequalities and injustices has been acknowledged. The policies of the new democracy reflect attempts at transformation. Transformation, and in particular the policy process, is beset with continuous debate, contestation and struggle for the success of ideas and interests which are pursued by individual actors, groups and policy networks through the institutions (Rembe, 2005). During these different stages, policies are modified, constituted and reconstituted. As a result, they give rise to intended and unintended outcomes that are likely to support or contradict the objectives of those policies. However, there are limitations on the achievements of the goals of transformation. Transformation initiatives have had mixed effects on the racial legacy of inequality in South Africa (Durrheim, 2011). Khan (2000: 179) states that:

South Africa's environmental problem is inextricably linked to a range of socio-economic and political factors. It is clear that radical developmental interventions

and poverty alleviation programmes are required in order to address this country's deep-rooted legacy of inequitable access to natural resources in order to involve the citizens in environmental decision making.

In the conservation sector research and significant progress has occurred. Carruthers (2007) argues there is considerable literature on how national park management illuminates a changing national culture, but less on the theme of changing scientific theory and disputes amongst scientists, changes in management direction, friction between ambitious people and agencies. All of which interact with political pressure which in the case of South Africa is changing once more to include the previously disadvantaged who wish to utilise national parks as employment opportunities and the drivers of regional economic welfare. In short, national parks are in all respects, deeply humanised landscapes.

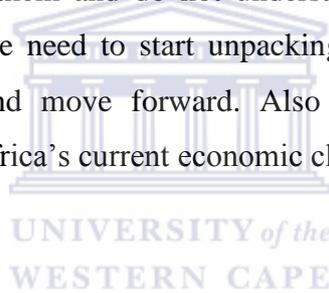
Environmental and conservation agencies in South Africa are taking positive strides towards transformation. The directors of the South African National Biodiversity Institute (SANBI), East Cape Parks and Tourism Agency (ECPTA), SANParks and Ezemvelo KZN Wildlife (EKZN) are all black males and females. It is important that there is representivity of different races and gender in leadership roles and that the 'new faces of conservation' are identifiable by the majority of the country because this transformation will change people's perceptions. On the other side of the coin, appointing people in leadership positions for window dressing purposes is not very useful to people and conservation alike. Precise data on racial transformation in the conservation sector is not yet available. However, Khan (2000: 157) argues that "there remain problems which embody the complexity of South Africa's environmental problems as well as difficulties faced by government burdened with an acute backlog of socio-economic problems." It should be acknowledged that tremendous strides have been made in the conservation sector despite the challenges of inequality and poverty.

2.6 Conclusion

It is evident that the relationship between people and nature has been a complex one over millennia. This complexity is perpetuated and intensified in the midst of present day South Africa's broader development context. The value of conservation has long been realised but a

recent acknowledgement of the value of urban nature conservation has emerged. Although some conservators argue that conservation in urban areas is not worth the time and money spent. The contestation exists around how conservation should be practised; one thing agreed upon is that it should include communities. Communities are believed to be buffers against threats of urban and agricultural development. This is achieved through empowering communities and instilling a sense of ownership of their conservation areas.

Given South Africa's conservation history, and the influence of colonialisation and apartheid had, this is a challenge. The past was successful in disconnecting and disengaging black people and conservation areas, perceived by them as a pastime for white people only. Although the history of South Africa played a huge role in shaping how and where conservation is practised, the reality is that these nature reserves now exist and their value is nonetheless immense. Another reality is that a large majority of the people living around the reserves are disconnected from them and do not understand the value thereof. Instead of continually revisiting the past we need to start unpacking current and future management practices to amend the past and move forward. Also important is the need to make conservation relevant in South Africa's current economic climate.



Chapter 3: The City of Cape Town and the Cape Flats Nature Programme

3.1 Understanding the Cape Town Context

The City of Cape Town is often described for its aesthetic views. It has a unique blend of natural space in the midst of the urban landscape. However, the city carries with it the burden of the past and this has a large influence on the shape of the city in present time. Swilling and De Wet (2010: 25) argue “like all post-Apartheid cities, after 1994 Cape Town is faced with the twin challenges of overcoming the spatial divisions created during the colonial/apartheid era and addressing the endemic poverty that these divisions reproduced for over three centuries.”

The city is one of the three most biologically diverse cities in the world but the fragments of well-maintained natural open space are associated with wealthy citizens of the city. Cullinan (2010: 199) states that:

the high quality of open space is often (although not exclusively) associated with former white (and currently wealthy) parts of the city. Every year the city spends millions on maintaining and looking after these spaces, while poorer parts of the city often remain unkempt and unused. For this reason environmental protection is sometimes viewed as the preserve of the rich. This is sometimes objectively true. But at the same time this is an unfortunate perception.

Natural spaces in the poorer areas are often associated with crime and the residents who live surrounded by these spaces therefore have negative perceptions associated with the space.

The city is regarded as highly unequal and marginalised. Turok (2001: 2350) suggests:

the topography and environment of the city has a stunning mountain and coastal setting juxtaposed with the wind-swept, flood-prone sand plains of the Cape Flats... Wide income inequalities sort people across this space according to their ability to buy into different quality neighbourhoods and lifestyles through the housing market.

The unequal characteristics of Cape Town have been well documented by urban geographers (see for example Swilling, 2010; McDonald, 2008; Pieterse, 2010; Turok, 2001). Turok

(2001: 2352) suggests that “greater Cape Town is a starkly polarised city.” De Swart *et al* (2005: 101) further reiterates by saying “Apartheid social engineering, spatial planning and rural–urban migration have created urban sprawl and the expansion of racialised economic geographies.” Affluent suburbs and prosperous economic centres offering rich opportunities of all kinds contrast with overcrowded, impoverished dormitory settlements on the periphery. The Apartheid government implemented economic policies, spatial arrangements and racial prejudice that contributed to social injustice present in Cape Town today. Poverty was therefore socially engineered. The economy was developed to exclude the majority of people. During the Apartheid-era, racially discriminatory laws and practices were designed to exclude black people from the countrys’ mineral wealth and other major wealth accumulation resources (Jara, 2010).

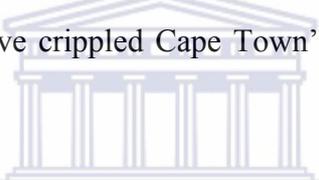
3.1.1 Inequality and Poverty

South Africa remains one of the most unequal countries in the world in terms of the socio-economic gini index (a measure that compares income differentials of the richest and poorest), which moved from 0.68 in 1991 to 0.77 in 2001 (McDonald, 2008). The 2011 census results suggest that South Africa is now home to nearly 52 million people, compared to 44,8 million in 2001. In addition, the country also has an unemployment rate of 30 per cent (Stats SA, 2011). Donnelly (2012) suggests that the 2011 results show that inequality remains in the country from education to employment. Donnelly (2012: no page number) further observes:

despite average household income having risen by 113.3 percent – well above inflation – during the past decade, white households retain the top spot with the highest average annual income of R365 134. This is more than three times the national average of R103 204 and more than six times the average annual income of African households, at R60 613.

Although trends show there is a slight change, progression remains slow. The poor in the country are still dominated by a black demographic whilst white South Africans dominate the rich income group of the country (StatsSA, 2011). This is the reality, inequality and poverty is evident along income and racial lines.

Census 2011 found the population of Cape Town was classified as follows: 42% coloured, 39% black African, 16% white, 1% Indian/Asian (StatsSA, 2011). The physical size of Cape Town has grown substantially. Swilling (2010: 230) states that “between 1977 and 2006 the size of Cape Town in land area increased by 40 percent - nearly half of what is now Cape Town has been built in the last 25 years.” Despite this immense growth Cape Town remains one of the most unequal and marginalised cities in the world (McDonald, 2008). Even though inequality in Cape Town has improved by some indicators, for example more people have access to houses, water, healthcare, education and other important amenities, despite the rapid growth of population. As noted above, Cape Town has one of the worst urban gini coefficients in the world (McDonald, 2008). Increasing urban sprawl has escalated the need for resources such as water and energy, and services such as waste management. Addressing inequality in an urban area is important because according to UN-Habitat (2008: 50) when people perceive inequality as a result of unfair processes and unequal distribution of opportunities, it can create conditions of unrest. This is true when evaluating the large number of protest actions that have crippled Cape Town’s work force in recent times (See Figure 9).



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Protests cripple Cape Town

August 11 2012 at 12:01pm
By Junior Bester
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Cape Town - Violent protests involving a petrol bomb, burning tyres and stone-throwing crippled Cape Town yesterday, with the N2 closed for most of the day, while flights from Cape Town International Airport were delayed.

Sixty people have been arrested.

Police came under attack as more than 500 protesters threw a petrol bomb, burned tyres and attacked vehicles and police with stones. Two police officers were injured, a police spokesman said. One was hit in the face with a brick.

Police fired back with rubber bullets, and used a water cannon to bring the fires from burning tyres under control in the latest of a spate of service delivery protests that have rocked the city over recent weeks, prompting accusations that they are being orchestrated by the ANC Youth League.

Yesterday mayor Patricia de Lille continued to blame the youth league. But the ANCYL hit back, saying the provincial and city governments were playing “the blame game”.

The trouble began just before 4am yesterday, with a group of about 200 people gathered at the airport approach road. When the police and the city’s law enforcement agencies warned them to disperse, they started throwing stones and faeces.



INDEPENDENT NEWSPAPERS
Violent protests involving a petrol bomb, burning tyres and stone-throwing crippled Cape Town on Friday.
PICTURE: THOMAS HOLDER

Figure 9 Reports of protest action in Cape Town which brought the city to a standstill for several hours

(Source: Bester, 2012 Cape Times accessed from: [www. iol.co.za](http://www.iol.co.za))

Further, according to UN-Habitat (2008, 50):

Inequalities take various forms, ranging from different levels of human capabilities and opportunities, participation in political life, consumption, and income, to disparities in living standards and access to resources, basic services and utilities... A society cannot claim to be harmonious if large portions of its population are deprived of basic needs while others live in opulence. A city cannot be harmonious if some groups concentrate resources and opportunities while others remain impoverished and deprived.

If this sentiment is applied to the Cape Town context then the city is certainly not harmonious especially considering the stark differences between areas like Clifton and Camps Bay compared to Khayelitsha and Hanover Park. The differences in lifestyles, opportunities and access to resources are prominent.

Poverty and inequality are integrated with other social, economic, political and environmental issues (access to education, healthcare and basic provision of services) in the city. The impact, which poverty and inequality have on the natural environment, is fast becoming a problem. It leads to the unsustainable utilization of the environment and consequently, this may result in continual pressure on the natural environment and resources. Figure 10 indicates the rise of poverty in Cape Town post-apartheid. Poor communities in Cape Town such as Khayelitsha, Mitchell's Plain and Nyanga bear testimony to the impoverishing effects of the Apartheid legacy and the failure of the post-apartheid economy to alleviate poverty (De Swart, *et al* 2005).

Dawson (2002: 10) suggests that, "it is extremely expensive to be poor in South Africa today. The sprawling form of the nation's cities ensures that residents of distant townships have to make long and costly commutes to reach their workplaces." This is also true of Cape Town's poor living on the Cape Flats who commute long distances and long hours to get work each day. CoCT (2005: 36 cited in CoCT, 2006) explains "Intra city inequalities are even more stark with the 20 percent worst off areas in the city having an unemployment rate of between 40-58 percent, comprising 40 percent of the city's population and 68 percent of the city's unemployed." The economic challenges that the city faces include high levels of inequity, a mismatch of skills supply and demand, and low levels of industry competitiveness in relation to other developing cities (CoCT, 2007a). McDonald (2008) says the problem is that city planners rush to cater to an ever fickle über-elite by spending billions of rand on homogenous social and built environments deemed necessary to be internationally competitive, to make

Cape Town a world city. But this has further polarized the gap between rich and poor. Cape Town's decision makers have allocated the lion's share of the city's resources to benefit a few, leaving two-thirds of the city's population struggling in varying degrees of poverty. De Swart *et al* (2005: 102) say:

The city has both a monocentric and a polarized structure, with the wealth from its strong and relatively varied economy concentrated in the affluent northern and southern suburbs, in strong contrast to the poverty and marginality of the sprawling impoverished township periphery situated on the sandy expanses of the Cape Flats.

According to Cities Alliance (2007: 87) “between 15 and 20 percent of the city's residents live in informal settlements, and there is currently a housing backlog of over 260,000 housing units. HIV-AIDS and TB are escalating.”

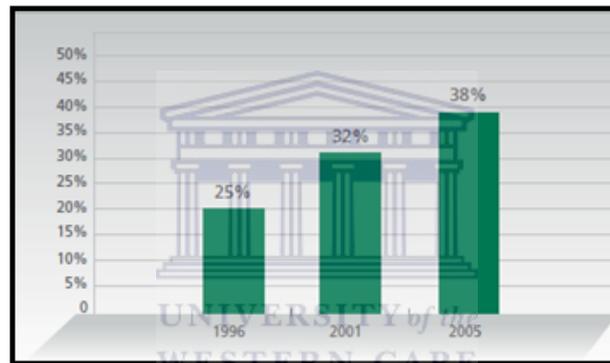


Figure 10 Number of Cape Town households living below the poverty line

Source: (Statistics South Africa, 2001 cited in CoCT 2008b: 46)

Pieterse (Pers. comm cited in CoCT, 2006: 34) recognises the social crisis in Cape Town and suggests:

The city is suffering from a high unemployment rate resulting in a range of detrimental social and economic consequences for these people and society in general. This social crisis can be addressed by better associations between the state and the economy and through improved youth development.

Further Ehrenreich (Pers. comm cited in CoCT, 2006: 34) contributes “the polarisation between rich and poor in the city is the reason why gangsterism and drug abuse are exploding in the townships.” The conservation areas that surround these townships are also affected. McDonald (2008: 31) makes reference to the spatial expression of inequality within Cape Town by suggesting that:

the spatial legacy of apartheid meant that the city core, and virtually all of the upper income housing in the city (situated in the city centre and along the mountain spine and coastline that run southward from the city centre), are separated from vast, sprawling low-income townships on the Cape Flats by rail and road corridors, industrial space or parkland.

The physical set up of the city further entrenches the inequality of the post-colonial and post-apartheid periods. In addition, enormous gaps between white, coloured and black residents can be seen in Cape Town, with the latter being as poor on average as the black citizens living in other South African cities (McDonald, 2008). Furthermore, McDonald (2008) suggests that it is not only income that is an indicator of Cape Town's extreme inequalities. The city is unequal across a wide range of fronts, from wealth to health to crime and unemployment.

McDonald (2008: 36) suggests that this is visible in “the inferiority of service delivery in the townships, bleak, treeless streets on the Cape Flats, the angst and humiliation of water cut-offs for non-payment of services and the fear of gang violence.” Cape Town is not the only city in the world and South Africa that is experiencing these problems but “what makes Cape Town's inequalities so exceptional are the highly spatial ways in which they operate... well-to-do residents can live a life that is largely separated from their socio-economic ‘other’” (McDonald, 2008: 41). This notion suggests that apart from the physical and economic inequality in the city, inequality has also become apparent in people's behaviour and attitude towards one another. The City of Cape Town (2006: 15) has identified the following factors that reinforce segregation and inequality in the city:

- Growth in the number of people living in informal settlements (23 000 families in 1993 increased to approximately 115 000 families in 2005)
- Increasing housing backlog (150 000 in 1998 to 265 000 in 2005). Some recent estimates, using alternative methodology / definitions, put the current backlog at 300 000
- Rising unemployment (13 percent in 1997 to 21 percent of the labour force by 2005)
- Rising poverty (from 25 percent in 1996 to 38 percent of households living below or marginally above the household poverty line in 2005)
- Increasing HIV prevalence among women visiting public health clinics (from 1.2 percent in 1994 to 15 percent in 2005, based on provincial antenatal statistics and following the same trajectory as the national trend)

- Increasing tuberculosis cases (from 13 870 in 1997 to 26 754 in 2005).

Although these statistics paint a bleak picture for Cape Town, the challenges are stacking up but there are also opportunities to improve the socio-economic circumstances. This shall be further discussed in Chapter 4.

3.1.2 *Conflicting Interests*

In the previous section, it was suggested that Cape Town is not a harmonious city. The different interests of people living within the city are influenced by their individual socio-economic circumstances. In this respect, poverty, inequality, marginalisation and the embedded burden thereof influences the benefits and expectations that people have of conservation. Compare for instance Helderberg Nature Reserve with Macassar Dunes Nature Reserve. At Helderberg, the community (Friends of Helderberg) practically co-manages the reserve together with the city. They have sponsored the salary of an environmental education officer, they organise weekly talks by experts and volunteer in the day-by-day running of the reserve. At the Macassar Dunes office, they have the community involved in the running of the reserve but community members receive a small stipend for their contribution. There are differences in the socio-economic circumstances, the same situation (volunteering for nature) but different benefits and expectations. The question is, with these different interests, if conservation should be under greater threat would the people of the city be able to stand together to protect it?

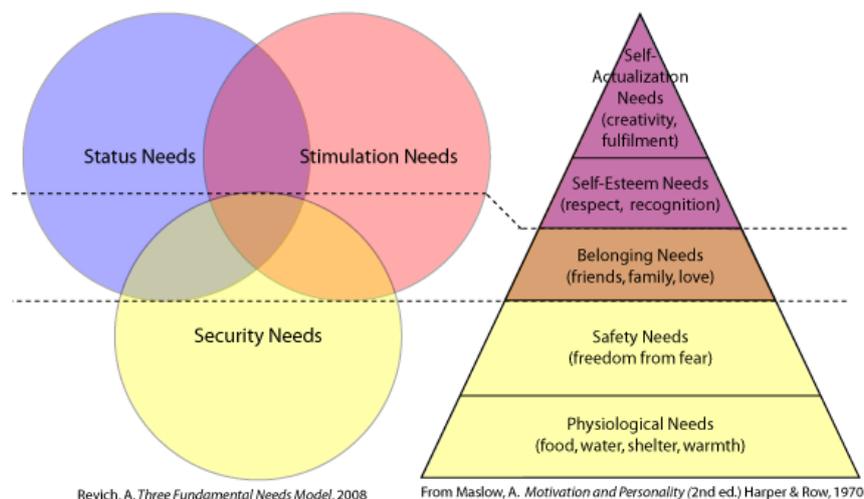


Figure 11 Comparison of the Fundamental Needs Model with Maslow's Hierarchy of Needs

(Source: <http://www.thegoalfocusedway.com/tag/maslow/>, no page number)

Different interests are attributed to the different needs of people. Figure 11 shows Maslow's hierarchy of needs compared to the fundamental needs model. The hierarchy consists of five levels of attainment: the lowest level is associated with physiological needs (basic human needs to survive), while the uppermost level is associated with self-actualization needs, particularly those related to identity and purpose. The higher needs in this hierarchy only come into focus when the lower needs are met. Once an individual has moved upwards to the next level in the needs hierarchy, needs in the lower level will no longer be prioritized. The communities who surround the five study area reserves are placed in the lower section of the hierarchy and this relates to meeting their basic needs, food water, shelter and safety and security. Once they move out of this category they may be able to dedicate time to conservation.

This is also shown in the difference for the reasons of protest. In Cape Town, in May and September 2011, two separate groups of people were protesting. One was against poor sanitation and the demand for basic service delivery, the other against the brutal killing of rhino as shown in Figure 12. This does not indicate that poor people do not care about the environment - it is just that they don't have time to care (Eksteen, 2009). In light of this contention it is necessary to refer back to Maslow's hierarchy of needs examined by Mathes (1981). The people protesting for basic service delivery are hoping to fulfil their physiological and safety needs while the people protesting against rhino killings are hoping to fulfil self-esteem needs and self-actualisation needs, recognition and fulfilment respectively.

In South Africa, improved resources were provided to a small percentage of the population during apartheid while the majority were neglected. This legacy places visitors who regularly visit and support reserves like Tygerberg Hills and Helderberg nature reserves at an advantage. These groups mostly visit with the inherent top three levels of Maslow's hierarchy in mind and are thereby attracted to the prospects and thinking of conservators, while visitors to Wolfgat are actively participating in the bottom two levels and focus on prospects of food and water, security and employment (Eksteen, 2009).



Figure 12 (Left) Protestors against rhino killing (Right) Protestors against outside toilets in Khayelitsha
 (Source: <http://www.ideate.co.za/2011/09/08/ideate-supports-rhino-day-2011-you-should-too>: no page number and: <http://sanitationupdates.wordpress.com/2011/05/06/south-africa-landmark-ruling-on-right-to-sanitation-ends-cape-town-toilet-wars>: no page number)

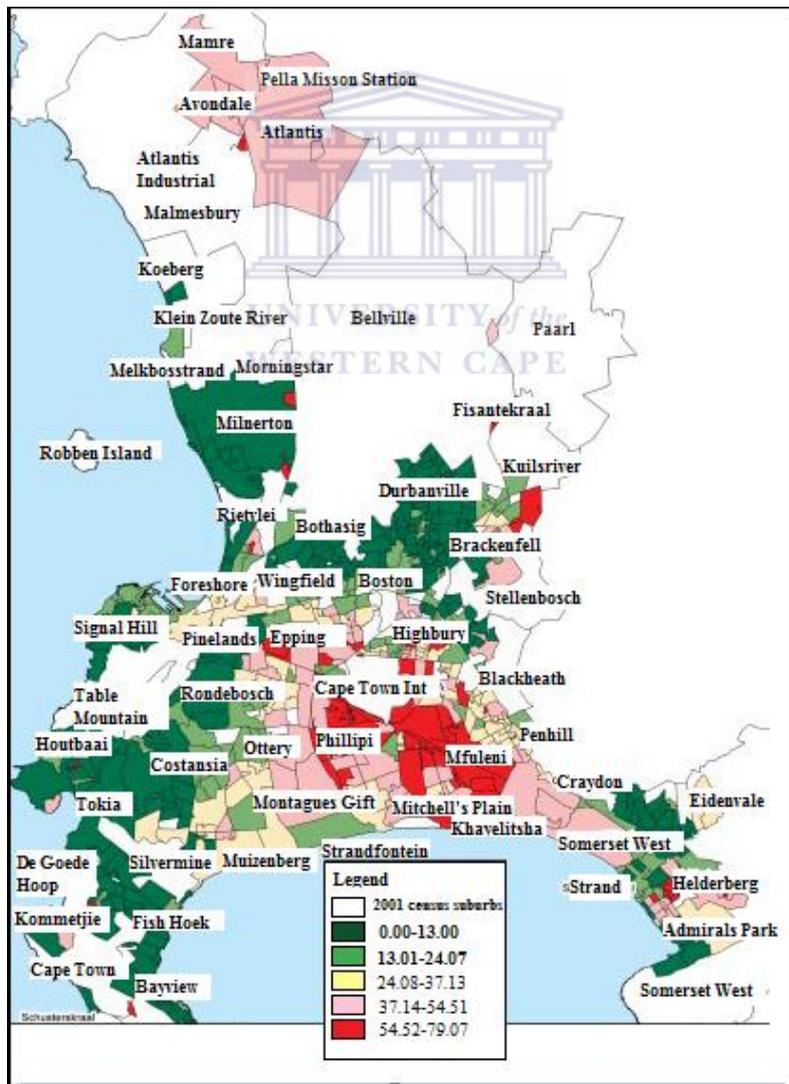


Figure 13 Social economic index for the Cape Metropolitan Area
 (Source: CoCT, 2006: 16)

Figure 13 illustrates the socio-economic disparities within the Cape Metropolitan Area. The map legend distinguishes between a high score which indicates absolute poverty and a lower score suggestive of affluent suburbs. The poorest areas of the city are suburbs such as Khayelitsha and Philippi indicated by the red colour regions on the map. Low income suburbs are the next poorest such as Mitchell's Plain, Macassar and Hanover Park. The middle income suburbs are represented by the yellow and light green and these are areas such as Grassy Park and Strandfontein. Affluent suburbs are largely clustered around Table Mountain. These are suburbs such as Rondebosch, Tokai and Constantia. If one compares the study area map (see Figure 1, p. 4) to the socio-index map (Figure 13), it is clear that the five reserves fall within the highest socio-index score. This means that reserves and conservators face challenges greater than species threats, they also have to deal with poverty, inequality and the associated crime factors.

3.2 Conserving the Cape Floristic Region

3.2.1 Unique Biodiversity



South Africa is ranked the third most biologically diverse country in the world and is home to a number of global hotspots of biodiversity (WCMC 1999 cited in Western Cape State of the Environment Report, 2005). There are six floral kingdoms in the world, the Cape Floristic Kingdom is the smallest in geographical size but has the highest species diversity (COCT, 2008b). Critical Ecosystem Partnership Fund (CEPF) (2001: 6) goes further by saying “this small area contains nearly 3 % of the world’s plant species on 0.05% of the land area.” The region extends over 87 897km² which falls within three of South Africa’s provinces (see Figure 14).

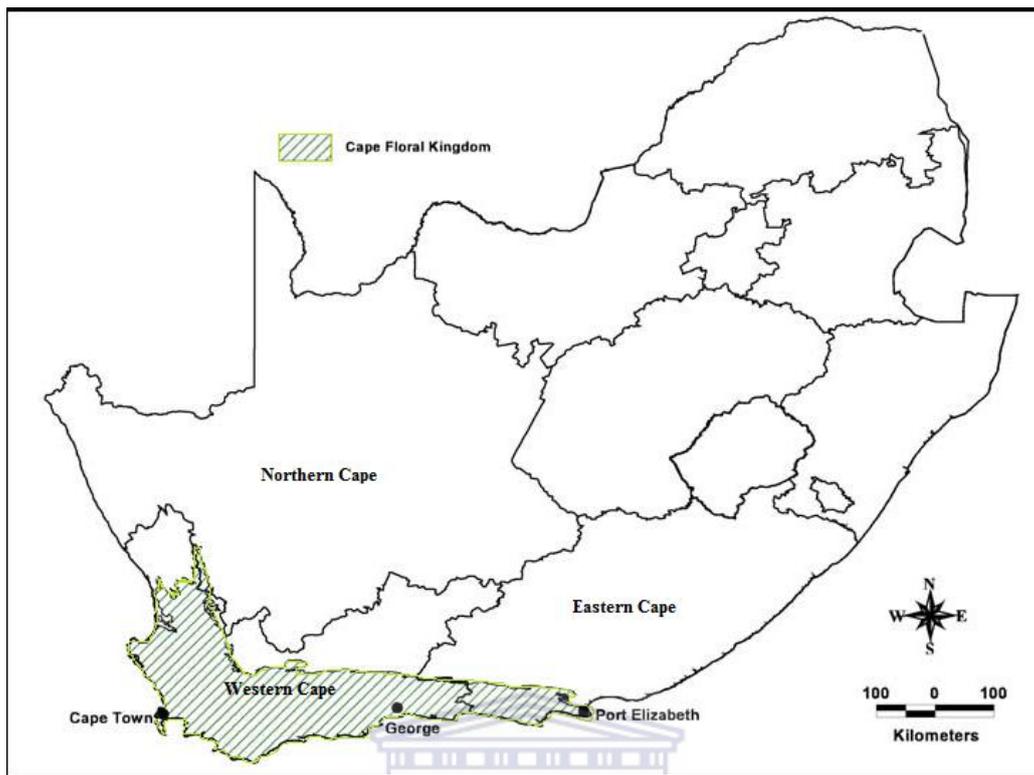


Figure 14 The extent of the Cape Floristic Region
(Source: CEPF, 2001: 7)

The Cape Floristic Region (CFR) is identified as a global biodiversity hotspot of global significance (Myers *et al*, 2000). The City of Cape Town (2008a: 3) confirms “it is an area of high biodiversity and unique conservation value – a global urban biodiversity hotspot without parallel.” The recognition is attributed to its high concentration of endemic species, particularly plants and invertebrates. The region’s vulnerability to factors (economic and social) which threaten species extinction also contributes to the conservational value. In addition, the CFR has three other global acknowledgments. It is listed as a centre for plant diversity (Davis *et al* 1994 cited in Frazee *et al*, 2003), an endemic bird area (Stattersfield *et al* 1999 cited in Frazee *et al*, 2003) and a Global 200 eco-region (Olson and Dinerstein 1998 as cited in Frazee *et al*, 2003). The Critical Ecosystem Partnership Fund (2001: 8) notes the rich biodiversity of the CFR is due to an extensive and complex array of habitat types derived from topographical and climatic diversity in the region’s rugged mountains, fertile lowlands, semi-arid shrub lands, and coastal dunes. The dominant vegetation of the CFR is fynbos...in the lowlands, fynbos is replaced by renosterveld.

A total of 1406 of the areas plant species is listed in the red data book (Raimondo *et al*, 1996), the highest known concentration for such species in the world (Cowling and Taylor, 1994 cited in Frazee *et al*, 2003).

Most of the CFR has been transformed by cultivated land (see Figure 15), while urban areas and alien invasive trees account for a smaller portion, but collectively account for a significant transformation rate of the region (Frazee *et al*, 2003). Approximately 22 percent of the CFR is formally conserved which amounts to 19 350km². The conservation sites are managed at national, provincial and local level in the form of national parks, provincial reserves, forest reserves, nature reserves, local reserves, protected natural environments, conservancies, natural heritage sites and private nature reserves (Rouget *et al*, 2003b). Despite these efforts the Critical Ecosystem Partnership Fund (2001: 3) says “this unique environmental region is seriously threatened by human activities.” The lowland fynbos biome which falls within the Cape Flats area only has 4.5% of its previous extent remaining and the biome is threatened by further development (Critical Ecosystem Partnership Fund, 2001). Cities Alliance (2007: 87) states “Cape Town is also one of the earth’s mega-disaster areas — an area that already has lost or is on the verge of losing a significant part of its biodiversity. The extinction rates for the city are the highest for any metropolitan area in the world.”

The City of Cape Town’s nature reserves are relatively small areas with large edge effects and altered ecological processes. The biodiversity is highly threatened and requires effective management to secure its survival. An international “Management Effectiveness Tracking Tool” (Holmes *et al*, 2011): system is being implemented at the city’s reserves to evaluate and improve management successes. The tool is adapted from the World Bank and World Wide Fund’s system. In addition, conservators undergo annual personal performance evaluations, to monitor and improve management (Holmes *et al*, 2011). However, Ernston (2012) argues against this computer based method of conservation planning saying it excludes important biodiversity sites as the case with Bottom Road Sanctuary. Ernston (2012: 3) further suggests that the expert-based Cartesian practice of controlling space used by the City and SANBI has been embodied in the form of expert-managed nature reserves and biodiversity mapping techniques that calculate the “value” of green areas by counting the number of species they contain. Green spaces that fall outside nature reserves or that rank low on potential to sustain biological diversity receive less funding and attention. Figure 15 below shows Cape Town’s Biodiversity Network (Davis, 2005; Oelofse, 2005).

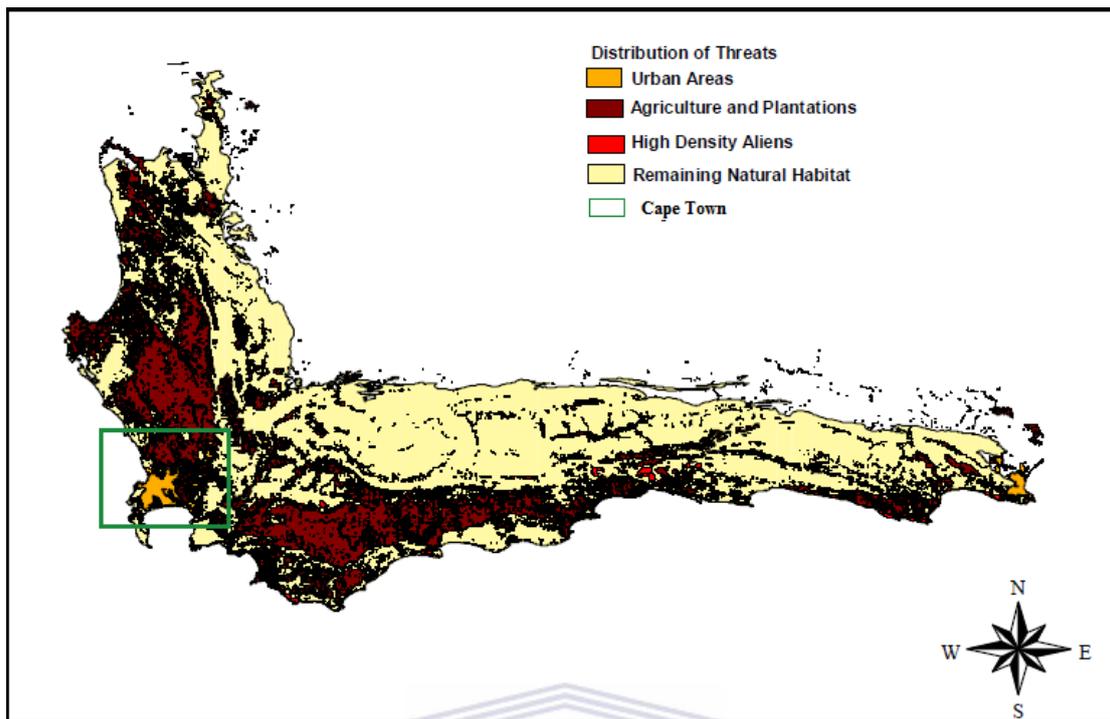


Figure 15 Land-use in the Cape Floristic Region
(Adapted from: CEPF, 2001: 7)

3.2.2 *Fragments amongst Urban Spaces*

Conservators usually take every opportunity to protect large habitat parcels as they believe it is essential for maintaining biodiversity and large-scale ecological processes. The large habitat parcels maintain viable ecosystems and evolutionary processes. Unfortunately protected areas are often too small and isolated to do this effectively and the unprotected habitats surrounding the fragmented protected areas are highly threatened (CEPF, 2001). It is for this reason that linkages of all the fragments need to be maintained in order to create a large biodiversity network. This speaks to the single large or several smaller (SLOSS) debate which arose during the 1970's between conservators and ecologists. MacArthur and Wilson (1967) argued that larger conservation areas increase species richness. Simberloff and Abele (1976) contested this theory and suggested that their theory assumes the large area had all the species which are present in the smaller reserves, but point out that two smaller reserves could have more species diversity than one single large reserve.

One single large reserve is not possible within an urban area such as the City of Cape Town but the city does have several nature reserves which form part of the biodiversity network.

The biodiversity network is not only imperative for ecosystem viability but it also provides ecosystem services to people living in the city. In fact, a study undertaken by the City's Environmental Management Department (CoCT: 204 2008a cited in Cullinan, 2010) demonstrated that natural open space in the metropolitan area is highly valuable owing to the ecological and social functions it performs. The value of ecosystem services was calculated by estimating the cost of having to artificially provide the services that are delivered by the environment. The natural open space within the Cape Metropolitan Area provides hundreds of millions of rands worth of services annually such as the wetlands which serve as natural sink and vegetation which serves as the green lungs of the city. However, the budget that the city spends on maintaining these ecosystem services is quite low.

The City of Cape Town (2008a) has committed to conserving natural areas by establishing thirty nature reserves (see Figure 16). In addition, it has developed a biodiversity network which links natural open spaces by corridors and ensures preservation of ecological and social functions. These "corridors allow the movement of animals and the dispersal of seed plants, which will prevent the reserves from becoming genetically isolated. These corridors include indigenous remnants, commons, roadside verges, indigenous gardens, servitudes for power lines, undeveloped land on farms and mixed-use areas" (CoCT: 2008a, 8).

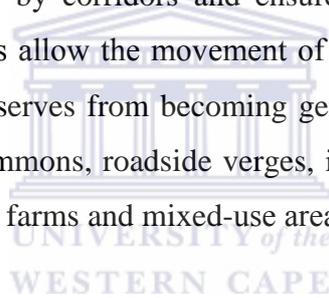




Figure 16 Conservation sites of the City of Cape Town
(Source: CoCT, 2008a: 2)

In Cape Town specifically, the value of its natural areas is immense. Every year the city generates millions from tourism activity. Tourists are attracted to the city's natural world heritage sites such as Table Mountain (CoCT, 2007). Buscher and Whande (2007: 31) suggest that "a lot of money can be made with biodiversity conservation. This is particularly due to the development of the international eco-tourism market with travellers seeking unspoilt natural areas for some enjoyment and recreation." Figure 17 illustrates the manner in which tourist operators and city managers market the natural beauty of the city for investments. The tourism industries also take advantage of the city's natural resources in this way.

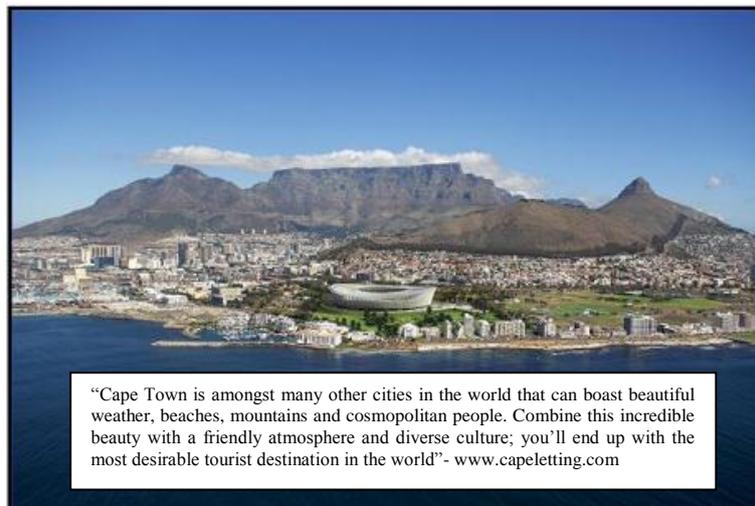


Figure 17 Cape Town’s tourism marketing focuses on its natural assets

(Source: <http://www.capetownsouthafrica.co.za/category/experiencing-the-great-outdoors-in-cape-town/>, 2011: no page number)

The City of Cape Town (CoCT, 2001a: 3) measures the value of biodiversity in terms of the following:

- Economic value of functioning ecosystems (e.g. clean water and clean air)
- Intrinsic value through its mere existence
- Contribution to tourism
- Consumptive use value e.g. harvesting
- Educational value
- Social value through recreation and open space
- Aesthetic value through beauty and scenic drives
- Spiritual value
- Bequest value – the value of retaining biodiversity for future generations
- Option value – the value of retaining biodiversity for future use

In Cape Town ecosystem services provided by the city’s natural resources i.e. freshwater systems, marine ecosystems, land, fresh air has an estimated total value of \$510 million per year (De Wit *et al.* 2009; Turpie, 2003). Figure 18 below provides a detailed summary of the relationship between ecosystem services and human well-being. The ecosystem services are provisioning, regulating, cultural and supporting. These provide a basket of values to human well-being such as security, basic material for good life, health, good social relations and freedom of choice.

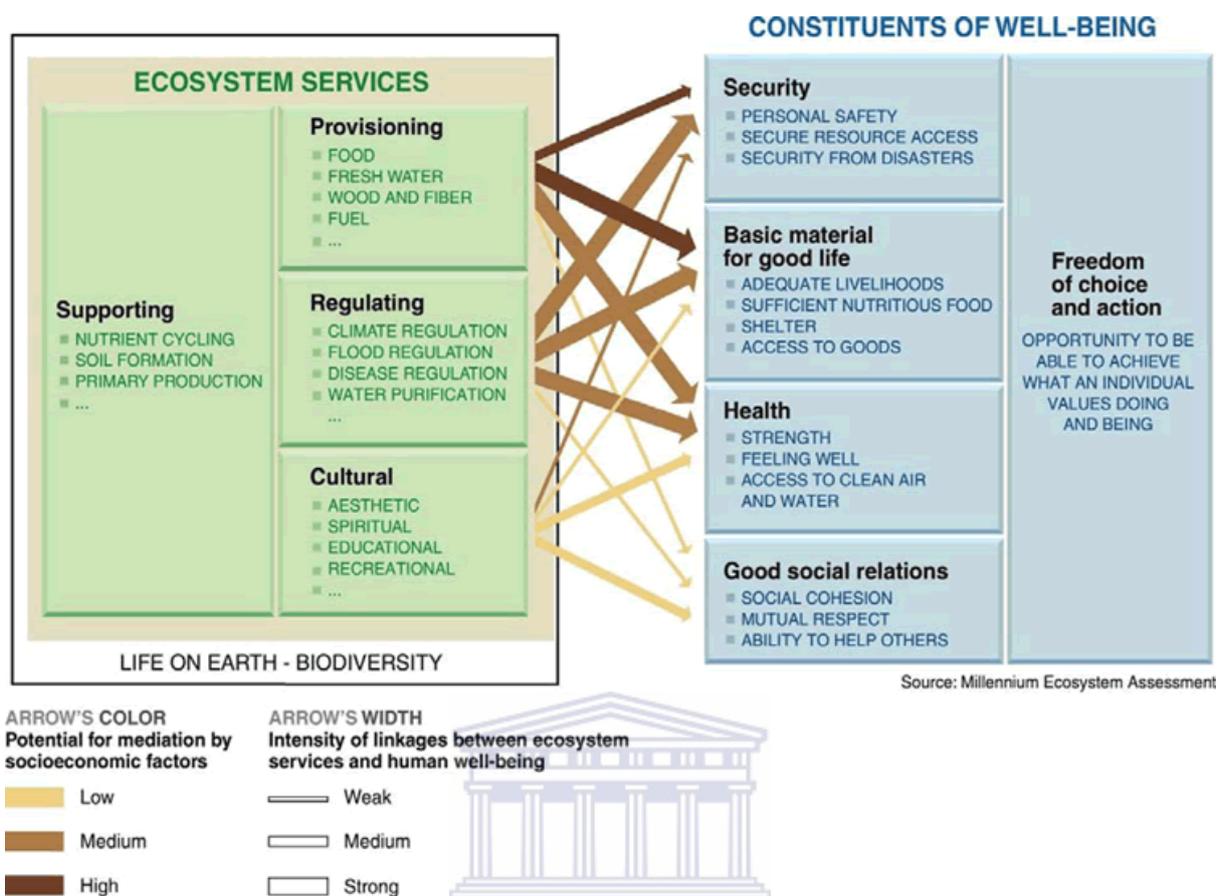


Figure 18 The relationship between ecosystem services with human health and well-being

(Source: Millennium Ecosystem Assessment, 2005: 50)

3.2.3 The Cape Flats Nature programme

Cape Flats Nature programme (CFN) was a civil-public, non-profit partnership programme founded in 2002 until its completion in 2011 (Pitt and Boule, 2010). The programme was established as a partnership between the City of Cape Town, the South African National Biodiversity Institute (SANBI), Table Mountain Fund (TMF) and the Botanical Society of South Africa. The programme was aimed at building good practice in the sustainable management of nature sites in the City of Cape Town's biodiversity network, in a people-centred way. It developed local leadership for conservation action to benefit the surrounding communities, particularly townships where incomes are low and living conditions are poor (CFN, 2010). These organizations shared a common interest in exploring and demonstrating how to manage priority biodiversity sites in the city in a way that benefits surrounding low-income, urban communities. SANBI was the implementing agency of the project while the

City of Cape Town hosted the project at six of the nature reserves in the biodiversity network. During this research the programme work ended in 2011. This was due to the end of the funding. The work duties of Cape Flats Nature staff were incorporated into SANBI's Urban Nature programme and the C,A.P.E programme. This expanded the focus of Cape Flats Nature to communities beyond the Cape Flats. The Urban Nature programme has established a national programme to spread and extend the practice and lessons learnt through Cape Flats Nature. This is more about drawing lessons and guidelines than duplicating the project in different centres.

The programme by many was seen as a radical initiative, which challenged previous conservation practice by building human capacity (both conservators and communities) amongst previously disenfranchised communities. The programme recognised that the Cape Flats is a poor area in terms of socio-economic-political circumstances but is also an area of high biodiversity and conservational significance (UNEP, 2006). Although the City of Cape Town has identified a biodiversity network in Cape Town, a problem arose as to how this network would be effectively managed against the backdrop of other socio-economic priorities (CFN, 2010). Cape Flats Nature therefore aimed to address the conservation management problem while catering to the needs of the local people by promoting a new approach to nature conservation in an urban context where poverty is rife. CFN serves as a catalyst in filling the gap between CBC policy and practice in Cape Town. The programme was experimental in nature as none of its kind has been attempted elsewhere in South Africa as yet. It was therefore hoped that their experiences would guide future Community Based Conservation (CBC) aspirations in other South African cities.

The primary objectives were to build good management practice at the six partnership sites (Wolfgat, Macassar Dunes, Edith Stevens Wetland Park, Mamre Gardens, Harmony Flats and Witzands Nature Reserves) (CFN, 2010). Provision for local leadership opportunities was made. In addition, the programme aimed to provide mutual benefits to both the ecosystem and society by ensuring environmental education, job creation, recreation and sustainable harvesting of medicinal plants (Goldman, 2003). Cape Flats Nature was established to address the challenge of conserving fragmented natural habitats in this urban setting where land is scarce and poverty is widespread. Some of the overall objectives of the programme are highlighted below:

- Build good practice in the management of its six partnership sites;
- Develop and encourage local leadership for conservation action that benefits surrounding communities;
- Build a conservation management practice that integrates social development and biodiversity priorities;
- Demonstrate conservation benefits to the surrounding communities;
- Build bridges between people and nature;
- Create appropriate communication tools;
- Influence policies and/or policymakers around key aspects;
- Encourage participation amongst researchers and/or partner bodies;
- Educate and create awareness concerning Cape Flats nature amongst its stakeholders;
- Communicate adequate information about Cape Flats Nature and its outputs to stakeholders. (Cape Flats Nature unpublished review report, 2011 and interviews)

Community partnerships were formed at each site. These partnerships consist of various types of organisations, such as the Hanover Park Development Forum, Gugulethu Urban Agriculture and the Mitchell's Plain Youth Development Forum. Community partners engage with managers at their local nature reserves. CFN hosted quarterly forums at different nature reserves, bringing together all community partners of the six nature reserves. The forums provided a platform for community exchange and the development of community projects. CFN recognised that building relationships was the core to successful CBC. Therefore they remained in constant contact with managers and community partners and encouraged the strengthening of relationships between the two entities as they were expected to have a positive effect on the conservation area. The Cape Flats Nature programme was instrumental in establishing Green Future Colleges at two partnership sites on the Cape Flats in 2009. The colleges succeed in linking conservation benefits and community development within the framework of national government priorities.

CFN (2006) evaluated the perception people had of the programme, and by way of illustrating this stark reality, respondents were in agreement that old-fashioned approaches to nature conservation involving fenced boundaries (that kept people out) and high visibility policing, were not viable. For council officials and workers, weary of fences stolen for their use in building houses, or broken because they obstruct a natural pedestrian path, these conventional approaches to conservation are too expensive and certainly not sustainable.

In 2011 the Cape Flats Nature Programme closed. There are two opposing opinions as to why the programme closed from two different sets of stakeholders. The first reason suggests that the programme was inevitably going to end as the nature of the programme was to catalyse processes which empowered community to take ownership of nature conservation areas. In 2011 these processes were set in motion and the lessons learnt from CFN needed to be implemented more broadly in other conservation areas with similar characteristics. The second opinion is that funding priorities had changed, although there was, and continues to be a need for a programme such as Cape Flats Nature, communities in conservation continue to take second priority while the ‘biodiversity first’ notion amongst traditional conservationist takes precedence. The latter opinion speaks to the underlying institutional bureaucracy which was often ‘secretly’ mentioned during the course of the research.

3.3 Background of study areas

Five conservation areas were selected as study sites. They were selected based on their conservational significance and proximity to previously disadvantaged communities. These five sites were also Cape Flats Nature partnership sites.

3.3.1 Edith Stephens Wetland Park



Figure 19 Aerial photograph of Edith Stephens Wetland Park and the surrounding areas of Manenberg, Nyanga and Phillipi

(Source: Eksteen, L, 2011 using Google Maps)

(i) Historical overview

The Edith Stephens Wetland Park (ESWP) was previously known as ‘Isoetes Vlei’ (<http://www.ekapa.ioisa.org.za/module6/Reserves/edithstephensreserve.htm>). The reserve is surrounded by the communities of Gugulethu, Hanover Park, Manenberg, Nyanga and Philippi. The reserve was established on land bought in 1940 by Edith Stephens, a botanist from the University of Cape Town. She was concerned by the rapid destruction of the wetland and its associated biodiversity. She was particularly interested in a fern-like species called *Isoetes capensis* which was found nowhere else in the world. Later in 1955 she donated the 3.7 hectares of land to the Kirstenbosch botanical gardens (<http://www.openafrica.org/participant/edith-stephens-wetland-park>). In 1999 the City of Cape Town contributed an additional 35 hectares and renamed it in honour of Edith Stephens. The reserve is now a buzz of activity which includes hosting the Primary Science Programme and before it closed down, the Cape Flats Nature Programme.

(ii) Conservational significance

The reserve forms part of the Cape Floristic Region (CoCT, 2008a). It consists of an extensive seasonal wetland, vital for an ecosystem service in a city context. The vegetation type is Cape Flats Dune Strandveld which is nationally endangered and endemic to Cape Town. In addition, remnants of the critically endangered Sand Plain Fynbos were also found on the reserve. The reserve also supports a variety of fauna species which includes Water Mongoose, Cape Clawless Otter, and Western Leopard Toad.

(iii) Constraints

The reserve is under serious threat from various factors, including the conversion of natural land into a permanent agricultural area (Isaacs, 2011). The reserve is adjacent to the Philippi horticultural area and farmers have requested additional land, earmarked for conservation, to extend their farms. Other threats are inefficient fire management, rapid and insensitive development, overexploitation, pollution of water resources and infestation by alien flora and fauna (Isaacs, 2011).

(iv) Gugulethu and Manenberg

The Gugulethu community is situated northeast of the reserve and 20km from the Cape Town Central Business District (Busgeeth, 2004). It was established in the early 1960’s in response to extreme overcrowding of Langa, which was the only formal housing area for black workers at the time. According to Census 2011 (Stats SA, 2011) Gugulethu has a population

of 21 908 people and Mannenberg 34 792 people. In both areas 42 percent of the labour force (16 to 65) is unemployed.

Manenberg was developed in the early 1970's. It was built for coloured people under the Group Areas Act of 1950's, a race based legislation which forcibly removed entire communities from the multi-racial working class inner-city towns of District Six, Harfield and Mowbray. Manenberg, like Gugulethu and Nyanga, is notorious for its high crime rate. The three communities collectively contribute to more than 25 percent of the violent, property and drug related crimes in Cape Town (Haskins and Gie, 2006). The unemployment figure for Manenberg is estimated at 66 percent (Selfhelp Manenberg, 2011). In addition, the area has been described as dysfunctional, as it is characterised by high levels of criminal activities, gang violence, tuberculosis, substance abuse, prevalence of teen pregnancies and domestic violence (Robins, 2002).

3.3.2 Harmony Flats Nature Reserve

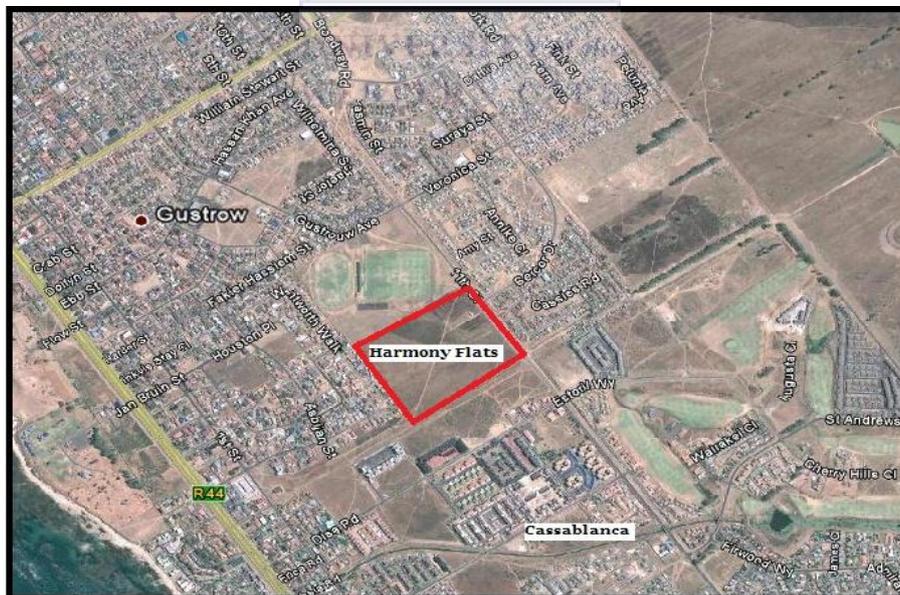


Figure 20 Aerial view of Harmony Flats Nature reserve and the surrounding areas of Casablanca and Gustrow

(Source: Eksteen, L., 2011 using Google Maps)

(i) Historical overview

Harmony Flats Nature Reserve (HFNR) is a nine hectare plot surrounded by the Casablanca, South Fork and Gastrow communities (<http://www.ekapa.ioisa.org.za/ekapa/module6/Reserves/harmonyreserve.htm>). It was officially proclaimed in 1986 as a provincial nature reserve, predominantly to protect the endangered geometric tortoise (Lindani, 2011). The nature reserve was unable to protect the tortoises due to continuous damage to the reserves fencing. In the early 1990s, the remaining tortoises were removed from the reserve and taken to the Tygerberg Zoo for protection. However, they were stolen almost immediately from the zoo (Geldenhuis, pers. comm, 2011).

(ii) Conservational significance

Harmony Flats Nature Reserve conserves a critically endangered vegetation type known as Lourensford Alluvium Fynbos, a lowland fynbos type. Less than five percent of its previous extent remains, one percent is currently protected and more than 94 percent of the vegetation type has been transformed to diverse land uses, including housing development, agricultural and recreational areas (Lindani, pers. comm, 2011). The reserve has a rich floral asset; it hosts approximately 220 plant species most of which are endangered and endemic to the area (CoCT, 2008a). Harmony Flats is one of three sites where this unique vegetation type is still found, the other two include Helderberg Nature Reserve and Vergelegen Wine Estate. In addition, a critically endangered *Ixia versicolor* species can be found on Harmony Flats. The nature reserve is known to have the last viable population of this plant (CoCT, 2005a). Due to its small size, the reserve has limited mammalian, reptile and avifauna species. There have however been sightings of the Black Shouldered Kite, the Cape Cobra and the supposedly extinct Southern Spiny Agama.

(iii) Constraints

Fires are the biggest threat to the reserve caused by people's lack of information and carelessness (Low, 2006). Fynbos needs to burn on average every eight to twenty five years but at Harmony Flats the reserve burnt more than once a year and almost every year. The fires were reduced once the community got involved in conservation. But the frequent fires contributed to the extinction of the geometric tortoise in the area. Other threats include rapid urban development, illegal dumping, illegal harvesting of resources, and uncontrolled footpaths as the reserve is used by local residents as a way through to the beach (Lindani, pers comm., 2011).

(iv) Casablanca and Lwandle

The Casablanca area is north of the nature reserve entrance. The area was created in the 1950s to provide housing for coloured farm workers mainly coming from the Northern Cape (Geldenhuis, pers comm, 2011). Later, in the 1990's low cost RDP housing was built to meet the increased housing demand in the area. In 2006, the unemployment rate of the community was 21 percent with 46 percent of residents earning an average income of less than R1600 per month (Romanovsky and Gie, 2006).

The Lwandle Township was established in 1958. Single sex hostels were built for labourers who worked in the nearby fruit and canning industry (CoCT, 2005a). In the 1980's the hostels became overcrowded as influx control laws were lifted and the area grew rapidly due to male and female migrants coming in from rural areas, mainly the Eastern Cape (CoCT, 2005a). The unemployment level in the community is 34 percent with 26 percent of people earning less than R1600 per month (Stats SA, 2011). The area has a museum called the Lwandle Migrant Labour Museum which serves as commemoration to the country's heritage.

3.3.3 Wolfgat Nature Reserve



Figure 21 Aerial view of Wolfgat Nature Reserve and the surrounding areas of Tafelsig and Lost City
(Source: Eksteen, L. 2011 using Google Maps)

(i) Historical overview

Wolfgat Nature Reserve extends across 248 hectares of natural area. It is bordered by Mitchell's Plain residential area to the north (including Tafelsig and Lost City) and Khayelitsha to the northeast. In 1962 researchers discovered a fossil den site dating back 40 000 years, which was able to reveal clues of what the Cape Flats looked like thousands of years ago (Walters, 2011). Unfortunately the den collapsed before further research could be conducted (Khan, 1994). In 1972 researchers surveyed the area and identified it as a potential nature reserve due to its rich biodiversity. It was only in 1986 that the reserve was officially proclaimed a Local Authority nature reserve. The name Wolfgat was derived from the brown hyena or 'strandwolf' which previously roamed the area. Evidence of Khoi communities living in the region was also discovered in the reserve (CoCT, 2000).

(ii) Conservational significance

The reserve has the largest protection of the endangered Strandveld vegetation and limestone cliffs. Most of the Strandveld vegetation was lost to urbanisation and recreation, today only 14 percent is conserved and 56 percent has been transformed by urban development (CoCT, 2008a). The reserve also hosts a rare mainland breeding colony of Kelp Gull. There are only three mainland breeding colonies of Kelp Gull in the Western Cape (Walters, 2007). In addition, a breeding pair of Peregrine Falcons has been spotted nesting in the limestone cliffs along with the endangered African Oyster Catcher and over a hundred various avifauna species (Walters, 2011). Wolfgat offers sanctuary to a variety of mammalian species such as Steenbuck, Cape Grysbok, Small Grey Mongoose and the Cape Hare. The reserve is also home to reptile, amphibian and invertebrate some of which include the Angulate Tortoise, the Sand Rain Frog and the Corn Cricket. Therefore the importance of conserving the remnant fauna and flora has been recognised by the Botanical Society of South Africa (BotSoc) and the Wildlife and Environmental Society of South Africa (WESSA). These organisations have identified Wolfgat as "a core area of high conservation importance" (Walters, 2011).

(iii) Constraints

The reserve is located within close proximity to urban development. The increase in housing developments and the continual housing demand in the area threaten conservation efforts. The reserve is not fenced like some of the other nature reserves in the Cape Metropolitan Area. The conservator working at the reserve argues that fencing would prohibit local community access to the reserve, as the reserve is deemed to be a community asset.

Unfortunately, this allows for uncontrolled access to the reserve which is now notorious for its criminal activities. Other threats to the reserve include collection of plants, roots and bulbs for medicinal use, poaching, limestone quarrying, illegal dumping and illegal sand mining (Walters, 2011). September (2008) revealed that only 54 percent of residents living along the periphery of the reserve are aware of its conservational significance. This could be one of the reasons why the reserve is facing so many threats. The reserve is used for multiple purposes by the community - these include conservational uses such as sightseeing and environmental education, non-conservation uses i.e. traditional ceremonies and Christian outdoor church events and lastly extractive uses i.e. fishing, and flower picking (Eksteen, 2009).

(iv) Mitchell's Plain

Wolfgat Nature reserve is surrounded by the Mitchell's Plain community. Mitchell's Plain was planned and built during the apartheid era as a completely new town to alleviate housing shortages in the coloured communities of Cape Town (Kagee and Frank, 2005). Approximately 37 percent of people are unemployed and 26 percent earn less than R1600 per month in 2011 (Stats SA, 2011). The distance from Cape Town's Central Business District (CBD) makes the population highly reliant on public transport. The region has a low residential density with minimal access to open space and a design layout which does not facilitate neighbourhood surveillance, resulting in a community safety problem. Poverty and unemployment are rife and social crime is a major issue.

The population predominantly consists of young children and youths (Kagee and Frank, 2005: 12). Approximately 46 percent of the population is between the ages of 0 to 21 years old and 33 percent between the ages of 21 to 40 years old. Therefore children and young people are a key demographic and social factor in this region. The 2011 census data provides information on the overall demographic and socio-economic data of Mitchell's Plain and it indicates high unemployment in the community. In addition, the region has a low ratio of advanced education (Kagee and Frank, 2005). The level of education is vital as it points towards a constricted skills base which may result in a limited level of employability (Kagee and Frank, 2005).

Crime remains an issue for the reserve "due to the absence of a fence or formal entrance point, gangsters in the area are able to freely access this portion of the nature reserve and use it as an informal burial ground for their victims, and as a place of shelter when engaging in

criminal activity’ (CoCT, 2005a: 55). The community surrounding the reserve also revealed that their fear of the reserve has been stimulated by the high amount of crime occurring in the reserve (September, 2008).

3.3.4 Macassar Dunes Nature Reserve



Figure 22 Aerial view of Macassar Dunes Nature reserve and the surrounding area of Khayelitsha and Macassar

(Source: Eksteen, L. 2011 using Google Maps)

(i) Historical overview

Macassar Dunes Nature Reserve is surrounded by Khayelitsha and Macassar residential areas (Walters, 2011). The reserve extends across a total of 1116 hectares of natural area. Despite its conservational significance the reserve still has no formal proclamation status. This is due to the sand mining activities occurring on the reserve’s dunes. The area not only preserves South Africa’s rich floral heritage but also its diverse cultural heritage such as the *kramat* (a shrine), of Sheikh Yusuf who was buried on a hill overlooking Macassar in 1699. The Sheik is said to be the father of Islam in South Africa. He established the first Muslim community in South Africa and the shrine with his remnants remains a place of pilgrimage for Muslims (Walters, 2011).

(ii) Conservational significance

Macassar Dunes Nature Reserve has the highest dune system remaining on the Cape Flats. In addition, a combination of five ecosystems can be found within the reserve boundaries. This includes coastal, river, dune, estuary and forest (Walters, 2007). The dunes provide a habitat for the endangered Strandveld vegetation and its associated fauna. The importance of the dune thicket cannot be over emphasised (Low, 2006). The Macassar dune system has been accorded various levels of conservation significance since the mid 1980's (Walters, 2011). The dunes serve as a protective buffer against stormy seas and high spring tides (Walters, 2011). The coastal dunes are highly sensitive to disturbance of any kind. Strandveld Dune vegetation plays an important role in enabling the dune to function as a natural reservoir. Without the vegetation stabilising the dunes it will no longer be able to trap sand blowing from the shoreline and the dune would gradually become a landward moving mass of drift sand, which could threaten activities inland such as roads, and urban development (Walters, 2011).

The estuary found at Macassar is the only natural open mouth estuary along the False Bay coast. In addition the forest ecosystem in the reserve consists of the only standing White Milkwood forest remaining on the Cape Flats. The reserve has rich bird and fauna species some of which are found on the red data list (Raimondo, 2009).

(iii) Constraints

Sand mining is the reserve's biggest threat. The Department of Mining and Energy granted mining rights to three sand mining companies based on 20 year permits, due for expiration in 2020. Graham (2010, 34) notes that "for the Macassar residents the mining possess a hotly contested issue since the industry is perceived as generating little benefit to the community in terms of employment or economic development." The reserve is not fenced which allows off road vehicles such as 4x4's the opportunity to access the dunes effortlessly. This causes increasing damage to the sensitive dune system. Other threats which constrain conservation efforts include poaching, urban encroachment, removing of plants and illegal dumping (Walters, 2011).

(iv) **Khayelitsha**

A large portion of the reserve is surrounded by Khayelitsha residential area. The residential area was established in the late 1970's by the apartheid government to accommodate black people who lived in and around the Cape Metropolitan Area. The area consists of a mixture of formal and RDP housing but the majority of people still live in informal settlements. Statistics South Africa estimated the total population size at 81 865 in Census 2011 (Stats SA, 2011).

This area has one of the highest crime rates in the province, and one of the highest murder rates. The area has a young population, 60 percent of the residents are under the age of 20 years old (CoCT, 2005b). The demographic and socio-economic data indicates high unemployment as well as a low ratio of advanced education (Kagee and Frank, 2005). This is associated with lack of skills and therefore poor employability. The unemployment figure for Khayelitsha is approximately 60 percent of the economically active population (Kagee and Frank, 2005). These demographic figures are coupled with poor living conditions, inadequate access to social and recreational facilities and high levels of social problems. The overall picture is therefore quite bleak and points towards the need for sustained and integrated development strategies in the long term (Kagee and Frank, 2005).

3.3.5 **Witzands Aquifer**



Figure 23 Aerial view of Witzands aquifer and the neighbouring Atlantis area
(Source: Eksteen, L, 2011 using Google Maps)

(i) Historical overview

The reserve is surrounded by the Atlantis, Pella, Witzands informal settlement and Mamre communities. It is situated approximately 45km north of Cape Town's Central Business District (CBD) and covers a total area of 1770 ha. The reserve was unofficially proclaimed in 1994 (McKie, 2011) but is currently in the process of being formally protected. The aquifer is managed by the City's Bulk Water Branch which supplies water to the communities of Pella, Atlantis and Mamre (McKie, 2011). Geographically, the reserve does not form part of the Cape Flats area but it was selected as a study site because of the similar social context mirroring communities on the Cape Flats, and the site is also one of the Cape Flats Nature's partnership sites.

(ii) Conservational significance

The reserve provides an important link in Cape Town's biodiversity network. It connects to the Blaauwberg Nature Reserve, Koeberg Private Reserve and Mamre Nature Garden. The area has marvellous flowing white unvegetated dunes which are 9 km long and 4 km wide. The reserve conserves the endangered Cape Flats Dune Strandveld vegetation and the critically endangered Atlantis Sand Fynbos. Only 5.1 percent of the Atlantis Sand Fynbos' previous extent remains, six percent is conserved and 40 percent has been transformed by urban and agricultural development (McKie, 2011). The reserves host an array of fauna species. Some of the mammals are Spotted Gannet, Porcupine and Cape Gysbok. The special avifauna and reptiles include the threatened Africa Marsh Harrier, the globally endangered Black Harrier, Boomslang and Skaapsteker. The area also has rich cultural diversity as it has been associated with the KhoiSan people (McKie, 2011).

(iii) Constraints

People currently have unmanaged access to the reserve area. The dunes are particularly at risk because there is an unplanned network of footpaths and vehicle tracks. Motorbikes, quad bikes and 4x4's have already caused destruction on the dunes (McKie, 2011). There is also a group of wood cutters which may potentially be a problem for the vegetation of the reserve and the members need to be managed and educated on sustainable harvesting of the resources (McKie, pers. comm, 2011). Unlike the other four reserves, Witzands Aquifer has quite a large undeveloped area surrounding it and therefore the direct impact from people is not as intense but nonetheless the reserve remains threatened by urban development, agricultural

development, poaching, alien invasive vegetation, unsustainable harvesting of resources and uncontrolled fires (McKie, 2011).

(iv) **Atlantis**

Atlantis is situated approximately 50km away from Cape Town's CBD. The town was developed in 1967 by apartheid planners under the Group Areas Act of 1950's. It was designed as a homeland or ethno-city for the coloured race group with its own economic-base (Western, 1981). Atlantis was initially developed as a node away from the 'white city', displacing coloureds to the north with the promise of abundant factory employment. The government justified the development by suggesting they were addressing the over-crowding problem within Cape Town (Nel, 1996). However, Ebrahim *et al* (1986) suggest that it was "one of the most expensive social disasters created in the country, keeping coloureds far from the city reserved for white people." The majority of economic activity in the town came from textile and manufacturing industries built by white businessmen. When South Africa became a democratic state in 1994 most of the businessmen who received subsidies from the apartheid government moved out and Atlantis suffered devastating mass job losses.

The population of Atlantis is estimated at 80 699 people (Stats SA, 2011). The community is characterised by a low to middle income margin, with a 37 percent unemployment rate (CoCT, 2006). The community is isolated geographically from the rest of Cape Town and its CBD (Nel, 1996). The transport system between the city centre and Atlantis is not regular or reliable, and causes problems for those commuters who travel to work, school or business in the Cape Metropolitan Area (Name withheld, pers comm, 2011).

3.4 Conclusion

This chapter has reiterated the exclusionary nature of conservation practice in South Africa. Cape Town is no exception. For many years conservation in Cape Town was focused on Table Mountain and large rural landscapes. Little attention was placed on the socially and naturally fragmented Cape Flats. The Cape Flats Nature programme has been revolutionary in changing the mind-set of conservation amongst the people who dedicated their lives to protect nature and the people who have been separated from nature. As it stands, the disjuncture remains between society and conservation areas. The Cape Flats Nature programme was established on the principles of CBNRM/CBC systems in an attempt to

reconnect people and nature through building relationships with conservation managers. This study investigated Cape Flats Nature's approach a year after the project was closed. The closure of the programme provided an opportunity to assess the successes and lessons learnt while implementing transformational processes in Cape Town's conservation practice. The study assessed whether the Cape Flats Nature Programme was successful in bridging the gap between society and conservation. If proven to be effective, the model can be replicated in urban areas around the world where nature and society coexists.

The chapter provided insight into Cape Town's urban context with its multiple disparities. The city continues to be defined by its social fragmentation, railway lines, highways and conservation areas were used as buffers, designed to separate people according to their race and class. High levels of crime, gangsterism, substance abuse and prevalence of TB and HIV/Aids characterises communities in the Cape Flats. Despite this the need for conservation on the Cape Flats is imperative due to the value of fragmented natural spaces.



Chapter 4: Research Methodology

4.1 Research Design

A qualitative, exploratory research design was deemed to be the most appropriate research method for this study as it has enabled the researcher to capture the perceptions, beliefs and experiences of the participants. The qualitative research design selected is in accordance with the research aims, research questions and theoretical framework. This method is believed to be particularly effective for the collection of in-depth data that can lead to a comprehensive understanding of the phenomena being studied (Terre Blanche and Durrheim, 1999). A case study provides the opportunity to conduct an in-depth description, focusing on a small number of cases (Mouton, 2001).

The purposive sampling method allowed the researcher to identify a key group of respondents who were deemed most appropriate for participating in the research. The nature of the research was specific to a geographic area and the associated stakeholders within the geographic area. Once these key participants were identified the researcher used snowball sampling methods, where each interviewed participant identify another key respondent suitable for the research until the list came full circle.

The City of Cape Town manages thirty conservation areas (16 Contract Nature Reserves, 14 Biodiversity Agreements). A contract nature reserve refers to a site which has been declared as a Nature Reserve in terms of (Section 23 of NEM:PA Act), while a biodiversity agreement refers to Contractual biodiversity agreement between a conservation body and landowner in favour of conservation. These sites together with green open spaces form part of the biodiversity network. The Cape Flats Nature programme worked with five of these sites. The sites selected for the study were chosen because of their partnership with CFN. These sites were specifically selected because of the location in the urban environment and the connection they have with the urban poor. In addition, the study was designed to obtain a deeper understanding of the complex relationships between all stakeholders and the related conservation site of interest. These sites are similar in terms of their socio-economic and political characteristics. They are all subject to the same conservation policy and are managed

by the City of Cape Town. However each differs in terms of its physical size and geographical location in the city. The sites were described in greater detail in the previous chapter.

4.2 Description of participants

Key participants were identified and interviewed. The participants were grouped separately in terms of their different roles. They are as follows:

- The nature reserve managers at the five sites, from here on referred to as Group 1. There are four managers managing five nature reserves. In two cases, one manager manages two sites. Three managers were interviewed and secondary data in the form of recorded interviews for one of the managers was also gathered. One manager was on maternity leave during the data collection process and was therefore unable to participate in the research. To supplement this, the researcher analysed video recordings and transcriptions obtained of the absent participant where she explains her relationship with community partners.
- Group 2 consisted of representatives from community partners. The community partners are organisations who actively participate in programmes hosted by conservators of the respective nature reserves or by CFN. The community partners of all the study sites were contacted. Some representatives were leaders and others were members of the group. In-depth interviews were conducted with available representatives and members of community partner organisations.
- Group 3 consisted of management and staff of Cape Flats Nature programme as well as conservators and other researchers in the conservation sector. Snowball sampling methods were used in order to interview these key participants.
- Group 4, was not critical to the research but added value as they were community partners of three other nature reserves. One community partner based in the Northern Cape was useful because they face similar socio-economic challenges to the five Cape Flats sites. Two other community partners were selected because of the difference in

socio-economic characteristics. The latter communities were from more ‘affluent’ areas and they were interviewed to compare the relationships with their conservators and related conservation areas. Four conservators managing reserves in ‘affluent’ areas were also approached for comparison purposes.

Table 3 List of participants

| Participant Name | Organisation | Partnership | Data Collection |
|----------------------------------|--|--|----------------------------------|
| 1. Andile Sanayi | Macassar Dunes Co-Management Association | Community Partner | Formal* |
| 2. Jan Geldenhuis | Harmony Flats Working Group | Community Partner | Formal |
| 3. Hedi Stummer | Friends of Tygerberg | Community Partner | Formal |
| 4. Donna Kotze | Indigo Development and Change | Community Partner | Informal |
| 5. Ricardo Norton | Mitchell’s Village Civic Association | Community Partner | Informal |
| 6. Keith Knoop | TAG Changes | Community Partner | Informal |
| 7. Cathy Achilles | TAG Changers | Community Partner | Informal |
| 8. Christen Jansen | Manenberg People Centre | Community Partner | Informal |
| 9. Charlene Liedeman | Mamre Community | Community Partner (became a conservator) | Informal |
| 10. Tanya Layne | Cape Flats Nature | CFN | Formal |
| 11. Paula Harthorn | Cape Flats Nature | CFN | Formal |
| 12. Shahieda Davids | Cape Flats Nature | CFN | Formal |
| 13. Zwai Fulani | Cape Flats Nature | CFN | Informal |
| 14. Zwai Peter | Cape Flats Nature | CFN | Audio visual analysis |
| 15. George Davis | SANBI Biodiversity Mainstreaming | CFN | Formal |
| 16. Charline McKie | COCT | Conservator | Formal |
| 17. Sabelo Lindani | COCT | Conservator | Formal |
| 18. Hlangalandile Mananga | COCT | Conservator | Formal |
| 19. Jerome September | COCT | Conservator | Formal |
| 20. Thando Abrahams | COCT | Conservator | Formal |
| 21. Ismail Ebrahim | Custodians of Rare and Endangered Wildflowers (SANBI) | Conservator | Formal |
| 22. Vathiswa Zikishe | Custodians of Rare and Endangered Wildflowers (SANBI) | Conservator | Informal |
| 23. Zikhona Mdalase | Botanical Society | Conservator | Informal |
| 24. Luzanne Isaacs | COCT | Conservator | Audio visual analysis |
| 25. Lewine Walters | COCT | Conservator | Audio visual analysis |
| 26. Sihle Jonas | COCT | Conservator | Formal |
| 27. Asieff Khan | COCT | Conservator | Audio visual analysis |
| Unable to participate | | | |
| 28. Joe Barendse | Macassar Dunes Co-management Association | Community Partner | No response to email & follow up |
| 29. Selwyn Kondowe | Cape Flats Tourism and Environmental Development Association | Community Partner | No response to email & follow up |
| 30. Hailey | COCT | Conservator | No response |
| 31. Owen Witteridge | COCT | Conservator | No response to email & follow up |

| | | | |
|-----------------------------|---|-------------|----------------------------------|
| 32. Maya Beukes | Kenilworth Racecourse Conservation Area | Conservator | No response to email & follow up |
| 33. Dr Pat Holmes | COCT | Scientist | No response to email & follow up |
| Advisory | | | |
| 34. Dr Alice Ashwell | EnviroEds | Researcher | e-mail communiqué |
| 35. Dr Wendy Annecke | Social Researcher SanParks | Researcher | e-mail communiqué |

*Informal: Unscheduled interviews but with informed consent from participants

Due to the sensitive nature of the research most respondents requested to remain anonymous. The total sample size of twenty-seven respondents is small and therefore all respondents were kept anonymous and codes were given as indicated in Table 4 below. This was done in order to ensure participant anonymity at all times.

Table 4 Respondents' anonymity code¹⁴

| RESPONDENT | PARTICIPANT CODE | |
|--------------------|------------------|---|
| COMMUNITY PARTNERS | A | 1; 2; 3; 4; 5; 6; 7; 8; 9; 10 |
| CFN STAFF | B | 1; 2; 3; 4; 5; 6 |
| CONSERVATORS | C | 1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13 |

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4.3 Research instruments

An in-depth interview with guideline questions was used to collect data from conservators, scientists, Cape Flats Nature management, staff, and representatives of community partners. Although predetermined guideline questions were prepared, the researcher asked an array of *ad hoc* questions based on the responses from participants and for this reason a voice recorder was used. In addition, a note pad and pen captured any additional non-verbal information obtained during the interview. The collection and generation of data reflected stakeholder experiences, biodiversity practice on the Cape Flats, and the influence of the Cape Flats Nature programme. In addition to the in-depth interviews, various other methods were adopted to obtain data. These include participant observation, documents and video analysis.

¹⁴ The numbers of the codes allocated bear no relations to the order in which respondents are listed in Table 4 in the methodology section.

4.4 Procedure

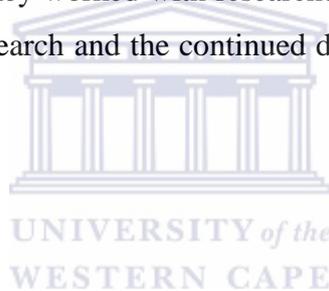
A key group of participants were identified. These participants were management and staff of the Cape Flats Nature programme as well as conservators and scientists working for the City of Cape Town and SANBI. The contact information for the initial participants was publicly available on the internet and they were called and/or e-mailed and asked to participate in the study. A clear term of reference of the research was attached to the research introduction which served as an explanation of the purpose of the study. The initial approach secured only three interviews. This might have been because the researcher was 'unknown' to the sector. A three-month internship opportunity at SANBI was advertised and this provided a platform to network with key stakeholders. During the three-month internship at SANBI the researcher secured numerous contacts and interviews and was able to gain 'insider' insight which contributed greatly to data collection and analysis.

Before the interview participants signed informed consent forms and were also given information sheets providing them with the reason and purpose of the study. The sheet also explained issues of confidentiality, anonymity, freedom to terminate the interview at any time and sought consent for the audio-recording of the interviews. Formal interviews were conducted at the offices of the participants. Guideline questions were used to interview the participants. These questions allowed for consistency in data collection and the opportunity to obtain multiple answers to certain answers. Sensitive questions about race and power related issues were asked towards the end of the interviews because participants generally felt at ease with the interview process and the researcher. Informal interviews were conducted on fieldtrips, workshops and forums. The interviews were conversational but guided by the structured interview guidelines. The researcher obtained more data as participants were relaxed and comfortable. These participants were aware that they were part of the research process.

Once an interview was complete the researcher requested that participants suggest other participants who would be relevant, to participate in the study. The suggested participants were in turn contacted and requested to participate in the study. The recorded interviews were transcribed by the researcher. Due to the nature of the study most participants requested to remain anonymous in the final write up. The researcher ensured this by not mentioning

names or job titles in direct and indirect quotes in the data analysis section. The formal interviews took place between March 2011 and September 2011. The informal interviews were conducted during the course of write up as the researcher continued engagement with conservators and community partners via various forums i.e. Fynbos Forums, Bioblitz, Community Policing Forum meetings, CREW workshops, CREW fieldtrips, Macassar Dunes Co-management and TAG changes, social media networks and a Community Based Natural Resource Management course. There were often long periods of time in between formal and informal interviews. This was because respondents were often busy and there were quite a few postponements of interviews - in some cases the interviews were cancelled completely because of the respondent's busy schedule.

Researcher positionality also played a role. The fact that the researcher was from the Cape Flats meant that respondents, particularly community partners, could relate to her because they were from the Cape Flats, they worked with researchers from the Cape Flats, they were enthusiastic about the type of research and the continued discourse despite the closure of the programme



4.5 Method of Analysis

Preliminary data analysis commenced during the data collection process. This method allowed the researcher to redesign questions for future interviews according to the central themes that became clearer during the data collection process. The formally and informally collected data was transcribed. The grounded theory method of qualitative data analysis provided a systematic approach to data analysis (Strauss, 1987). Fine grain analysis followed the completion of data collection. Data was checked for accuracy and possible errors. If errors were found the participants were contacted and asked to clarify or re-emphasise certain points. The themes were listed and content analysis was used to theorise meaning from the transcriptions. Codes were attached to text fragments in the data. Data was analysed by a comparative technique where there is comparison between:

- similarities and differences between coded fragments
- coherence and incoherence within categories
- relative importance of categories

- concept indicators (i) each other, and (ii) existing categories
- existing categories (i) each other, and (ii) alternative conceivable categories.

The audio-visual data was obtained from George Davis, who interviewed the ‘new breed’ of conservators and followed their journey over several years. The same structured interview guidelines which were used for the formal and informal interviews were used to listen to the audio-visual data. If there were explicit or implied similarities in Mr Davis’s questions or the respondent’s answers to these research questions, the answers were captured and transcribed. The data then followed the same process for analysis as the formal and informal data collection.

The following steps were taken in analysing the data:

| | |
|--------------------------------------|--|
| Familiarisation and immersion | Multiple readings and taking notes of what was said and what was not said. |
| Inducing themes | Grouping data into themes and exploring similarities and contradictions within interviews. |
| Coding | Further division into similar clusters. |
| Elaboration | In-depth exploration of finer themes which might have been previously overlooked. |
| Interpretation | Written compilation of data. |

This approach to data analysis allowed for development and refinement of the theoretical framework.

4.6 Transcription of interviews

All interviews were transcribed in full by the researcher as it facilitated the preliminary data analysis. The transcription process has allowed for fine grain listening and examination of the interviews. In addition, secondary transcribe would have omitted non-verbal sounds such as laughing and tone of voice, which contributed significantly towards data analysis.

4.7 Limitations

The first and perhaps most enduring limitation was the time constraints on the part of the respondents. The initial sample size was approximately thirty-five respondents, made up of conservators, community partners and Cape Flats Nature management and staff. Obtaining commitment from all targeted respondents was not possible because of time constraints and unavailability on their part. In addition, this research was in-depth and fine scale and therefore only required a certain group of people with the relevant information. If this group was unavailable for the participation in the research, it affected the entire study. Fortunately, as noted above I managed to interview conservators and community partners of all study area sites. The informal data collection supplemented for the gaps and a sufficient number of data was collected to be analysed.

The internal institutional bureaucracies and red tape also delayed certain interviews because permission had to be granted from top management and top management wanted input into the type of questions asked and also required access to the published and pre-published data. The researcher agreed but it resulted in a degree of censorship of the data. The respondents were given the opportunity to be anonymous and some opted for this. They were also informed that at any time during the interview they were allowed to have the recorder switched off. Subsequently most requested this option when it came to questions which they felt were controversial. This required that the researcher take mental notes of the issues being raised but a lot of the data has been lost, this despite the respondents' desire to have the issues exposed. Respondents felt uncomfortable when written notes were taken as well. They just preferred not to be associated with the expose.

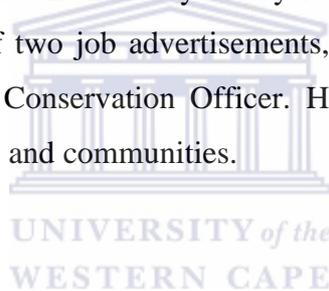
Another limitation and yet perhaps the best time to start this type of research was that the closure of the Cape Flats Nature programme coincided with commencement of the research study. This research arose during Cape Flats Nature's transition into broader SANBI programmes. There were therefore raw feelings and conceptions which respondents hadn't yet dealt with at the time of the interview.

Chapter 5: Data analysis

Keeping in mind the notions of ‘people, inequality, transformation and nature conservation’, the primary empirical and secondary data collected from respondents and previous researchers will now be discussed. The main objective of this chapter is to highlight relationships between conservators and community partners in relation to the nature conservation area which directly surrounds them. In addition, I shall examine the influence of transformation initiatives in the conservation sector with a particular emphasis on Cape Town.

5.1 One self: Multiple Roles

Respondents were asked to reflect on their day-to-day responsibilities. Their responses are analysed against the backdrop of two job advertisements, one for a Conservation Manager and the other for a People and Conservation Officer. Highlighted below are the specific interactions between conservators and communities.



**VACANCY
CONSERVATION MANAGER**

Core responsibilities:

- Execute, co-ordinate and integrate overall management of the reserve including biodiversity conservation, tourism and environmental education activities.
- The compilation and execution of all applicable management and operational policies, strategies, operational plans, business plan/s and Integrated Conservation Development Plans
- Ensure that the management of all reserve activities is in line and coordinated with area-wide conservation initiatives, plans and projects
- Ensure the provision of an ecological service (in line with the Ecological Matrix)
- Manage and implement all conservation and other agreements/partnerships between.... and neighbouring landowners and other parties
- Ensure public participation and communication with interested and affected parties with regards to the management of the reserve
- Manage the relationship between staff and community members in the....
- Ensure effective staff management including management support, training, motivation, management of health and safety aspects
- Facilitate the effective maintenance of all the reserve infrastructure
- Conserve cultural, historical and archaeological sites on the reserve
- Support and enhance research as well as experiential training
- Ensure environmental law compliance by users of the reserve
- Ensure proper budget management, expenditure control, asset management and income generation
- Management of tourism infrastructure and activities
- Monitoring and management of service providers and concessions
- Manage contractors to implement programs aimed at control of invasive alien species, fire management, as well as other integrated catchment management services.
- Management of all Occupational Health and Safety matters on the reserve

www.capenature.co.za

**VACANCY
PEOPLE AND CONSERVATION OFFICER**

Job Purpose:

Reporting to the Area Manager, the successful candidate will be required to promote conservation and sustainability, and enhance the public's enjoyment of the environment through teaching and interpreting the natural world. This must be accomplished through outreach programmes on and off site with the use of visual aids and exhibitions.

Key Performance Areas include:

Project management;

Administration of environmental education programmes;

Stakeholder liaison and communication;

Input into environmental education plans, policies and protocols; Assist with daily operational management of the area as required by the Area Manager

Qualifications and Requirements:

- A National Diploma in Nature Conservation or similar qualification
- A minimum of three years' experience in the field of environmental education and management at a Nature Reserve or similar environment
- Ability to speak at least two official languages of which English or Afrikaans should be one
- Experience in managing community projects using Community Based Natural Resource Management principles would be an added advantage
- Working knowledge of MS Word, MS Excel, Power Point, Internet, MS Outlook
- Excellent interpersonal and communication skills
- Be physically fit to undertake outdoor excursions and fieldwork; A Valid Code B Drivers Licence

www.capeaction.org.za *Highlighted emphasise community engagement *censored for organisational anonymity



Figure 24 The often multiple roles of conservators

It varies, sometimes you do work in the office sometimes you have to go out there to do physical work like fire fighting and if there is vegetation monitoring you must go and do practical things with the staff... what I do varies every day. Sometimes I have to go out there and meet with the communities. (C3)

The complexity of the socio-economic environment which the conservator works in influences how they manage the site. Their job descriptions are constantly changing as new challenges and opportunities continuously arise.

I manage the activities of the (community) groups... I'm involved in developing links between stewardship plans and conservation action plans for reserves and for sites where there's lots of threatened plants. We also make recommendations around ex-situ conservation programmes for various species. We also analyse data that we collect and look at what are the top priority species like recovery plans of ex-situ conservation. (C6)

A conservator often has to participate in biodiversity stewardship. This is the conversion of privately owned land with high biodiversity value into conservation sites. These sites are

also linked to a network of other conservation sites in the landscape, forming the biodiversity network. The City of Cape Town, along with other conservation organisations i.e. WWF-SA and Cape Nature, actively participates in expanding the network of biodiversity corridors. Conservators might be based at one particular site but they also manage stewardship sites. They also have a scientific role making recommendations for ex-situ (off site) conservation.

It was difficult for the conservators to explain briefly what their job description was. Most started with ‘everything’. Their specific day-to-day tasks vary, as there is a range of responsibilities and challenges which they have to address. Some of their tasks include biodiversity management, conservation and communication. This entails alien clearing, threatened species monitoring and fire management. Other responsibilities have a more social aspect such as providing environmental education to different age groups, developing sustainable relationships with communities, providing tangible socio-economic benefits and promoting community development through biodiversity conservation. It is important that conservators maintain a balance between biodiversity and people, as each is equally important. *“Whoever said biodiversity comes first was incorrect because it cannot be conserved within communities without communities.”(C7)*

There’s quite a variety but the main thing, I do education with learners, community and communication, media, fire fighting, conservation in the field and that is what I love.... It’s not like every day I come in and sit at one machine, every day is like an adventure. I never say ‘oh must I go back to work again’.... (C4)

Education and awareness is one of the key methods that conservators use to get their message across to the community. Although they have multiple roles they enjoy the work - it is compared to being an adventure, not every day is the same. The job may be strenuous but most seem to have job satisfaction. This attitude is very important because conservators assist people to connect with nature. They often try to instil a similar passion so that community too can be a voice for nature.

I deal with conservation issues and community issues. The two cannot be separated... C10

It was interesting to observe that no matter what the designation of the conservator or how far up on the ‘hierarchy’ they are, from area manager to intern, they all expressed that community issues were on their ‘to do list’. We see that conservators have multiple roles. This could be because they don’t have sufficient staff capacity, but also at those sites which do have sufficient staff capacity they all included community into their mandate acknowledging that the two cannot be separated. Based on this, it would seem that conservation perceptions, at least from the conservator point of view, have come a far way in South Africa, particularly if we look at the history of conservation in South Africa (Khan, 1994; Carruthers, 1995; Ramutsindela, 2004a; Murombedzi, 2003; King, 2007; Carruthers, 2007).

I do everything, the most important is to manage (the reserve)... We have challenges, there is a lot of alien vegetation... so now my job is to make sure that we take them out. My job is to rehabilitate this part... Another function of mine is to do environmental education... Another function is to keep a very good relationship with the community (C2)

The careers of the ‘new breed’ of conservators are largely passion driven, passion for people and for the environment. However, they expressed frustration with the vast amount of responsibility placed on them - “*other reserves have a full staff capacity; we don’t even have a student.*” (C4). Managing biodiversity in an urban area can be quite daunting on its own. Exacerbating the pressure is requiring one conservator to hold the responsibility of three to four staff members. This pressure is attributed to the “*internal bureaucracy and shortage of funding into biodiversity conservation as a whole and biodiversity on the Cape Flats because unfortunately some people don’t deem those fragments as priority sites*” (B5). In spite of the challenges the conservators reported that they find their job rewarding and enjoyable.



Figure 25 Conservators often have to be prepared to work in any conditions because social and natural environments are unpredictable

(Source: September, J., 2011)

At three of the five study sites conservators expressed the opinion that staff capacity is unfairly spread across the city's reserves. One conservator said *“if we complain they say we don't have funding for more posts, but go to the rich reserves, they have full staff, they have so much staff they don't know what to do with the people”*. When this issue was raised with a conservator at the said affluent reserve they explained that the city of Cape Town does not fund all their costs. Often when they do have staff shortages the community fills the gap by taking on the duties voluntarily or they fund the post and employ someone to assist the conservators. There are a few lessons that could be learnt from this situation. Firstly, although the communities of the study site reserves and of the affluent reserve are different, it does show that if communities are involved they pull together to find a solution. The conservator might have multiple roles, but if the challenge is taken to the community, there might be multiple solutions. Secondly, there is a misunderstanding of how resources are distributed in the city. Some feel that they are done an injustice because their reserve is located in an area of poverty. This presents an opportunity for upper level managers to clearly explain where additional resources are sourced.

5.2 Connected? The relationship between Conservators and Community partners

South African policies post-1994 makes a point to include communities wherever possible. NEMA (1998) suggests “Community well-being and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.” With this goal in mind, we look at relationships between conservators and communities from both perspectives.



Figure 26 Conservator demonstrating to learners how nature is connected. The relationship between conservators and community partners are similarly interdependent

(Source: September, J., 2011)

The success of the community-based-conservation approach is dependent on various factors, one of which includes ‘healthy’ relationships between stakeholders. The community partners were asked about their relationships with the conservators, and to share their experiences, opinions and perceptions of the conservators who they work with.

5.2.1 *Through your partners' eyes: Community perspectives*

We have a very good working relationship... If we do a program as an organisation from the word go they are involved in planning, resource wise, and transport wise. If we need assistance from them we just call them, they will be there to assist us....their support to us is very valuable. They need us, we need them. Without us their work would be difficult and even without them our work would be difficult... We are the community partners. If they need anything around the community we are there to assist. (A1)

The interdependency between community partner and conservators are realized. The one cannot successfully function without the other. There appears to be an understanding of 'give and take'.

She (the manager) is a gem, she's helpful, she and the students, they always offer support when we need it or request it. She's friendly, approachable. The manager should always have an open book policy and keep the community in the loop. Communicate about what is happening at the reserve... (A3)

The conservator is an individual, whilst the community is a group of individuals. In groups, weaker personalities are able to disappear if needs be. But when one is an individual you need to really put yourself out there. This is the case when conservators approach communities. Conservators have to get it right from their initial contact. Communities often used emotive language to describe the conservator when the relationship is good. Words such as 'helpful' 'supportive', 'friendly', and 'approachable' were used.

He (the manager) is a wonder, he's gold. From the first day (the manager) was here he captured our heart. He makes sure we all understand and are on the same page. Since he has been here, many things happened and moved forward... He's open, he is inviting, he knows the veld, sits with the kids explains to them why the plants look the way they do, what their names are and how it got its name. The day he leaves here will be a very sad day for all of us. (A2)

It is often time consuming to invest in building relationships from scratch. This is especially true when paperwork is mounting on the conservator's desk. But communities made examples of small things which conservators did that captured their hearts, like spending time with the kids, giving them a lift to the taxi rank when it rained, sharing a sandwich. Communities do not need grand gestures that require lots of fund raising, the simple things matter to them. However, this again is difficult with a community of thousands of people. Taking time to sit with the kids and explaining to them as the conservator did in the case above might inspire the next generation of conservators. It is important for conservators to note that time are not wasted and that when it is spent on the little things, in fact that is what is valued most.



Figure 27 Community participation in Wolfgat Nature Reserve

(Source: Photo by Eksteen, L., 2012)

We are so blessed to have them (conservators) in our lives, I am proud to be associated with this reserve... When I go home at night I feel like I have achieved something, being tired from a hard day's work is finally worth it.... We are only supposed to come work on certain days because we only get paid for certain days but this job is so rewarding us come in everyday to help them... Even though we lived a few metre away from the reserve we had no idea of the true value but that all changed when they spoke to us. (A5)

Most community partners articulated positive sentiments about their relationships with their associated conservators. They feel welcomed, at ease and comfortable and this is because

their conservators are approachable and make them feel as if they are a part of something bigger than themselves. The conservators essentially link the community partner to the nature reserve by providing environmental education, information about the value of the reserve and they facilitate real nature experiences in the hope of instilling a passion for nature. In turn, the community partner develops a new perception of nature and recognises the significance of conservation.

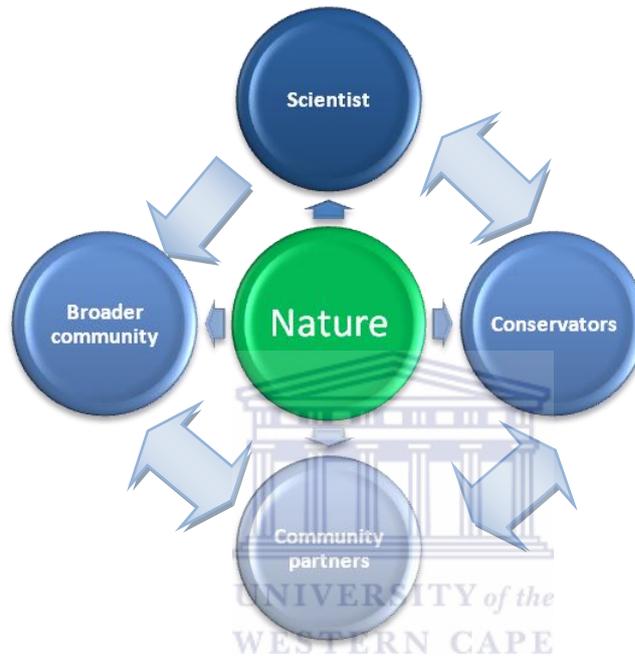


Figure 28 With biodiversity at the core, the different role players all assist in conserving the resource

The community partners expressed a deep understanding of the importance of their role in conservation. Most the communities at the five sites did not really know the value of nature reserves, but they had an interest and this is why they were open to developing a relationship with conservators. In addition, they understand that the role they play is mutually beneficial to the conservator and the environment at large. Two crucial contributions to this are investment of time in conservation and maintaining constant communication with community partners. The time which conservators spend on providing environmental education, information about the value of the reserve and facilitating real nature experiences may sometimes seem fruitless, but whether it is for a small audience of three to four youths or a larger hall of adults it is equally important because knowledge is transferred nonetheless. Keeping constant lines of communication open allows the community partners to know exactly what occurs at the reserve at all times. This in turn fosters relationships of trust

between the two parties as the conservators are transparent. Although this is not always the case:

We had lots of problems, each year a new student came with new ideas. We had students who didn't listen to us at all they just did their own thing... Everything was planned at the office, and they came... and expected us to participate but we didn't know what was going on. We challenged the people... many people lost interest. (A2)

The faces of students change each year... they don't have time to participate or initiate long term projects. (A3)

Conservators often feel alone. They are placed at a site and although they do receive mentorship they have to figure out the community relations on their own. This is difficult because they are not trained to do this. We look at the course outline of National Diploma in Nature conservation. The course modules does not include community conservation, the closest they come to dealing with community is conservation communication as a second year module. This might be the case in the aforementioned situation, as the conservator sticks to what she knows, 'conservation'. In her mind she knows all the relevant science and terminology but she wasn't able to speak in the language of the people to make them understand and this is why they were hostile towards her. They were also concerned that she only made contact with them when she needed to show her managers that she is working with the community but beyond that they had no relationship. She managed the site on her own and that is difficult in an urban context.

...as community partners we should be the first priority. There's still things lacking, but sometimes they do consider us but in other avenues they forget about us.... That is a burning issue with all the partners.... We put it through in every meeting that we have with them, there's this red tape within the City of Cape Town... They (managers) take this thing and forward it to their superiors and then we take time to come back to them to say ok we hear you and this is the procedure we are going to take... I'm just doing this job voluntary, there is not remuneration... It's frustrating for us because some of

the people ended up saying they are quitting because of the frustration that they get in the process. You gave your sweat and time for this job but at the end of the day you are not seen as a valuable asset because there are a lot of people that we have lost because they are frustrated by the processes. (A1)

The community partners expressed dissatisfaction with the manner in which conservators distributed benefits and opportunities. Job skills and development are vital in poorer communities. Opportunities are scarce and there are many community partners. It can be challenge deciding which group gains access to which opportunities. Community partners who have a longer relationship with conservators feel threatened when new groups come in. They want first preference when it came to benefits and opportunities. The problem is that benefits are only available for a short term, when funding stops or a project ends community partners wait a long time before another project commences. Perhaps they have expectations that the City of Cape Town can provide more sustainable longer term benefits which can be distributed evenly amongst partners. But this is simply not feasible for the city. A case study done in Mahushe Shongwe Game Reserve (King, 2007), found that communities valued equally the indirect benefits of conservation which are often undervalued by focusing upon the economic capital generated or access to environmental resource use. If the city places more emphasis on these benefits perhaps the communities won't turn their backs on conservation when the economic benefits are no longer there. But communities are not homogenous and we cannot assume that what works in one context will work in another. But it could be worth trying.

The conservators suggest two deciding factors, one *“when we need to establish a relationship with a new community partner we will invest time, resources and provide access to opportunities.”(C3)* This allows for equal opportunities amongst community partners. This may entice new community partners but it could also cause a breakdown with older community partners as they want conservators to propose opportunities to them first. *“We look at the community partners’ objectives and if it is in line with certain objectives of the upcoming project we will pitch it to them first.”(C4)*

We do not have a good relationship with her because she's hardly ever here... (A2)

I was not happy when the previous manager started. She had tunnel vision, conservation, conservation, conservation...We were like what is conservation, she used big words, and she didn't speak to the people. It was only when her superiors requested community involvement that's when she came, she smiled and was nice with us, for photo-op but as soon as the higher people left she goes back in the office and we don't hear from her and that's unfortunate (A7)

Some community partners also reported that they feel excluded in the decision-making of the reserve. There were times that decisions were made at the reserve offices and the managers just expected community partners to participate without first consulting them or requesting input from them. Trotman (2008) refers to this as passive participation. This community does not want to participate passively; they want to be a part of the decision-making as functional participants and eventually self-mobilising. This deters community partners because they feel their opinion is not valued enough by the conservators to contribute to decision-making. Community partners also want to feel acknowledged and appreciated. They understand that there is no monetary remuneration for their work but it is vital for conservators to recognize the efforts of community partners otherwise people become despondent and reluctant to participate in future activities.

The internal bureaucracy from upper management also tends to have a negative ripple effect on relationships on the ground. Internal processes are often long and leave community partners frustrated. Decisions made by upper management, usually scientists and project implementers have a direct impact on the community partners and the communities at large. If the community partners disagree with any top management decisions they voice their concerns to the conservators who in turn discuss and negotiate with upper management. This process frustrates community and they lose interest in the nature conservation area as a whole or they lose interest in participating in activities.

The conservators need to be visible to the community regularly. Investment of the conservator's time leads to the investment of time from the community partners. If conservators do not commit the community partners would be reluctant to commit. It is also difficult for community partners to build long term relationships of trust with conservators if

they are only employed for a short period of time. They came and went each year with new ideas, but they never stuck around long enough to sustain their ideas.

5.2.2 *Introspection: Conservators' Perspectives*

I was the only one and I couldn't get to community stuff. Initially we needed to do that. I wanted to do that but... I could not get to the admin the ecological stuff and the community stuff... but now we got good relationships with them... focus on the youth of the communities so that we can pull them in and they can be, I am assuming, more pro-active. (C1)

But it's one thing starting the relationship it's another thing maintaining them and sustaining whatever activities are taking place. The only time we can say this is what we do and we can take more is when our buildings are up and I have a dedicated EE officer because I can't do all that on my own. (C2)

Conservators expressed that they are overwhelmed with tasks and do not have time for developing and investing time in community relationships. Below is an image depicting the multiple tasks of conservators. Strategizing and prioritising is therefore important:

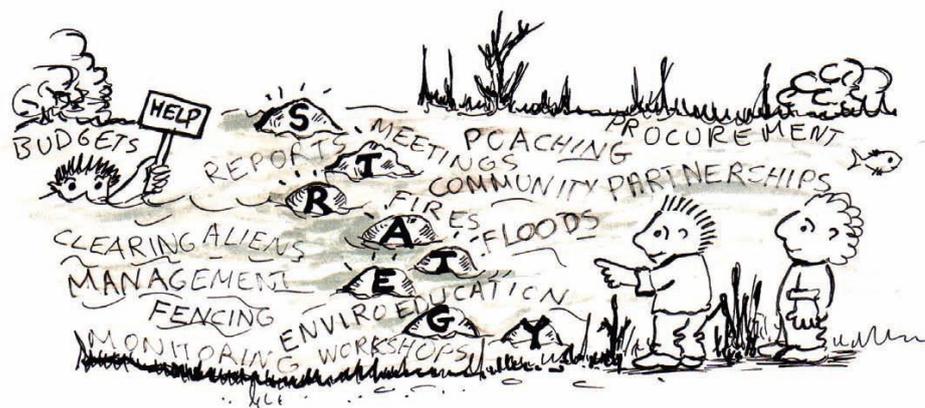


Figure 29 A conservator will always have more to do than can be managed

(Source: Boule & Pit, 2011: 52)

Our wish is to involve the community in terms of decision-making but sometimes they don't avail themselves... we have a forum where we say ok guys whatever decision we make, you must be part of it and whatever project we have you must be part of it, but when we call those people they don't come... it depends on their availability... Other organisations they just look at conservation and they say we don't want anything to do with nature conservation. Our aim is to involve them but it's difficult, but those that are available are involved (C3)

Conservators often expressed that they find it difficult to build long term relationships with communities because community partners are not always available. Therefore they try to have multiple community partners so that if one group is not available they can call on another to assist with a project or decision-making. However community groups have different interests and conservation is not their primary focus e.g. a soccer team can help with a clean up a few times but they cannot always assist conservators. The conservators suggest that in that case they held a forum and aligned their annual activities to the community partners' annual activities, and groups then had to make a commitment to the activities with which they would assist. But this relationship is not a one way partnership, because conservators also have to commit to assisting community partners with their activities e.g. hosting a soccer tournament. This might ensure longer-term commitment and investment from community partners.



Figure 30Weekend eco-camps

(Source: Koopman, K., 2012)

(Community participation) is what I should be doing... but it is difficult because now I am based at the other side... I don't have resources, I don't have a working space so it's difficult to actually involve them on a daily basis with the stuff that we do... However we do let them know what we are doing, if you are available please make a turn.... We still let them know but they don't, it is not always successful... they also have other activities that they need to do...they have other commitments. Older people they need to put bread on the table for their families. You cannot expect the people to always volunteer. It has been difficult however there is a youth group. When we have an activity we let them know and then they come and assist. They are there to influence whatever decision we taking as to what is happening... (C2)

Constant communication is also important, even if community partners cannot be involved in activities they value the communication because they want to know what is happening at the reserve. The conservators are not physically based at four of the five sites. This makes communication with communities difficult because the day-to-day planning is off-site and the community living adjacent to the reserve is there every day. Youth groups are therefore the conservators' target group because they have more time, and they do not have as many commitments as the adults. Conservators also assume they are more proactive. Conservators have a resource issue, and a small staff capacity which impedes on building long-term, sustainable community relationships.

Yes definitely, I don't see how conservation could be possible without (the community), because who are we conserving for? (C1)

These people are getting trained, and they feel part of the reserve, they actually want to work for the reserve they want to make it their career. (C4)

Despite the challenges of developing relationships, conservators acknowledge that they cannot successfully conserve without the communities' assistance. They have a sense of pride when communities are in turn enthusiastic about pursuing a career in conservation. One conservator asks "who are we conserving for" and that is a valuable question. It is not for

their organisation or the government - it is for all the people. Therefore the work cannot be done in isolation. Community participation is worthwhile and although the efforts are taxing they find it rewarding and beneficial to the reserve.

... (Communities) is important because it makes things easier; if I am the only person representing nature conservation and I go out there to work then people will just look at me and think what this guy is doing but if these people are involved they will be able to know and it makes things easier... So if you are working with the community they are spreading the word so I'm just representing biodiversity as an individual or as a representative of the community but the community partners are there to spread the thing or to assist us like spreading the word. We call them eyes and ears of the reserve because when they are there it is easy for them to see our reserve and also our natural resources... The reserve is bordered by the community so we don't exclude the community... because they are custodians of the reserve and they have ownership of the reserve. Should you ignore those things you will have problems. You need to acknowledge and assess and then try to find a way to deal with those social aspects like the social needs because they won't come to the reserve. That is why we have these programmes so that we can involve the community because we do acknowledge their social problems in terms of conservation if we could just work together we will have a resolution. (C3)

The conservators understand the value of community partners. However, they find it difficult to devote time to build relationships with the community, especially if the site faces a staff capacity problem. Conservators have multiple roles; they often carry the responsibility of three or more people's duties. Prioritising is therefore important in such a case. It is not that community relationships are not deemed unimportant to the conservators, but dealing with administration, collecting baseline ecological data and writing up monitoring reports often takes preference because community relationships are more difficult to build and often too time consuming which results in fruitless efforts. But it is worth doing because in the long-term it benefits the reserve. All of the conservators have come to this realization and it is embedded in the way they manage the reserves. They probably need one person specifically dedicated to establishing and maintaining community relationships.

All five reserves now have a people and conservation officer, previously known as the environmental education officer. They are mandated to work specifically on community related issues. Yet, at two reserves the community conservation officer only works on a contractual basis. The problem in this case is twofold, communities require a long-term relationship as highlighted above, they don't want to see new faces every few months as it is difficult for communities to build and maintain lasting relationships of trust with conservators who are only employed for a short while. In addition, the conservator would have to train new employees every six months to a year. At one reserve the conservator sourced external funding in order to sponsor the salary of the conservation officer so in this way he could continue working on projects and maintain his bond with the community.

The conservators target age group in the community is the youth, because the youth are believed to be more proactive, and they are able to get involved in physically demanding activities, such as the alien clearing, fire management, clean ups and hikes. The youth are also seen as the leaders of tomorrow. Therefore educating and mentoring the youth will ensure that the next generation will be involved in the fight for conservation. This group, when exposed to environmental issues, is thought to make informed decisions with regard to the future of the environment and could become the next generation of custodians of the environment. The youth are also believed to be the link between younger generations and the older generation. It is hoped that the youth will transfer and share information with the parents, grandparents, younger siblings or even their own children.

Community commitment in conservation issues is a challenge because they need to meet their own basic human needs of survival first before committing to the survival of other species. This is often perceived as disinterest or disregard of the environment. Conservators expressed the difficulty they face when attempting to involve the community but at the same time recognise the important role they play as it has the potential to make all aspects of their jobs easier.

The role of conservators can merely be facilitation. Depending on the organisational structure, the community can be involved in various tasks such as administration duties, alien clearing, hikes or environmental education. This offers a mutual benefit to the community such as skill development, a platform to network and interact with other community members

and other communities and the opportunity to be exposed to future employees. The conservator benefits because they share ownership of the conservation area and responsibility with the people, which puts less pressure on them. But this might be difficult to convince communities who live in dire poverty. Maslow's hierarchy of needs confirms this, as shown in Figure 11 in Chapter 2.

Another challenge facing conservators and their relationships with communities is the lack of suitable infrastructure and resources. Only one reserve has a dedicated office on-site. The remaining four have offices which are a distance away from the conservation area and the community directly surrounding the reserve. This makes it difficult for the conservator to be there on a daily basis and involve communities in decision-making and everyday activities.

The relationship between the conservator and the community partner varies at each conservation area because each site is different and has its own challenges, and each community is different. Communities are not homogenous (Agrawal and Gibson, 1999). In some cases the community partners are quite involved and assist the conservators with activities and decision-making. Some community organisations have a long-standing partnership with the reserve while others might only participate in one activity/event. Regardless of time spent on activities, it is exposure to conservation and environmental issues which are imperative as one instance might be enough to change mindsets for a lifetime. In other regards the conservator struggles to establish a relationship and maintain it because people have other priorities.

5.2.3 Power struggles and their impact on relationships

It is increasingly difficult to establish relationships with communities. One of the challenges is power struggles. When we look at an organogram for the City of Cape Town's Biodiversity Management branch there is a whole line of managers in between the conservator and the Head of Biodiversity Management. This structure may be necessary for this type of organisation but it challenges grass root relationships. If decisions are made at the top it filters down through numerous channels and vice versa. We look at the impact of these power struggles on conservator-community partner relationships:

There's this red tape within the City of Cape Town... It's frustrating for us because some of the people ended up saying they are quitting because the frustration that they get in the process. (A1)

It is difficult for me as a conservator to do this job, I am supposed to be manager but there are times that I don't feel like the manager because there are so many people above me pulling rank when I make decisions (C2)

The conservator struggles if they can just support him completely. (A2)

The power struggle in the conservation sector is brought on by internal bureaucracies within organisations and across organisations. This is because within certain organisations there may not be a common vision of conservation and how conservation should be practiced and this leads to people on the lower levels feeling as if their opinion is not valued or they are not taken seriously by their superiors. One community partner calls it red tape. He explains that when the community presents an idea to the conservator the conservator then has to take it to his superiors and if the superiors agree the process of passing and implementing the proposals goes quickly. However, if the superiors disagree the process is prolonged because the conservator has to negotiate and compromise on behalf of the superiors. This leads to community partners becoming despondent and disinterested in the conservation sector. Not all conservators have this problem. There are those who work well with their immediate superiors but the struggles may start higher up in the hierarchy. In terms of the future for Cape Town's conservation vision going forward, conservators and their superiors do not always agree. Some superiors, perhaps because of their training, hold on to traditional conservation ideologies.

There was a fear from some of the scientists and if you look at the biodiversity management branch has developed this amazing fine scale biodiversity plan, the biodiversity network. A lot of work and science has gone into developing that plan and in many ways it is absolutely fantastic and it really does help give guidance to conservation within the City of Cape Town... It's less about what were individuals responses but if you can look at the city and what it is using as its guide to biodiversity conservation in the

City and I think that's it's an important part of the guide but I think there is something missing there...(B2)

Trying to create change in big bureaucracy a lot of the challenges are internal to our institutions... a lot of our engagement was with the city and creating a space for learning and a living practice in a bureaucracy is a challenge and then starting to get people engage across line functions in the bureaucracies. (B1)

When Cape Flats Nature was introduced the scientists feared that their work would not be regarded as important as the people's work might take preference. The scientists worked hard at developing a fine grain conservation policy but they didn't include much of the people's work and this is the gap that Cape Flats Nature tried to fill but not all of the scientists appreciated this because they thought their work was enough.

Although the community partners had a good relationship with the conservators from each reserve they did feel that their conservators' superiors affected them because they thought they were not supportive and this caused the conservator to struggle leaving a backlog of ideas and initiatives unused.

Cape Flats Nature thought that internal bureaucracy affected the conservation sector holistically because it influenced actions and decisions that were made within the sector. Some conservators felt that they were not appreciated. It is difficult for their decisions to be taken seriously if they do not share a common vision with their superiors.

5.3 Building the bridge: attracting and sustaining community partners

NEMA (1998), Chapter 1 (4f), promotes:

the participation of all interested and affected parties in environmental governance... and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.

First we need to understand why public participation in conservation is important? Why should this be a priority for conservators? Legislation does enforce it to an extent but what value does community participation add to the conservators' job and the reserve? We see from the quotes above that it makes the conservators' job easier and ensures lasting protection of the reserve. With this in mind we delve deeper into mechanisms used to attract communities to participate in conservation activities and how they endeavour to develop and sustain these relationships.



Figure 31 Sometimes developing relationships are time consuming, onsite environmental education

(Source: CREW, 2012)

It's mainly word of mouth... we were marketing the reserve because there was no EE officer, we marketed to the schools but now it is no longer us marketing it's just the reserve markets itself now. When they come to our programmes they bring a friend and the friend recommends it to their group. So we just get people who phones and says I want to be part of the thing. And sometimes we call them and say we have this loophole and maybe there is a group that specialises in this thing, we give a shout to the people and maybe the people give us contacts and they show interest... When we have these activities (C4)

There are various mechanisms that conservators use to attract community partners. As mentioned before, each conservation area and community differs from the other. The common mechanisms used to make people aware are the local media, i.e. community

newspapers and radio stations. The City of Cape Town also markets the reserves on the internet, and by publishing information posters, pamphlets, and booklets. SANBI, Cape Nature and other conservation agencies also advertise these reserves and encourage public participation.

We have a relationship with radio so that we can broadcast ourselves there we have one show called eco-watch... We approach youth organisations... We have EE programmes right through the year, Wetlands Week in February, Biodiversity Week in May, Marine Week in October, on weekends we have an exhibition... Separately we do other little connecting with organisations. (C1)

I've written to the local newspapers, the only place I have not been to is to the local radio station and I've put flyers and posters at community places like clinics and the local stores and I personally went to the people, for instance I see people walking through and I see them looking and I approach them and say are you interested?... (C2)

We are advertising in the local media, informing people about the reserve and we are trying to get them involved in environmental education programmes. First try to make the community aware, educate them about what we are conserving, why we are conserving, and how they can be a part of it. Knowledge is key, once they know they will do, and right now we are trying to empower them with knowledge in order to make informed decisions about their environment... (C5)

Conservators need a basket of values to offer communities for their participation. One conservator has experienced this. When project funding ends people lose interest. Pitt and Boule (2011) suggest that conservators need to create conditions to foster relationships with communities; these conditions have to develop organically. This requires conservators to keep their ear on the ground, look for gaps and find ways that reserves can fill those gaps. Conservators should first consider what the needs are by asking the community what they want from conservation and how conservation can help them. Often conservators need community partners to assist in managing an environmental challenge; other times

community partners may need conservators in assisting in a social challenge like offering a venue to host peace talks between rival gangs.



Figure 32 Community Partners meeting held in Tafelsig, Mitchell's Plain

(Source: Photo by Eksteen, L. 2012)

Peace talks were held in the reserve. The reserve provided a neutral venue – (C8)

We had an alien problem and we couldn't manage it, it took all our time and the other work stood still. I put a call out to the community partners and asked how can we get people involved in this challenge and help us with this environmental challenge. – (C9)

Often conservators need a strategy. It is easier to foster relationships with community partners who have an environmental interest. It might be more difficult to go door-to-door and visit each household that surrounds the reserve. If a community does not have a primary shared vision of conservation or community development the conservator might need to find other shared visions. This is done by simply asking what are your interests, how can we mutually benefit from this relationship.

Our strategy is that we want to engage students. For us that makes the most sense because they still early career. You can collocate a conservation ethic if it's not there already, presumably someone that studied conservation who is actually interested in conservation so maybe you have a pool of people that is interested. Although they may not be able to contribute the way a retired

person is able to but if you engage a person at that young age an early stage you build a next generation of volunteers. (C6)

Individually the conservators have had to market the reserve by physically visiting schools in the area, attending community policing forums, and relaying the conservation message at sports or religious events. Any event which brings the community together is seen as a platform to market the conservation area. This is where they had to make themselves known to the community. They share information on who they are what their vision is for the reserve and by extension the associated community, they educate on the importance of conservation, and suggest ways of community participation. At two sites the conservators are still in the early stages of building community partnerships, because they have been at a particular site for less than three years. For them investment of time in marketing the reserve is vital. For others they have already marketed the reserve and therefore the word of mouth method is now working for them. But they still continuously try to develop relationships with community partners.

But now the group that I had, there was a representation of young people which got me really excited but you know what the problem was... I went to these people and I asked them to join and there was a public meeting and they would disappear after some time... I'm now talking about the big group of people; I tried to get them... But that I fully understand because they are volunteers, they need to make money so that they can buy food at the end of the day so we can't expect them to come to us all the time. We've had very good volunteers one of the things that have actually demotivated them or discouraged them is the buildings because they've been waiting for the buildings for the past five years... (C2)

It is one thing building a relationship; it is another thing maintaining that relationship. -C3. This is the stark reality which conservators have to deal with. Relationships can be maintained by regular and on-going communication. One community partner said *"He will make decisions without us as he should, but he calls us to say he has information and he shares it with us every Tuesday when we have our meeting"*-A2. Conservators should also always find new ways to collaborate with community partners - if one activity/project failed

then go back to the drawing board, if it was successful then think about the lessons learnt and how they can be applied to other community partner collaborations.

Some conservators feel frustrated because they believe they have tried everything. One participant came to the realization that *“You cannot motivate people; I don’t think it is possible to motivate people. People have to get motivated before they can do something, they have to be self-motivated. You can try to influence or inspire and give whatever they got so that they can stay with you but that is not always going to be the case.”-(C2)* This means that people must show an interest first and that interest needs to be nurtured by the conservators. There needs to be an active recruitment of communities with non-financial incentives and on-going engagement to maintain community interest.

We running a skills development programme where we get youth from the local community, employ them, do training with them. When they done with us they can use that training and go out and be part of an active workforce.- C11

Conservators feel that part of the problem is a lack of resources. They have no buildings, there are little or no rewards and therefore people feel a lack of satisfaction and lose interest. One conservator sourced external funding in order to reward community partners for their hard work. This could be a small token of appreciation in the form of a t-shirt or a diploma which acknowledges partners’ participation in conservation initiatives. This method can only be used to reward but not to attract. Most of the tokens are stored in the conservator’s office, simply because he has no people to give them so which appears as if he hasn’t been able to attract more people. If conservators secure financial sponsorship of a project and are able to employ a few community members, they should communicate to the broader community first. This is what participant C8 did. *“I got the funding and went to them and said look we have an opportunity to provide employment for members of the community. What do you think we should do with this money and who do you think should benefit?”*

Other ways that conservators engaged communities was by hosting stakeholder meetings, and bringing together all community partners to talk about shared values and mutual benefits of the reserves. The community were also inspired when visiting the site with conservators as they could see the beauty and significance of the site first-hand. Although it may be easier to network only with already established community partners, it is equally useful to engage

individuals whether it is an environmental education campaign at school, a door-to-door campaign, or speaking to individuals one-on-one that conservators might be found walking in the reserve.

5.3.1 Action attracts action: community partners and the broader community

The community partners play a key role as the conservator's connection to the rest of the community. They are not only the 'eyes and ears' of the nature conservation area but they are also the 'eyes and ears' of the community. They provide a window into the rest of the community through which the conservator can peek when necessary. The community partners are an organised group comprised of people living in the area. Like the managers they too have various strategies in trying to attract new members of the community and try to bring across their vision to the community.

Most are schools that we are working with but if we see there is a need to go to the community. Let me make a typical example, dumping, crime that is happening around our reserves. This is where we come in and raise awareness around those issues. Then we go to the community structures... and engage them... it's easy for parents to absorb information when the child comes with the information from schools. It's very important to involve the community leaders... The support of the community is very important... I think people are still living in a box... it's our duty as an organisation to hint to them where they can get the information... We go to our radio station, and announce that we are looking for people or we put posters everywhere... (A1)

The problem is that people are disconnected to their environment they don't understand it so therefore we are experiencing problems of environmental destruction. That's why we do what we do, to reconnected people with the environment by sparking their passion. We cannot do this by teaching them in a classroom setting we need to be out there, they need to learn through experience (A4)

Community partners recognise that their communities are disconnected from nature and deem their function to be reconnecting agents. The driving force of reconnection is sharing knowledge and information with the broader community. The starting place for them is generally at schools as they provide environmental education at local schools. However, they have now realised that excluding the adults from the community could be problematic. They therefore first have to create a platform for adults and children to converse around nature related issues. One community partner suggested that the best way to do this is by organising an event which brings the entire community of all age groups together in one venue. For their community they tried enticing people to join community partnerships through distribution of free calendars and hosting environmental seminars. However their attempts were unsuccessful. Like the conservators, the partners find that attracting and maintaining interest is enormous challenge. The partners looked at community events which would bring together a large proportion of community members - they thought the best way was through a beauty pageant. They therefore came up with the idea to combine environmental education and beauty pageants by hosting a ‘Miss and Mr Nature Reserve’ from different age groups and during the winners’ reign they become ambassadors and promoted the reserve.



Figure 33 Process of community participation

The biggest challenge is to get people on board, people who live around the reserve. I said last year that we only concentrate on the kids, but we need to get adults involved as well. The child wants to speak about nature but adults can't understand because they don't know about nature. We have to help build that link so that parents or grandparents can converse with the kids... We have calendars, beautiful calendars and we distributed it amongst the

community to spark their interest, we arranged a slide show in the community hall but nobody showed up. It's a challenge but we won't give up. (A2)

They also address the most pressing issue which they believe is affecting the environment at a certain time. Whether it is dumping, crime or unsustainable harvesting of plants, they then formulate awareness campaigns in addressing these issues. The partners are living in the community and they will be able to identify problems in the community which the conservator might overlook because conservators are not present in the community on a daily basis. The conservators also have daily working hours which mean they are not present on the reserves at all times. The community is present all the time, and they therefore have the most intimate relationship with the reserve. The community partners are therefore able to identify socio-ecological threats to the reserve and address these issues with the broader community whether it is through door-to-door campaigns or at community meetings. They also make use of posters, local radio stations and newspapers to spread the message and if they are not able to provide the community with relevant information they refer them to those who can, like conservators. This is an indication of self-mobilisation (collective action and empowerment) which Trotman (2008) suggests is the ideal engagement on the participation continuum. He defines this as people [community partners] participating by undertaking initiatives independent of external institutions. They may link with these institutions for resources and advice but retain control over what is done or what resources are used.



Figure 34 Door to door survey

(Source: Sanayi, A. 2008)

People have suggested that I advertise in the local media to tell community members about our group but I don't want to do that. Because when we go on hikes everyone will talk to each other if there is a bigger group, nobody will have their eyes on the plants, they might even be so busy socialising that they trample on special plants. I don't want that, so I rather won't advertise, ten people per hike is good for me (A3)

Not all community partners share the sentiment of needing to attract other communities and more people. In fact, community partners from more affluent reserves have the luxury of selecting the amount of people they want to participate in conservation efforts. They therefore do not bother with advertising out of fear that the group will become too large to manage and the large size might impede or negatively affect the group activity. This particular group is interested in plant monitoring and for this specific activity smaller groups are needed. This view echo's the western perception that conservation areas are not places for people. With other community partners in poorer areas the activities require the participation of the broader community because they are still trying to bring people to the point of understanding why plant monitoring or alien clearing is important. And see the community as part of the reserve by encouraging their participation, because conservation areas are for people too, not just for plants and animals.

5.4 Transforming the sector: Reconnection through recognition

Post-Apartheid South Africa has seen great strides in terms of transformation. Transformation in the conservation sector was desperately needed. Historically people perceived and associated nature conservation with white males. Khan (1994: 499) suggests a reason for this is that "South Africans, both black and white, have had their perceptions of the environment shaped by the political forces of the past." One of the visions of the Cape Flats Nature programme was to address this issue by implementing transformative initiatives in the conservation sector on the Cape Flats and in the broader city of Cape Town. Since there was no blueprint for transformation the programme sought to develop experimental solutions which served as a catalytic approach to transformation. In 2005, Cape Flats Nature sought to

recruit people from the community into the conservation sector and to be employed by the City of Cape Town. These conservators would be known as “the new breed of conservators” and their goal was as follows (Layne, pers. comm. 2012)

- Conservators who the community can identify with because they look the same demographically.
- Conservators who can communicate with the people in the same mother tongue and who understand the socio-economic circumstances of the community.
- Conservators who understand that conservation is inclusive of people rather than perceiving the two as separate entities.

Khan (2000: 156) summaries this all-encompassing transformation by saying:

the political change have been reflected in the environmental sector which similarly has transformed its wildlife-centred, preservationist approach (appealing mainly to the affluent white minority) to a holistic conservation ideology which incorporates social, economic, and political as well as ecologic aspects.

This is the ultimate goal of transformation in the conservation sector.



Figure 35 Changing face of conservation, young black scientists in the field

(Source: Eksteen, L. 2012)

5.4.1 Transformation: En Route to Success?

I think it (transformation) is happening... I think unevenly but I do think it is. In our big bureaucracies is where we struggle. The race gender transformation is one, there are always two levels of transformation, it's who do you see in organisations. The other is who do we engage with, who do we see as important out there. For example in Cape Town, it used to be the wealthy white communities around the mountain and it took until the 90's for an engagement with the Cape Flats to start on those communities' needs and ambitions to be recognised. So there's... the content of the work seeing people as important in the landscape and conservation in... It's completely uneven you will bump into very old school people. Within an institution you'll get unevenness and you'll get a decision one day that reflects the vision another day you see something different, it's very far sighted... (B2)

There is no doubt that transformation has been occurring in the conservation sector post-1994. This was due to the collective visions of conservators and embodied through Cape Flats Nature Programme and its related actions. CFN saw the need for the sector to undergo a paradigm shift from one which was previously static. Change took place in three ways; firstly the identity of conservators in terms of gender and ethnicity, secondly the view which considers people as part of the natural landscape, and lastly engaging with the poor majority of the country rather than the wealthy minority. Although great strides have been taken there is still a degree of unevenness across institutions and within institutions. Within an institution there are people who do not speak in a common voice. This affects the entire sector as a whole.

At a political level decision makers wouldn't take it (conservation) serious until they see their constituency. For example at the book launch the mayor was there and he was quite shocked, I think to find his constituency in the room, I think it changed his attitude completely, didn't think he had a clue. He's been seeing Julia Wood, that's the face that he gets of nature conservation. So until there's more Bongani's and Luzannes, Lewines and

Charlines and they in the leadership position it's just not going to. And until there's a champions forum for it from grassroots that have been engaged in this stuff and speak with confidence it won't sell politically and also those decision makers need experience of nature to value it so they need to get it when they are kids in their community so it's all of those things (B1)

Mass social movements of the past brought about transformation in the country. The people involved in those movements are the country's politicians who are currently in power today. Therefore it is important to get politicians involved. Political will is pivotal in enabling action and paving the road of change in the conservation sector. However, politicians may still view conservation as a white sector because the identity of people representing the sector in upper management level has still not changed post-apartheid. That might be why the sector still lacks political support. Changing the representative's identity might change the perception of politicians. The representatives of conservation should not only be placed in management positions as 'window dressing' and to look good on paper. They should be able to defend their vision and convince politicians, and community partners of the value of conservation. Therefore it is important that skills are developed amongst prospective conservators.

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I think slowly but surely it is transforming. I can only speak from my experience. What CFN definitely pioneered was to get black urban conservators on the ground and especially on the Cape Flats we come from a history where it is always been about conservation is for white people and put fences up save the plants save the animals and CFN always pioneered to push the black urban conservators so that any person in the street can relate to that person in the field and not feel alienated or silly if they ask. So in terms of that it has transformed but it is still a long way to go... There are very few black people... there is a lot of resistance to change. (B3)

The rate of transformation was deemed to be too slow for some participants. Although they acknowledge positive transformation has occurred they still feel that there is resistance and this resistance is what retards growth. CFN's action to appoint black urban conservators has been successful in pulling in communities at grassroots level but because there is resistance

to transform upper level management therefore transformation doesn't occur holistically. In terms of perception of conservation practice transformation has been doing well because fences were removed from conservation areas which allowed communities to freely access the reserves. Conservation at these reserves has also moved away from its preservationist approach and people are encouraged to participate in non-conservational activities on the reserve which just thirty years ago was inconceivable.

Yes there is transformation but still not enough, if you look at the ratio of unemployed black conservation graduates it's too much in comparison to the incoming white graduates employed. I often question if the selection is based on academic results or skin colour especially in the City, SANBI is doing ok, Cape Nature, SANParks they have black people but few in management positions. But how do you pinpoint it? How do you confront these issues? It's difficult, but yes I think there should be more transformation, in terms of gender, race, and people-biodiversity (B4)

One participant felt that white conservation graduates are still preferred by recruiters from the conservation sector, this even though black conservation graduates' academic results are on par with those of their white counterparts. He provided a broader observation of other conservation organisations in the sector and said that management at top levels is still not reflective of the majority demographic of the country. The common perception is that there are no diversity candidates to fill certain positions in the conservation sector. Khan (1994: 177) suggests that:

environmental illiteracy is widespread and there is a dearth of qualified and experienced black scientists and environmentalists... it would be true to say that the skills expertise and resources are largely concentrated in the hands of mainstream environmental NGO's whose staff and membership base are still mainly derived from the white sector of society.

Alternative methods can be used to incorporate black youth into the sector such as mentorship and in-service skill development - these candidates can then later be sent for formal qualifications.

The approach to conservation is shifting to be more inclusive. We don't just look after conservation we don't just look after people. We need for conservation to meet the development agenda, we need people to come and clear aliens. I think it is shifting and I think it needs to shift more. I think it is in a process of shifting and changing, It's not static (B6)

Older conservators may not be open to change and they may feel that their lifetime of work is not being appreciated and that incoming conservators are coming with different ideas and ways of doing things which they are not open to. This is however not unique to older conservators, students coming directly from university/college display similar resistance. This is because their academic training is primarily focused on learning and implementing the science in the fields and very little emphasis is placed on integrating social issues into conservation.

5.4.2 Transformation through the eyes of conservators

The South African Constitution and its related legislation condemn discrimination and encourage transformation. This is also true for conservation legislation. Although legislation is remarkable in its attempt to redress past injustices one often sees the cracks in terms of implementation. Finney articulates a similar notion in the USA (2008: 5) as she explains:

African-Americans continue to feel frustrated with the environmental movement and the national park system. Diversity is only an expression of political correctness or as a goal that has to happen within certain financial and time constraints. Policies within environmental organizations are often about lip service - when funding cuts are made, diversity is usually the first to go.

We look at the perception of transformation processes through the eyes of the conservators to analyse their progress in the conservation sector.

It's frustrating to be a black person in conservation, there are always people undermining you, questioning your motives, you always have to work extra hard to prove yourself, prove that you are worthy to be here. It's difficult but you continue on because you love what you do... Sometimes I feel as if I am stuck between a rock and a hard place, because I have to listen to my

managers and on the other side I have to listen and consider the needs of the people. Let me make an example the boys from Xhosa culture goes to the bush and while they are there they have to have fires, that is part of the tradition but now they want me to tell the people they shouldn't make fires in the reserve. I can't do that, because I know why they need to make those fires. But if I tell my bosses they don't understand, I need to compromise and negotiate on behalf of the community. That's the type of thing I need to deal with and it's difficult... The transformation that I'd like to see in conservation is not about colour but the people in conservation should change their mindset to acknowledge that there are social challenges. Although our interest is in natural resources but there are also social challenges... mind-set transformation. Not to be stereotyped.-C3

A number of black conservators expressed their frustration in their position. They feel that their opinions and decisions are often undermined by white superiors. This confirms a previously mentioned notion that unevenness exists within sectors. It could be that the superiors talk down to all employees because that is their leadership style which black employees interpret as a racial attack or it could be just that, a racial assault. Perhaps some superiors do not share the vision of transformation and have the 'why fix if it is not broken' sentiment. Thus there is resistance to change in terms of who conserves and how conservation is practised (including people as part of the landscape).

One conservator felt that their white counterparts do not understand certain cultural ceremonies and therefore are not prepared to compromise. They see only the scientific aspects i.e. you cannot make fires in the reserve because the vegetation cannot afford to burn every year. The conservator who is from the same cultural background as the community understands why they need to burn the fires during traditional ceremonies and he also understands the science but it is frustrating for him to continuously remind superiors of the cultural significance of the reserve. Inclusivity of people in conservation also means being inclusive of their culture and this hasn't been realised yet across the board.



Figure 36 Display of different cultures surrounding Macassar Dunes Nature Reserve

(Source: Sanayi, A. 2009)

It could also be attributed to the fact that people who work in upper management positions were not raised in the same socio-cultural context as the communities on the Cape Flats. The black conservator however shares this link with the community. They may not have necessarily been raised on the Cape Flats, but perhaps they have experienced similar conditions. It is this link which helps them understand the way communities interact with conservation space. They are able to identify with the community and also have academic knowledge of the environment. They are therefore able to compromise with the community. Contrarily, their managers, who view the conservation space purely from a scientific perspective and who do not consider the social implications of their decisions, are what discourages black conservators. It will be difficult for these conservators to go to the communities and tell them to stop the way they practise their traditional ceremonies and customs in the name of conservation, a concept they don't understand and may not see the relevance of.

The racial shift in the conservation sector took place post-1994. Previously it was a predominantly white male dominated career. Eighteen years later we find a significant shift, women and men of all races groups are now working in the sector. All of the conservators welcomed transformation, and although some were proud of the progress, most felt that the rate of progress was too slow and insufficient. This is because the amount of conservators in top management positions is still dominated by a white male demography. Even though the heads of SANBI, Cape Nature, City of Cape Town Biodiversity Management Branch are all female the scientists and advisors are still white. It is not only the amount of black people working in the sector that concerns the conservators. It is also the lack of black and coloured

community members and volunteers who are involved in conservation related activities, as opposed to their white counterparts.

In my time 1997, it was male and white dominated. I don't see the whole colour I think it's fantastic that our own people on the flats and I encourage it as much as possible. Become aware and conscious of conservation and would want a career in conservation. I think it's fantastic. In my time it was considered odd by my own race group... and the city has quite a number of females. The city doesn't have this thing of you a female so you can't manage a reserve. I'm actually very proud the City encourages, it's not about you being female or male it's not about colour it's about you can do the job. I think the City has the highest, I'm not sure of my facts I'm under the assumption that the City has quite a high number of female conservators, managers—C1

One conservator explained how she sometimes gets discriminated against because of her gender. People are often shocked when she introduces herself as the manager and a few times she felt that people spoke down to her. Another woman in conservation reflected on the enormous amount of conferences she attends, where she noticed a process she referred to as 'natural selection' which she explained as the "*majority of the people are white, and you see a handful of Africans, Coloureds and Indians seeking out one another and sticking together for the duration of the conference*"-(B3). This implies that there is little inter-racial mixing at the conferences or perhaps people interact with who they are comfortable with in terms of language and culture. Another conference experience was from a conservator at an intern level and new to the conservation field. She explained how an older white scientist confused her to be a domestic worker at the venue where the conference was held. These experiences are just a few examples and do not suggest that all white people in the conservation sector are racist. It merely portrays examples of uneven transition in the sector. This is further reiterated by an account of a young black conservator who remembers that his academic institution's selection criterion for interns was based on race and not academic excellence and this excluded a large group of capable, skilled young black conservators from entering the field.

I do think we need more people of colour in conservation. If you just look at the CREW program probably 80 percent of volunteers are white and retired so there aren't really black or coloured people if you compare it to the range of volunteers but we still see middle class black or coloured people are not really involved, it's not easy to engage them in conservation because there's other stuff that they're involved in-C6

For people from the black and coloured communities to be a part of the conservation sector either as volunteers or as a career choice they first need to be exposed to the sector, then they need to be exposed to black and coloured people working in the sector in order to make it relatable to them. This is believed to change their attitude to the sector from being “a thing for whites” to being a concern for humanity.

Change has happened and change is happening in conservation organisations. I think that if people see the face of conservation changing then maybe they will have a different perception of conservation in the long run. I can assure you if you go to a township and you describe conservation one of those images you portray is of a big boer wearing khaki shirt and pants.-C5

I think the city is on the right track; my personal opinion is that maybe white conservators will not feel comfortable working in Mitchell's Plain or Khayelitsha I think it's because of backgrounds also and it happens here and there where they have to work in different areas- C4

One conservator implied that most black and coloured conservators work in predominantly black and coloured communities while white conservators work in conservation areas which are surrounded by more affluent communities. He suggested that the reason for this was a safety concern. White conservators may feel like outsiders on the Cape Flats and would not feel comfortable in their working environment and that, together with making conservation more relevant to local communities, is the reason why black and coloured conservators work in black and coloured areas. Another conservator confirmed this and suggested that this

should be changed at an academic level. When conservation students enter the job market they should be exposed to all areas of all socio-economic circumstances. This would also make them leaders who understand the community and their traditions and customs and not just focused on the science. Communities are going to perform traditional ceremonies in the reserve such as circumcision and traditional healing ceremonies and fire will take place at these ceremonies. Telling the people to stop fires will be perceived by them as a cultural attack but rather listen to them and ask why they perform these ceremonies. Then it would be a good idea to explain the consequences for conservation if a fire gets out of hand, negotiate where fires could be made and where 'no-go' zones are. This approach might help both the conservators and the community partners.

5.4.3 Community Partners' perception of transformation

Transformation was partly targeted at attracting diverse community partners from all cultures and backgrounds. This section will reflect on comments from community partners. They discuss whether transformation has taken place and whether they are reconnected as a result of transformation processes. They also provide opinions of transformation within their partner organisations.

It is still seen as a white thing, even if you look at the department itself. The department of biodiversity conservation and nature conservation it's dominantly white. There's still that reluctance of people, I think there is a small majority of black people coming in, I'm referring to coloured and black. As I'm observing my colleagues in nature conservation it is very difficult in that field, when you are already in because it's still seen as a white career. Most of the time it is frustrating it is there but it is moving slowly, because you have more black students that are coming in nature conservation. We are getting there but slowly. I think our voice is being heard but the process is slow. (A1)

The community partners feel that there has been transformation in conservation but it still is not enough, the rate of transformation is too slow. This is based on their observation of the distribution of white conservators working in the City's Biodiversity Management Branch

which is still dominated by whites and although there are Africans, Coloureds and Indians, they hold the majority of lower level jobs. The rate of transformation frustrates the community partners because they identify with the conservators' struggle. The community partners expressed that they have raised this concern at champion forums but although their opinion was acknowledged, they still feel like more can be done to improve transformation in the sector across the board at all levels.

It's about (the reserve) not the managers' race; It's about team work and the respect we have for one another. Maybe It's because he is a young guy and it's his culture is to respect adults. That contributes a great deal to his personality. The other students were very disrespectful towards us and they just happened to be white. We didn't pitch to meetings; we didn't bother speaking to them. We told them what's happening is unacceptable to the community. They make us feel uncomfortable, and then we just ignore them. The group loses interest in the nature reserve... It's a challenge when it comes to the white people. They don't know our ways... when there is a fire in the reserve all the kids are there that can be there, when we are not there they fetch us and the beaters, they are faster than us, and I teach them how to use the beater to kill the fire and ensure that everyone is safe. It is fun for them and the fire gets killed quicker. But when she is here she chases them away, because she sees it as a danger. It's her job, I'm not sure how. That caused the children to lose interest because they were chased away. A fire burnt after that and nobody was bothered. I don't feel comfortable mentioning it but white people have that attitude of I know better than you and I think (the conservator) is struggling with that as well, I'm convinced because he has been quiet, so he must be struggling. (A2)



Figure 37 Demonstrating fire-fighting techniques to adults in the community with children watching from the side

(Source: Provided by project partner)

The community partner of one reserve said that they didn't work well with certain white conservators. This was because the conservators were disrespectful towards them, and they were not included in discussions and decisions pertaining to the reserve and therefore people lost interest in the reserve. And as another community partner points out, they would not feel as comfortable working with a white conservator. This is owing to the history of the country which has entrenched racial division within people, even in the post-apartheid era. Divisions still exist and some non-white communities continue to feel subordinate to white people. Durrheim *et al* (2011) suggest that racism and its underlying processes have shaped South Africans' current perception of their own identity and the identity of the other. This division makes it uncomfortable for Coloured and black African people to form a close relationship with a white conservator. Another community partner suggests that it has to do with the conservator's cultural background - they need to be able to relate and understand people's motivation for doing things in a certain manner '*they don't know our ways*'. It could be due to prejudice coming from both parties and miscommunication which were perceived as racial slurs.

The incident where the conservator (not the manager of the reserve) stopped children from extinguishing fires resulted in the people's belief that she undermines them. For her it was probably about safety and accountability for the children's wellbeing. The community feels

this was a direct attack on them because of the way she approached the situation. The conservator does not realize that it is the children who frequently save the reserve from fires because they are faster and more in numbers than adults. Halting the children from doing something they feel proud of discourages them. When extinguishing a fire they feel as if they saved ‘their’ reserve. By just telling the children to stop without providing a reason, without negotiating causes premature disconnection from the reserve in what was meant to be the next generation community partners.

In all honesty, I do think that our relationship would have been different with the manager if they were white. We feel comfortable with them because they speak the way we do, they are patient, they teach, we have braais, they understand us. And you know some coloured people still feel subordinate when it comes to white people... that are just the way it is. (A5)

I think they are treated differently not in a right manner and it is frustrating to me and it's more frustrating to my colleagues in nature conservation. It is very difficult to get bursaries to go into nature conservation if you are black because you need to meet a certain criteria to get those bursaries. We try to pursue other avenues but it's very difficult then you coming from a poor background (A1)

Despite the positive transformation processes the community still feel more needs to be done at an institutional level in order to fast track transformation. Although people are slowly starting to re-establish relationships with their conservation space there are discouraging factors. Misunderstanding of culture and incorrect communication are often perceived as prejudice and stereotypical and leads to conflict in the relationship between people amongst different races and people and the natural landscape.

5.4.4 Experiences, Perceptions and Opinions of Black Conservators

Participants reflected on their experience as the ‘new breed of conservators’. They are coming into a sector where their physical appearance and ideas are different. We look at how they deal with instances of discrimination, acceptance, fear and anxiety.

I often felt discriminated against because it's like these three black people and it's what we want? But they would still have this authority, oh we know best it's our reserve, it's our manager but it's very indirect, passive aggressive even though they will respect us and be courteous but you can feel that vibe. Even now I'm in a different area which is a completely different area to the Cape Flats it is sparsely populated and rural and there was only one incident. I had to go to a forum meeting and I was in the toilet with this old white woman, and this lady has been in the field for some time. We were in the bathroom and we were early, there were not people who arrived yet. She asks me: "do you enjoy working here" and "I'm like what do you mean do I enjoy working here, we in a bathroom so what do you expect" because I'm black? Afterwards I went to her and asked "what did you mean when you asked do I enjoy working here" and she said "no sorry I didn't mean to offend you". This person does not realise that we are going to be in the same room with her we are going to be engaging on the same platform but when she sees me in the bathroom she thinks I'm the help. (B3)

One participant conveyed an experience where she felt she was discriminated against. She was black and a woman immediately assumed she was a domestic worker. The incident occurred at a time where very few black conservators existed much less attend high-level scientific forums. She also expressed that people were territorial of their reserve and their manager and were reluctant to let 'the other' into their domain. Ramutsindela (2004a: 7) affirms:

racial discrimination in protected areas might appear to be historical but the persistence of racial stereotypes in the other facets of life suggests that contemporary national parks as a strategy for national parks are not yet immune to those stereotypes. Such stereotypes are more serious because the foundations on which national parks were built have strong racist undercurrents.

There was nothing else that I was passionate about and as a child. I was always weird like those... in terms of being coloured (and female) I actually find it as a big joke. I laugh it off because yes I have come across it I find it

hysterically funny.... Especially in conservation you need to learn that you can't take things seriously you need to do a job and you need to do it well and you sometimes need to work through all of it, or work pass it, not pass but just deal with it. I have come across from time to time but in general there are not that many issues (C1)

I have had experiences where I am the only coloured boy working with a whole bunch of white people and the white boere at the time some of them were nice others you could see they had their reservations towards me... I guess that comes with the territory and the good thing is that lots of change is happening but you still see problems. (C8)



Figure 38 Black conservators patrolling the reserve on horseback

(Source: Sanayi, A. 2008)

Often racial discrimination is seen to be part of the territory. It is something that the conservators know is there but feel they cannot do anything about and therefore find humour in the perpetrators' actions. There are not many instances but the fact remains that it does exist in the sector. Respondents do see change but sometimes there are cracks in the system and they transpire in derogatory comments or being treated as a subordinate.

I love working in conservation I wouldn't have been happy anywhere else. But this job you do get instances where you feel discriminated against. You

cannot really pinpoint it, you cannot really say he said this and he did that that was discriminatory but you just know. Nonetheless I love being in conservation. (C7)

Conservators all have different experiences of the conservation sector. They feel privileged being a part of the change in the sector but there are still many challenges that they experience. They express concerns of discrimination because they are black or because they are female and it is not only white people who are the perpetrators, it is often people from the same race and gender.

5.5 Poverty alleviation: Is community development possible through conservation?

Poverty, inequality and marginalisation have a major influence on conservation. Community conservation often has a community development spin to attract people. Conservators often sell conservation to communities by promising economic incentives i.e. job creation through tourism initiatives. Three of the CBNRM principles (DEAT, 2003: 21) relate directly to economic incentives i.e.

- Different ways of earning a living are maintained, to minimise risk in case of natural and economic disasters.
- The natural resource base is maintained and even improved so that the natural resources can continue to provide livelihoods to people in the future.
- People receive benefits - economic, social, cultural and spiritual- through managing the resources wisely.

Poverty alleviation is often used as a motivating factor for community based conservation. We look at how respondents see poverty alleviation and if this has happened in the communities since community based conservation was introduced in the area. The burning question is can conservation be used as a platform for poverty alleviation on the Cape Flats? First we will look at how poverty alleviation is envisioned and whether any strategies have been implemented.

We acknowledge the fact that there is lack of skills, poverty is out there... So we do that by educating the community and giving them skills and if there are employment opportunities we give it to them through projects that we do in the reserve. (C3)

We running a skills development programme where we get youth from the local community employ them and do training with them. When they done with us they can use that training and go out and be part of an active workforce (C11)

We want to bring (Department of) Economic Development in. When we talk about harvesting to build the capacity of the communities (C8)

Poverty alleviation requires a large-scale economic cash injection into the community. The conservators have provided poverty alleviation on a small scale. Some people were given opportunities to improve their socio-economic circumstances by participating in the activities arranged by conservators. The manager or certain community partner organisations often do this by sourcing funding from big companies through their corporate social responsibility stream. Once they've acquired the funding they plan and look at the needs of the reserve and the needs of the local community. If the need has been identified, whether it is a clean-up hike, community safety patrols, alien clearing or administrative assistance, they go into the community in order to recruit people. They send out a notice to the community and request that people express interest in the activity. It is not easy to select applicants because of the large amount of people who apply for the post. They would choose approximately 20-30 people at a time and these people would receive training. If it is alien clearing they will be informed what alien vegetation is, why it is bad for fynbos and how to remove it. In this way they not only acquire a new skill, they also receive environmental education. The community then works for two to three weeks which they get paid for. They can then take their newly acquired skills and apply for a more permanent post, perhaps Working for Water which offers longer term employment for alien clearing. The same applies for all the other identified needs mentioned before.

Yes, we get funding from Lottery and we get funding from US-AID. We had a number of projects that we done as I said that we trained 30 people to do the

alien clearing. Last month we did a supervisors training for 10 people... we will pay those people for that whole week. We transport them and we pay them a stipend to do the work. (A1)

We've been working voluntarily all these years. In 2008 we worked for some money. (A2)

there's a lot, of people who are working for the City now in conservation and in the wastewater area and they come from us. Where we trigger one's ambitions, trigger involvement, or the love of nature conservation. (A1)

There is currently a group of volunteers working in the offices of Wolfgat and Macassar Nature Reserve, ten males and females performing administrative duties. The project had been underway for more than five months at the time of the interview. They get paid for two days but they volunteer for three extra days because of their eagerness to help. At Harmony Flats nature reserve the manager received funding to send two ladies for secretarial courses and the ladies are now working at private hospitals in permanent posts. Communities have also had access to numerous amounts of permanent job opportunities through the training they received from the conservators and their associated organisations, some of which are bird ringing, environmental educators and study prospects. Through their relationship with the conservators of the reserve they build up contacts who often inform them of job opportunities. They are also able to use facilities for faxing and e-mailing CV's and use the internet in order to check online for future employment.

Somebody decides I'm going to make memory sticks from alien wood then you find that it's difficult for them to market the product. He takes forever to carve this thing, he goes to Green Market square and might only sell one. Then he might only sell one and then he still need to travel home, he needs money for taxi fare. It needs to have a benefit and that is the one thing that people often say on the Cape Flats. People just want, not that they just want money but unfortunately we live in a world where we just can't survive without money. It's not like people want to be millionaires they just want a form of income generation so that they can sustain their needs as well. (B3)

Conservators suggest that the community perceives the reserve as a resource rather as a place to protected threatened species. They need the fish, the plants and animal parts for *muti*, flowers for selling, plants for medicinal use, and meat to eat. The conservator then has to compromise with the community and say that unsustainable harvesting will result in them not having any of these resources in the future and assist the community in supplementing this need. At Edith Stephens they have a vegetable garden to assist in providing food to the community. They also have a medicinal plant garden to avoid people illegally and unsustainably harvesting the resources. However people don't understand "Why must we only take three fish but some big boats can take more, we need it only to feed ourselves not to sell." In this case the conservator sits with a challenge, to prosecute people who illegally harvest reserve resources or they can negotiate with people.

Two community partners said that they receive no remuneration and the work they do is for the love of nature conservation. They only receive certain small rewards such as travel opportunities and recognition for their hard work. There's a whole host of skills that community partners have developed through participating in conservation activities. These skills might be useful and transferable when seeking careers in the future. They include alien clearing, fire fighting, tourist guides, map and GPS reading and plant monitoring. Further skills are environmental education and awareness, leadership, administration, organisational development and growing vegetable and indigenous gardens.

Although some financial rewards and temporary employment have been generated by conservation initiatives, they have not occurred on a large enough scale that they can enrich entire communities. Conservators need to create incentives for participating in conservation initiatives which are realistic, particularly for poor communities. This is done through constant communication.

5.5.1 The burden of poverty: Conservation space surrounded by poor areas

Participants were asked whether conservation space is more difficult to manage in areas where poverty exists - these were their responses:

It is more difficult because you get different attitudes, one you come in and say you have NR here. People will say we know we have, because they see the boards saying that this is NR. Yes we know it but we don't know what it is for. What is in it for us? People are using it to relieve themselves and people are using it for spiritual purposes or traditional purposes. And us we are using it for research and other stuff as well, educational purposes as well. (A1)

In areas where poverty co-exists with conservation people need to know what the value of a conservation area is to them. They may know it's a conservation site but will use it or misuse it in ways which benefit them. Eksteen (2009) found that if economic opportunities are absent in a region, people tend to rely directly on natural resources for sustenance and for gaining some kind of economic value from the natural resources. However, it does not mean that people necessarily favour nature conservation for its ecological significance. It is primarily the economic or extractive benefits which change their attitude towards nature conservation.

In terms of my vision as a conservator, being surrounded by poor communities it stresses because you just think if we had money or rich communities maybe they will contribute towards the reserve to maintain the reserve, maybe they will be much more involved. Even if we want to have an activity we can go to them and say guys there is this idea and we need this amount of money, if it was other people then maybe they'll be able to contribute but now. It is really difficult but it is not that difficult we have accepted that we are in this community and we must find ways of dealing with it. But I think it is going to be different if we are working with those rich communities because as a manager you have a vision you want this area to have sports and like highlights where people can go and enjoy themselves but it is difficult because there are budget constraints, limited resources and the people out there who are not aware that this is a nature reserve they come and vandalize. Those things they frustrate a person. By working with the community that makes things easier because you plant a signpost today, tomorrow it is gone. But if we work with the community that are aware. We done a study, before we just used to plant signpost and people used to cut it and take it to the scrap yard but since the community is involved there are

signpost which are there for a year now so it shows there are improvements and there are neighbourhood watch. (C3)

The conservator has a vision for conservation space and where this space is surrounded by poor communities their vision it is perceived to be more difficult. Poverty brings added challenges to conservation practice. The conservator feels that affluent communities have the tendency to contribute financially and time wise to the reserve because they do not have the same social challenges as poorer communities. Poorer communities also tend to perceive the conservation area as a natural resource instead of a recreational and educational resource like affluent communities do. The reserve itself suffers from budget constraints and limited resources. Not working with the surrounding community might result in the conservation efforts becoming a financial liability to the community. Issues such as vandalism and criminal activities might occur in the reserve.

I'm sure it would because then you can start a friends group, in the management plan we are required to have a steering committee a lot of the more like BCA has a friends group. I would probably be able to start a friends group but affluent or not I think it's what the reserve manager make of it in trying to get people involved. I'm not used to having affluent community personally. Then the friends groups of my colleague's nature reserves are also willing to help so to me it won't make a difference. (C1)

In the sense of voluntary work yes, it would be more difficult. I get a pension and my wife works so there is an income but for someone who has nothing he will do it for a few days and disappear. If we had to pay them it would be a different story, because then they will fight about who should get the work and who shouldn't. It's a challenge, it took me a while and it will take the next person just as long. (A2)

Respondents unanimously said that conservation is more difficult in poorer areas. Each had various reasons for this. Some suggested that poor communities' attitudes and perceptions differ. They are aware that it is a conservation area because they see the signage but they do not know the purpose of the reserve if it does not benefit them. The reserve is a multipurpose,

multifunctional, spiritual, educational, recreational, and traditional hub for them. Affluent areas are perceived to have communities that are more knowledgeable and therefore communities are able to assist conservation with their time and financial support. Whereas in poorer communities the communities have to be educated first before they understand the concept of volunteerism.

..think it depends on the people who live around you, the people who are living around the reserve they are not educated or have money as the people who are living in the other areas. If Oom Jan had a lot of money he would have invested in the reserve and made sure that things happen, but because he does not have all that financial assistance then he is dedicating his time in trying to get the real work done. However that is not sustainable because when he is sick he is not able to come but if I was based in Gordon's Bay or Somerset West then I would just go to my neighbour who knows and understands nature and have more passion than most of the people do in the Casablanca area. You must remember. Let's say Oom Jan's neighbour was a millionaire now and a developer maybe he would not have cared doesn't mean he has money, because nature is not his thing unless if you really convince him. But a Mr van Wyk living around Harmony Flats he knew about nature all along .His parents used to take him to a conservation area while he was still young so he understands the concepts of nature. So that person it's going to be much easier to say I am going to assist that young man doing and that work there and talk to that person and his friends who can say ok let's fundraise. So for that reason I think it would have been much more difficult. ...and that side is mainly black people and this side is white people so now it shows that those communities they work together to make this nature reserve work. If I was only surrounded by the low income then maybe that would have been difficult. But because there is a challenge, but it is possible to link those different communities and make it work for the nature reserve, meaning that it will give me the same advantage as someone who is in a reserve surrounded by an affluent area. (C2)

According to the conservators this would be different in a more affluent area because they believe that in areas where communities are more affluent, those who are interested in

conservation will contribute time and money to the conservation area which surrounds them. The conservators also believe that people who live in more affluent areas have had more exposure to nature and conservation areas and they perceive a conservation area differently. It is not viewed as a primary resource as in the case of poorer communities, rather it is deemed to be a place of relaxation, a place to be conserved for the benefit of future generations. If the community is poorer the conservator has the added task to instil into people environmental awareness in order to secure social cohesion. If job opportunities are available in conservation the conservator faces the added challenge of selection because there is such a great deal of people in need of jobs and their careers are in demand. Therefore selection will spark tensions related to favouritism.

I think it is a bit more difficult, the one thing that I have experienced or that I know of specifically working with Cape Nature, people definitely have other priorities. It does not mean that I don't love nature or despise nature they just relate to it in a different way. I remember growing up we would go to camp in Soetwater but for me as a child I didn't know about the plants or whatever it was just part of the escape just to be away. So it is more difficult because people's priorities are different. People have more pressing concerns. If somebody feels like I need to eat today and if I have to go stand at the mosque and wait for my hand-out then they are not going to check out the birds at Edith. People have more pressing needs but you can intermix those needs by still highlighting biodiversity and conservation like community food gardens or crafts. I know it is very cliché but in reality it is difficult coz they trying to establish a food garden like at Edith, I'm not sure how far it is now. It's a good fantastic idea because all the communities from Hanover Park and Gugs and everybody can eat. The group is a mixed group from people from all the areas but then there are some conflicts because racial things come to the fore. All these things sounds so nice in theory but in practice.
(B3)

Where conservation is in conflict with poverty we often find that people have a negative perception of the conservation area. This is because they see that space as an opportunity and how to use it, vacant land is for housing, plants for medicinal uses, fish for eating etc. That is also why it is difficult for some people to get involved in conservation initiatives as firstly

they don't understand the value of conservation and secondly they don't have time to work on conservation initiatives because their priorities are required elsewhere.

Growing up in the community has given insight as to what is happening with the youth. A place like this offers a retreat where people could come and get away from their worries. -C11)

Conservation is different in poorer communities and not all conservators get that. If you have an activity with the community partners you have to make sure they are fed, people cannot monitor plants on an empty stomach. Maybe they come only because they heard there will be food maybe that will be their only meal for the day. In that case you as a conservator has to feed their body so that you can later feed their mind. (C12)

Conservators who have a similar background to the community have an understanding of what their needs are because they lived through it themselves and they are able to provide a basket of values to the communities i.e. feeding people when they participate in a conservation activity. Not all conservators invest in providing food to community partners, they might encourage community partners to bring along a snack but this may deter participation in poorer communities. Providing a meal as a token of appreciation can have a greater impact than conservators may think, because that may be the person's first and only meal for the day.

Poverty can be used to the conservator's advantage because this allows for an opportunity to draw people in with a shared need. People do not want to be poor, people do not want to deal with the associated social ills of poverty. How can conservation fill this gap? Perhaps the reserve can be used as a hub for multiple activities which caters for the 'poor man's needs. The conservators at Edith Stephens have made the reserve a hub for the community. The community has multiple needs and they provide a space for community to execute these needs. Consulting the community to find out what their needs are will assist in this process. Poverty alleviation strategies and community development need to coincide with a conservation message. Whether it is food gardening or drug counselling, whatever the community needs are, the conservation space can serve to meet their purposes.

We provide a space for recycling, soccer, indigenous gardens right next door which is a nice buffer. It's an amazing project because it protects the reserve. The recycling won't go further than the soccer pitch. It helps the community in that the lady selling the bricks their kids will be playing soccer right there. They have a facility their kids and work facility where they making an income.
(C8)

5.6 Perceptions of conservation and conservation space

How people perceive the reserve determines how they will use the space. Herberlein (1981: 253) argues “environmental attitudes are based on environmental knowledge... but a belief can be changed by education which influences attitude.” The ‘education’ which influences belief is therefore usually a sensory experience using sight, smell, taste, touch and sound. All participants were asked how they perceive the reserve and what value the reserve added to their lives:

I started to be involved with nature as an individual I started to see things through my work, I started to learn and study then I saw things the way I see them now. (C10)

Sometimes you find people in Cape Town know more, because most of the people are coming from the rural areas. They know what you find there, they know the medicinal plants there but they don't know it's a nature reserve. But they are using it anyway. (A1)

Participants expressed that they were always aware of nature but never knew its true value. It was only through their work with the conservator and the many workshops that they have attended that they realised the value of nature and the need to conserve. They then went on to develop a passion for nature and this passion has further allowed them to take the conservation message to the rest of the community. Passion is only the start, communicating the value and constantly reaffirming to the community is also important.

I was born in nature, I was born in Villiersdorp and I hunted rabbits with dogs, that was all. I destroyed nature before but now but whole perception has been changed to conservation. Nature is very important to me. . I always tell the people the saddest part of all is that I'm born in nature but never learnt about nature and now at the age of nearly 60 I'm learning about nature and that's what the highlight of my life. (A2)

Respondents also expressed their historical attachment to nature as they perceive themselves as being one with nature but because black people were excluded from the conservation site they later grew detached from nature and thought it to be a thing for whites only and they no longer saw themselves as one with nature. The evolution of society also contributes to this because people increasingly become modernised and become further detached from their roots. People move to urban areas from rural areas and new generations grow up in the urban areas embracing modern lifestyles and completely losing their historic relationship with nature.

I think nature conservation in an urban context is about really looking and understanding how dependant we are on nature but for so many things. The air, the water, the ecosystem services that nature provides, for our sense of our own selves and our ability to enjoy life and find meaning in life. I think it's very deeply wound up with nature to have fun. So I think nature and people in the urban context are brought strongly together and it's so complicated to ensure that nature is kept alive and able to meet the needs of people and that people are able to meet the needs of nature. I think that nature conservation in an urban setting is incredibly complicated and it requires a broad approach and paying attention to so many things and somehow working with all of that towards doing something that works for nature and that works for people and the place where you find yourself. (B4)

Nature is perceived as a holistic entity in terms of its biodiversity and conservation value and also the socio-economic value to the people surrounding the reserve. The participant reflects on the complexity of managing nature in a social system. Conservation in the urban area is

not about preserving nature in its pristine form. It's rather about conserving space which provides valuable ecosystem services to human health, well-being and spirituality.

Black people, because we were excluded from many things we don't really have, most people don't really think that conservation is for them it's for the white people. I still have friends who ask me why did you do nature conservation that's for white people so you have that mentality that nature is not for us. (C2)

One participant expressed that conservation is still perceived by his peers as a thing for white people and his motives for choosing a career in conservation is constantly questioned. Because he associates with nature his peers may deem him as someone who is trying to reject his culture and trying to be elite.

If we look at the basket of values that a conservation site has. If you only attribute the values that are biodiversity or conservation values that is very narrow. Your conservation site might offer spiritual value, physical places for recreation. We need to say what it valuable for is and if we managing that site we need to manage it for all of those values for the long term conservation of those sites and for actually making sure that in the long run the site is there. I'm not sure that the complexity of that argument has been brought into the conservation people that we worked with. And maybe that conservation people felt that we were saying that the biodiversity isn't that valuable and as CFN that was always something that we had to grapple with is the way we constituted ourselves and maybe the way that we handled ourselves set up a division between being community centred and being biodiversity centred and the second half in the last few years of CFN we were really working towards an integrated approach that integrate social development priorities and biodiversity priorities and I think that's the way you have to go. When you setting up something in opposition it just breaks down, completely breaks down everything that we are trying to do. Because really we trying to do something that meets all of that and that means we need to come with an integrated approach. (B2)

Various perceptions of what conservation is and what conservation means to individuals have emerged. Although conservation is defined differently by individuals, a common thread has been defined. Most conservators defined it in terms of its biodiversity value for the present and future generations, meaning it is to be preserved for the well-being and survival of people in the long run. Whereas some extended the definition by saying it is a place of spirituality, a place of tranquillity, where you go to if you relax and turn to escape the hustle and bustle of city life. *It's one of those places you can go to if for instance you had a fight with your husband or wife you can go and sit there in nature and just forget about everything it give you that peace-C2.* It is deemed even more precious if that site is in the midst of an urban area.



Chapter 6: Conclusion and Recommendations

6.1 Summary of Main Findings

This dissertation has presented the socio-economic, political and cultural context within which the study area reserves are situated. This has depicted a background setting for the multifaceted landscapes of conservation in urban Cape Town. Although matters are discussed on a micro-spatial scale the issues are evident globally. South Africa is, in many ways, a microcosm of the world, with a wealthy minority of people over consuming, and an impoverished majority under consuming, both contributing to environmental degradation. These inequalities symbolise the kinds of disparities that exist between the 'haves' and the 'have-nots' on an international scale and help shed light on the globalization and standardization of environmental injustices worldwide (McDonald, 2010). An increasing majority of the world's population is migrating to urban areas thus having an impact on natural resources and further threatening the existence of fragmented conservation space in these urban areas.

Conservation and people, and conservation and development have been perceived for many years as a dichotomy. The reality is that people are present in the landscape where conservation is practiced and at the same time development will occur. The inclusionary instead of exclusionary approach to conservation has been adopted in countries across the world. This is certainly true for the urban space. South African legislation encourages for a harmonious connection between conservation and people and conservation and development. The people who practice conservation therefore have to be systematic thinkers and realise this dichotomy is a nexus, finding a balance which works for both development and conservation. CBNRM is one model which responds to this, it is not the perfect model but it is a step in the right direction.

This research has framed an argument which suggests the relationships between conservators and communities are the first point of departure to make conservation relevant to local communities. This will ideally contribute toward the longer-term security and sustainability of highly threatened ecosystems. In doing so, the research was developed to investigate an innovative, ground-breaking programme based on the principles of CBNRM called the Cape Flats Nature programme, which was dedicated to improving the social aspects of

conservation practice. Conservators expressed that although they have “developing community relationships” as part of their job description this still gets lost amongst other priorities. The conservators needed to be flexible, given the socio-economic characteristics of the surrounding communities. Although the job was in most cases strenuous the conservators have reported to be satisfied with their job.

In Cape Town, some conservators did not deem natural fragments on the Cape Flats as conservation worthy. Instead, more capital was invested in conservation space around Table Mountain. Although people on the Cape Flats interacted with nature in various ways they were not quite sure of its conservational value. CFN have assisted in formally constructing the first conservator-community relationships on the Cape Flats (and Atlantis), in order to stimulate a community-conservation relationship. It is imperative that these relationships are not developed to fulfil biodiversity needs but that people should use conservation in a way that conservation assist with some of their social needs.

One of CFN’s main criteria’s was that conservators should be ‘employment equity’ candidates. It was believed that communities would resonate with nature if they identified with their ‘constituents’ working in these conservation spaces. Another criterion was the conservators’ personal perception of conservation. Understanding that conservation space is inclusive of people rather than the exclusionary fortress conservation approach of the past was important in managing conservation space that surrounds and is surrounded by the urban poor who continue to remain victims of marginalisation and inequality. The conservators were like-minded in this regard and shared an equal passion for conservation and social issues.

The research found that the conservator-community relationship does exist at the study area reserves and they have made significant strides in trying to cultivate these relationships. The difficulty however, is in sustaining them, making conservation relevant for longer periods. Respondents were often quoted as saying that conservation does not put food on the table and this is certainly true in the urban poor context. As much as communities have the initial enthusiasm to participate in conservation related activities, the reality is that they often do not have the time to do so.

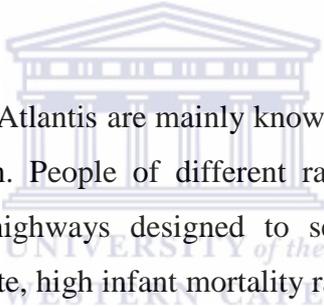
The fact that conservators were employment equity candidates indicated that transformation was on the conservation sectors agenda and conservation practices on the Cape Flats were embracing the sentiments of transformation, albeit forced to do so through legislation. Transformation occurred in terms of inclusivity of people in conservation spaces as mentioned before but due to the legacy of the country, equally important is the demographic representivity of people managing conservation sites. Respondents, however, referred to occurrences of racism in the conservation sector, albeit subtle, it still does exist. It may be a reflection of the country as a whole but this was highlighted as an issue in the conservation sector by respondents.

Despite South Africa's exemplary constitution and related policies and legislation, we still see clear clashes within conservation organisations. Conservators are mandated by legislation to include communities in conservation practice. For top management in the city who were predominantly biodiversity oriented conservators this notion was acknowledged in principle but not allowed to be fully implemented on the ground. A junior community-conservation oriented conservator spoke of instances where he was reprimanded by superiors for allowing members of the surrounding community to practice traditional ceremonies in the reserve. The junior staff member who was also a young black conservator understood the need for burning fires during the Xhosa initiation ceremony. He allowed the community to perform these rituals in the reserve as a way to include instead of exclude communities from conservation practice. His intention was to teach them how to practice rituals sustainably without impacting on biodiversity. However his superiors wanted to maintain nature in its most pristine form free of human extractive and destructive activities.

This research indicates that transformation in Cape Town's conservation sector has influenced the way people perceived and interacted with conservators and the broader conservation community. It has started changing from being seen as a pastime for the white population to a concern for all humanity, including black African, coloured and Indian people. This is not to say that they didn't have a relationship with nature before. Rather it is people starting to find conservators and conservation relevant to them. A classic example in the research findings was the use of conservation space to perform traditional ceremonies. Some conservators forbid this while the new breed of conservators understood why the ceremony needed to occur in the conservation space and compromised with communities. A

new perception of people in the landscape is emerging as a reality and that is good for conservation in South Africa's socio-economic political and cultural context.

From the literature, we observed a clear people-nature dichotomy, particularly in traditional Western conservation practice. Added to this is the notion that black people are lower than nature on the world order hierarchy, this has contributed to many arguments which suggest black people are the main cause of environmental degradation. The literature as well as research findings has shown that black people do in fact have a historical relationship with nature as they have incorporated sophisticated conservation practices in their daily lives. Traditional fortress conservation practices led to the disconnection between people and nature. This is more so in the urban space where people are caught up in the hustle and bustle of city life. Contributing to this is peoples' anxiety to put food on the table as a key priority in a space where they are also challenged with inequality, marginalisation and poverty.



Areas such as the Cape Flats and Atlantis are mainly known for the social fragmentation, but less so for natural fragmentation. People of different races and classes continue to live divided by railway lines and highways designed to separate people. These areas are characterised by the high crime rate, high infant mortality rate, TB and HIV/AIDS. A parallel divider is people's separation from nature, entrenched by the countries colonial and apartheid past. In 2002 the dream of addressing both these issues were realized and in 2011 it was taken away for varying reasons. What does this mean for communities and conservation on the Cape Flats? The hope is that the ball which was set in motion by the Cape Flats Nature team will continue to roll and bring about positive change in these communities.

6.2 Recommendations for Conservators and Community Partners

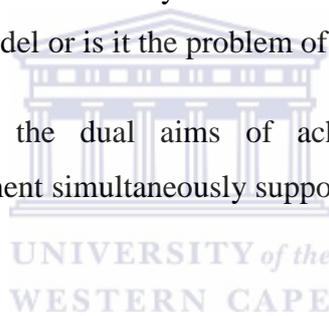
These recommendations emanate from the researchers and the respondent suggestions:

- It is important to initiate with activities which are relevant to communities in order to develop a relationship. Conservators have previously used only classroom environmental education. Rather develop a systems approach to conservation by trying to understand their needs of communities and strategies for conservation areas to somehow fulfil those gaps.
- Organisational bureaucracy cannot be removed but it does present a problem if people within one organisation do not share the same vision. Particularly if those differenced are hierarchically divided. Organisations should develop a common vision amongst employees at all ranks.
- The issue of benefits need to be defined within an urban conservation context. Benefits are believed to be rewards for participating in conservation. Rural conservation practice has generally seen communities participating in cultural eco-tourism, or wildlife hunting to generate an income. These models cannot be applied in the urban context.

6.3 Recommendations for Future Research

The nature of this research was focussed on a particular aspect of conservation practice. There are opportunities to develop further by:

- Exploring relationships between conservators and communities in more depth. Interview communities who live around the reserves and not only community partners.
- Exploring higher level institutional relationships and their impact on ground level conservation practice.
- Comparing different conservation organisations models of people and conservation in order to develop a framework for best practice
- Exploring who actually makes the management decisions in CBC? Of whose interest are those decisions been made?
- Investigating whether government or the so-called experts still control the decision making process indirectly? Is the failure of CBC projects the fault of a wrongly designed model or is it the problem of implementation?
- Examining whether the dual aims of achieving conservation goals and community development simultaneously supposed to be incorporated into a CBC model?



6.4 Concluding Remarks

South Africa's conservation and development policy appeals for the inclusion of people in conservation practice. A range of legislation provides the foundations for moving South Africa towards inclusive and people-centred environmental management, conservation and natural resource management. Rather than reflecting development as oppositional to the environment, this policy framework recognises the critical need for sustainable development in the South African socio-economic and ecological landscape. One aspect of sustainable development is securing natural space for conservation to preserve critically endangered ecosystems for longer term ecosystem services and other benefits.

Our policies are brilliant on paper but fall short in implementation. This realisation is not new to academic and governmental thinking. People across sectors in South Africa are aware of this sentiment but still struggle to appropriately implement. The Cape Flats Nature programme was a pioneering implementing programme in conservation. Its uniqueness lay in

its focus on social relationships. However, when funding stops so does the people aspect of conservation and this has been the case. The foundations for peoples' inclusivity in nature have been laid, now the real works starts. Developing and sustaining relationships are an on-going process for as long as the conservation sites are in existence.

This research has constructed a foundation for the study on community-conservators relationships in a transformative environment. Searching for literature to compile this dissertation confirmed that, in the field of conservation, research of this kind has not been undertaken in South Africa before. Even internationally, relatively few researchers are focusing attention on the human-nature/conservator-community relationship within this distinctive urban, socio-economic, political and cultural setting. This research is aimed at filling those gaps in the body of knowledge.



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APPENDIX A

| Themes | Guideline questions for Conservators |
|----------------------------------|---|
| **Community participation | <ul style="list-style-type: none"> • In what activities do community partners engage in? • If the activities are not related to nature conservation why do you think it is important to have them? • Do you only engage with established community partners? • Do you constantly try to engage with or involve new people/partners from the community? • What methods have you used to engage local community into decision making or running of this nature reserve? • How do you integrate the biodiversity needs of the area with the social needs of the community? • Do the community partners have to approach you in order to participate in this reserve? • In your opinion, how important is it to have the community participate in activities of this nature reserve? • What would you like to see different or changed in order to improve community participation at this reserve? • How has community participation changed since you have started working here? • Do you know of anyone from the local community who has entered a career in conservation because of your liaisons with community partnerships? |
| Conservation area | <ul style="list-style-type: none"> • Are there political influences impacting on the reserve or management of the reserve? • How do external factors influence your management or working experience? • In your opinion, what physical changes would you like to be done to the NR? • What can be done to improve the daily management of this NR? |

APPENDIX B

| Themes | Guideline questions for Community Partners |
|--------------------------|---|
| Introduction | <ul style="list-style-type: none"> • Can you introduce yourself? Tell me about your group? • What kind of Activities do you guys participate in? • Why do you have a specific interest in conservation? • What made you join the group? How long have you been apart of the group? • Are your group numbers growing? • What do you do to attract more people? • Can anyone join or are you targeting specific people? |
| Objectives | <ul style="list-style-type: none"> • Why are you affiliated with (this) nature reserve? What are the other nature reserves you visit? |
| Conservation area | <ul style="list-style-type: none"> • How long have you been affiliated with the nature reserve? • Are you focused primarily on conservation-related activities or do you participate in other activities at the NR? (Social, EE) • Do you work with other community groups? • Do you think that more organizations need to get involved in this NR? • In your opinion, what does nature conservation mean to people in this community? • What is your relationship with nature? • Would you like to make other people in the community more aware of conservation and get them involved in similar activities? • What changes needs to be made to strengthen the relationship between community partners/local community and the nature reserve? • In your opinion, what is the socio-economic and political circumstance of the community surrounding the NR? • How does this influence perception and relationships that people have with nature? • What are some of the physical changes that you would like to see happen at the nature reserve? • Before your organization became affiliated with the nature reserve what were your perceptions of the reserve or nature at large? • How has being involved in activities at the reserve changed your and |

| | |
|--|--|
| | your members' opinions and perceptions of the reserve and nature? |
| Conservation managers/Staff | <ul style="list-style-type: none"> • Did your organization approach the nature reserve or did the staff/management approach you? • What is your relationship with the staff/managers? • Would you like to see any improvements or changes in management style of the nature reserve and the relationship between staff and the community partners? • If you could change anything about the management practices what would it be and why? • Does your group get involved in the decision making of the reserve? |
| Conceptualization of conservation | <ul style="list-style-type: none"> • How would you describe conservation? • Why do you think conservation is important? (In general terms) • Since you've been involved in conservation, would you say that there is transformation taking place? Is the condition it improving or declining? • Would you like to see more transformation occur in the conservation sector and what would you like to see change? • What are the other types of transformation that you would like to see happen in the conservation sector |

APPENDIX C

| Themes | Guideline questions for Cape Flats Nature staff /management |
|------------------------------|--|
| Introduction | <ul style="list-style-type: none"> • What is your position at the organization? • How long have you been employed at Cape Flats Nature? • What is your job description? |
| Objectives | <ul style="list-style-type: none"> • What are the main objectives of CFN? • Now that CFN has been restructured what are your new objectives? • Do you think your previous objectives have all been achieved? • If you could do it over how would you have achieved the objectives differently? |
| Conservation managers | <ul style="list-style-type: none"> • Do you think the conservation managers which you partnered with have a good relationship with the community partners (post CFN)? • How well should the manager know and understand the nature reserve and surrounding areas which they manage (Biologically, socially, politically, economically)? • Your program has selected young people from the communities and provided them with training in order to manage the reserves. Do you think the training sufficiently prepared them for the job? • Compared to when they started out, do you think the managers have been sufficiently prepared to manage the nature reserves without the helping hand of CFN? |
| Community partners | <ul style="list-style-type: none"> • In your opinion, how important is it for managers to have a good relationship with community partners? • Do you think the number of established community partners is adequate for each NR? • What can the managers do to get more community partners involved? • In your opinion, how important are local people in conservation? • Do you think that managers should maintain liaisons only with established community partners or should they continuously try to extend their relationships with other community members (who are not officially associated with a particular organization) |
| Conservation sites | <ul style="list-style-type: none"> • Why did you specifically select poorer communities to spearhead the CFN program? • What criteria did you use to base the selection of partnership sites? • Do you think that a program such as Cape Flats Nature will be successful in the entire biodiversity network? |

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| General | <ul style="list-style-type: none"> • What are the challenges facing urban conservation in South Africa? And Cape Town specifically? • What is your overall vision for urban conservation? What is the motivation for conservation in an urban area? • Do you think there needs to be more sites in the urban area which are officially proclaimed? |
| Conceptualization of conservation | <ul style="list-style-type: none"> • How would you define conservation? <p>Why do you think conservation is important?</p> <ul style="list-style-type: none"> • Do you think the conservation sector is transforming? (If yes how) • What are some of the changes you would like to see in the conservation sector? • What are the challenges facing conservation in South Africa? Cape Town? • Is South African conservation policy sufficient for biodiversity conservation? |

