EXPLORING COMMUNICATION OF THE ELEPHANT MANAGEMENT PLAN OF SOUTH AFRICAN NATIONAL PARKS

by

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Submitted in partial fulfillment of the academic requirements for the degree of Master in Environment and Development,

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November 2014

ACKNOWLEDGEMENTS

To my loving wife, Glynnis to whom I owe my life, my sanity, my recovery and this thesis.

To my children: Callan, Liam, Kerryn and Branna whose love for their dad has never faltered.

To the God of my understanding whose love and grace, was, is and always will be, with me and those whom I love. Without Him, I am nothing.

DECLARATION

I, Kevin Thomas Burden Moore declare that

(i) The research reported in this mini-dissertation, except where otherwise indicated, is my original work.

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ABSTRACT

The complexity associated with elephant management within the South African context makes communication of management decisions a difficult undertaking. People construct mental models based on their ideas and understanding which form the bases of the perceptions of their worlds and are the constructs of mental models. An understanding of these mental models is necessary in order for a common focus to be created so that attitudes might be influenced. What is required is a means in which the maintenance of biodiversity could form a component of people's (or groups of people's) mental constructs.

A recommendation by the Department of Environmental Affairs was that an Elephant Management Communication Plan should be established to facilitate clear channels of communication between the South African National Parks and its respective stakeholders. Thus, the main research question was: How effective is the Elephant Management Communication Plan likely to be in raising awareness amongst all relevant stakeholders about how elephants are managed in National Parks in South Africa? To answer this, the research critically analyses the Communication Plan Formulation Process through qualitative research methodology.

The research concluded that the scope of what is required of the Communication Plan Formulation Process needs to take cognisance of changing environments, perceptions and paradigms on elephant management which would involve an overhaul of the communication strategies within SANParks and between SANParks and its stakeholders. In addition, the elephant issue will need to be viewed as a component of a broader system which includes stakeholders and will need to be communicated as such.

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CHAPTER 1

INTRODUCTION AND OVERVIEW

1.1 INTRODUCTION

"Elephants are the iconic and most charismatic mammals of Africa – indeed its very symbol. In a continent renowned for its mega fauna and wealth of raw materials, elephants and their ivory hold premier positions" (Carruthers, et al 2008: 23).

Elephants have been part of the African continent in their current form for at least the last 30 000 years (Plug 1982). In more recent times, however, elephants have been used for entertainment in Roman games and circuses and later in wars, for example in the third Syrian War (c. 240 BC) (Alpers 1992 cited in Scholes and Mennell 2008: 30). Their wealth as a producer of ivory would come later, as was noted in around AD900 by the creation of the Limpopo states of Schroda, K2 and Mapungubwe (Hall 1987) where ivory was traded for products from eastern states.

The greatest impact on elephant populations, however, occurred in the nineteenth century with the colonial advances into Southern Africa. Ivory trading became a lucrative industry. In 1876, 160 000 pounds of ivory was exported from the Cape Colony (Roche 1996).

By the 1890's almost all the elephants in South Africa had been exterminated (Whyte, 2000; Hall-Martin, 1992; Skead, 1980). According to Hall-Martin (1992), by 1920 there were only 120 elephants remaining in four areas of the country, namely: Addo National Park, Kruger National Park, The Knysna Forests and Tembe Nature Reserve.

With the proclamation of National Parks and nature reserves, the population of African Elephants grew substantially in the 20th century. In 1918 it was estimated that the total elephant population - in what is today referred to as the Kruger National Park - was 65 elephants (Ludorf 1918 cited in Joubert 2007: 24). Currently, 17 847 elephants have been recorded across South Africa (Blanc, Barnes, Craig, Dublin, Thouless, Douglas-Hamilton, Hart 2007 cited in Carruthers et al 2008: 24) with the majority of these situated in Kruger National Park.

Owing to the significant increase in elephant population numbers by 1960 in Kruger National Park, and the perceived impact that these numbers were having on plant and other species, a culling programme was implemented on elephants between 1967 and 1994 (African Geographic, October 2007).

Because of international and local pressure in 1995, South African National Parks (SANParks) decided to suspend culling programmes in all SANParks (Mabunda 2007). This initiative, whilst courageous, did not, however, in the minds of conservationists, deal with the elephant management challenges which they faced. After nearly a decade of discussions this led to "the great elephant debate" hosted by SANParks in Kruger National Park between 19 and 21 October 2004. Consequent academic and civil debate and science indabas led to the creation of the Elephant Management Plan for South Africa.

SANParks have elephants situated in five National Parks. These include: Kruger National Park, Mapungubwe National Park, Addo Elephant National Park, Marakele National Park and Garden Route National Park. Each park is unique and the elephant management for each will thus also need to be unique. This uniqueness adds to the complexity of the Communication Plan for Elephant Management to diverse communities with equally diverse value systems.

1.2 THE NEED FOR THE STUDY IN TERMS OF THE REGULATORY FRAMEWORK

The National Environmental Management Act (1998) replaced the previous National Parks Act No 57 of 1976 in the year of its proclamation. The National Environmental Management Act (2003) requires that all protected areas have a management plan in place which is ratified after a thorough participatory process by all stakeholders. To this end, the management plan for elephants in SANParks is therefore prescribed to by the requirements of the Act. The proposed Elephant Management Plan is thus not afforded any particular emphasis above that of any other management plan submitted and must therefore undergo the same public participatory processes. This has arguably been achieved to date but what has not occurred is the process of communication of the Elephant Management Plan (and the underlying principles) with the relevant stakeholders. During the process of formulating the Elephant Management Plan, perceived stakeholders from various quarters were invited to participate, however not everyone responded and the question thus exists as to just how participatory the process was if representation was not achieved. The outcomes of this planned management action will still need

to be communicated to all the relevant stakeholders as determined through appropriate stakeholder identification and interaction procedures

In 2008, SANParks Conservation Services appointed a consultant to draft a communication plan for the implementation of the Elephant Management Plan for five National Parks within its jurisdiction. This communication plan would provide the methodology to be employed and by which to facilitate the transfer of information on elephant management (i.e. The Elephant Management Plan) to the relevant audiences. The communication plan would provide time scales and media to be utilized for information transfer to the audience. The communication was created through collaboration between an independent consultant and SANParks Scientists. Henceforth, the term communication plan refers to the aforementioned plan that was drawn up in 2009. The communication plan has, in part, been implemented somewhat unsystematically; however, the proposed date for full implementation of this communication plan has not yet, by 2014, been determined. This dissertation refers to the entire process of the formulation, revision and dissemination of this Communication Plan as the Communication Plan Formulation Process whereas the term Communication Plan refers specifically to the one drawn up by the independent consultant and SANParks staff in 2009.

The SANParks communication plan (2009) refers to dissemination of information through:

- Symposium presentations
- Presentations to senior SANParks Staff
- Media distribution
- Mass leaflet distribution to identified audiences internationally and nationally
- Training of SANParks staff to communicate the contents of the Elephant Management Plan
- The use of the Internet (particularly through “live” forums)
- Dissemination of information to educators and learners within South African schools.

These methods of dissemination are represented in the graphic below (Fig 1.1) under “elephant management communication plan”.

Figure 1.1 Graphic depicting the focus of the study in relation to the Elephant Management Plan and the Communication Plan.

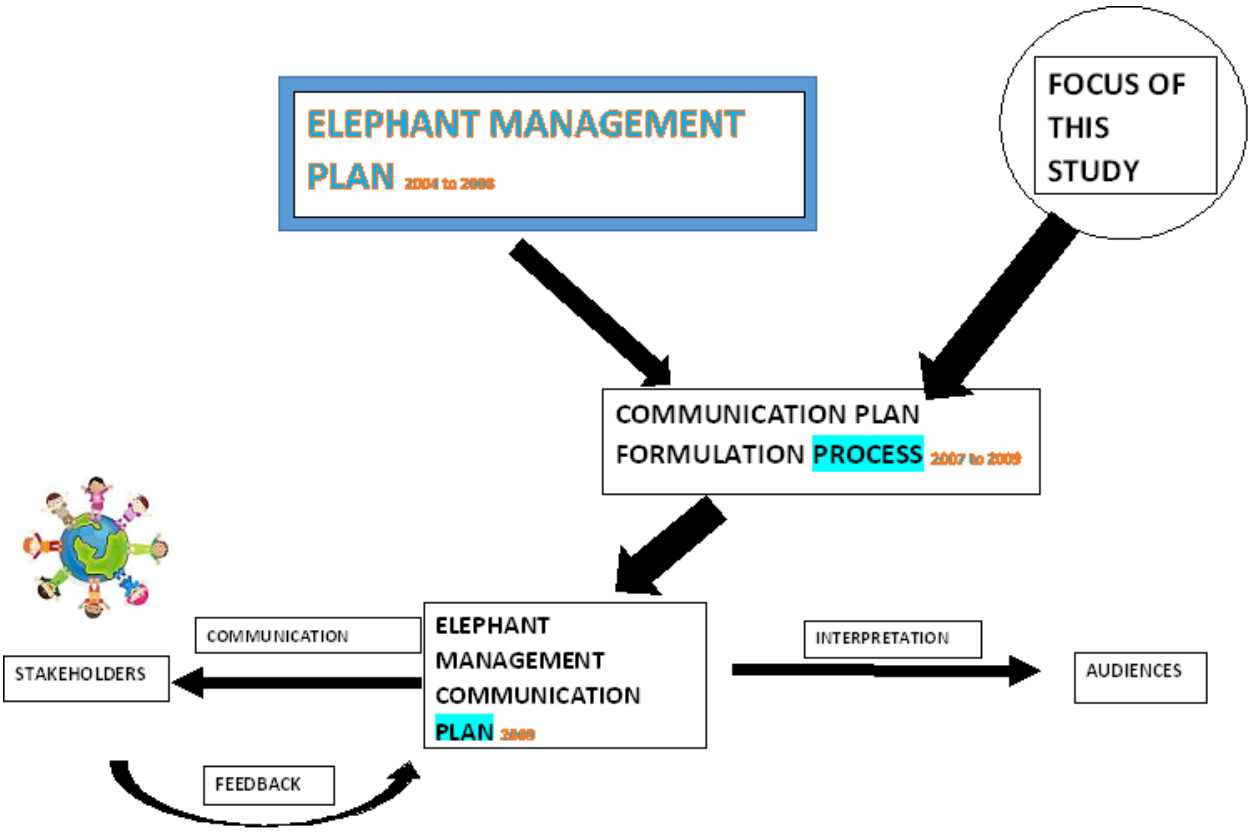


Figure 1.1 above shows that the focus of this study was on the communication plan formulation process and provides a graphic representation of where this fits into the intentions that SANParks has with regard to elephant management and interactions with stakeholders and audiences. What is noteworthy of this graphic is the absence of clearly defined input from stakeholders into the three major components preceding their engagement which questions the validity to claims of inclusivity and which will ultimately have a negative impact on the operationalization of communication attempts.

1.3 STATEMENT OF THE PROBLEM

The Elephant Management Plan was written with input from a vast array of stakeholders. This input however, as mentioned above, is not clearly defined - nor is there certainty as to the extent or depth of stakeholder engagement preceding and during the drafting of the Elephant Management Plan. Most noteworthy is the question concerning the amount of local community interactions and input. The stakeholders who did provide input included government and non-government organisations, academics

and scientists, some community representatives, action groups and animal rights organisations. The South African National Parks is now faced with the complex issue of disseminating the information gleaned from this process specifically to stakeholders who have an interest in elephant management. The challenge that is faced is how effective this process could be and how best to design the vehicle of dissemination to ensure optimum delivery. Thus the focus has shifted to the nature of the Communication Plan Formulation Process. Should the existing SANParks communication plan (2009) be adopted in its entirety and if not, how best should it be adapted to convey the Elephant Management Plan effectively to stakeholders? Of particular interest is that owing to the complex nature of elephant management, combined with the complexities inherent in stakeholders who hold different value systems surrounding elephants, the Communication Plan Formulation Process is complex. The Communication Plan will need to differentiate between the dissemination of information to audiences and the communication of information with stakeholders. These two processes are fundamentally different and need to be taken into consideration during the Communication Plan Formulation Process. Protected Area Management Agencies have a legacy of disseminating management decision information to perceived, willing and passive groups of people who are somewhat haphazardly selected. However, through changes in legislation and internal policies, organisations such as SANParks are now obliged to engage with stakeholders. This has placed the responsibility of communicating with stakeholders on the shoulders of the Protected Areas Management Agency which needs to accept that not all stakeholders will be passive or willing. More detailed information regarding the nature and delineation of stakeholders is included in the following chapter. However, at this point it is worth noting that to date (2014), not all stakeholders may have engaged in the opportunity created by the stakeholder communication platform during the process of drawing up the Elephant Management Plan. Thus, the research objective also questions how effective the communication plan is likely to be in engaging those stakeholders, that previously remained silent, in order for it to be effective. The difficulty, therefore, is how to embark on a Communication Plan for elephant management which will take into consideration the aforementioned reticence and the hitherto omission of certain stakeholder groups.

1.4 AIMS OF THE RESEARCH

The study aims to explore the potential effectiveness of the SANParks communication plan (2009) through the implementation of measures of effectiveness that are outlined in the literature and through an investigation of the Communication Plan Formulation Process for the management of elephants in National Parks across South Africa.

1.5 CLARIFICATION OF CONCEPTS

The following terms have been identified as key to an understanding of the study as a whole. Brief working definitions are given here, as the concepts are explored in greater depth in the subsequent chapters.

1.5.1 Audience

The term has been adopted to describe audience as a generic term: "a regular public that manifests interest, support, enthusiasm, a following" (Dictionary.com. 2012). Such a group is receptive of information and does not actively engage in debate regarding the information. The scope of such a group is broad and does not conform to established criteria with regard to its selection and delineation.

1.5.2 Biodiversity

This includes all aspects of variability evident within the living world, including diversity within and between individuals, populations, species, communities and ecosystems (Convention on Biological Diversity, 2005).

1.5.3 Complexity science

For the purposes of this study, the following definition has been adopted: "Complexity involves the study of linkages between system components/processes, and the feedbacks which these generate, which in turn cause trajectories into differing system states separated by so-called thresholds, invariably characterised by lags and the emergence of interactions across scales" (Scholes and Mennell 2008: 588).

1.5.4 Environmental communication

For the purposes of this study, the following definition of environmental communication has been adopted: "Environmental Communication is the planned and strategic use of communication processes and media products to support effective policy making, public participation and project implementation geared towards environmental sustainability. Embedded in a well-defined communication strategy, environmental communication makes efficient use of methods, instruments and techniques which are well established in development communication, adult education, social marketing, agricultural extension,

public relations, non-formal training and other fields." (Working party on development cooperation and environment 1999: 6)

1.5.5 Management Plan

A management plan, for the purposes of this study, refers to that which has been defined in terms of the National Norms and Standards for the Management of Elephants in South Africa (van Schalkwyk. 2009). Thus, "management plan" means a management plan that:

- in relation to a protected area, has been prepared by the management authority in terms of Section 39(2) of the Protected Areas Act and approved by the Minister or the MEC as the case may be; and

1.5.6 Mental Models

For the purposes of this study, the following definition of Mental Models has been adopted: "Mental models are the cognitive representations of the world that frame how people interact with the world. Learning implies changing these mental models. The successful management of complex social-ecological systems requires the coordination of actions to achieve shared goals. The coordination of actions requires a level of shared understanding of the system or situation; a shared or common mental model." (Mathevet, et al. 2011: 43)

1.5.6 Stakeholder

The term *stakeholder,* for the purposes of this study is defined as: any organisation, governmental entity, or individual that has a stake in or may be impacted by a given approach to the Elephant Management Plan. (*Environmental Dictionary of popular environmental terms. 2009).* It refers to groups which have a specific interest in matters pertinent to the management of elephants by SANParks and are actively interested in engaging in discussion on such matters. Further delineation of stakeholders as is pertinent to this study is discussed in detail in the following chapter.

1.6 RESEARCH METHODOLOGY

1.6.1 MAIN RESEARCH QUESTION:

How effective is the Elephant Management Communication Plan likely to be in raising awareness amongst all relevant stakeholders about how elephants are managed in National Parks in South Africa?

Against the background of the introduction in paragraph 1.1, the main research question has been divided into five sub-questions, formulated as follows:

Question 1

How might environmental communication interventions be used to change the perceptions of stakeholders with regard to elephant management?

Question 2

Does the information which is to be communicated reflect decisions made by major participants in the "The Great Elephant Management Debate", 2004 to 2008?

Question 3

Does the proposed Communication Plan consider the views of the broader social and political spectrum of interested and affected stakeholders on the communication plan as well as their views on elephant management?

Question 4

How have environmental communication strategies been formulated in the past to facilitate changes in perceptions of stakeholders on environmental management issues?

Question 5

How might these, communication strategies, such as the SANParks Environmental Education Strategy (2001) be adapted to ensure effective implementation of the proposed Communication Plan?

The aims, as presented in Section 1.6.1, were explored by means of a literature review, analysis of the Communication Plan Formulation Process and the use of unstructured interviews using qualitative research techniques. These are discussed in greater detail in chapter three, but as an introduction the following should be noted in terms of the research methodology:

1.6.2 Literature review

The literature study (Chapter 2) explored policy and legislation regarding elephant management in South Africa and internationally, both past and present. The study examined the history of the public participation process regarding elephant management since 1994 and its potential influence upon the Communication Plan. In addition, it explored the notions of how communication could be used as a tool to support protected area managers in the promotion of sustainable conservation practices in SANParks. The literature study reviewed information regarding the complexity of the Elephant Management Plan and stakeholders and thus the complex nature of the Communication Plan Formulation Process. The literature study looked at responses to change and issues surrounding the notion of the implementation of change, in particular within communities with diverse value systems regarding elephants taking cognisance of the existence of moral pluracy. The literature study looked at means through which the efficacy of such a communication plan could be evaluated. Sources included: books, journal articles, magazine articles, newspaper articles, relevant policy documents and legislation, and the Internet. This provided a conceptual framework for the ensuing empirical inquiry.

1.6.3 An analysis of the Communication Plan Formulation Process

The Communication Plan Formulation Process was critically analysed within the context of the findings of the literature studies. Issues that were perceived to be gaps in the plan or that required clarification then became the basis for the unstructured interviews. Further questions emanated spontaneously from responses during the course of the unstructured interviews.

1.6.4 The empirical investigation

The empirical investigation fell within the realm of qualitative research methodology. The format and overall method of data collection involved communication based inquiry. The study attempted to provide empirical knowledge on how communication could be used as an effective tool for the promotion, understanding and support for protected area management interventions in general and in specific the Communication Plan. It attempted to highlight potential flaws and gaps in the Communication Plan Formulation Process and made recommendations as to how these may be addressed for the creation of an effective Communication Plan.

1.6.4.1 Selection of sites and interviewees

For the duration of the empirical component of the study, the researcher stayed within the Kruger National Park so as to be able to interview interviewees, verify data through peer analysis and perform triangulation of data. The researcher interviewed three interviewees who were instrumental in the formulation of the Elephant Management Plan and Communication Plan Formulation Process, some of whom were already involved in the dissemination of information regarding elephant management. As was predicted, their key roles in the formulation of the Elephant Management Plan and Communication Plan Formulation Process supplied relevant material for the study.

1.6.4.2 Data collection

Data collection was done through recognised qualitative research methodology. Data collection comprised unstructured interviews. General areas of discussion were formulated by the researcher based on an initial critique of the communication plan. Thereafter, further questions emerged during the interviews based on the interviewees' responses to the key questions.

1.6.4.3 Data analysis and presentation of the findings

The raw data consisted of transcripts of the unstructured interviews. The data were recorded by hand by a scribe, transcribed and analysed by means of a search for emergent themes according to qualitative research methodology. Analysis took place concurrently with data collection. The qualitative researcher endeavours to study data inductively in order for unpredicted data to emerge (Borg and Gall 1989: 386). Thus, the researcher sought out patterns in the data and what emerged from these patterns were concepts, insights and illumination (Taylor and Bogdan 1984: 5). The findings were then presented in the form of this thesis.

1.6.4.4 Ethical issues

The study was undertaken based on the ethical codes of the research ethics of the University of KwaZulu-Natal and the SANParks' Social Science Research Code of Conduct on Ethical Research. Permission was sought from the three interviewees to use data gleaned from the interviews in the study. The interviewees were requested to verify the data that was included in the study.

1.6.4.5 Trustworthiness of data

The following methodologies were employed to ensure the trustworthiness of data:

a) **Cross-checking with interviewees**: The researcher continually asked interviewees whether or not they perceived that what had been written or noted was valid and an accurate representation of their responses.

b) **Peer analysis**: The process of analysis, the interpretation of data and the presentation of findings took place together with detailed discussions and consultations with two peer researchers.

c) **Triangulation of data collection techniques:** The use of multiple techniques in this study included: a literature review, analysis of the proposed communication plan and unstructured interviews. The use of multiple techniques served to promote the trustworthiness of data.

1.7 DELIMITATIONS AND LIMITATIONS OF THE STUDY

Typical of the nature of a qualitative inquiry, the study was limited to a relatively small sample of interviewees and it is not intended that the findings be generalised to other countries that have Elephant Management Plans. The intention is to foster awareness among protected area managers regarding issues of communication via thematic analyses of issues which they might not have previously considered during the drawing up of the Elephant Management Plan. The study is not replicable in its exact form but it is hoped that the issues raised will be able to inform best practice in the Elephant Management Communication Plan and that the methods used could be adapted in other research contexts.

A basic assumption is that SANParks will appoint a consultant to implement the SANParks communication plan (2009) in its original form or most likely in a revised form through the Communication Plan Formulation Process. This assumption is based on the SANParks internal discussions around the perceived negative response from animal rights groups which may arise particularly if "culling" is perceived to have been reintroduced as a management practice. However, owing to the current economic climate, a strict moratorium on the use of consultants has been put in place and thus, the SANParks communication plan (2009) may not be implemented in its entirety.

1.8 SEQUENCE OF CHAPTERS

The study is organised according to the following chapters:

Chapter 1 is an introduction to the study and includes problem formulation, aims and methodology of the study.

Chapter 2 provides the theoretical framework for an investigation of communication and its role in protected area management with specific reference to the Elephant Management Plan and the Communication Plan Formulation Process.

Chapter 3 discusses the methodology, research techniques and details of the research design.

Chapter 4 presents the findings of the research and provides a proposed model for environmental communication.

Chapter 5 provides a summary and discusses the limitations of the study, as well as provides recommendations for implementation of the communication plan and for future research.

1.9 SUMMARY

This study investigated how effective communication interventions are in terms of changing stakeholders' perceptions of and securing support for the implementation of protected areas strategic management plans. The study focused specifically on an evaluation of the design for communication of the proposed Elephant Management Plan in SANParks with the ultimate aim of improving future practice.

The following chapter undertakes a study of the literature relating to issues of communication and its role in protected area management with specific reference to the Elephant Management Plan and the Communication Plan Formulation Process.

CHAPTER 2

THEORETICAL FRAMEWORK

2.1 INTRODUCTION

In order to fully grasp the issues inherent in communicating the Elephant Management Plan, it is necessary to understand the complexities of elephant management and intrinsic to this is a basic understanding of elephant management. The following section details the history of elephant management in South Africa and in particular, post-1994, when a significant shift in SANParks' policy towards the management of elephants ensued. This is situated within the context of SANParks' shifting ideologies in management policy.

This chapter is mainly concerned with approaches to the communication of management procedures to the relevant stakeholders which is closely aligned to variations in the policy of SANParks over time. It discusses issues relating to the structure of communication within SANParks as a component of the proposed efficacy of the communication plan.

2.2 CHANGING MANAGEMENT POLICIES AND PHILOSOPHIES WITHIN SANPARKS

The history of elephant management philosophies in SANParks is entwined in the management principles that were adopted (based on particular philosophies) and adhered to over time. This section deals with changes in the philosophy underlying SANParks' management strategy. It begins with the early years when the establishment of nature areas was the core function of managers and moves to current day philosophy where it is recognised that if ecosystems are continually in flux, (owing to their complex nature) the desired outcomes of ecosystem management are determined by value judgements (SANParks 2009: 19).

2.2.1 The early years

In terms of what Biggs, et al. (2008: 548) refer to as politico-legal factors influencing management decision making for elephants, protected areas were statutorily proclaimed in the twentieth century. This, according to Biggs, et al. (2008: 548), reflected a growth in society's conservation beliefs among the white population who dominated political power during this era. Before the 1930s, management focused on "the preservation of parks as natural areas and on restocking their game populations" (SANParks

2009: 15). The management style was *laissaiz faire* - the only management intervention was protection from hunting (SANParks 2009: 15).

The emergence of ecology saw the materialization of modern wildlife management principles in the latter part of the twentieth century (Carruthers et al 2008: 63). Whilst still remaining under pressure, the 1900s marked an era in which increasing legislation resulted in the implementation of legislation that proclaimed several National Parks and protected areas. These included the Addo Elephant Park (1931) and the Kruger Park (1926) (Carruthers et al 2008: 44). Stevenson-Hamilton (a Scottish professional soldier), upon his appointment in the Kruger Park, received the somewhat vague instructions to stop the hunting activities in the area and to transform it into a game sanctuary (Mabunda, et al 2003: 7). From 1902-1926, emphasis was placed on the protection and rebuilding of game populations which had been beleaguered through excessive hunting and the 1896 rinderpest epidemic (Mabunda et al 2003: 7). Management activities involved the control of predators and the burning of veld to enhance the distribution of game as well as the keeping of rainfall records by Stevenson-Hamilton (Mabunda et al 2003: 8).

In the Kruger Park in the 1930s there developed a shift from preservation towards 'management by intervention' which focused on efforts to curb the troublesome effects of drought and fire (SANParks 2009: 15). Early ecologists investigated ideas of ecological 'climax' and the means by which a constant environmental state could be created and maintained (Carruthers et al 2008: 64). These ecological ideas expanded into what is now defined as a "command and control" methodology, "the system being interpreted as essentially simple, linearly predictable and manageable" (Carruthers et al 2008: 44, 67). In such an approach, scientists tried to "stabilise, maintain and engineer" the ecosystems managed by them (Carruthers et al 2008: 44). In simple terms, the management strategies attempted to maintain the "balance of nature" (SANParks 2009: 15). In Kruger National Park the vegetation observed around 1900, at the time of reserve's proclamation, was thought to be representative of this balance (SANParks 2009: 15). Recent thinking, however, is that what managers in the past tried to preserve, was not representative of "balance" (SANParks 2009: 18). The large areas of trees visible at the Kruger National Park's proclamation were established under conditions of extremely low numbers of herbivores which had come about as a result of excessive hunting (SANParks 2009: 18) and the 1896 rinderpest epidemic (Mabunda et al 2003: 7). "The vegetation at the time of Kruger National Park's establishment was thus not a reflection of the steady state of centuries, but a temporary condition which the spectacular recovery of herbivore populations since 1900 has now changed" (SANParks 2009: 18).

2.2.2 The 1950s and 1960s

In the 1950s and 1960s the notion of 'over-protection' came into being and a conference was held in 1965, one of the outcomes of which was that the populations of elephant, buffalo, hippo, giraffe, wildebeest, zebra and impala should be controlled through culling (SANParks 2009: 15). The notion of a recommended 'carrying capacity' came into being which gave a desired maximum for Kruger's elephant population (SANParks 2009: 15). This was approximately one elephant per square mile or 7 000 elephants for the whole park (SANParks 2009: 15). The use of culling "...completed the picture of Kruger National Park as a highly managed system operating around the maintenance of a stable ecosystem state" (SANParks 2009: 15).

2.2.3 A shift after 1994

Major shifts in South African values (as well as Science) came about as a result of: democratisation in 1994, animal rights, The Convention on International Trade in Endangered Species and the People and Parks movement (Carruthers et al 2008: 67). Concurrent to this was a shift in legislation and authority through the passing of a series of Acts. The following table details changes in legislation post 1995 which reassigned mandate and authority:

Table 2.1 Legislation in South Africa post-1995 which reassigned mandate and authority

Prior to 1995	National Parks Board held responsibility for the authorisation of park management including elephant culling as afforded to it by the National Parks Act.	National Parks Act (No. 57 of 1976).
1997	The National Parks Board became the South African National Parks Board	
1998		• The National Environmental Management Act 107 of 1998 (NEMA)
2003	• SANParks now functions under National Environmental Management • The minister may determine norms and standards for the carrying out	• Protected Areas Act (No. 57 of 2003).

	by SANParks of its functions. • All parks must have management plans which are developed in consultation with stakeholders and approved by the minister.	
2004	• Gives the Minister of Environmental Affairs and Tourism the authority to deliver norms and standards for the achievement of any of the objectives of the Act, which comprises inter alia the management and conservation of biodiversity.	• The National Environmental Management: Biodiversity Act (NEMBA) (No 10 of 2004).

Adapted from: SANParks (2009: 10)

Both the major changes in societal values regarding protected areas and the adoption of a new Act for protected areas had a significant impact in changing the way in which National Parks would be managed in the New South Africa. "The Constitution, The Water Act, and the National Environmental Management Act require cooperative governance across all levels of society to provide equity, efficiency, and sustainability of access to resources, and are designed to enable citizens to control their own futures and participate in managing natural resources" (Rogers 2003: 53).

Scientists began to realise that their models of cause and effect did not adequately represent what was occurring in practice (Carruthers et al 2008: 64). They began to adopt ideas of complexity which led to the system of adaptive management (Carruthers et al 2008: 65).

2.2.4 Complexity

Complexity relates to patterns which are often partially and frequently inadequately predictable (Scholes and Mennell 2008: 588). "Complexity involves the study of linkages between system components/processes, and the feedbacks which these generate, which in turn cause trajectories into differing system states separated by so-called thresholds, invariably characterised by lags and the emergence of interactions across scales" (Scholes and Mennell 2008: 588). Complexity meant that ideas of "simple causality, stability and 'balance of nature' " were superseded by views which allowed for the variation over space and time of ecosystems which yielded alternate interpretations of the undesirability of these changes such as those which were caused by elephants (Biggs et al 2008: 547). Ecologists

developed the concept of 'resilience' which arises from the existence of 'flux, variation and diversity' and allows ecosystems to 'bounce back' when faced with extreme events (SANParks 2009: 18). An understanding of complexity and change assigned huge importance on a hasty degree of an on-going acquisition of knowledge (Biggs et al 2008: 547). This learning was thought best to be achieved via adaptive management which encompassed the establishment of obvious initial goals plus the expectation of surprise (Biggs et al 2008: 547).

2.2.5 Adaptive management

The adaptive management approach which was adopted, views mistakes, as a result of actions taken, to be an important foundation for learning which should therefore be welcomed (Biggs et al 2008: 549). The no-action approach (based on the precautionary principle) could result in even greater difficulties. The moratorium on elephant culling in 1994 combined with the International Union of Conservation and Natural Resources and the African Elephant Specialist Group's observation, that Kruger National Park had management objectives that were poorly defined and isolated elephants from other components of the ecosystem, led to a revision of the Kruger National Park Master plan (1997) (Carruthers et al 2008: 67). Within it was the inclusion of a specific adaptive management approach (Carruthers et al 2008: 67). Strategic Adaptive Management was first applied in Kruger National Park for river management and later became the model for the rewriting of the Kruger National Park management plan and eventually all park management plans (SANParks 2009: 21). Strategic Adaptive Management was based on the following three principles:

- Strategic: goal-seeking and proactive. No change, impact, risk or management option can be evaluated without reference to a clearly defined ecosystem desired state.
- Participatory: engaging stakeholders to meet their needs and values.
- Adaptive: we must manage using an imperfect knowledge base and if we do this systematically, with foresight and reflection, we can learn by doing."

(SANParks 2009: 21).

However, included in this was the continued use of the precautionary principle as well as implementation of Thresholds of Potential Concern which would be catalysts for decision making (Carruthers et al 2008: 68). The precautionary principle means that uncertainty with regard to a potential threat to the environment should not be a reason for inaction to avert that threat (Carruthers et al 2008: 68).

2.2.6 The draft Kruger management plan-

The draft Kruger Management Plan (SANParks 2006) reveals several notable shifts in SANParks policy:

- The precautionary principle had been removed;
- There was an integration of terrestrial ecosystem concerns into a unified hierarchy of objectives.

(Carruthers et al 2008: 69)

SANParks' mandate is to "conserve biodiversity, and achieve its vision for a system of National Parks that are the pride and joy of all South Africans" (SANParks 2009: 1). Thus, the development of new biodiversity management plans for all National Parks took place in 2006 and 2007 (SANParks 2009: 1) in compliance with the Biodiversity and Protected Areas Act.

The aforementioned plans delineate a "desired state for the park's ecosystems" and are designed to comply with the requirements of the National Protected Areas and Biodiversity Acts (SANParks 2009: 1).

2.2.7 The reflection of societal goals in the management of ecosystems

Whilst managers in the past valued historic conditions that were deemed "natural" or "pristine", today they acknowledge that they are valued for the services they provide albeit physical, emotional, aesthetic, cultural or spiritual (SANParks 2009: 19). Furthermore, if ecosystems are continually in flux, science or history cannot determine the desired outcomes of ecosystem management, and these should be determined by value judgements (SANParks 2009: 19). It is to be concluded that in democratic societies, the goals of managing ecosystems should reflect the values of society and not merely those of scientists or managers (SANParks 2009: 19). However, there is recognition that ecological processes, on which our survival (and those of future generations) depends, need to be maintained (SANParks 2009: 19). Recognition of the flux-of-nature adds to the complexity of protected area management. Recognition that environmental management involves an understanding of societal values, further adds to the complexity of protected area management.

2.2.8 Summary

Thus, the early years of management philosophy required the conversion of areas into nature reserves in which restocking and the protection of game populations was a priority. This evolved into a philosophy of management by intervention in which a perception of a pristine state of nature was envisaged. The aim was to maintain the "balance" of nature. This philosophy was developed further into a command and control style of management and the notion of "carrying capacity" was developed by which the number of animals that a particular piece of land could supposedly support was established and the game was managed accordingly. Later, the notion of flux was developed through an understanding of the complexity of nature and it was discovered that areas are largely resilient to change and that the "ideal state" or "balance of nature" did not exist as was previously thought. The notion of adaptive management was born in response to an understanding of the complexity of nature. It was also understood that stakeholders holding various values should have a participatory role in the management of protection and formulation of policies. This shift in management philosophy has shaped the various policies regarding elephant management in South Africa.

2.3 THE HISTORY OF ELEPHANT MANAGEMENT IN SOUTH AFRICA

2.3.1 Introduction

The current prevalence of the African Elephant (*Loxodonto Africana*) suggests that it was formerly common throughout Africa where there was suitable habitat (Carruthers et al 2008: 23). Thus, the area upon which elephants are now situated, is drastically reduced in size. In South Africa, unlike in other parts of Africa, the increasing demand for ivory and the considerable change in habitat associated with the evolving modernisation, saw a dramatic decline in the once large elephant population (Carruthers et al 2008: 23). Thus, a relatively large elephant population became limited to a small number of obscure populations in secluded places (Carruthers et al 2008: 24). Today, there are 17 840 elephants in South Africa which constitutes 3.8% of Africa's total population of 490 000. (SANParks 2009: 1). The protected reserves, in which these elephants are situated, are controlled through "intensive management and translocations" (Carruthers et al 2008: 24).

2.3.2 Human-elephant conflict

Whilst interactions between elephants and people in South Africa takes place largely within conservation areas and are thus positive, human-elephant interactions have increasingly received attention in scientific literature over the last decade because of perceived levels of conflict (Twine and Magome 2008: 206).

By the nature of their size and inherent dislike of humans, elephant and human contact has often been fraught. Human-elephant conflict emerges when the ranges of humans and elephants coincide in unprotected landscapes or where there are land-use mosaics of protected areas and human settlement (Twine and Magome 2008: 216). "Elephants come into conflict with humans, particularly subsistence farmers because they are large, strong, social, intelligent, long-lived, require large amounts of food and water, are destructive feeders can move silently and move over large home ranges" (Twine and Magome 2008: 216). Whilst crop-raiding is the most common source of human-elephant conflict in Africa, and the impact may be catastrophic to individuals, these incursions are usually "uncommon, localised and seasonal" (Twine and Magome 2008: 218).

2.3.3 Competition for space

Because elephants and humans compete for resources, land availability is and has been a significant issue in elephant management. After the creation of the Union of South Africa in 1910, race became a significantly more prominent factor in the segregation of land occupation (Biggs et al 2008: 24). However, a goal of the white minority rule was to preserve the elephant species within South Africa (Biggs 2008: 548). Nevertheless, elephant-human co-existence was viewed as an impossibility. Government attempts to protect the white agricultural community resulted in the virtual extermination of the few elephants in the Addo and Knysna areas owing to the incompatibility of commercial agriculture and elephants (Biggs et al 2008: 24). In due course, the increasing concentration of rural black communities in what the apartheid government of the time termed 'homelands', further diminished the availability of land for elephants (Biggs et al 2008: 24).

2.3.4 Culling as a response to elephant impact on the environment

Because elephants were situated in relatively small areas owing to competition for space, concerns regarding their impact on their habitats began to arise. In the 1950s, concerns had already been expressed regarding the potential impacts on the habitats of elephants in confined spaces (SANParks 2009: 1).

In 1967, an aerial census on elephant and buffalo took place. This was the first complete aerial census of its kind. 6, 586 elephants were counted and this rapid growth far exceeded the expectations of managers (Mabunda et al 2003: 11). The ecological rationale for culling was "to optimise production of the elephant and larger herbivore populations within perceived fodder constraints, while the trigger was the number of elephants, based on a potential stocking density concept" (Carruthers et al 2008: 66). Upper

and lower population limits that were considered acceptable were set and a culling programme proceeded (Mabunda et al 2003: 11). This move from "preservation to culling" heralded the first significant change in elephant management in the Kruger National Park (Carruthers et al 2008: 66; SANParks 2009: 1). An abattoir was constructed in the Kruger National Park and the management method became "management by intervention" (Pienaar 1983 cited in Mabunda et al 2003: 11) which developed into "command and control" (Carruthers et al 2008: 66). The Kruger National Park's management style increasingly received criticism for its "insular" nature (Mabunda et al 2003: 11). Nevertheless, this "command and control" policy continued for nearly thirty years (Carruthers et al 2008: 67). Between 1968 and 1995 the management of elephant populations resulted in the removal of approximately 17 000 elephants from Kruger National Park, 2 500 were live transfers to alternate conservation areas (SANParks 2009: 16).

2.3.5 A moratorium on culling

After the democratic transitions of 1994, South Africa was accepted once again within the international community and SANParks' management policies were questioned by international and local animal rights groups (SANParks 2009: 1). In 1994, because of the climate of uncertainty and shifting values, Dr G.A Robinson (head of SANParks at that time) placed a moratorium on the culling of elephants via the offices of Dr A.J. Hall-Martin who was the Director of Research (Carruthers et al 2008: 67). Dr Robinson asked scientists to create an adaptive management plan that would result in the compilation of enough evidence for the control of elephants (Carruthers et al 2008: 67). The majority of South Africa's elephant population is situated within the Kruger National Park and this is the only SANPark in which there has been interventionist management to limit population growth of elephants (SANParks 2009: 12). The debate and controversy surrounding elephant management has focused on Kruger National Park SANParks 2009: 12).

2.3.6 Increased consultation on the elephant issue

After the new master plan of 1997, the elephant policy continued to use figures as triggers (for the creation of various scenarios in order to ascertain what would occur at differing densities) and Thresholds of Potential Concern were used as endpoints in order to review when ensuing high or low impacts were turning out to be unacceptable (Carruthers et al 2008: 67). However, SANParks was not able to gain widespread approval for its elephant management policy and thus an Indaba was held to consult on the issue in 2004 (Carruthers et al 2008: 68). Following the era of culling, the issue of elephant management tended to be evaded, which created the impression of "inaction through lack of political will" (Biggs et al

2008: 548). There was increasing public pressure for a decision on elephant management to be made. The Minister of Environmental Affairs and Tourism assembled a 'round table' to obtain scientific advice (Carruthers et al 2008: 68). These developments indicated a move towards a more overt and accountable formulation of policy (Biggs et al 2008: 549). The major outcome of the "Scientific Round Table" was that "There is no compelling evidence for the need for immediate, large scale reduction of elephant numbers in the Kruger National Park", however, the next statement was: 'Nevertheless, in some parts, including the Kruger National Park, elephant density, distribution and population structure may need to be managed locally to meet biodiversity and other objectives" (Owen-Smith et al 2006 cited in Carruthers et al 2008: 68).' This constituted an outside, independent review (but also consisted of SANParks input (Carruthers et al 2008: 68).

On 8 September 2005, SANParks submitted a report to the Minister of Environmental Affairs and Tourism with the following recommendations:

- "Elephant population management is necessary as a precaution to prevent possible loss of biodiversity;
- In order to maintain biodiversity in a national park, elephant populations must be controlled in some areas and left to fluctuate naturally in other zones of the parks;
- Culling should be approved as one of a range of available management options, along with translocation, contraception and the use of migration corridors;
- Translocation, contraception and use of migration corridors should be applied as medium to long term management option;
- Guidelines (so-called 'Norms and Standards') should be developed to help parks decide when population control is needed, and what measures are best for that specific location;
- Where culling is necessary, animal products should be utilised to the benefit of local communities.

(SANParks 2009: 52)

The biodiversity management plans adopted by SANParks in 2006 and 2007 included a large herbivore management policy (SANParks 2009: 1). "If a park supports elephants – as do Kruger, Addo Elephant, Mapungubwe and Marakele National Parks – then issues of elephant management were incorporated into this herbivore management plan" (SANParks 2009: 1). National Norms and Standards for elephant management have subsequently been published (February 2008) by The Department of Environmental Affairs which will have important repercussions for the implementation of Elephant Management Plans in

both private and public areas of conservation (SANParks 2009: 1). These norms and standards are "living documents subject to cyclic review" (SANParks 2009: 10). Thus they are in keeping with a policy of adaptive management. SANParks recognises that issues surrounding elephant management are complex and controversial and that they involve data and expert opinion as well as values, ethics and emotions of stakeholders locally and internationally (SANParks 2009: 1).

2.3.7 Summary

The increased populations of elephants within relatively small protected areas meant that elephants needed to be managed. Thus, there was competition for space which led to human-elephant conflict as well as a visible impact on environmental areas. Initial management procedures took the form of management by intervention which meant culling and this approach was refined into a command and control form of management. Culling lasted for almost thirty years. In 1995, after the political changes of 1994 and a shift in values regarding elephants, a moratorium on culling was placed until greater knowledge regarding elephant management had been discovered. Thereafter, there was an increased process of public participation in which consultation was sought from a variety of stakeholders and the Minister of Environmental Affairs also became involved in the process. A change in management philosophy meant that the complexity of the elephant issue was acknowledged as a part of the flux of nature and a system of adaptive management was put into place.

2.4 COMMUNICATION OF THE ELEPHANT MANAGEMENT PLAN

2.4.1 Introduction

In this section, the evolution of environmental communication within SANParks, is discussed. It looks at how public participation within policy formation is a crucial component of future communication efforts. This involves the identification of and interaction with stakeholders. It explores the use of mental models for the involvement of stakeholders in complex systems.

2.4.2 The participatory process

Public participation in the process of the formulation of the Elephant Management Plan is key to the overall communication of the plan. "Communicating the benefits and values of protected areas and their relationship to the wider economic, social and political community has become essential for protected

area agencies" (De Lacy, Chapman, Whitmore and Worboys 2006: 279). At the Vth IUCN World Parks Congress in Durban (2003) the following recommendation was made: "that all relevant parties work towards a common agenda for communication for protected areas, from a local to global level" (De Lacy et al 2006: 279). Twelve further recommendations were made as sub-components of this recommendation included in which were the following points of particular pertinence to this study:

- "Incorporate communication into the management and establishment of all protected areas from the beginning;
- develop the capacity and skills for effective internal and external use of communication;
- develop a participatory approach with stakeholders to encourage their collaboration in protected area management;
- recognise that communication must be research based, monitored for effectiveness, evaluated for impact and linked to protected area objectives;
- use communication tools to promote the sustainable use of "biodiversity."

(De Lacy et al 2006: 279)

Thus, the participatory process, that has already taken place in the construction of the Elephant Management Plan, forms an integral part of the communication process of that plan. The Communication Plan Formulation Process needs to take place in such a way that feedback from stakeholders will not only be able to influence the Communication Plan but ultimately the Elephant Management Plan too. The Communication Plan therefore needs to be more than just a means through which information is disseminated to a passive audience but rather a mechanism that actually promotes active discourse.

A management philosophy that is participatory takes note that "everybody has a piece of the wisdom" which is needed and that besides having a *right* to be involved, their involvement can lead to improved decision-making in terms of playing a part in the Communication Plan (SANParks 2009: 2). Several role players have had a part in altering ideas surrounding elephant management (Carruthers et al 2008: 69). For example, the 1965 decision to cull was primarily an internal one by Kruger Park management (Carruthers et al 2008: 69). Post 1994, SANParks decision-making processes have become increasingly more co-operative. This came about owing to increasing criticism of SANParks policy (which included elephant culling) with a debate on elephants in 1994 (SANParks 2009: 9). Thereafter followed a moratorium on culling in order to diminish conflict and include an extensive network of stakeholders into the reconsideration of elephant management (SANParks 2009: 9). What followed was a succession of "meetings, consultative workshops, public debates, stakeholder Indabas and expert panels" which

comprised the 'elephant management policy review process' (SANParks 2009: 9). This was first undertaken by SANParks and later by the Department of Environmental Affairs (SANParks 2009: 9). "There was a broad public consultation process" (Carruthers *et al.* 2008: 67). As the general public became more involved in the elephant management issue, there has been a major shift in public participation as external scientists at the Scientific Round Table have adopted a key role (Carruthers *et al.* 2008: 69). "Two important initiatives which have assisted SANParks in dealing with this changing situation effectively are an explicit articulation of its own management and conservation values, and a concerted thrust within Kruger to engage outside collaborative scientists, including an annual science networking meeting" (Carruthers et al 2008: 69). Under the new Acts the process of policy decision-making is to be of a consultative nature and governance is to be co-operative (SANParks 2009: 10).

The process of participation can be outlined in three distinct phases:

Phase 1: (1996-1999) Kruger National Park management planning process.

Phase 2: (2003 – 2005) SANParks Indabas with stakeholders, culminating in an advisory report to the Minister of Environmental Affairs and Tourism in September 2005.

Phase 3: (2005-2008) forums and panels with stakeholders convened by Minister van Schalkwyk which culminated in the publication of National Norms and Standards for Elephant Management in February 2008.

(SANParks 2009: 12)

These three phases have involved input from: scientists, stakeholders, the public and special interest groups (SANParks 2009: 12). The phases have included "a range of events, forums, media and opportunities for participation" (SANParks 2009: 12). The following table details a review of the public participation process from 1996-2007.

Table 2.2 Elephant management policy review process

PHASE 1: Kruger National Park MANAGEMENT PLANNING PROCESS	
8 Feb 1996	Workshop with Kruger National Park scientists. African Elephant Specialist Group
10 Feb 1996	Workshop with Kruger National Park scientists. African Elephant Specialist Group. International Fund for Animal Welfare.
30 October 1996	Internal Kruger National Park workshop

12 November 1996	Public debate, Midrand.
11-13 February 1997	Kruger National Park Thresholds of Potential Concern workshop
17 March 1997	Formulation of Kruger National Park elephant management policy
31 October 1998	Public meeting to present Kruger National Park elephant management zoning plan. Nelspruit.
12 March 1999	SANParks Board approves Kruger National Park zoning plan.
1999	Kruger National Park Management plan published in *Koedoe*
PHASE 2: SANPARKS BROADENS THE CONSULTATION PROCESS	
2000	Convention on International Trade in Endangered Species downlists SA elephant populations to appendix ii (not endangered with extinction but trade must be closely controlled)
2002	1st Annual Savannah Scientific Network meeting - Skukuza
2002	Creation of the People and Conservation Directorate within SANParks
2003	NEMA: Protected Areas Act
2003-2004	Consultation with communities in Mozambique re Greater Limpopo Transfrontier Park
2003	Collaboration of scientific experts to author "The Kruger Experience"
2004	NEMA: Biodiversity Act
6 August 2004	Wildlife and Environmental Society of Southern Africa - Great Elephant Debate (Nelspruit)
17 September 2004	North West Parks elephant symposium. Pilanesburg.
15-17 March 2005	SANParks scientific workshop, Luiperdskloof.
April 2005	Workshops with communities neighbouring Kruger National Park
25-17 May 2005	African range states consultation meeting held under auspices of Southern African Development Community, Victoria Falls
18-20 July 2005	"Elephants Alive" convened by Care for the Wild International. Justice for Animals at Wits University, Johannesburg.
8 September 2005	SANParks advisory report on an Elephant Management Strategy submitted to Minister van Schalkwyk.
13-15 September 2005	Elephant Thresholds of potential concern workshop, Pretoria.
PHASE 3: MINISTERIAL CONSULTATION AND DECISION-MAKING PROCESS	

Late 2005- early 2006	Minister's international road show: United Kingdom, Holland, Switzerland, Italy, Germany, United States of America.
28 November 2005	Minister hosts 17 local and international stakeholder groups. Cape Town.
1 December 2005	7 environmental groups come out in support of SANParks proposal to manage elephant populations to protect biodiversity.
18 January 2006	Science Round Table 1, Cape Town.
22 August 2006	Science Round Table 2, Cape Town.
2 March 2007	Department of Environmental Affairs publishes draft Norms and Standards for public review.
2008	Collaboration of scientific experts (61) to author "Elephant Management, A Scientific Assessment for South Africa".
2008	National Norms and Standards for Elephant Management written and approved.

(Adapted from SANParks 2009: p 12-13)

It is evident from the aforementioned information that SANParks has made a valid and significant attempt to allow for a public participatory process in the formation of the Elephant Management Plan. Consultation with stakeholders has been broad and with an attempt to include all stakeholders. This public participation programme is crucial to the ensuing procedures of communicating the final plan to relevant stakeholders as determined by the process thus far.

2.4.3 Stakeholders

2.4.3.1 Definition and delineation

The term *stakeholder*, for the purposes of this study is defined as: any organisation, governmental entity, or individual that has a stake in or may be impacted by a given approach to the Elephant Management Plan *Environmental Dictionary of popular environmental terms (2009).*

Broadly speaking, wildlife, protected areas and biodiversity are assets of a global nature and thus, "all humans, including future generations, have some stake in their outcome of the elephant management policy review process" (SANParks 2009: 5). "Both the Department of Environmental Affairs and SANParks have the important mandate to conserve biodiversity which is a regional, national and global

asset that has value inter-generationally" (SANParks 2009: 10). People who have an interest in elephant management may be grouped in terms of their particular interests or values, or the closeness of their lives and livelihoods to protected areas, or even because elephants may pose a risk to their property and lives (SANParks 2009: 5). Growing elephant populations and the management thereof has different potential costs, benefits and impacts on various groups (SANParks 2009: 5). SANParks (SANParks 2009: 5) groups stakeholders in the elephant debate in accordance with their primary interest in either 'ends', 'means' or both. Some groups are mainly interested in "management as an intervention to prevent impacts, whether on the aesthetics of landscapes, biodiversity, disease control or human-elephant conflict" (SANParks 2009: 5). Different management interventions have an effect on:

- elephant welfare
- tourism
- the economy
- the potential for economic benefit from consumptive use.

(SANParks 2009: 5).

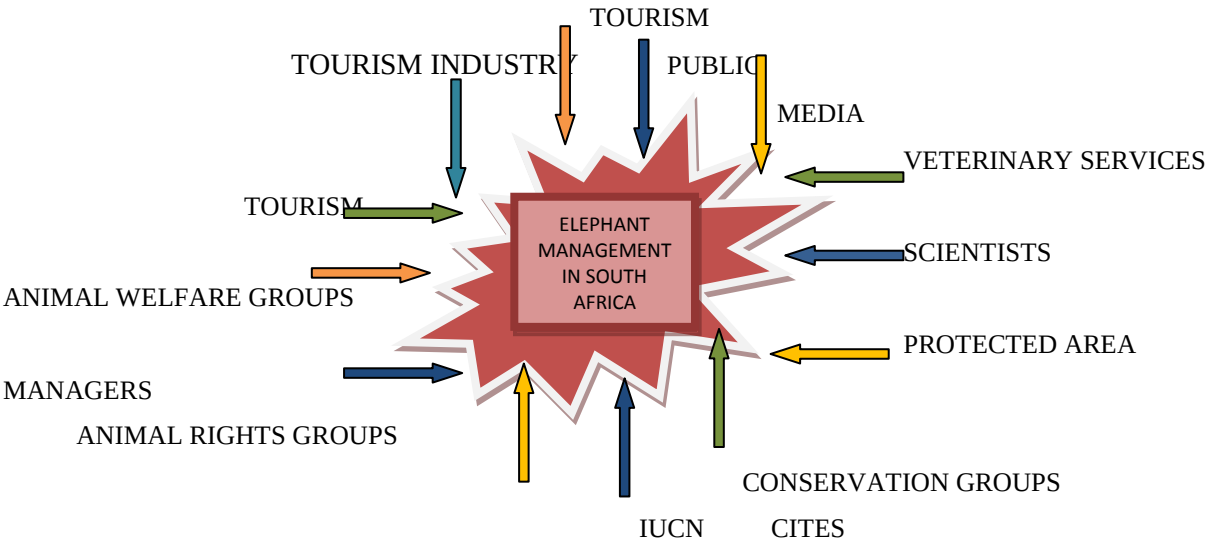
It is precisely this wide range of stakeholders with their vast array of values and interests that makes both the creation of an Elephant Management Plan and the communication thereof one of such complexity. There is a need to build partnerships with stakeholders, which is a relatively new concept in South Africa (Rogers 2003: 53). SANParks (2009: 5-6) delineates the following main stakeholder groupings:

- Conservation organisations, both general and specific e.g. birding or botanical societies
- Environmental justice groups
- Nature-based tourists
- Nature-based tourism industry
- Communities neighbouring the protected areas with elephant populations
- Animal welfare groups
- Animal rights groups
- Scientists, ecologists
- Government-provincial and national conservation agencies, SANParks, Department of Environmental Affairs,
- Wildlife and Environmental Society of Southern Africa

- Endangered Wildlife Trust

In terms of stakeholders, it is important to note that SANParks, or any other conservation agency, may no longer make decisions on behalf of the people, instead there are partnerships between stakeholders in resource management (Rogers 2003: 53). This is stipulated as a legal requirement of the Protected Areas Act.

Figure 2.1 Stakeholders in the Elephant Management Plan



(SANParks 2009: 6).

Working with stakeholders requires a range of skills including conflict resolution to group decision-making (De Lacy et al 2006: 200). Work within communities requires many skills and these improve with experience (De Lacy et al 2006: 200). Human interactions are at the core of the process – individuals and groups are required to work together with "understanding, integrity and commitment".

2.4.3.2 Why the participatory process with stakeholders requires specific attention

As has been outlined above, the elephant management process is complex. This is further complicated by the presence of different values amongst stakeholders. In addition, other intrinsic factors further add to the complexity of elephant management which increases the need to involve stakeholders in the participatory process. Some of these factors are outlined below:

- Elephants as engineers of ecosystems

    - The protected areas of South Africa, its biodiversity and cultural heritage are both national and public assets which are of global significance.
    - Elephants within confined spaces have a significant impact on ecosystems and "their potentially disproportionate influence on other species and ecological processes" draws the attention of scientists and managers.

With reference to the last bullet, it has been noted that whilst the impact of large elephant concentrations affect local biodiversity, this may not be true at the level of the wider ecosystem (Kerley et al 2008: 186).

- Elephants are significant to people

    - "Elephants are an iconic and charismatic species – entrenched in human history, culture and consciousness for thousands of years" (SANParks 2009: 2).
    - Elephants are highly intelligent and sociable animals with an awareness of self and others
    - They have complex emotions which influence their social networks
    - Many people are willing to invest large amounts of money to either see these animals or to ensure their continued existence
    - Elephants are a part of African cultural heritage having prominence within African culture and folklore. They are associated with power and royalty.
    - Many (especially within rural or poor African communities) view elephants as a significant resource base (or potentially so) for the supplementation of their incomes.
    - These rural communities sometimes view elephants as "a raider of crops that threaten life and livelihoods" (SANParks 2009: 6).

- Stakeholders views regarding the ethics of elephant management

    - Stakeholders have views regarding the ethics of the methods used and the manner in which they are applied to elephant management
    - Stakeholders do not experience the costs, benefits or management of elephants equally

- Whilst the impact on local South Africans should be paramount, international reaction to management strategies could potentially have significant national and local socioeconomic effects

- **Conflicting objectives**

    - The public aspect of elephant management focuses largely on elephant management and most specifically, culling;
    - The management of national and protected areas focuses on biodiversity conservation and ecological goals, however there are sever conflicting objectives, namely:
        - *The triple bottom line of sustainable development* – social, economic and environmental
        - Technical
        - Political
        - Legal

(SANParks 2009: 6).

In addition to the above-mentioned factors influencing stakeholders, the various values of stakeholders add complexity to their scope.

2.4.3.3 Values

Elephants are viewed in numerous ways by people as "beautiful and charismatic icons of conservation, dangerous and destructive pests, a valuable and exploitable resource, and as keystone species in ecosystems" (Twine and Magome 2008: 208). Individuals' values are constructed socially and are shaped by various factors including: personal experience, ethnicity, culture, gender, age, socio-economic context and political orientation (Twine and Magome 2008: 208). The value which is assigned to elephants and wildlife by humans could cause conflict when these values give rise to incompatible actions or scenarios (SANParks 2009: 6). This conflict of values or actions arising from values, contributes to the complexity of elephant management and the communication of the Elephant Management Plan. Conflicts over the management of wildlife have the potential to become acrimonious because they are either contrary or reflect "fundamental differences in values and attitudes that cannot be changed through argument" (Twine and Magome 2008: 207). Such incompatible values and ethical frameworks cause moral dilemmas, which will continue unless one set of values dominates (SANParks 2009: 6).

SANParks (2009: 7) delineates the following values attributed to elephants and the ecosystems they inhabit:

- "Aesthetic (appreciation through human senses)
- Bequest (leaving a legacy for future generations)
- Commercial (role of generating income)
- Cultural (importance as cultural symbols)
- Ecological (role of contributing to ecosystem structure, function and composition)
- Empathetic (satisfaction from being able to emotionally relate to other species)
- Historical (importance as a symbol of a past era)
- Recreational (enjoyment of wildlife experience)
- Scientific (the advancement of knowledge and understanding)
- Subsistence (for non-commercial consumption)
- Wilderness values (experiencing an absence of human influence or intervention)."

In accordance with the cognitive hierarchy model of human behaviour, attitudes are supported by the values held by individuals (Twine and Magome 2008: 208). These 'value orientations' or basic patterns of belief have an effect on the manner in which the world is interpreted or understood by an individual (Twine and Magome 2008: 208). This, in turn, influences an individual's attitudes toward or opinions on certain entities or issues (Twine and Magome 2008: 208). Attitudes then influence "people's behavioural intentions and ultimately, their behaviour" (Twine and Magome 2008: 208).

Sociologists suggest a continuum of environmental value orientations within society and propose that variation can be represented in the form of "human-nature mind-maps".

Table 2.3 The anthropocentric and bio-centric/eco-centric continuum

Anthropocentric	Bio-centric or eco-centric
○ Definition of nature through a social lens ○ Focuses on human benefits and benefits from nature	○ Considers society as part of nature ○ Greater emphasis on non-use values of biodiversity ○ Include the traditional African world-view and western notions of 'pristine nature' impacted upon by society

	○ Also includes biocentrism such as the 'deep ecology' model which regards humans and their needs as being on a par with those of any other species

(Twine and Magome 2008: 208-209).

The value orientations on this continuum are not mutually exclusive and individuals may display a combination of values (Twine and Magome 2008: 209). An individual's value orientation will influence his or attitude towards elephants and issues relating to elephant management (Twine and Magome 2008: 209). Thus, it is possible that people who feel equally passionate about elephants could have "diametrically opposing beliefs, attitudes and opinions on controversial topics such as culling" (Twine and Magome 2008: 210). Of significance is that the interactions between people and elephants have the potential to shape values (Twine and Magome 2008: 210). For example, a person who has suffered loss of crops due to elephants may value elephants less in terms of aesthetics than an individual who has had meaningful positive interactions with them (Twine and Magome 2008: 208). Whilst the process of the formation of elephant management policy requires awareness of the various values of stakeholders, so too does the communication of such a plan.

2.4.3.4 Mental Models

Mental models, "are what people use to understand and interpret phenomena of everyday life" (Biggs et al 2008: v). Mental models refer to our worldviews, they are "deeply ingrained assumptions and generalizations of how we see the world and our actions in it" (Rogers 2003: 54). Mental models control how individuals think and act (Rogers et al 2003: 54). There is little understanding of these models or their relationship to human behaviour (Biggs et al 2008: v). They contribute to the manner in which humans reason, express themselves, predict the future and act (Dearborn and Simon, 1958,;Kearney and Kaplan, 1997; Endsley, 1995 cited in Biggs et al 2008: v).

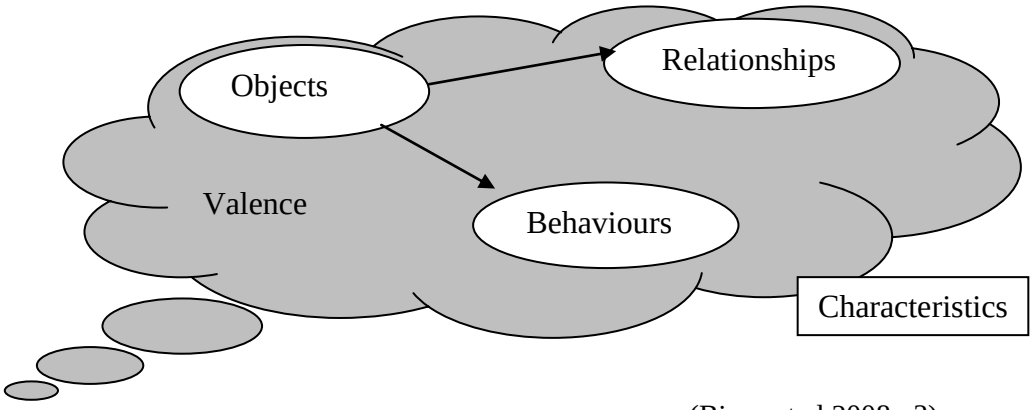
The influence of mental models is pervasive on partnerships with stakeholders (Rogers et al 2003: 54).

Mental models have been explored across many subjects and managers of natural resources are interested in them because of the need to understand the constructions (mental models) of stakeholders (Biggs et al 2008: v). "This provides the opportunity to present alternative options, assist building shared

understanding amongst resource users and managers, and thereby support negotiation for change towards more sustainable resource management" (Biggs et al 2008: v).

Mental models have a broad range in terms of the theoretical and applied audience (Biggs et al 2008: 2). These include: "cognitive psychologists (Johnson-Laird, 1983), organisational theorists (Walsh and Ungson, 1991), business management theorists (Axelrod, 1976; Senge, 1990), human decision making in high reliability systems (Endsley, 1995), system dynamics modelling (Doyle and Ford, 1998) and knowledge management (Davison and Blackman, 2005)" as cited in Biggs et al 2008: 2).

Figure 2.2 Schematic representation of the component of a mental model.



(Biggs et al 2008: 3).

The mental models of individuals should emerge in such a manner that they strengthen both the individual's and the partnership's model (Rogers 2003: 54). The adoption of new ideas does not occur by a mere process of telling and listening, as the 'mind-set' of an individual may "inhibit the acceptability of the information" (Abel, Ross and Walker 1998: 77).

For the purposes of this study, the mind-set which is examined, is the mental model depicting the way in which individuals (or groups of individuals) perceive the world to work. Where disagreements occur, they centre around "paradigms, values, theories and information" (Abel et al 1998: 78). Kelly (1955 cited in Abel et al 1998: 78) states that individuals use their experiences to construct mental 'templates' or 'constructs' which facilitate an understanding of the world, prediction of future events and appropriate reaction. New experiences are compared by the individuals with existing constructs; a satisfactory fit results in an unchanged construct (Abel et al 1998: 78). Constructs may be modified, however, recipients generally accept information which confirms their constructs and discard the rest (Abel et al 1998: 78). The primary function of a mental model is the "structuring and simplifying" of a reality that is highly

complex (Abel et al 1998: 78). Important to note is that the mental model is "not as complex as the system it represent" but must represent the main processes in order to be of use (Abel et al 1998: 78). Individuals simplify their realities in accordance with their varying experiences and abstract in a selective manner to produce "models that differ in structure, content, focus and range of concerns" (Kelly 1955 cited in Abel et al 1998: 79). Thus, the function of mental models is to "limit the quantity of incoming information" (Abel et al 1998: 85). This fundamental difference in models has the potential to hamper communication (Abel et al 1998: 79). In order for communication to occur, one individual does not need to adopt the mental model of another, but he or she needs to understand it (Abel et al 1998: 79). This is facilitated by an overlap in individuals' construct systems which occurs either because there is an overlap in ranges, or because their focus is similar (Abel et al 1998: 79). Often, there is insufficient commonality between people's construct systems to support communication" (Abel et al 1998: 79). However, commonality can be approached in incompatible systems through common experiences (Abel et al 1998: 79). A merger of models (of various stakeholders) may enhance disparate or incongruent models and thus improve communication which ultimately improves the management of protected areas. The presence of incorrect information and conflicting beliefs is a possibility within constructs or they may even contain inconsistent models within the same field (Read et al., 1994 cited in Biggs et al 2008: 5). These incorrect models may continue, perhaps next to more accurate ones unless incorrect information is refuted and banished (Kempton, 1997; Gentner, 2002 cited in Biggs et al 2008: 5)

The discovery of mental models usually involves the implementation of one or more of three methods: "content analysis, concept mapping, or procedural analysis with methods such as scenario development emerging more recently" (Biggs et al 2008: 6). The method that is most commonly used is content analysis which extracts the individual's language thereby creating a 'map' of concepts and ideas. Oral (open ended or semi-structured interviews) or written (questionnaires or examination of documents) tools (or both) are used to prompt the individual. These cognitive maps of various individuals are then compared over time (Biggs et al 2008: 5). Procedural mapping is a further widespread tool for the extraction of mental maps as it "prompts a person to 'think aloud' as they work through a given task and describe implicit and explicit procedures" (Carley and Palmquist, 1992; Niewhohner et al 2004 cited in Biggs et al 2008: 6).

Models may be collectively held for example, researchers may subscribe to a particular paradigm too which could hamper communication (Abel et al 1998: 85). "Members of institutions, organisations and groups may co-construct mental models of specific topics or issues which lead to the development of

specific understanding and practices that may be unique to that particular institution or group" (Carley, 1997; Kraiger and Wentzel,1997; Vennix, 1999 cited in Biggs et al 2008: 2).

Biggs et al (2008: 5) state that a high level of overlap among mental models has the potential to facilitate communication. "In areas where collaboration, negotiation and interaction between different groups are required articulating mental models, may help to:

- understand the range of mental models in proscribed arena
- broaden the definition and understanding of a problem through comparing the mental models of resource users and managers
- stimulate and facilitate communication and learning amongst resource users and managers." (Biggs et al 2008: 5)

However, it is recognised that overlap is not always beneficial; it is sometimes useful to have a diversity of mental models to foster the emergence of novel solutions to novel problems" (Biggs et al 2008: 4).

When trying to influence the mental model of another, "the message must be about the intended listener's circumstances, fall within their range of concerns, and preferably share a common focus" (Abel et al 1998: 87). However, the effect of communication between people with different views does not always result in one party changing his or her mental model (Abel et al 1998: 87). Sometimes, individuals may use information to reinforce their mental models instead of alter them (Mackay 1994 cited in Abel et al 1998: 87). That information, which does not reinforce, could be discarded (Abel et al 1998: 87). Kelly (1955 cited in Abel et al 1998: 87) states that new experience causes change in mental models. "An individual holds their own mental models of the world that are believed to be informed by social processes and the mental models of others with whom they interact as well as the experiences of the individual" (Biggs et al 2008: 2). Certain processes for the promotion of exchange and the restructuring of mental models include:

- Action research – involving researchers and stakeholders in the creation of an understanding through working together instead of through literature and training
- Adaptive management – research forms an integral part of management
- A change in the decision-making environment – this is to take place when mental models have not adapted to new experiences. Thus policy changes are needed to alter the decision-making environment such as the introduction of incentives or penalties in order for behaviour to change.

(Abel et al 1998: 87)

Ultimately, what is of significance in the communication about (in this case) management of protected areas, is an ability to understand the others' constructs (Abel et at 1998: 89). "Win-win solutions are likely to come from the re-structuring of mental models to accommodate the constructs of other groups, so there is mutual enrichment" (Abel et al 1998: 89).

2.4.4 Environmental communication in SANParks, an overview

The history of environmental communication within SANParks placed into context the significance with which such a function is regarded within SANParks. It also gave an idea of the shift in emphasis of the approach to environmental communication and highlighted SANParks' underlying philosophy with regard to communication in general. This in turn formed a significant background to the Communication Plan Formulation Process, provided insight into the potential efficacy of the Communication Plan and hopefully will inform future practice with regard to environmental communication.

2.4.4.1 History

In 1950, following calls for educational facilities in Kruger National Park, Dr R Begalke noted that the Board was under legal obligation to provide information services and he proposed numerous major directives which should shape the foundation of educational programmes within parks (Joubert 2007: 139). His recommendations were accepted by the Board in 1951 and the first Information Officer, Mr RJ Labuschagne, was appointed in April 1952 (Joubert 2007: 139). In 1956, there was a reorganisation of the Board and the Information Officer became Liaison Officer (Joubert 2007: 139). In addition to his duties involving educational information services, the Liaison Officer became responsible for conservation and tourism issues relating to all National Parks and was to report directly to Head Office (Joubert 2007: 139). The 1956 report on the activities and staffing of the Education and Information Service board stated that:

- "The main objective of the Board's Educational Information Service is the propagation of the continued existence of the National Parks" [both inside and outside of the parks].

- The main thrust was to be concentrated within the National Parks – where the individual could be reached. Outside involvement was to be 'through the agency of existing organised bodies and authorities'. The Director was to determine the general course to be taken and objectives to be achieved.
- Information objectives were to be achieved *inter alia* through film shows, illustrated talks, radio talks, publications, press reports, educational articles and co-operation with educational authorities.
- Suitable museums should be established at the main rest camps in the Kruger Park and permanent screens to be erected in rest camps for film shows.
- The existing staff complement was considered adequate for the task.

(Joubert 2007: 139-140)

In addition, guidebooks were developed. *Koedoe* was developed as the National Parks Board's official scientific journal and was first published on 16 March 1958 (Joubert 2007: 140). A film production unit was started in order to inform the public of the objectives of the National Parks and the first photographer was appointed in 1953 (Joubert 2007: 140).

In the 1960s there was still no full time Education Officer stationed in the Kruger Park. An Education Officer, assisted by a the Nature Conservation and Liaison Officers, spent school holiday periods in the Park and presented daily slide and film shows and gave talks (Joubert 2007: 169). The Stevenson-Hamilton memorial library was opened in 1961 and a full time librarian was appointed (Joubert 2007: 141). The following developments in education took place:

- 1962 Assistant Librarian was appointed with the support of the Wildlife Protection Society
- 1962 A Technical Assistant was appointed at Skukuza whose duties included the presentation of films in the rest camps and to begin several open-air museums at various locations. This officer soon began to give talks and to accompany "important "guests of the Board.
- 1962 The Bio-acoustic Institute began with the compilation of sound recordings of the various animals and the interpretation of their calls. This fell within the Liaison Officer's responsibilities.
- 1963 A school teacher was appointed in a temporary capacity to assist with film shows and educational talks during the July school holidays (peak period).

- 1964/5 Three appointments were made to the Liaison Officer's staff: an Assistant Liaison Officer, a second Typist and a Temporary Nature Conservator.
- 1966 The post of Technical Assistant was changed to that of Assistant Educational Officer.
- 1966 The Educational Officer, stationed at Head Office in Pretoria, was transferred to Olifants Rest Camp in the Kruger Park.
- 1966 The Technical Officer in the Photographic Section was replaced with a second photographer whose duty it was to focus on stills photography.
- 1966/7 The Assistant Liaison Officer resigned and his post was replaced by two officers: Assistant Liaison Officer and (Research) and Assistant Liaison Officer (Administration).
- 1970 The staff of the Liaison officer fell directly under the Department of Finance and Administration at Head Office.

(Joubert 2007: 270)

The 1970s "was the heyday of a particularly narrow kind of interpretation" in the Kruger Park (Bunn 2009: 9). The department's name was: The Department of Research and Information and it fell under the auspices of Nature Conservation (Bunn 2009: 9). The educational programme consisted mainly of talks and films for schools and other interested groups in the National Parks. The staff of the Liaison Officer was, in addition, responsible for the production of guidebooks, maps, slide shows, films and radio talks (Joubert 2007: 270). The co-ordination of research undertaken by outside institutions in the various National Parks also fell within the responsibilities of the Liaison Officer (Joubert 2007: 270). Thus, whilst the information section was growing steadily, its roles and responsibilities were vast and not dedicated specifically to environmental education.

The department was plagued with budgetary constraints in the late 1970s which resulted in the retrenchment of several of its staff members (Bunn 2009: 9). An investigation on the efficacy of the department reported that many of its operations "left much to be desired" (Bunn 2009: 9). Other perceptive observations were that:

- "informational displays were generally lacking in variation, imagination and audio-visual aids, and did not have the necessary impact
- Information centres should be established in as many rest camps as possible

- Displays should not only be presented in areas where people traditionally sought information such as libraries and museums , but also in areas where passers-by would benefit such as rest camp reception offices, entrance gates, picnic spots, swimming pools and restaurants"

(Joubert 2007: 20-21)

In addition, the report concluded that the sole means of remedying the problem would be through the appointment of a minimum of 17 new members (Bunn 2009: 9). However, the cut in budget and resources forced the department to turn outwards "to major external funders, and a prominent, long-lasting partnership was formed with the Gold Fields corporation" (Bunn 2009: 10). "Gold Fields" is an international mining company which provided funding for the creation of environmental education facilities across South Africa. In SANParks they funded the Cape Point, West Coast, Skukuza, Thulamela and Letaba centres (O'Donoghue and Moore 2001: 44)

The World Conservation Strategy was published in 1980 by the International Union for the Conservation of Nature and Natural Resources with the United Nations Environmental Programme and World Wide Fund for Nature (Moore and Masuku van Damme 2002: 65). The World Conservation Strategy gave prominence to the role of environmental education in its proposal that governments educate their people to empower them to manage their impact on their environments (Moore and Masuku van Damme 2002: 65). This gave rise to the appointment of interpretation officers in parks, who were also called information officers, communication officers and trails rangers (Moore and Masuku van Damme 2002: 65). These individuals were usually Afrikaans-speaking men with natural science qualifications (often post-graduate) (Moore and Masuku van Damme 2002: 65).The Kruger trails became exceptionally popular and a financial success (Moore and Masuku van Damme 2002: 65).

By 1990, the appointment of interpretation officers had taken place in nine National Parks and regional offices; the establishment of three environmental education centres had taken place (Moore and Masuku van Damme 2002: 65). The duties of the interpretation officers included:

- environmental education
- visitor interpretation - static displays, talks and video or slide presentations
- public relations
- marketing and promotions
- school visits – usually included day trips

(Moore and Masuku van Damme 2002: 65)

Efforts focused on those holidaymakers, schools and youth groups who had the financial means to visit the parks and these groups were mostly white people (Moore and Masuku van Damme 2002: 65). Black communities were rarely reached by these education initiatives and on the infrequent occasion that they were, it took the form of camps for peer leader groups (Moore and Masuku van Damme 2002: 65). Once more, budgetary constraints had its effect on environmental education, with "deep cuts" implemented by Dr Robbie Robinson in his position as Chief Executive Officer of the Parks Board between 1991-1997 (Bunn 2009: 10).

The post- 1994 period of transformation in South African policies saw a shift in the priorities of the organisation. Interpretation was not a priority and there was a gradual decrease of the service to visitors and schools which ironically, included black South Africans by then. (Moore and Masuku van Damme 2002: 66). Interpretation officers either left the organisation or moved into other fields. The interpretation centre in Skukuza, which was considered to be the largest and most successful, was closed down. Interpretation was to be incorporated into SANParks' new approach to conservation namely Social Ecology (Moore and Masuku van Damme 2002: 66). This period saw a shift in emphasis from Interpretation to Social Ecology which focused on:

- communities
- the establishment of Park Forums
- environmental education – with special focus on schools and villages West of Kruger
- Cultural heritage
- Indigenous knowledge systems

(Bunn 2009: 10)

SANParks' Corporate plan (1998) included the following points regarding Social Ecology
"a strategy and process that:

- conveys the philosophy and approach of SANParks to neighbouring communities
- establishes mutually beneficial dialogues and partnerships with these communities
- ensures that the views of the community are taken into account to the largest possible extent and are acted upon

- ensures that the park's existence is a direct benefit to neighbouring communities
- ensures that communities adjacent to parks welcome the conservation efforts of SANParks."

(Moore and Masuku van Damme 2002: 67)

Later, this definition was modified to include cultural values and resources in the development of parks and in management processes.

SANParks committed itself to the promotion of a concept of conservation that linked to issues of development and human needs (Moore and Masuku van Damme 2002: 67). This concept would build on traditional concepts of wilderness and wildlife in African indigenous cultures to foster a harmonious relationship between People and Parks (Moore and Masuku van Damme 2002: 67). Land claims in two cases (Makuleke-Kruger and Khomani San-Kgalagadi) resulted in contractual parks in which there was joint management between the community and SANParks.

Social Ecology was viewed to be an effort resulting in "social justice, redress and development and particularly to build more positive relationships with neighbouring communities." The following goals were adopted by the Social Ecology Department in 2000 to implement the aforementioned goals:

- "the establishment of mutually beneficial partnerships with local stakeholders by taking the views and needs of local interests into account in park management
- the integration of cultural issues into the management of parks
- the promotion of an appreciation of conservation among local stakeholders."

(Moore and Masuku van Damme 2002: 67).

Key performance areas in social ecology included:

- **Environmental education**

    - the development of programmes for the facilitation of local communities and other South Africans to attain, or revive, knowledge and pride in natural and cultural heritage
    - a focus on the youth as "future custodians of the environment"
    - regional and national Environmental Youth Symposiums involved children in action programmes from the neighbouring communities to parks

- 1998 National Youth Symposium culminated in an Environmental Youth Charter presented to the President of South Africa and formed the basis for the establishment of partnerships that were committed to "social, cultural and economic actions aimed at promoting sustainable living".

(Moore and Masuku van Damme 2002: 67).

- **Economic empowerment**
  to form economically viable and sustainable 'mutually beneficial partnerships'.
- **Cultural heritage management**
  the management, conservation and interpretation of resources, including non-tangible resources (such as indigenous knowledge).
- **Liaison and partnership**
  This function aimed to develop and nurture sound relations with park neighbours through the promotion of their involvement in planning, managing and monitoring issues related to parks (through advisory committees).

(Moore and Masuku van Damme 2002: 69).

Social ecology became associated with SANParks' overall transformation in terms of changes in staff and its role (Moore and Masuku van Damme 2002: 69). The first black South Africans and women to be employed in skilled, managerial positions were in the field of Social Ecology. Thus, these appointments were opposed as "affirmative-action appointments" and Social Ecology itself was confused with transformation (Moore and Masuku van Damme 2002: 69).

In addition, whereas previous such appointments required a natural science background, the new Social Ecologists mainly had social science backgrounds (Moore and Masuku van Damme 2002: 69). This shift towards the appointment of social science practitioners meant that there was an emphasis placed on "community development" the parameters of which were not clearly understood by park employees. (Moore and Masuku van Damme 2002: 69).

The most profound challenge was what should be done in order to meaningfully contribute to the socio-development of park neighbours that were previously disadvantaged (Moore and Masuku van Damme 2002: 67). Because of an inability to tackle these issues adequately, an extensive Social Ecology capacity-building programme was embarked upon from 1998 to 2001. This was supported technically and financially by the Danish Government (Danced) and included several pilot projects (Moore and

Masuku van Damme 2002: 69). The idea of "community development" was replaced with "community facilitation" and the idea of "economic empowerment" became "economic opportunities. The capacity-building initiative of Social Ecology planted the seeds of a culture of learning in the organisation and Social Ecology assisted SANParks to attend to its previously insular nature (Moore and Masuku van Damme 2002: 70). The following developments took place as a result of the Danced capacity-building programme which illuminated the degree to which environmental education and interpretation had been neglected by SANParks:

- 2000 an environmental education and interpretation strategy was drafted
- 2001 a professional development programme for park staff was drawn up
- 2002 the implementation of the professional development programme.

(Moore and Masuku van Damme 2002: 71)

The board of SANParks transformed Social Ecology into the status of a full Directorate in 1997 in order to address the challenge of "establishing mutually beneficial partnerships with neighbour communities". This Directorate was, at its zenith, to consist of a Director and six Mangers at corporate level, with 50 Social Ecologist based in the parks (Moore and Masuku van Damme 2002). However, this situation was temporary as Social Ecology faced yet another challenge - the necessity to demonstrate financial viability.

The Chief Executive chose to implement Operation Prevail in March 2001 in response to yet another steadily worsening financial situation (Moore and Masuku van Damme 2002: 71). This included a campaign of commercialisation in which non-core functions such as shops, restaurants, cleaning services, security services and road maintenance were outsourced (this ironically included the outsourcing of financial successes such as the Kruger Wilderness trails) (Moore and Masuku van Damme 2002: 71). A restructuring of staff throughout the organisation took place notwithstanding Social Ecology. In the Kruger National Park, "633 positions were made redundant, and accusations and bitterness about the loss of expertise in Kruger raged for many years" (Bunn 2009: 10). The following changes had severe effects on Social Ecology:

- The position of Director was dropped to that of General Manager
- The six management positions were reduced to three
- Forty percent of the staff at Geelbek Education Centre were retrenched
- The education and interpretation centre at Skukuza in Kruger National Park was converted into a tourism facility

- Park-based Social Ecology staff were reduced from 50 to 34.

(Moore and Masuku van Damme 2002: 71 - 72)

The message that emanated from this was that because education did not generate adequate income, it was not a priority within the increasingly commercial model for the management of parks. The outsourcing of educational and other service facilities such as night drives and trails meant that competitive rates had to be charged, in order to be financially viable, which meant that these benefits within SANParks were not accessible to South Africa's people – ironically, financial restrictions replaced political ones (Moore and Masuku van Damme 2002: 72). The justification for Social Ecology cuts was that it was to be incorporated into the core functions of the organisation, to be shared with park employees such as Section Rangers. The implication was that Social Ecology functions were non-specialised and that they could be undertaken by most staff (Moore and Masuku van Damme 2002: 72). Experience had shown that Social Ecology needed to be driven by people with specialist Social Ecology skills (Moore and Masuku van Damme 2002: 70).

2.4.4.2 Social Ecology and People and Conservation, SANParks 2002-2009

The 'traditional role' of interpretation that had begun in the 1960s was no longer considered a priority or even a function of Social Ecology in the early years of the twenty first century. The communication section which was created at this time, to cover Public Relations and Marketing (under tourism) took the lead in the production of brochures and posters. Environmental film shows were taken over by tourism, nature conservation students and interns. Although this was primarily true of Kruger, some of the smaller parks continued to fulfil these interpretation roles in the absence of other available staff. The restructuring of the organisation under "Operation Prevail", had blurred the functions of many previous departments. Interpretive material has come under recent criticism: "The present state of interpretation in Kruger is profoundly depressing. Visitors are faced with a confusing array of materials of varying quality and limited usefulness" (Bunn 2009: 11). Although Bunn, (2009: 11) does praise "innovative individual efforts...against all odds without support."

In 2002, SANParks commissioned a survey of the organisation by McKinsey Consultants. Some of the recommendations of the consultants was later adopted by the SANParks Board. It was decided that the mission and vision of the organisation should be focused on the core pillars of: conservation, tourism and constituency building. These three pillars would, in turn, be supported by administrative services such as communication, marketing, finances and corporate affairs.

To achieve the mission of constituency building, a new Directorate called People and Conservation was established in 2003 with Dr R. Wagiet as its first Director. The mission of People and Conservation (SANParks People and Conservation Strategy. 2004) emphasised the following key performance areas:

- Environmental education
- Cultural heritage
- Youth outreach
- Community conservation
- Social science research.

Interpretive Services were supposedly a sub-section of environmental education but in reality, budgetary constraints, lack of staff and expertise did not allow for the creation or maintenance of environmental interpretive interventions. The term Social Ecology was no longer used and existing staff were incorporated into "People and Conservation".

The creation of People and Conservation provided much needed direction in terms of "building constituencies" for SANParks. The number of staff employed in People and Conservation was significantly increased at this time. New positions were created in all SANParks (with the exception of Tankwa Karoo) and there was one People and Conservation appointee in each park. Regional People and Conservation Manager positions were created for the Garden Route, Frontier, Northern and Frontier clusters of parks. This increased capacity and budget enabled People and Conservation to achieve greater results than previously possible in all key performance areas. Environmental interpretation (communication), however, still did not feature as a priority in the organisation and it remained poorly co-ordinated throughout SANParks. Some initiatives were attempted by well-meaning individuals and volunteer groups but the overall impression of interpretation was that it was outdated, inappropriate, inconsistent and worn out.

As Michelle Hofmeyer (previous head of Scientific Awareness – Skukuza) states "The fundamental problem is a lack of centralized co-ordination in interpretive services" (Bunn 2009: 15). The following table indicates how interpretation programmes and responsibilities are conducted by various departments with very little (or no) cross divisional co-ordination or combined vision or management plan:

Table 2.4 Interpretation programmes and responsibilities in SANParks

Responsible party	Interpretation activity
1. Trails Rangers Department	Trails
2. People and Conservation Department	School groups
3. Communication Department	Media relations
4. Marketing Department	Brochures and posters
5. Scientific Services	• Academic papers • Management plans • Communication plan for elephant management
6. Students	Film shows
7. Honorary Rangers	• People Environmental Awareness Programme • Some posters and signs (e.g. Anti-poaching campaign; elephants – Letaba; rhino – Berg-en-dal; interpretive centres)

Thus, although there are many interpretive communication activities, taking place across all parks, they lack a clear vision and mandate to co-ordinate and facilitate in the creation of an Interpretive Plan that could be managed effectively.

In November 2007, the Executive Director of Conservation Services (Dr Hector Magome) stated that "Constituency Building" remained a core function of all SANParks employees and not only that of one division (People and Conservation). It was thus decided to enhance this responsibility by incorporating People and Conservation Managers into the broader Conservation Services Division (Conservation Services, Indaba Minutes, Pretoria 2007 – internal SANParks publication). This administrative move appears logical but is interesting that in terms of interpretation services it has taken history full circle over two decades back to being situated in the Conservation Services Division. This, however, still needs to be articulated throughout the organisation and documented with supporting management plans, a common vision and clearly defined areas of accountability. Although "Constituency Building" is a core function of all SANParks Staff, one of the tools in facilitating this, in other words, Interpretive Services, requires a much greater degree of co-ordination and support than is currently, in 2014, provided.

The Honorary Rangers are a volunteer corps of dedicated individuals who have supported SANParks through many conservation initiatives. The first Honorary Rangers were appointed in 1963 to assist with ensuring that tourists adhered to the rules and regulations of the Parks (Joubert 2007: 267). The Honorary Rangers' role as a support division has grown remarkably over the past years as they have strived to remain relevant to the mission of SANParks by aligning their mandate with the key objectives of the organisation. This is evident in their adapted "key performance indicators" for 2009.

In interpretive services, the Honorary Rangers have played a critical role in the provision of information at manned information centres within many parks and rest camps. The People Environmental Awareness Programme was highly effective in Kruger National Park; Addo; and schools and shopping malls across Gauteng and Kwa-Zulu Natal.

Numerous other voluntary groups provide a wide range of interpretive services across all SANParks.

2.4.4.3 Summary

Communication in SANParks has developed over the years from the function of information dissemination to interpretation (1980's) and then Social Ecology which developed into People and Conservation. With the focus on Social Ecology came an increased awareness of the needs of local communities as well as development and human needs and capacity building. However, in the process a system of organised communication and dissemination of information appears to have been side-lined. A cyclical process of cut-backs within the area of communication has occurred whenever there are budgetary constraints within SANParks which has left the arrangement thereof in a haphazard and ineffectual state as there is little interaction and communication, ironically enough, between the various components performing the communication function. There appears to be a dependency on volunteer organisations such as the Honorary Rangers, students and other temporary employees which negates the benefits of continuity such as a building on previous knowledge and a sound understanding of the policy and values espoused by SANParks. Training therefore, has to be repeated and staff responsible for communication lack experience and expertise.

2.5 CONCLUSION

Within SANParks, there has been a change in management policy over time to a policy of Strategic Adaptive Management and this includes policy regarding elephant management. In addition, there has

been a notable and laudable change in the public participation process in policy making. Some of which was mandatory and some of which appears to have been based on the will of SANParks. SANParks has outlined the necessity for the participatory process and has identified relevant stakeholders. However, a process of public participation was indeed followed in the formulation of the Elephant Management Plan which should, theoretically, facilitate its communication. A wide range of stakeholders exists with conflicting values which adds to the complexity of the "elephant debate" and the Communication Plan Formulation Process. SANParks has indicated, through previous communication strategies such as those surrounding rivers, affecting the Kruger National Park, an awareness that values shape attitudes which influence behavioural intentions which then influences behaviour. SANParks has had experience in dealing with mental models of stakeholders and the shaping of those mental models so that actions reflect a change in mind-set. In this case, the mind-set which needs to be shaped is the acceptance of a change in SANParks policy towards environmental management in general and specifically elephant management. This involves the fostering of an understanding of the complexity of the situation. It would therefore appear, that given the scope of environmental communication, greater value needs to be placed on the significance, structure and organisation of environmental communication within the organisation. The Communication Plan Formulation Process has been evaluated as a part of the empirical investigation in Chapter 4.

The following chapter deals with the research design and methodology of the study.

CHAPTER 3

RESEARCH DESIGN

3.1 INTRODUCTION

In this chapter the research design for the investigation is presented within the qualitative research tradition. This chapter gives a detailed overview of the selection of the site and interviewees, the procedures for and stages of data collection and data analysis. Attention is given to ethical issues and steps taken to ensure trustworthiness of the data.

3.2 THE RESEARCH APPROACH: QUALITATIVE RESEARCH

The empirical investigation fell within the area of qualitative research methodology. Welman et al (2005: 188) state that the qualitative approach is furthermore a "descriptive form of research". The format and overall method of data collection involved communication based inquiry. The study attempted to provide empirical knowledge on how communication could be used as an effective tool for the promotion, understanding and support for protected area management interventions in general and in specific the Communication Plan It attempted to highlight potential flaws and gaps in the Communication Plan Formulation Process and made recommendations as to how these may be addressed. The unstructured interviews followed the critique and provided supporting information as well as new insight relevant to the research. Fontana and Frey (1994 cited in Welman et al 2005: 198) state that the qualitative nature of unstructured interviews provides "a greater wealth of information than other forms of data-collecting methods."

3.3 DESIGN OF THE RESEARCH

3.3.1 Introduction

The study included two linked approaches which provided a dual format. In this study the primary methods of data collection included: an analysis of the Communication Plan Formulation Process , described in Section 4.2nd unstructured interviews.

3.3.2 Selection of sites

The interviews took place within the natural setting of the Kruger National Park as this is where the main distribution of elephants in South Africa is found and this is the park in which the Communication Plan Formulation Process was taking place. In addition, this is where the people working on the Communication Plan Formulation Process were situated in the period 2008 -2014.

3.3.3 Selection of interviewees

Three interviewees were chosen because of their involvement in the Elephant Management Plan and the Communication Plan Formulation Process. These were three experienced scientists within the Kruger National Park who have a sound knowledge of the Elephant Management Plan and the Communication Plan Formulation Process. Participation was informed and voluntary, and pseudonyms were used throughout the study to mask the identity of the Interviewee.

3.3.4 Gaining access to the research setting

Gaining access to the research setting did not prove to be problematic as the researcher is a SANParks employee who already had a professional relationship with the interviewees. Once he had completed the literature study, he stayed in the Kruger National Park for a month to complete the interview process, analyse the data, write up the findings and check the data validity with the interviewees. Voluntary participation was sought. The nature of the study was explained to the interviewees prior to the interviews. Interviews were held in a variety of settings in the Skukuza Rest Camp.

3.3.5 The role of the researcher

The fundamental characteristic of the social change purpose of qualitative research is inherent in the relationship between the researcher and the researched and relationships of a collaborative nature should be evident during and after the research process (Cho and Trent 2006: 320). There should be a relationship of "mutual confidence and respect" between the researcher and the interviewees (Welman et al 2005: 199). The interviewees act as co-researchers in the process. Because the issues surrounding elephant management and the communication thereof are contentious, it was of special pertinence that the researcher had a good rapport with the interviewees. The researcher is an employee of SANParks with

twenty two years of unbroken service. He has experience in: field guiding, environmental interpretation, social ecology, people and conservation and management. He has a Diploma in Nature Conservation and a Bachelor of Arts degree in Communication and Industrial Psychology. He already had a professional relationship with the interviewees at Kruger National Park which facilitated the study in the sense that a rapport already existed between himself and the interviewees. The researcher remained sensitive to the reality that the "elephant debate" is highly controversial and that SANParks management controls any information regarding elephant management that is disseminated to the public. At present, and it has been for some time, all information pertaining to elephant management is dealt with by one liaison person in the Communications Department.

3.3.6. Methods of data collection

3.3.6.1 Phase One: analysis of the Communication Plan Formulation Process

In keeping with the original five research questions as stipulated in Chapter 1, this method of data collection was used to answer Question 2 against relevant information gleaned from the literature review: 'Does the information which is to be communicated reflect decisions made by major participants in the "The Great Elephant Management Debate", 2004 to 2008?' In addition, this method of data collection was used to answer Question 3: 'Does the proposed Communication Plan Formulation Process consider the views of the broader social and political spectrum of interested and affected stakeholders on the Communication Plan as well as their views on elephant management?' Details of the Communication Plan Formulation Process analysis follow below.

A SANParks communication plan (2009) in support of elephant management in South African National Parks was submitted for perusal in January/February 2009. The SANParks communication plan (2009) was compiled by SANParks' Scientific Services in consultation with an independent practitioner, Marina Joubert, working for an external body, Southern Science. The SANParks communication plan (2009) has to date (2014) not been implemented in its entirety and discussion as to the implementation thereof, as a part of the Communication Plan Formulation Process, is on-going. Hence it is referred to as the Communication Plan Formulation Process. Phase one of the study involved an analysis of this Communication Plan Formulation Process based on issues raised during the literature study regarding environmental communication and the process of formulating such multi-stakeholder plans. This then formed the background to the discussions in the unfocused interviews.

3.3.6.2 Phase Two: Unstructured interviews

In keeping with the original research questions as stipulated in Chapter 1, this method of data collection was used to answer Question 1: 'How might environmental communication interventions be used to change the perceptions of stakeholders with regard to elephant management? In addition, the unstructured interviews were also used to supplement answers to Question 2 gleaned from Phase One of the data analysis: 'Does the information which is to be communicated reflect decisions made by major participants in the "The Great Elephant Management Debate", 2004 to 2008? A further question for which data was collected using the unstructured interviews was Question 3: 'Does the proposed Communication Plan consider the views of the broader social and political spectrum of interested and affected stakeholders on the Communication Plan as well as their views on elephant management? Information gleaned from the unstructured interviews was used to verify that which was taken from the literature study in order to answer Question 4: 'How have environmental communication strategies been formulated in the past to facilitate changes in perceptions of stakeholders on environmental management issues?' In addition, information was gained through the unstructured interviews with three members of SANParks who were involved with both the Elephant Management Plan and the Communication Plan Formulation Process, to supplement that from the literature study in answer to Question 5: 'How might these, communication strategies, such as the SANParks Environmental Education Strategy (2001) be adapted to ensure effective implementation of the proposed Communication Plan?

The second phase of the study involved unstructured interviews. It was explained to the interviewees that the interviewer was researching the Communication Plan Formulation Process and this formed the general theme of the discussion. Further questions arose spontaneously as the interviewer and research interviewees interacted. "In unstructured interviews an attempt is made to understand how individuals experience their life-world and how they make sense of what is happening to them" (Welman et al 2005: 198). In addition, questions should be directed at the "experiences, feelings, beliefs, and convictions" of the participant regarding the theme in question (Welman et al 2005: 198). Thus, issues of a sensitive or emotional nature may be asked. However, Welman et al (2005: 199) advise that this should be done in the middle or latter phases of the interview so as not to destroy the relationship of mutual confidence and respect. The researcher was aware that he should not ask leading questions in order to suggest a particular response. The questions were thus fairly open ended so as to evoke discussion based on the response to such questions. Examples of these questions are given in Appendix 1.

3.3.7 The method of recording data

Data was recorded in the form of field notes transcribed so that they could be read and re-read in order to search for emergent themes. The field notes observed everything that was said during the conversations and in addition made note of non-verbal gestures such as pauses, laughter, sitting arrangements, body language and gestures.

3.3.8 Summary

An analysis of the Communication Plan Formulation Process left several uncertainties in the mind of the researcher which were clarified through questioning the interviewees during the interviews. During the unstructured interviews, some of these issues were raised but the main point of discussion centred around the SANParks communication plan (2009) and how the interviewees had personally experienced the Communication Plan Formulation Process to that point.

3.4 METHOD OF DATA ANALYSIS AND PRESENTATION OF FINDINGS

The raw data that was transcribed in the interviews were analysed and processed in accordance with Qualitative Research Techniques.

3.4.1 Data analysis

In this study the raw data consisted of information gleaned from the unfocused interviews. These field notes were then processed so that analysis could take place. Thus, field notes were converted into "write-ups" (Welman et al 2005: 211) in the following format:

Table 3.1 Example of Field Note write ups

Typed transcript of data	**Researcher observation**
We thought "Oops – we don't want him (the Chief Executive) to think we're doing something behind his back" and he needed to approve it!	Could be related to insufficient planning
"the desired state of the park is discussed and involves	Participatory partnerships –

	all stakeholders – they say 'get on with the details'. Thus, stakeholders are involved at the top – a kind of rubber stamping. It is important for the guys to get their concerns captured. Thereafter, they say: "deal with it, it's your problem."	how do they currently operate and how could they be incorporated in future?
	It doesn't matter what plans we write, if we don't communicate them then it's useless.	Awareness – there has to be greater awareness of policy through communication.

Codes were developed to analyse the interviewees' actions, reactions and opinions. The following procedure was adopted to facilitate the analyses: coding of data, categorisation of data and identification of themes. For example, each time it appeared as though something which was said could fit within the theme of 'Awareness' such as "*It doesn't matter what plans we write, if we don't communicate them then it's useless*." it was coded using the colour yellow. Initially, word analysis took place in which word repetitions, keywords (in context) and indigenous terms were sought and noted (Welman et al 2005: 212). For example, whenever the words relating to: 'stakeholders, audiences, the general public' were used, note was taken that they could possibly refer to the participatory process and subtle differences in semantics were investigated as well as an attempt was made to understand what each interviewee understood each term to mean. The technique of "comparison and contrast" was used whereby sections of the text were compared to the texts of the other interviewees or in a different part of the interview (Welman et al 2005: 212). For example when discussing the PowerPoint created by the consultant as a part of the SANParks communication plan (2009), Interviewee B stated that: *The consultant did the original one [PowerPoint] and it "evolved". It was originally like a kids' TV programme. It was embarrassing. We revamped it and reshuffled it into an understandable presentation.* Whereas Interviewee A stated that the consultant: *helped me to word it more appropriately.* The differences in their views on the language were questioned and ultimately it turned out that Interviewee B felt it needed to be more scientifically worded and Interviewee A believed that it had to be in more accessible language. This raised questions with the researcher regarding who the desired stakeholders were perceived to be and which division within the organisation would be the best to disseminate the information. Thus it became apparent that SANParks were not clear of who their stakeholders were and as such this would significantly impact on any communication attempts. The researcher also wondered what the extent of training might need to be for those who were disseminating information. The use of "transitions" (e.g. now, then, now then) and "connectors" (e.g. as, because, since, as a result of) were noted to indicate

thematical changes and the logical development of the interview (Welman et al 2005: 212). For example in the transcript: *"the desired state of the park is discussed and involves all stakeholders – they say 'get on with the details'.* ***Thus,*** *stakeholders are involved at the top – a kind of rubber stamping. It is important for the guys to get their concerns captured.* ***Thereafter,*** *they say: 'deal with it, it's your problem.' "* In the first instance, the use of the word 'thus' alerted the researcher to the interviewee's deduction that the stakeholders wish for Park Management to clarify the details of what they were doing was a general ratification of policy. The 'thereafter' alerted the researcher to the interviewee's perceived change of interest by the stakeholder and a possible view that there was a general lack of interest in the specifics of what was being done. These raised questions regarding the theme of participation and alerted the researcher to make further investigations into the matter.

Thus, the data were processed and analysed by means of a content analysis and search for emergent themes according to qualitative research methodology. Data was read and reread and salient themes were noted such as: planning, participatory partnerships and awareness themes were identified within the data which signified common threads among the interviewees' statements and responses. The qualitative researcher endeavours to study data inductively in order for unpredicted data to emerge (Borg and Gall 1989: 386). Thus, the researcher sought out patterns in the data and what emerged from these patterns were concepts, insights and illumination (Taylor and Bogdan 1984: 5). Data were then coded (using colour) and "cut and pasted" in accordance with the salient headings to which the data corresponded.

3.4.2 Presentation of data

The data have been presented in written format in this dissertation. Themes were analysed using the literature study as background information. In presenting results, quotations are used from the transcribed interviews (and appear in italics) as they constitute the data for the study. These quotations are accurate but grammatical inconsistencies and speaking hesitation (e.g. oh and um) have been removed and some additional words have been added for clarity (these are indicated in brackets). The quotes represent the various perspectives of the three interviewees. Space constrictions prohibit the use of all the data collected in the unstructured interviews.

3.5 ETHICAL CONSIDERATIONS

The study was conducted with care for ethical issues. Ethical issues were dealt with as follows. Firstly, informed consent was sought and obtained from the interviewees and they were thoroughly and honestly

informed with regard to the intention of the interview and the aims of the study. The aims and the process of data collection were explained and questions of clarification were addressed. The methods of recording data were explained as well as the use of the published findings strictly for research purposes. The researcher had to remain aware that sensitive issues were addressed

Confidentiality or the right to privacy was an issue of concern within the study. "Confidentiality is commonly understood as akin to privacy" (Oliver, 2003 cited in Wiles et al 2006: 287). Generally, an undertaking of confidentiality in research is closely related to questions of who will have access to data and in what manner the data will be used (Wiles et al 2006: 287). The matter of anonymity is closely related to the issue of confidentiality. The confidentiality of data, as well as the anonymity of the interviewees, was deemed important to this study.

The study was not intended to be harmful to the subjects in any way and the informants were at all times protected from potential harm. The researcher remained aware that interviewees should not be manipulated or treated "as objects or numbers rather than individual human beings".

3.6 TRUSTWORTHINESS OF DATA

Concerns related to validity in qualitative research have multiplied recently (Cho and Trent 2006: 319). The following methods were applied in this study in order to ensure trustworthiness of data:

a) **Relationship of trust:** at all times, the researcher sought for and maintained a relationship of rapport and trust with the interviewees.
b) **Cross checking with interviewees**: the researcher continually asked interviewees whether or not they perceived that what had been written or noted was valid and an accurate representation of their responses.
c) **Triangulation of data collection techniques:** triangulation was used so as to verify data. "As any given measure of a construct also reflects irrelevant constructs, it is advisable to use more than one measure of the same construct" (Welman et al 2005: 142). It is for this reason that a dual research process took place: analysis of the Communication Plan Formulation Process and unstructured interviews. In addition, the literature study served as a background according to which data was evaluated,

The study will not be replicable in its exact form but it is hoped that the issues raised will be able to inform practice and that the methods used will be replicable in other situations. Instead of attempting to "draw grand conclusions" that may be transferable across situations.

Rogers et al (2002: 67) state that: "any time that a sampling of information is allowed to stand for a much larger set of data, aspects of that larger set will be lost." "One method of limiting bias to an extent is by the insistence that selected passages stay in the words of the speaker and are a reflection of the speaker's intent" (Rogers et al 2002: 58). Thus, selected passages within the written report have been left in the words of the speakers.

3.7 CONCLUSION

Because the management of elephants is such a complex issue for environmental managers, it was decided that the Communication Plan Formulation Process would best be researched within the qualitative mode of enquiry. The dual nature of the research, which included the analysis of the Communication Plan Formulation Process as well as the in depth interviews, highlighted the difference in the depth and quality of the data gleaned from the critique of the Communication Plan Formulation Process and the unstructured interviews. Whilst the findings based on the analysis of the Communication Plan Formulation Process appeared to be lacking in some respects, the interviews were able to justify and explain various strategies, omissions and conclusions, experiences and values. The following chapter deals with the research findings.

CHAPTER 4

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 INTRODUCTION

This chapter is a presentation of the findings which were learnt from this study. It establishes the manner in which communication could be used effectively to assist managers of protected areas to convey their management objectives and strategies to the relevant stakeholders. Within the scope of this study however, these findings are limited to an investigation of the processes of developing the Elephant Communication Plan. Significant themes which emerged from the data are presented. The analysis of the data allowed the emergence of three major themes: process, change and adaptive communication. In this written representation of the themes, they are delineated as separate entities; however, the themes are in effect not mutually exclusive and are intertwined, each having an effect on the other. Similarly, largely because the findings and discussion thereof is organised thematically and because the interviews were unstructured, the presentation and discussion of findings relating to the Research Questions formulated in Chapter 1 are, for the most part, not mutually exclusive. One question's findings may be dependent on another and often, they are intertwined. Nevertheless, an attempt has been made to link specific data, within the themes, to the relevant Research Question, where possible.

The chapter deals with the Communication Plan Formulation Process. It looks at the Communication Plan Formulation Process within its broader context and against the background of the literature study. It outlines the process which has already taken place and that which it intends to follow and in doing so, it provides results relevant to Research Question 4: How have environmental communication strategies been formulated in the past to facilitate changes in perceptions of stakeholders on environmental management issues? Then the chapter provides recommendations for the further progress of the Communication Plan Formulation Process and in order to guide future such endeavours and to present findings relevant to Research Question 5: 'How might these, communication strategies, such as the SANParks Environmental Education Strategy (2001) be adapted to ensure effective implementation of the proposed Communication Plan?'. Within this procedure is the critique of the Communication Plan Formulation Process. The chapter deals with issues of change relating to the Elephant Management Plan and the Communication Plan Formulation Process that have been highlighted through the study and then deals with the communication of this change. Thereafter, it highlights aspects of pertinence to the

continued implementation of the Communication Plan and thus presents further findings in relation to Research Question 5. In addition, it looks at lessons learnt regarding the communication of controversial issues to stakeholders with the intention of guiding the future practice of protected area managers. In this sense, it presents and discusses findings in relation to Research Question 3: Does the Communication Plan Formulation Process consider the views of the broader social and political spectrum of interested and affected stakeholders on the Communication Plan as well as their views on elephant management?

The chapter further looked at what components of the Communication Plan Formulation Process have already taken place and what is proposed. Initially, it was thought by the researcher that this Communication Plan represented a map for what was to take place in terms of communication of the Elephant Management Plan. However, the interviews revealed that it forms only a small component of what is to happen. What is also noteworthy is that even after five years, there is still no plan in place. This raises numerous questions as to the whether SANParks is serious about engaging with stakeholders about elephant management. . What did emerge during the study was that there is a clear desire by the interviewees, who are Scientists within SANParks, of the importance that the Elephant Management Plan must be communicated somehow. So whilst these scientists are in support of a communication plan, the lack of implementation after such a long period tells a different story.

4.2. THE COMMUNICATION PLAN FORMULATION PROCESS.

4.2.1. Introduction

A SANParks communication plan (2009) in support of elephant management in South African National Parks was submitted to Scientific Services in January/February 2009. The SANParks communication plan (2009) which has been partially implemented and forms a part of the Communication Plan Formulation Process was compiled by an independent practitioner - a consultant who worked for an external body called Southern Science. The document was produced together with SANParks' Scientific Services. A critique of the Communication Plan Formulation Process followed using information gleaned from the literature study. The critique was not intended as a criticism but rather to propose alternative and additional strategies for the Communication Plan. The critique served as a point of departure for the discussions which followed in the unstructured interviews which then, together with this critique, allowed for conclusions and recommendations to be drawn.

4.2.2 The Communication Plan in support of elephant management in South African National Parks.

This section serves largely as a presentation and discussion of findings for Research Question 2: 'Does the information which is to be communicated reflect decisions made by major participants in the "The Great Elephant Management Debate", 2004 to 2008?' (fig 2.1 shows the major participants) and Research Question 3: "Does the proposed Communication Plan consider the views of the broader social and political spectrum of interested and affected stakeholders on the Communication Plan as well as their views on elephant management?

The SANParks communication plan (2009) states that it wishes to be "pro-active" regarding the communication surrounding elephant management. Whilst the declaration to have more "pro-active" communication surrounding elephants may be laudable, the term "pro-active" is in itself problematic. Synonymous with "pro-active" are words such as "practical" and "hands-on". The implementation thereof, in practical terms, presupposes the existence of a co-ordinated and structured communication system. Interpretive services was the communication system utilised by SANParks in previous decades in order to achieve its communication mandate. In 2014, a sufficiently co-ordinated interpretive services unit does not exist within SANParks in accordance with guidelines proposed by the World Parks Congress Recommendations in 2003. The Communication Plan Formulation Process includes the partially implemented SANParks communication plan (2009) that was written for Scientific Services without the inclusion of People and Conservation and other communication services. Thus, the Communication Plan Formulation Process has not dealt with the nature of practicalities inherent within the communication process within an organisation of SANParks' scope in a sufficiently in-depth manner.

Furthermore, the SANParks communication plan (2009) states that it should "fit into the SANParks communication strategy" thus presupposing the existence of such a strategy. Strategies surrounding communication within SANParks are haphazard and disjointed at present and thus there is a concomitant haphazard Communication Plan Formulation Process.

The introduction and rationale of the SANParks communication plan (2009) states that it should focus on "staff, scientists, tour operators and tourists in and around the four [five] National Parks that contain elephants". Whilst it should focus on these areas, the rationale for the selection of these four [five] specific areas as a priority is vague when constituency building within local communities surrounding

parks is such a prominent component of SANParks' policy. Thus, local communities have not been included as major stakeholders for communication.

The communication objectives outlined do not mention the process of negotiation with (all) stakeholders in the actual formation of the elephant management policy which is key to its acceptance. In order to obtain acceptance for the Elephant Management Plan (2013), it is necessary to create an understanding of its complex nature and the attempted fostering of empathy for the situation of others. Thus, for example, it may be necessary to explain to a wealthy suburban owner who lives far from a National Park, yet is passionate about elephants for aesthetic reasons, the plight of a subsistence farmer living on the border of a National Park whose life and livelihood may be endangered by elephants. Such an individual also needs to be taken into consideration in policy formation as he forms a part of the complex environment.

The section of the SANParks communication plan (2009) that delineates stakeholders in more detail and outlines: "most important audiences and stakeholders" mentions tourism in four of the six bullets. Neighbouring communities and the media are lumped together with: conservation organisations, NGOs and animal rights groups, qualified as *moderate* and policy makers in government. There is no mention made of international communities. Only SANParks' scientists and researchers are mentioned. This is not in keeping with the stakeholders involved in the creation of the Elephant Management Plan and is not in keeping with SANParks' identification of relevant stakeholders. In addition, no mention of the values of individuals is taken into account. No indication of an attempt to understand communities and stakeholders, together with their values, prior to the communication of the Elephant Management Plan is made in the SANParks communication plan (2009). In addition, no mention is made of the skills required to communicate such a plan to the relevant stakeholders.

The proposed key messages may well reflect a common agenda and the establishment of priorities as the content should be consistent. However, the context should be adapted to suit the audience (De Lacy 2006: 283). For attitudes to be altered, the perception of the listener should be modified on three levels: "brain (intellectual understanding), heart (emotional affinity) and instinct or gut level (where the new attitude becomes 'right' and motivates action)" (De Lacy 2006: 283). The medium of communication should be appropriate to the audience. No mention of how to define the values of an audience, or the most appropriate means of conveying the information, has been delineated in the communication plan. For example, to focus on biodiversity as being the priority, in the proposed key messages, may alienate surrounding communities who perceive the message to be that they, the community, are not of importance to SANParks. The strategy and focus of the communication of the Elephant Management Plan would have to differ for example where there is human elephant conflict or hope for economic gain through

elephant culling. SANParks states that the continual flux of ecosystems negates the determination by science and history of the desired outcome of ecosystem management and that they should be determined by value judgements. Society and stakeholder groups are in continual flux and thus communication plans need to take this into consideration as values will change over time and differ substantially between audiences and even within audiences that initially appear to be "homogenous". This needs to be considered in the proposed key messages so that there can be no blanket assertion that biodiversity is SANParks' number one priority as it is in the SANParks communication plan (2009). As was asserted in Chapter 2, in democratic societies, the goals of managing ecosystems should reflect the values of society and not merely those of scientists or managers (SANParks 2009: 19).

In addition to societies and stakeholder groups being in flux, so too are ecosystems, organisations and management systems. The interactions between them are also in flux; hence the Communication Plan, which emerges from the Communication Plan Formulation Process, must acknowledge and accommodate this in order to be effective.

Furthermore, in the SANParks communication plan (2009) the implementation, timeline and budget do not include People in Conservation or other SANParks communication strategies or the training of these people. If a unified message is to be given out to SANParks employees, then all employees will have to be addressed, especially those involved in communication. This is a finding which relates to the adaption of future communication strategies as is formulated in Research Question 5:' How might these, communication strategies, such as the SANParks Environmental Education Strategy (2001) be adapted to ensure effective implementation of the proposed Communication Plan?'

4.2.3 Findings regarding implementation which has taken place within the Communication Plan Formulation Process that emerged from the unstructured interviews

The implementation of the Communication Plan is viewed within the broader context of how environmental communication strategies have been formulated in the past to facilitate changes in attitude and behaviour and how these might be adapted to ensure the effective application of the outcomes of the Communication Plan Formulation Process. This section deals broadly with the presentation and discussion of findings relating to Research Question 4: 'How have environmental communication strategies been formulated in the past to facilitate changes in perceptions of stakeholders on environmental management issues?' and also Research Question 5:' How might these, communication

strategies, such as the SANParks Environmental Education Strategy (2001) be adapted to ensure effective implementation of the proposed Communication Plan?', but with specific reference to the informal implementation of the SANParks communication plan (2009) to date.

The proposed time-line for implementation of the SANParks communication plan (2009) has not been adhered to for various reasons. Thus, the interviewees were asked to give details of what has taken place and what is proposed. The remainder of this chapter provides an analysis of the data from the unstructured interviews and the related findings.

What emerged is the magnitude of the Communication Plan Formulation Process and hence the necessity for this process to be co-ordinated and structured. There were three interviewees. All are scientists within Scientific Services; however, pseudonyms have been used to ensure anonymity. All three have been involved in the process of the writing of the Elephant Management Plan and the Communication Plan Formulation Process the consultant, Southern Science.

There is uncertainty amongst staff about the Communication Plan. Interviewee A stated:

> *I don't even know what the plan is, what I am doing is presenting the PowerPoint presentation on what our Elephant Management Plan is.*

Interviewee C stated that he was unsure of what percentage of the SANParks communication plan (2009) had been implemented. It was already being partially, yet unsystematically, implemented by his colleagues in Scientific Services, yet he had not heard of it. This is once again evidence of the disparate nature of communication among certain departments within SANParks.

4.2.3.1 What has taken place with regard to the Communication Plan Formulation Process?

Interviewee B outlined that Scientific Services had been busy with a process whereby, because of a perception that scientists lacked skills for engaging with the press, they were doing mock television interviews to improve their skills. The consultant, Southern Science, was also involved in these training sessions there and she had asked what was being done about a communication plan regarding elephants. They, the scientists and the consultant, then began working on a plan in 2008.

What has taken place is that a brochure was produced (in 2008) by the consultant which provided a summary of SANParks' policy towards elephants and the changes that had been made. Interviewee B said that the booklets gave a history of how SANParks policy had emanated and not of what they were going to do with elephants.

Interviewee B said that the previous Manager of Scientific Services asked the consultant to try to take the scientific context of the plans and the background of complexity plus biodiversity (because we cannot talk about elephants on their own) and put it within the bigger context. They were to "Couch it within the broader issue of biodiversity."

A PowerPoint presentation was developed (this was outlined in the plan) including the consultant, Interviewee B and Interviewee A. This was a part of the SANParks communication plan (2009). Interviewee A described the creation of the PowerPoint presentation as follows:

> *The consultant did the original one and it "evolved". It was originally like a kids' TV programme. It was embarrassing. We revamped it and reshuffled it into an understandable presentation.*

Interestingly, Interviewee B stated that the consultant:

> *helped me [Interviewee A] to word it more appropriately*

Thus, while Interviewee B was weary of the content containing too much scientific jargon, Interviewee A, who has done 65 presentations on elephant management in 2008 already, preferred a more scientific content.

Interviewee A said a trial was held at the Skukuza Offices where a dummy run of the presentation took place. Feedback was given and "gaps" were filled in. Interviewee A said that they (the scientists involved in the management of large herbivores) had decided to test the PowerPoint presentation on the Section Rangers first. Interviewee B tried it on different groups because they were aware that scientific jargon might not get the message across. The feedback was positive. This trial run is a valuable strategy for implementation within future communication plans. It also highlights the adaptive process within communication whereby the tools are modified in accordance with feedback. However, it is noted that

the feedback is representative of one specific group and that no clear delineation of whom constituted stakeholders – had been done at this point. a further finding in relation to Research Question 3 -

Interviewee B said that Phase One – "was intended for staff and then the plan was to target the public - this nebulous mass." They tried to figure out who they were. They planned to vary the type of approaches for different groups. Tour guides were identified as important because they spread the message first. Thus, there was no clear guideline as to what constituted "the public". Thus a further finding relating to Research Question 3.

However, the Communication Plan Formulation Process was to take a path of its own. It was suggested that they (the scientists) show the presentation to the Management Committee of the Kruger National Park. The feedback was positive but the Executive Manager of Kruger National Park stated that "it needed to be shown to the Chief Executive Officer of SANParks." Interviewee B (pers comment.) It became evident that because it was such an important issue, it should go to the Chief Executive. This represented a finding in relation to Research Question 2: 'Does the information which is to be communicated reflect decisions made by major participants in the "The Great Elephant Management Debate", 2004 to 2008?"

Interviewee A said that the Communication Plan Formulation Process was supposed to have gone through the rangers first and then to the park forums but the Chief Executive had bypassed them and said that the Minister had provided norms and standards – thus everything had been approved - the implication being that no further engagement with stakeholders was necessary for the drawing up of proposed communication plans – they were to go ahead with the communication plan formulation and make it work! The lesson to be learnt for future communication of high profile issues such as elephants is that the formulation of the communication plans must include top management every step of the way. This represented a further finding in relation to Research Question 2. Major role-players in policy formation need to be included in the communication plan formulation policy. Thus, it serves as a research finding pertinent to Research Question 5, too as a recommendation for future communication strategies that need to be adopted in order to for the effective implementation of proposed communication plans.

The instructions to go ahead and write up the plan for elephant management came about despite Interviewee B saying:

It doesn't matter what plans we write, if we don't communicate them then it's useless.

She was essentially asking for the communication plan formulation to be done at the same time as the Elephant Management Plan but was told to go ahead and write the Elephant Management Plan anyway.

Interviewee B stated:

> *The Communication Plan Formulation Process came out of the scientific process. The first meetings had people from public relations, tourism, students, interns and reception staff – they gave good input about the plan.*

These meetings provided valuable feedback for communication processes. However, one should question whether the communication plan formulation should arise from the scientific process or if other processes should be included involving the human sciences e.g. sociologists, psychologists and educationalists.

Despite the non-existence of a definitive, yet to be approved, Communication Plan Formulation Process or clear direction as to whom it was to be aimed, Interviewee A stated that he had just completed his 65th presentation.

He identified his perceived stakeholders until that point as:

- top executives of SANParks;
- Section Rangers and rangers;
- The public – 75% of which included overseas tourists;
- Undergraduate students – mainly Veterinary Students, usually Tech 1;
- Students of Tropical Studies – each one has a course on elephants;
- Honorary Rangers – every Honorary Ranger course gets an elephant discussion and presentation – Interviewee A emphasised that a lot of work is done with them;
- He did one presentation for Animal Rights Africa (ARA) – based on the sale of Rhinoceros and they included a discussion on elephants – they went away quite positively.

It is interesting to note that a vast proportion of time is being spent on training Honorary Rangers a volunteer group. This may mean that their composition is somewhat transient and training will have to be on-going. This reflects a further finding of Research Question 3 in so far as who constitutes relevant stakeholders, but what is very clear is that this perception is very narrow and limited in scope and does not constitute all stakeholders.

Interviewee B pointed out that the Chief Executive engaged with policy makers and ministers. It is worth noting that he was unaware of a key shift in policy. The approach (as was presented to the Chief Executive at his meeting) to elephant management is quite different to what he had been preparing the stakeholders for i.e. culling. This lack of information regarding the change in approach was an oversight and was not the intention of the scientists. It would appear that there needs to be a better: "science-management link" (Biggs et al 2008: 562). du Toit et al (2003: 53) emphasize: "the need to build partnerships between scientists and managers to gather and synthesize new knowledge." Furthermore, du Toit et al (2003: 53) state that a more extensive range of activities is required to guarantee that results translate into insight for the making of decisions. The development of clear communication channels is an area which could improve future communication both within the organisation and to stakeholders. As emphasised earlier, the organisation is in a constant state of flux even at the highest decision making levels. A good Communication Plan should allow for change at all levels. Thus this serves as a finding pertinent to Research Question 5 in so far as it serves as a recommendation for the effective implementation of future communication plans.

When asked about the communication of the plan to stakeholders, Interviewee A responded that stakeholders are already a part of the process because they are part of the park planning process. However, it was not possible within the scope of this research to verify if they were indeed the same stakeholders who were involved in these two processes. The park planning process that he referred to is that which is followed when constituting the Park Forum to oversee the writing and formalisation of the five year Park Management Plan. The assumption he makes is that the process to establish the Park Forum was inclusive and thus the same stakeholders could be used in the Communication Plan Formulation Process. Stakeholders of the Park Management Planning process include, for example: government and non-government organisations, local communities, industry, farming and so on.
He (Interviewee A) stated that what usually happens is:

> *The desired state of the park is discussed and involves all stakeholders – they say 'get on with the details'. Thus, stakeholders are involved at the top – a kind of rubber stamping. It is important for the guys to get their concerns captured. Thereafter, they say: "deal with it, it's your problem." I've never had anyone query what SANParks is doing.*

It seems unlikely that nobody has queried what SANParks is doing – or the "elephant debate" would not have emerged. *Interviewee A's* selection of groups to which to present the PowerPoint presentation

appeared somewhat randomly done. He appeared rather dismissive or unaware of what constituted stakeholders. However, the point should be made that if it is perceived that a fair process involving stakeholders has been followed during the formulation of the park management plan, then it facilitates the communication process between the park and stakeholders and decreases the potential for conflict in such situations. This conclusion reflects a further finding of Research Question 3 in so far as who constitutes relevant stakeholders.

When Interviewee A was asked about local communities, he said that, with regard to human-elephant conflict, the Social Ecology department had spoken to the Kruger National Park neighbours and presented to the Limpopo National Association of Private Reserves and Sabi Sands. There was no mention of the communities in areas such as Bushbuck Ridge that surround the parks. However, Interviewee B said that these communities would also have to be addressed (this is dealt with in the following section).. This conclusion reflects a finding of Research Question 4 in that it delineates what has happened in the past and Research Question 3 in so far as it discusses who constitutes relevant stakeholders as does the following paragraph.

In terms of communication within the Conservation Services Division, Interviewee A said that "a representative of People and Conservation had been present at the Chief Executive's meeting; however, he had not given any input whatsoever whilst other delegates were quite vocal." At a separate meeting of the Kruger National Park Management Committee in Skukuza, Interviewee A *noted that:* "another senior representative of People and Conservation had been present at the presentation but she had also remained quiet." It would be interesting to find out why this was so. More importantly, the input of People and Conservation will be required if the plan is to be effective. It may point to a need for other departments such as People and Conservation to be better informed regarding scientific policy in general but in the context of this dissertation for elephant management and the Communication Plan Formulation Process too.

4.2.3.2 Differentiation

Differentiation refers to the use of different modes of communication for different audiences or stakeholders. Interviewee C stated that different communication tools are required for different stakeholders, however, this has not as yet been finalised or detailed. Interviewee B stated that people in local communities would need a different presentation to that which is already being presented as their concerns were different.

In the creation of the PowerPoint presentation she stated that they:

> *"tried to ensure that people, who might find it (the elephant management plan) difficult to understand, could understand.*"

Whilst there is a laudable attempt to include everyone through the use of accessible language, there is also a need to identify reasons why they might not understand in order to create presentations that suit all. For example, if it is an issue of language, then presentations need to be done in a language which such individuals would understand. Or, if it is concepts that are foreign to individuals then they need to be simplified or related to identifiable concepts or metaphors which would be easier to assimilate within existing concepts. This reflects a finding of Research Question 4 in that it delineates what has happened in the past and Research Question 3 in so far as it discusses who constitutes relevant stakeholders as does the following paragraph and Research Question 5 as it provides recommendations for the future implementation of Communication Plans.

Interviewee C stated that SANParks had indisputably, since 1994, adopted a changed policy in terms of involving stakeholders. This he stated, meant that SANParks had, "followed an open and fair plan in dealing with the complexities of working with stakeholders." However, he noted that, "although the process may have been open and fair in the past, it did not mean that the quality of communication is good." . This reflects a finding of Research Question 4 in that it delineates what has happened in the past and Research Question 3 in so far as it discusses who constitutes relevant stakeholders.

4.2.3.3 What still needs to take place with regard to the communication plan formulation process?

Several aspects arose through the unstructured interviews that still need to be put in place with regard to the Communication Plan Formulation Process. Thus this section essentially represents findings and discussion thereof relating to Research Question 5 detailing communication strategies that could be adapted to ensure effective implementation of the proposed Communication Plan.

These points are presented in bulleted form below.

- *Strategies for the communication of the plan to stakeholders need to be put in place;*

There is a clear willingness to communicate the plan to stakeholders; however, strategies for doing so are not yet ready. Interviewee B stated that the communication process must be accessible to the public. Q1 and Q5

- *The plan needs to include a wider scope than mere "awareness";*

For this to take place, trained practitioners need to be involved. A process whereby attitudes are changed and converted into behaviour needs to be implemented.

- *The Chief Executive needs to approve the Elephant Management Plan*

Interviewee B stated that:

> *the whole process had slowed down because Scientific Services and Conservation Management were waiting for the Chief Executive to give the go ahead for the Elephant Management Plan. SANParks received positive feedback from the previous Minister, but that this had been delayed by the national elections which saw a new Minister of Environmental Affairs being appointed.*

- *The media is to be engaged in the process*

There is a broad plan in place in which communication will take place through the media. However, at the time of writing this thesis, no SANParks employee was allowed to speak to the media without going through the Head of the Communications division. However, she was not present when the presentation on the proposed elephant plan was done at the meeting convened by the Chief Executive. Interviewee B said:

> *If we engage appropriately with the media and press then we engage with a wide spectrum of people, then we need to engage appropriately with people visiting parks through brochures and flyers - we are already engaging through tour guides and press, these are our main supporters.*

A few salient points emerge from the above discourse. The need to engage appropriately with the media and press is highlighted here. There is an acknowledgement of the wide spectrum of people with whom engagement is necessary; however, no clear concept of who the stakeholders are.

- *Brochures and flyers need to be compiled*

Thus, the Communications and Marketing divisions need to be engaged.

- *People visiting the Parks are perceived as important as they are the "main supporters".*

Thus, communication within the parks needs to be conveying "the message" and interpretive services should, therefore, be improved.

- *Include Park Management forums*

Interviewee A said, in response to how the local communities could be engaged, that we need to "Map" it as part of the Park Management forums. We need to inform and engage through Park Forums; however, it hasn't happened yet.

- *Identify key champions within local communities and approach them*

Interviewee B said that the communication plan formulation needed to go to the local communities through the division of People in Conservation. She said that we have only completed Phase 1 which includes SANParks staff. There is a need to identify key champions informally so that they can engage with the communities informally. However, "phase one" is not specifically delineated in a formal manner. In addition, not all SANParks staff have been informed yet, even in late 2014.

- *Other people in the organisation need to be identified and trained*

By this it was meant staff throughout the organisation. Kruger National Park is only one of five parks that has elephants, although the main concentration of elephant is there. Interviewee B emphasised that the Head of Communication has not been included in the process as yet and she is the person through whom the press interacts. This was still the case in November 2014.

- *A comprehensive proposed communication plan needs to be* compiled.

Interviewee A stated:

We are supposed to have something in place in January 2010.

This interview took place fairly late in the preceding December 2009, as he was about to go on leave, it did not happen in January and still has not four years later. It is imperative, that given the scope of what needs to be done, the Communication Plan Formulation Process needs to be more comprehensive and to include those aspects identified as absent from the SANParks communication plan (2009).

- *An evaluation of how effective the Communication Plan Formulation Process has been and will continue to be, needs to be done.*

The evaluation would then feed into the Communication Plan Formulation Process, which if acted upon together with other aspects, would enable it to be adaptive for the improvement of current and future practice. This is still not in place in 2014.

4.2.4 Summary

There is much to be learnt from the procedure that has taken place thus far and from what has been identified as that which still needs to take place. (Question 4 and Question 5). Knowledge obtained from this could be applied to both the Communication Plan Formulation Process and communication for protected areas in future.

The issues that arose from the existing Communication Plan Formulation Process such as a lack of awareness of communication structures within the organisation are perhaps an indication that the money spent on consultants might be better used to train SANParks employees and empower them to create such plans. In this way, such employees could build on prior knowledge and impart their knowledge to other employees thereby creating a more effective communication system.

The process for the implementation of the SANParks communication plan (2009) has been haphazard as indicated above. There is a need to redefine the objectives and time-lines and then to eliminate uncertainties among employees by informing them of the plan. In 2014, neither employees nor external stakeholders are fully aware of the elephant management plan, nor the implications that the Department of Environmental Affairs endorsed, norms and standards for elephant management, has on elephants and/ or stakeholders. The lack of an implemented communication plan will definitely have serious implications

for SANParks if or when they decide to implement more aggressive and controversial elephant management practices such as culling.

The need for an Elephant Management Communication Plan arose from the scientific process. The question of further conception of the Communication Plan Formulation Process was raised during the interviews. Ideally, a Communication Plan which addresses the elephant management issues for the entire organisation should be finalised. Then, based on the specifics for elephant management in each of the five SANParks which have elephants, Park based Communication Plans can be drawn up connecting to the overall SANParks Communication Plan.
Stakeholders need to be identified at the beginning of the process otherwise a lot of time is wasted presenting information to groups that are not part of the key-objectives. These key-objectives should be clearly established at the onset of the Communication Plan Formulation Process. In addition, a lot of time and money is spent in training voluntary groups and non-employees such as Honorary Rangers and outside tour operators. Whilst volunteer groups provide work of great merit, it needs to be evaluated whether the money and time saved by out-sourcing such services is not lost through having to undertake this on-going training process. Recommendations are made in Chapter Five.

The necessity to give the presentations to the rangers first was identified by the scientists. This is because they are the people on the ground who will be implementing the outcomes of the Communication Plan Formulation Process and thus are a crucial part of the process. However, the SANParks organogram has to be consulted so that other departments and top management are "in the loop" too.

The collaborative approach to the formulation of presentations has worked well. Nevertheless, the PowerPoint presentation and flyers that have been presented thus far should form components of a larger "toolbox" of communication strategies. These need to be made available to whoever will implement the strategies and where possible additional "tools" need to be created to maximise the impact of communication interventions.

Several aspects were identified as still needing to take place in the Communication Plan Formulation Process. These should be prioritised in accordance with key-objectives. A plan for their implementation should be drawn up and it should be established who needs to put them in place. A clear system of communication should be in place (perhaps on the intranet) so that there is inter-departmental communication on the issue too. A toolbox of strategies then needs to be identified for the

implementation of the outcomes of the Communication Plan Formulation Process and then training can commence.

4.3 CHANGE

4.3.1 Introduction

The reason the process has commenced to put an Elephant Management Plan in place is, in part, to deal with change. There has been a change in numbers of elephants – which have increased over the years and upon the landscape in which they appear. People have noticed a change in the environment where there are large numbers of elephants. Communication of the Elephant Management Plan involves helping people to understand that change has taken place (and will continue to take place) and to help people comprehend the way in which SANParks intends managing that change. That management philosophy in itself has also changed. The complexity inherent in the management of elephants also involves the need to change people's perceptions with regard to how others perceive the issue. It involves the development of empathy for others' situations and perspectives too. Change was a theme that emerged strongly from the data and which will be discussed in the following section. Some salient information emerged relating to how people deal with change and how that is facilitated by communication with the aim of achieving acceptance of that change, a change in perceptions and ultimately, a change in behaviour. Change is viewed in this section with consideration as to how it might be possible to communicate paradigms, which themselves are continually changing, to individuals who by nature, are resistant to change. This section deals mainly with findings and discussion thereof relating to Research Question 1 in that it deals with how environmental communication interventions may be used to change perceptions of stakeholders with regard to elephant management.

4.3.2 Changing environments

Africa has changed (with increasing modernisation and human populations) from a vast landscape which was populated by elephants to one in which they co-exist (not necessarily in harmony) in separate blocks of land:

Interviewee C described Africa as: *a chessboard of elephants and humans.*

The impact of elephants is not homogenous as was once thought. Different environments experience different degrees of change through the impact of elephants. Interviewee C explained it as follows:

> *In areas such as Addo* [Addo National Park], *big patches* [of land] *have been damaged but these are softer environments* [than Kruger]. *They couldn't have had large populations of elephants there before.*

By this, Interviewee C is referring to the environment before elephants were constrained within specific areas – before there was competition for land between elephants and humans. It is necessary for humans to understand that they are a part of the "problem". Not just of elephants but of the ecosystem as a whole. Interviewee C states:

> *There are no immediate extinctions [of plant species as caused by elephants in Kruger National Park but in Addo, [such] extinctions are prevalent.*

Once differences such as this are explained to individuals, they may begin to understand the complex nature of elephant management. In essence, elephant management differs from park to park and even from one country to the next. Fundamental to an understanding of complexity is the understanding and acceptance of difference. For example, Interviewee C points out:

> *Kruger is a largely elephant resistant environment but in Zimbabwe – they (the people) are elephant dependent.*

Thus, by explaining different scenarios to individuals, an essential understanding of difference will emerge and hopefully, a slow dawning of what constitutes complexity.

4.3.3 Changing perceptions

Fundamental to communication is the changing of perceptions. Thus, there needs to be a change in preconceived ideas. Interviewee B stated that we need to:

> *Break down preconceived ideas.*

Once the process of the changed policy towards managing elephants had been explained to the SANParks Chief Executive in 2009, Interviewee B said that he (The Chief Executive):

> *appreciated having that knowledge. He said that it makes so much sense when you tell it in that way. It puts people on a whole other trajectory.*

In order for change to be accepted, it will be necessary to change perceptions and place people on another trajectory of thought. Interviewee B stated that the current perception as is portrayed in the media is that SANParks is about to put into operation a programme of "*mass murdering"* similar to previous years when culling took place. However, she points out that what the public does not understand is:

> *Previous Nature Conservationists were operating within the paradigm of the day which was agricultural (Influenced by the thinking of Agricultural Science). Earlier environmental scientists came from that paradigm and took a long time to learn.*

Thus, earlier environmental scientists had the mind-set of the agriculturalists who believed in the notion of "carrying capacity." When asked why it had taken so long to change, Interviewee B was of the opinion that the early environmentalists were:

> *Not receptive to outside influences. It took a long time for the paradigm to change – there's faster learning now. There has been a change in scientific paradigms, however, outside influences are important if an organisation is to progress towards achieving its mandate.*

The change in scientific paradigm that she refers to above is that prior to the elephant debate, scientific research and decision making was primarily internal. In other words, SANParks implemented research determined a specific manner of thinking which in turn provided a limited perspective from which elephant management decisions were made. Asked why there is faster learning now, Interviewee B expressed that:

> *Legislation was also an issue. There was a change in government and necessity of contact with stakeholders. Outsiders were having a say. Scientists recognised that parks are not an island.*

Interviewee B was of the opinion that legislation, which forced increased engagement with stakeholders (table 2.1), also facilitated a paradigm shift among scientists involved in elephant management research.

Thus, contact with outsiders caused (in part) a shift in scientific paradigm. Interviewee B stated that this shift in scientific paradigm meant that there:

> *was change within Science, more broadly there was an understanding of complexity – even Science can't predict stuff in some of these systems. For a long time scientists didn't admit it or recognise it. Now there is open recognition – these things are complex and our critical outcomes are different. Cause and effect are sometimes unrelated.*

The amount of time for scientists to acknowledge complexity might indicate that it will be a challenging process to change the perceptions of the general public too. Interviewee B's claim however, that cause and effect can be unrelated, is incorrect. There is always a relationship between cause and effect somewhere, somehow or sometime.

There seems to be a perception that changing one's approach (especially if it is perceived to be a sudden change) is indicative of a kind of fickleness or indecisiveness. For example, the SANParks Chief Executive, while he was accepting of the changes in policy, was concerned, according to Interviewee B, how he conveyed a shift:

> *from old to new without losing face. We have raised expectations among the pro and con people! Now the Chief Executive is scared people will think that the "greenies have won".*

This conveys the enormity of the fundamental shift in perceptions that will have to take place amongst stakeholders and the public (assuming that that is to whom "people" refer). It also highlights that SANParks does not clearly understand who their stakeholders are or ought to be. The elephant management plan process did invite many parties to participate but the voices of the local communities bordering parks were in the opinion of the author silent and absent. Ironically, it is these communities who are most affected by elephants behaviour such as when they damage crops and property. If any form of communication success is to be achieved, the implementation of a plan will need to ensure that all stakeholders are engaged into the process.

The Chief Executive's concerns also reflect a shift in SANParks values in that it is now important to the organisation how it is perceived "out there".

Interviewee A said that within the media:

the headlines were saying "Kruger will Cull" - this is the common perception.

Interviewee A stated that the way he deals with this common perception in his PowerPoint presentations is that he:

tells them the full story of elephant management together with all the various challenges, then moves onto the different forms of management such as contraception, managing the environment through fire and water management and so on, before moving onto the common perceptions that people have that only culling is available and that it will be implemented in Kruger soon

Thus, he takes a narrative approach and has received positive feedback through its use. It is perceived that the common perception out there is that Kruger is going to cull. This is then the perception that has to be changed. Interviewee A and Interviewee B's views on what stakeholders perceptions are, based on their interfacing and interactions with stakeholders. However, perhaps a better way of establishing what the perceptions are amongst stakeholders as well as how they came about is needed in order to address these accurately. Perhaps this could be done through a questionnaire or an evaluation of articles within the media both in terms of the Communication Plan Formulation Process as well as for future environmental communication endeavours. Professor Bunn (2008: 54) emphasises the crucial nature of interpretation when he states that: "Without investment in a comprehensive interpretation programme, no National Park can understand its own systematic functioning, monitor its impact on its publics, or properly adapt its management methods." One cannot help wonder that if a moratorium had not been placed on any staff other than the head of communication, discussing the elephant issue, that public perception may have evolved along with the development of the elephant management plan. The change in policy might then not have been viewed as "a complete turn-about" in policy. In addition, the stakeholders who need to be addressed is of pertinence. If stakeholders are a part of the park planning process, as Interviewee A stated they are and policy makers have given the go-ahead to implement the elephant management plan (as the SANParks Chief Executive reportedly says), then they should understand the policy anyway and it should not need to be communicated to them. Then it needs to be established to whom it needs to be communicated. Interviewee B described the general public as: "this nebulous mass" which emphasises the vague nature of the 'target market'. Clear goals of communicating the plan need to be established in order to determine to whom it will be presented. Thereafter, establishing the method of communication can follow.

An important issue raised in the unstructured interviews was whose responsibility it is to change perceptions. Interviewee A said that:

Social Ecologists from Kruger are doing a good job changing perceptions – biologists have done most of this up until now.

A recent study on mental models involving perceptions on River Management (Biggs et al 2008) contained a multidisciplinary team which included Biologists and Sociologists. However, in all three unstructured interviews, the scientists (interviewees - all from a biological background) stated that whilst they recognise that it is imperative for communication to occur, they did not have the expertise or time to implement the programme. They expressed the need for people with social science backgrounds to do this on their behalf.

It is not enough to acknowledge that people have different values, but these values change too.

Interviewee C*:*

There is a difference in perceived values of people now – this may change in the future.

Thus, the values of people are also perceived. Is it possible to determine the values of people more definitively? "Greater clarity is urgently required around elucidating current and evolving values as these turn out to be pivotal in deciding on how elephants should be managed" (Biggs et al 2008: 583). Interviewee C states that:

There is a moral pluralism regarding elephants. We need to engage in this moral pluralism.

"Moral pluralism is currently advocated because of widely varying values and needs in different circumstances" (Biggs et al 2008: 583). In terms of communication, the facilitation of the development of empathy (leading to tolerance) for others' opinions, stemming from the acknowledgement and acceptance of difference, may represent an engagement with this moral pluralism.

4.3.4 Changing paradigms

The change in scientific paradigm was explained by Interviewee C as follows:

> *We know things within a specific context but the context changes. What knowledge we do have is certain empirical data, expert opinions and uncertainty in the rest. But we need to make holistic decisions. This is why the problem [of elephants] is so complex.*

The change in scientific paradigm means that adaptive management recognises that not one approach is suited to all situations. In terms of elephants this means that, according to Interviewee B:

> *There will be some experimental culling. Initially culling was motivated. We don't want to just cull because there are too many elephants. We will first try to enclose boundaries of sensitive areas and water-holes. In Pafuri, where elephants are impacting too much - we will not just cull - we will try to create disturbances for example - throw crackers… we want to get them to leave the areas. Then we will evaluate how this will impact. There will be no mass culling.*

There has been evidence of a change in thought regarding the impact of elephant. Interviewee C stated:

> *We have different scenarios now. There is increasing evidence that we should cull only the males within very small areas. In Tanzania, elephants don't drop trees that they drop here. We're talking about the same species of trees. We don't know why. It might be the tannins, we don't know. We have incomplete knowledge systems.*

The evidence appears to indicate that the males are largely responsible for the loss of large trees. Previously, it was thought that elephants were destroying the landscape as there were too many of them. Interviewee C says that:

> *It appears that [the loss of] large trees is the only aspect that's changing in an alarming manner.*

Thus, there has been a change in paradigm regarding the damage which animals are causing, in part, based on scientific evidence. The other pertinent point is that it is when change occurs with speed "in an alarming manner" individuals become concerned. Perhaps this is due to a feeling of powerlessness or loss of control and the immediate response is "to manage it". Once people realise that change is a natural process, it will become easier for them to accept that change.

Thus, the management process has to be explained first. Interviewee B states:

We have to sell adaptive management and not culling.

Therefore, we need to convey that within the mind-set of adaptive management, as Interviewee C says:

We don't have to argue that you "never" or "always" do something.

The approach will depend on the individual situation but it is not possible to "sell" the idea, it would need to follow in integrated approach which leads through time and trust to mutual understanding. The effects of such an approach will then be evaluated and it will be decided whether or not to continue with that approach or change aspects thereof. Hence, the transient nature of the Elephant Management Plan should be imparted through the SANParks communication plan (2009)

Thus, one has to convey that "today's approaches and paradigms are themselves fallible" (Biggs et al 2008: 563). In addition, one has to communicate that the elephant management plan embraces the concept of moral pluralism and thus contradictory values have to be accommodated to an extent. The Communication Plan should incorporate the need to communicate the message that the Elephant Management Plan will evolve and possibly even appear contradictory, but that the longer-term vision should be the focus (Biggs et al 2008: 563). This evolution of the plan could not be ascertained as the communication plan was still not implemented in 2014. It should be carefully articulated in such a manner as to ensure that it is comprehensible to all stakeholders.

4.3.5 Changing education systems

There have been changes in environmental education in South Africa and more specifically in the SANparks too. It initially also followed a management style of "command and control" under the previous Interpretive Services Division. Schools would visit the parks where an Information Officer would 'educate' them. Information Officers were expected to go out and "educate the masses" too. It changed in some places such as Table Mountain where new thinking, of a newly established park with newly appointed staff, was to provide amenities for teachers to use in order to educate their learners. The approach was "let them teach" – they know how. In addition, a core outcome of the education system in South Africa is environmental education. Thus, educators are expected to incorporate it into their everyday teaching. Therefore, collaboration with educators, both primary and tertiary, could prove

valuable. An understanding of what prior knowledge and values individuals are imparted with could provide valuable information as to the starting point and content of communication to them. Educators can play a significant role in teaching learners about the conservation of elephants and as such, they could be assisted in this role by being kept up to date with the latest scientific knowledge, paradigms and debates and in providing a context within which to achieve core learning objectives.

4.3.6 Evaluation of change

Evaluation of change is key to the Communication Plan. There needs to be an evaluation of what perceptions and values are and how they have changed over the past few years. When dealing with specific groups of people, it is useful to understand their mental models and thus their usual response to change, so that one can understand how best to communicate change. In addition, once communication has taken place, an evaluation of a change in attitude has to take place in order to establish how effective the communication strategy has been. Interviewee C believes that:

> *When you start getting messages that mental models have changed, then you are making progress.*

He describes the process of change in the following manner:

Figure 4.1 Change process

Knowing ⟶ *Caring* ⟶ *Acting*

Therefore, by the actions of individuals, one can evaluate their change in attitude and thus the effectiveness of the communication strategy.

4.3.7 Summary

Change is a core theme in the study. Communication has to focus on apparent perceptions and work on changing those perceptions. In order to convey the rationale and motivation for the Elephant Management Plan, it is necessary to explain the adaptive management approach so that stakeholders are able to understand that the Elephant Management Plan stems from an informed decision. The notion that changes occur within science and how scientific paradigms have changed is important but it should not be

forgotten that the possibility of future change must be explained too. Individuals need to comprehend how elephants (and humans) fit into the ultimate goal of maintaining biodiversity. In addition, that values and acceptance of moral pluralism shape management plans. Individuals are to be brought to a point where they understand that there are no "absolutes" within the management plan. Thus it is impossible to say, for example, that we "always" do this or "never" do that. In addition there needs to be a more formal evaluation of what values and perceptions exist in order for the Communication Plan to be undertaken effectively. Existing communication structures such as education systems have changed too and the formulation of the Elephant Management Plan should involve engagement with such practitioners. Plans for the evaluation of the Communication Plan need to be put in place so that outcomes can be fed into this in order to make it adaptive.

4.4 ADAPTIVE COMMUNICATION

4.4.1 Introduction

The following section reveals findings surrounding the theme of communication and more specifically environmental management. The media is a somewhat obvious source of communication. The section focuses on findings and discussion thereon relating to Research Question 4 in that it looks at what has been done in the past and then makes recommendations for the future and thus also relates to findings and discussion thereof relating to Research Question 5.

4.4.2 Media

Interactions with SANParks and the media have changed somewhat over the years. Interviewee B commented that senior management:

> *has had a big impact on the media – before it was reactive – but now they are not shy to engage with organisations such as animal rights groups in the press.*

Interviewee B stated that the result has been a change in the amount of negative press:

> *Pro things weren't published before but now they are.*

Thus, a proactive approach towards the press has had positive outcomes and this is worth noting with regard to future environmental Communication Plans.

What has been difficult, however, is to give the press a definitive plan for the management of elephants owing to the complexity of the nature. Interviewee C's input in this regard is that:

> *There is no certainty and agreement about outcomes – the media wanted a one page summary and SANParks refused to do it. They offered to give four case histories*.

Interviewee B stated that engagement with the press would be different from that with other stakeholders but nothing has been put in place yet. She mentioned that the Communications Division would have to be involved.

4.4.3 A common approach

An aspect of communication that emerged is the need for a common approach towards communication. Some level of direction should be maintained so that a common message is sent out. It is difficult when there is such a vast organisation involved and the Elephant Management Plan is also open to personal interpretation. This is due, in part, to the complexity of the issue with which we are dealing. There has been misrepresentation of elephant policy right from senior level down to ranger level. These are two examples:

Interviewee B stated:

> *The Chief Executive asked how we can empower him to give this message which is disjunctive from the old one. We hadn't thought about it that way.*

Thus, policy level communication had been different in that it had not been kept up to date with what was being communicated within Kruger National Park. Thus, tighter science-management links need to be forged.

Interviewee A said that there has been misrepresentation by outside tour-guides. A consultant, working for SANParks, went on a game drive (which are run by people not employed by SANParks) and was told that elephants are "wiping out" the Kruger National Park and there will soon be mass culling.

This led to a discussion surrounding the use of outside companies for the running of game drives. Interviewee A stated that in his opinion they:

- exploit the Kruger National Park resources as they come into the park, bring in their own food – so there is no spinoff for the parks;
- ruin the tourism experience for others;
- have a disregard for animals' welfare in particular the spacial boundaries of animals, especially elephants, then wonder why they become aggressive;
- have been seen using their vehicles to harass elephants;
- need greater environmental education.

Regardless of *Interviewee A's* personal feelings about the outside tour guides, this is one of the few opportunities that tourists have to engage with so-called environmental experts and the concern raised about misinformation needs to be addressed. The question of using outside agencies for environmental education also raises issues. Owing to the overheads of the operators, such trips are extremely expensive. Hence, many people are excluded from the experience. In addition, they do not work for SANParks as such and may feel less compelled to espouse its values. There is no control over the amount or quality of training these guides receive and they interface directly with the public. It is also difficult to maintain control over the content or delivery of the Communication Plan when many of the people providing the message are not employees of SANParks.

4.4.4 Complexity

Complexity has been mentioned several times in this dissertation. However, how to convey this complexity to the public, without bombarding them with apparently conflicting messages, requires some thought and planning. When dealing with the public it is important to convey, says Interviewee C, that there are no:

> *optimal solutions – only partial – moral pluracy is important*.

Much of what was learnt about working with the public surrounding the issues of rivers, which came prior to the elephant debate, could be applied to the issue of elephants. Interviewee C and Interviewee B

state that processes which worked there, may work when dealing with the communication of the Elephant Management Plan. Thus, prior communication strategies serve to provide us with strategies for the future. In a study done in 2008, ten individual mental models were extracted from water resource users (Biggs et al 2008: v). The extraction of mental models provided insight into sustainability through showing how stakeholders and resources interacted (Biggs et al 2008: v). It also shed light as to how various stakeholders understood drivers of the system and the way in which the system functioned (Biggs et al 2008: vi). Interviewee C says that the issue of rivers was not as complex as that of elephants, however, he states, that dealing with the complexity surrounding the elephant issue is a higher order cognitive process (In terms of Maslow's Hierarchy of Needs).

Interviewee C believes that 'the man in the street' still needs an intuitive grasp of complexity. Thus we need to convey the various factors that are influencing decisions and to think carefully about how communicators will get this across. It will be a difficult process to explain that the issue of elephants is a complex and divergent situation in which there is not always agreement.

In addition, Interviewee C states that in his experience, it is better to explain complexity without using the word complex, as this causes confusion. Interestingly enough, he explains that:

> *Bushmen (San people) and farmers who work under adverse conditions – intuitively understand complexity, and thus intuitively understand adaptive management – without formal knowledge thereof.*

However, Interviewee C states that problems arise in trying to convey the idea of complexity when you are working in a big area where conditions vary, especially where homogeneity does not exist, or with thinking in corporate agencies. Both these factors are present in the Elephant Management Plan.

Backgrounds and direct relationships with elephants will affect individuals' perceptions. Thus, Interviewee C gives the example of a tourist to the park from Soweto who might say, "don't shoot elephants, they are part of nature" as opposed to someone from Bushbuck Ridge (a community surrounding the park) who says "open an abattoir". We are supposed to be a democratic country and individuals need to respect others' opinions. This has to be conveyed in the communication of the plan.

Interviewee C, in referring to the SANParks communication plan (2009), but based on his experience, states that:

The message must create an overlapping rationality or mental model. We need to understand complexity in order to tolerate others' perspectives.

Consequently, as is indicated previously with regard to mental models we need to narrow the message so that there is more of an overlapping rationale. He acknowledges that we need some diversity of opinion, but with elephants, because there are such diverse views we need more commonality. Thus, by focusing on establishing overlapping mental models we may find ways to create tolerance. When we start getting messages that mental models about elephants and their place within the system have changed via processes of feedback – then we're making progress. Thus, the aim is not the creation of a homogenous mental model regarding elephants, but a few, overlapping models would be the desired outcome.

4.4.5 The communication of science to people

A matter which materialised in the interviews is that the scientists are very aware that it is sometimes difficult to explain scientific concepts in a manner in which they are accessible to "the man in the street".

Interviewee B stated that:

"Science needs better communication. Nobody knows what we're doing. We need communication in a language that is understandable. We are bad communicators and because *we have had bad communication, people think we just wake up one morning and decide to kill 5000 elephants. It's because we haven't communicated properly."*

Consequently, communication would explain the scientific thinking and paradigms behind the Elephant Management Plan.

Interviewee A explained his approach when presenting the PowerPoint presentation on elephants. He begins by asking – "Do we have an elephant problem?" There are usually a variety of responses. This forms the basis for trying to explain the differences in opinion and values. His approach highlights that the PowerPoint presentation should just be one aspect of a variety of interventions. People learn in different ways and a visual mode is just one of those means.

Interviewee A stated that in all of the presentations there were differences of opinion. There was one exception when all the students stated emphatically that there was an elephant problem and that they should be culled. It turned out that the management approach that these students had been taught was based on the principles of one theorist only and they had adopted his theories unquestioningly. This highlights the importance in education of teaching people about complexity to avoid narrow-minded bigotry. It also highlights the importance of an understanding of the extent and content of the stakeholders' prior knowledge.

In adaptive management, when the paradigm changes, or new knowledge emerges, the management interventions change. Similarly, in communication, there must be room for change and the changes should be acknowledged. Thus, the approach is not "we have made a mistake" but should be, "we have better knowledge now and thus we are changing our approach". In addition, "in future we may have an even greater understanding and thus our approach will change again."

Similarly, different tools/methodologies need to be used for different stakeholders or groups of people. The process of finding out which one will work best will require an adaptive approach to communication and thus it is vital to obtain feedback and adapt the Communication Plan accordingly.

In terms of practicalities, Interviewee A states that in the process of attempting to convey the message, one has to take care that the PowerPoint presentation is not too long. Obviously, if it is too long one loses the attention of the stakeholders. His question was: "How does one shorten it and keep the message?" For example, one aspect critiqued in the proposed SANParks communication plan (2009) was that the focus was too much on biodiversity. Interviewee A said that that was also a concern conveyed by the Chief Executive at the meeting and presentation convened by him. Interviewee A said he was aware of that and that more needs to be included regarding damage causing animals – the presentation is too "bio-diversificated". He stated that the Elephant Management Plan unpacks all aspects in there. But how do you put all that into one slideshow? His answer is that ultimately they will have to have three or four different presentations – depending on the stakeholders. However, there is a need to look at other forms of awareness and education and create a "tool-box" of which the PowerPoint presentation is an element.

Interviewee A stated that the primary objective at this point in time (2009) is to empower SANParks' employees, Honorary Rangers and Guides with the correct information to impart to tourists. Thus, there is the notion that providing information or training regarding the issue of elephants (or any other environmental issues for that matter) is empowering. The implication, therefore, is that without the

knowledge they are disempowered which is suggestive of a state of helplessness. This points to the matter of urgency surrounding the issue of finalising the Communication Plan as soon as possible.

Interviewee A stated that the Knysna elephants were quite controversial and also need to be communicated but that he could not do it all. Thus, others will have to be trained (empowered) to convey the message.

He stated that although a lot of thought had gone into Human Elephant Conflict**,** it is virtually non-existent within Kruger National Park, there is one spot where they are quantifying a conflict profile in the Shangow district. (Hyenas are more of a problem.)

Interviewee B emphasised that the scope of the Communication Plan is enormous as other people within SANParks need to be trained too.

2010 was the Year of Biodiversity. Interviewee B stated that the Chief Executive wanted SANParks to play a significant role during that year (using the elephant issue) which was exciting but that there was not adequate staff, funds, or infrastructure to do so. "There is no science awareness officer and no good communication people. Thus, this communication opportunity cannot be utilised as a platform for the Communication Plan to be utilised to its full potential". This situation was still not rectified by 2014.

4.4.6 Communication with local communities and stakeholders

Interviewee C stated that the elephant issue is a good example of complexity in society. Thus, if we teach people about complexity then we're teaching tolerance, empathy, democracy, and so on, which are important life skills to be applied elsewhere. However, it could be an issue to be raised with the education authorities to include in the core value of environmental education.

Interviewee B emphasises that with local communities, your key engagement is different because it is a livelihood issue. They will not want to know about other management issues. This is an assumption based on the experiences mentioned by People and Conservation staff who work with these committees, but perhaps it is an assumption that needs to be tested first. However, where there is Human Elephant Conflict, these people will be mainly concerned with the elephant as a damage causing animal and how to address that. Thus, their main concerns will be: culling which will take pressure off fencing and the meat issue – which will feed their families.

Interviewee B stated that:

> *When we go to them [the local communities], there will be a different presentation – we will use the park forums and the People and Conservation staff to do that. It has not been addressed yet.*

The procedure which she outlined was that champions needed to be identified informally. These would be well-respected and well-connected, very influential members of stakeholder groups.

> *This will be an informal approach – these people will not be paid to make presentations. We will have to look at various echelons and engage with people who work at these levels. This will have to be done one-on–one.*

Thus, Interviewee B is emphasising the importance of 'networking' on such an issue. Perhaps staff who live within local communities or have knowledge thereof (such as Park Based staff) could assist with the identification of such stakeholders

When asked how they intend to engage with Animal Rights Groups, Interviewee B stated that it does not matter what you say to extreme groups such as the International Foundation for Animal Welfare. They will oppose and threaten because it is in this highly emotive and sensationalist manner that they receive their funding. She stated that:

> *Some moderate groups e.g. Animal Rights Activists – agree to disagree – initially we met about Rhino – but they came away with a better understanding of why we propose to manage elephants in this way – and they support us in some small way.*

Thus, there was an agreement to disagree which indicates a tolerance for others' views. Money is an issue. Interviewee B pointed out that the funding of Animal Rights groups depends on extremism; SANParks does not have the money and energy to oppose them. It is apparent that none of the key research questions have been addressed by this approach and as such, any attempt to create a platform for constructive communication will be unsuccessful. If no common understanding can be achieved then conflict is inevitable. Better understanding does not equate to common understanding.

4.4.7 Feedback

Feedback from implementers of the Communication Plan will have to be taken note of in order to determine how effective the outcomes of the Communication Plan are. This feedback would then be used to adapt the Communication Plan. In addition, Interviewee B said that it would be useful to:

> *evaluate media coverage both before and after the implementation of the outcomes of the Communication Plan Formulation Process. Newspapers sell on sensationalism. We'd need to evaluate negative and positive feedback.* Feedback would serve to create an adaptive communication approach and will provide insight into research question 1 of how environmental communication interventions could be used to change the perceptions of stakeholders with regard to elephant management.

4.5 CONCLUSION

The concerns expressed by key stakeholders, with regard to the SANParks communication plan (2009) were addressed in the unstructured interviews, the findings of which are detailed above. What emerged was that many, if not all, of the concerns had been considered, however, they had not been formalised into a structured plan. What had initially been outlined as a plan was by no means a comprehensive plan. Whilst the issues raised in the critique of the proposed management plan had been addressed by the scientists of scientific services, it had not been formulated into a structured plan as such. Essentially, for Communication Plan Formulation Processes and future communication endeavours to be successful, there has to be a fundamental restructuring of the communication system within the organisation which has clear channels for inter-communication. SANParks as a whole has to formulate a Communication Plan Formulation Process and there needs to be a Communication Plan for each park. This is crucial if a common approach to Communication Plan Formulation Processes is to be adopted. The scope of Communication Plan Formulation Processes is exceptionally broad and thus clear objectives should be drawn up and key stakeholders identified. The staff with whom the public interface the most as well as those who are to implement the Elephant Management Plan and outcomes of the Communication Plan Formation Process should be trained first. Formal structures need to be put in place for the successful identification of: stakeholders, values, perceptions, mental models, communicative approaches, elements of the communication toolbox, communication practitioners, funding and feedback. In essence, what is required is the collaborative formulation of an adaptive communicative plan that is structured and involves the creation of an understanding and tolerance of difference, complexity, adaptive management

and moral pluracy. In conjunction with this should be the creation of a clear Communication Plan Formulation Process within the organisation itself.

The following chapter offers a synthesis of the findings of this study; provides recommendations for future practice and research; and concludes the study.

CHAPTER 5

SYNTHESIS OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 SYNTHESIS OF SIGNIFICANT KEY FINDINGS

Significant themes emerged from the data gathering techniques which comprised a critique of the Communication Plan Formulation Process and the unstructured interviews. The analysis of the data allowed the emergence of three major themes. These were planning, participatory partnerships and awareness. In this written representation of the themes, they were explained as separate entities; however, the themes were not mutually exclusive and were interlinked, each having an effect on the other. In addition, because the findings and discussion thereof are organised thematically, synthesis of findings, conclusions and recommendations are not organised as separate entities in accordance with Research Questions formulated in Chapter 1 and for the most part, are not mutually exclusive. Nevertheless, an attempt has been made to link findings, conclusions and recommendations to the relevant Research Question, where possible.

- *Research Question 1: How might environmental communication interventions be used to change the perceptions of stakeholders with regard to elephant management?*

The Communication Plan will require more than "awareness" as it involves the changing of attitudes. For this to take place, the perception of the listener should be modified on three levels: "brain (intellectual understanding), heart (emotional affinity) and instinct or gut level (where the new attitude becomes 'right' and motivates action)" (De Lacy 2006: 283).

The adoption of new ideas does not occur by a mere process of telling and listening, as the 'mind-set' of an individual may "inhibit the acceptability of the information" (Abel, Ross and Walker 1998: 77). Thus, the Communication Plan should be an integral part of the participatory process whereby policy is formulated. Through this hopefully positive experience, researchers and stakeholders will be involved in the creation of an understanding through working together instead of through literature and training.

In order for effective environmental communication to occur, individuals do not need to adopt the mental models of others, but they do need to understand them. Where there is insufficient commonality between

people's construct systems to support communication these need to be created through common experiences. A merger of models, of various stakeholders, may enhance disparate or incongruent models and thus improve communication which ultimately improves the management of protected areas. Mental models cannot be discovered through speculation, which is what is happening with the Communication Plan Formulation Process at present, but will require research.

- *Research Question 2: Does the information which is to be communicated reflect decisions made by major participants in the "The Great Elephant Management Debate", 2004 to 2008?*

The research indicated that the information available is a representation of the decisions that were made by the major participants.

- *Research Question 3: Does the proposed Communication Plan consider the views of the broader social and political spectrum of interested and affected stakeholders on the Communication Plan as well as their views on elephant management?*

An indication that all stakeholders were engaged with throughout the process could not be confirmed. This is particularly with regard to representation from neighbouring communities bordering parks and to some extent the representation of Animal Rights Groups. Thus the answer to this question is no. Furthermore, there emerged from the data the desire and need to adapt the presentation in accordance with the stakeholders' requirements. This should be done with knowledge of the mental models of those individuals. Thus mental models need to be established as they are crucial to an understanding of how individuals "reason, express themselves, predict the future and act" (Dearborn and Simon, 1958 ; Kearney and Kaplan, 1997; Endsley, 1995 cited in Biggs et al 2008: v). The influence of mental models is pervasive on partnerships with stakeholders (Rogers et al 2003: 54).

Fundamental to the acceptance of the outcomes of Communication Plan Formulation Processes is the formation of partnerships with stakeholders and a participatory approach to the formation of policy. Ultimately, stakeholders may not agree with managerial decisions but if they agree that fair participatory process has been followed, then there is a commonality of understanding. The study showed that there was insufficient stakeholder representation and engagement in the communication process and as such any attempt at initiating a communication plan is unlikely to have success.

- *Research Question 4: How have environmental communication strategies been formulated in the past to facilitate changes in perceptions of stakeholders on environmental management issues?*

Scientists have expressed the need for their information to be communicated stating that they do not have the knowledge or manpower to do it. The formulation of communication plans within SANParks is haphazardly done. The importance of stakeholders and the participatory process is recognised and deemed valuable; however, it is often left in the hands of inexperienced practitioners such as students, volunteers and outsourced agencies such as tour operators and game drivers. This often results in the costly and time-consuming process of training and retraining these inexperienced practitioners by People and Conservation Officers as well as negates the possibility of such practitioners gaining experience over time which would improve their knowledge of communication strategies and practice and enable them to pass this knowledge on to others within the organisation.

- *Research Question 5: How might these communication strategies, such as the SANParks Environmental Education Strategy (2001) be adapted to ensure effective implementation of the proposed Communication Plan?*

The critique of the Communication Plan Formulation Process indicates the importance that the plan must be communicated to others in the organisation somehow. The SANParks communication plan (2009) was written for Scientific Services, without the inclusion of the People and Conservation and Communication Services divisions. These divisions at the time of writing (2014) have still not been engaged and yet will be expected to play a major role in the implementation of the plan, when or if it is implemented. The interviews indicated the necessity of including these divisions in future Communication Plan Formulation Processes.

When trying to influence the mental model of another, "the message must be about the intended listener's circumstances, fall within their range of concerns, and preferably share a common focus" (Abel et al 1998: 87). It is this common focus which needs to be established.

5.2 CONCLUSION

The implementation of the outcomes of the Communication Plan Formulation Process is situated within a myriad of changing factors. It involves the communication of a plan that is complex to stakeholders that are inherently complex too. Problems arose as land resources became scarcer. An increase in the populations of elephants within relatively small protected areas gave rise to the perception that elephants needed to be managed. The competition for space led to human elephant conflict as well as a visible impact on environmental areas. Initial management procedures took the form of management by intervention which meant culling and this approach was refined into a command and control form of management. Elephant culling was to last for almost thirty years.

The change of government in 1994 led to a fundamental shift in social values whereby democratic processes were placed at a premium. Thereafter, a shift in values regarding elephants became evident and a moratorium on culling was placed until greater knowledge regarding elephant management had been discovered. The ensuing years saw an increased process of public participation in which consultation was sought from a variety of stakeholders. Government, in particular the Minister of Environmental Affairs, was to become involved in the process. A change in management philosophy (to strategic adaptive management) viewed elephant management as a complex component of and subject to the flux of nature. It was recognised that each park containing elephants had a unique set of circumstances and the elephant management for each was to be adapted accordingly to suit these circumstances with the ultimate aim of the maintenance of biodiversity.

The management of elephants within the South African context is a complex issue. This fundamental complexity is what makes the communication thereof such a difficult issue. Stakeholders have perceptions about their positions within the world. They understand and interpret their daily events according to how they perceive their worlds and actions within it. These are the constructs of mental models. If SANParks wishes to change perceptions and attitudes, then they need to understand these mental models so that they can create overlaps in mental models in order to establish some sort of common focus. Thus, SANParks needs to find a manner in which the maintenance of biodiversity could form a component of other people's - or groups of people's - mental constructs. An understanding of mental models will facilitate the communication of change to stakeholders who may be resistant to the notion of change. The participatory involvement in the process of the Elephant Management Plan should facilitate the communication thereof. However, the scope of what is required of a Communication Plan is vast and in order for a Communication Plan to be effective, there needs to be an overhaul of the

communication strategies within the organisation to ensure accessibility and transparency for all stakeholders. The Communication Plan will need to focus on the change in the scientific paradigm which has led to a change in SANParks' management style to Strategic Adaptive Management. The elephant issue needs to be viewed as a component of a broader system and communicated as such.

5.3 RECOMMENDATIONS FOR THE IMPLEMENTATION OF THE COMMUNICATION PLAN

Several recommendations were made in Chapter Four, Section 4.5.The essence of these recommendations is outlined below and the findings are an extension of the suggestions for communication that were formulated in the previous chapter. They include the following:

- Interpretation needs to be improved as a component of communication;
- Communication Plans should co-exist with management plans;
- The plan should be led from above, thus requires "buy in" from senior management;
- The effective implementation of the outcomes of the Communication Plan Formulation Process and future Communication Plans, is dependent on a shift in thinking regarding the significance of communication and a prioritising thereof;
- Communication of the Elephant Management Plan should fall under the auspices of one department in collaboration with other departments;
- Science-management in SANParks links also need to be improved;
- The capacity and skills for effective internal and external use of communication needs to be developed;
- A skills audit of interpretation practitioners who would require training in order to communicate the plan needs to be conducted and those who could be trained to do so should be identified;
- There needs to be a restructuring of inter-departmental communication channels, both within SANParks and between and within government departments;
- There is a requirement for competent communication officers to be available to deliver the programme;
- It should be recognised that the Communication Plan is an extension of the participatory process with stakeholders;
- It should be recognised that there exists a large group of 'unknown' stakeholders and an attempt should be made to incorporate them into the Communication Plan Formulation Process;

- A participatory approach with stakeholders should be developed for the Communication Plan Formulation Process to encourage their collaboration in protected area management;
- It should be recognised that communication must be research based, and linked to protected area objectives;
- Communication tools should be used to promote environmental education with a strong emphasis on promoting the sustainable use of "biodiversity."
- The Communication Plan should be in keeping with philosophies of SANParks, Department of Environmental Affairs and other international conservation organisations;
- The proposed communication plan should be part of an on-going (adaptive) communication process;
- Good Communication Plans should allow for change at all levels;
- It is necessary for a more *structured approach* to take place on the following levels:
    - Identification of clear communication objectives
    - Identification of key participants in the Communication Plan Formulation Process.
    - Identification of the stakeholders with whom the formulated communication plan will be shared
    - Identification of values
    - Identification of mental-models
    - Identification of means by which to create overlapping mental-models
    - Identification of a clear process in delivery of the plan
    - Evaluation of the process

- Communication is to be monitored for effectiveness;
- Communication is to be evaluated for impact;
- The method of communication requires careful consideration;
- Engagement with educational authorities and practitioners should take place to improve understanding of and assist them to remain current with scientific mental models;
- Attempt to understand current thought in education so as to improve practice;
- With regard to the media:
    - Engage with the media in a proactive and positive manner;
    - Make use of new and interactive media;
    - Use the media to engage with global community members who are interested in environmental issues;

- Expand existing forms of media;

5.4 LIMITATIONS OF THE STUDY

This case study was limited to a relatively small sample of interviewees and it is not intended that the findings be generalised. In addition, because the outcomes of the Communication Plan Formulation Process will be implemented by SANParks, the study has a particularly SANParks orientation. However, the intention is to foster awareness among protected area managers regarding issues of communication via thematic analyses of issues which they might not have previously considered. The study is not replicable in its exact form but it is hoped that the issues raised will be able to inform practice and that the methods used could be adapted in other research contexts.

5.5 RECOMMENDATIONS FOR FUTURE RESEARCH

Research into this field of environmental communication is required to ensure that it stays relevant to the challenges faced by managers of protected areas. The following recommendations for future research are made:

- An understanding of mental models amongst stakeholders within the realm of elephant management;
- The effectiveness of different communication media, interpretation methods, interventions in changing mental models;
- An investigation of the effectiveness of the outcomes of the Communication Plan, once it has been implemented, using a wide range of interviewees;
- Studies on the extent to which the presentations alter the mental models of stakeholders;
- Comparative studies of similar initiatives within other organisations both locally and internationally;
- The effectiveness of communication as a management tool for addressing challenges in biodiversity conservation for example, damage causing animals.

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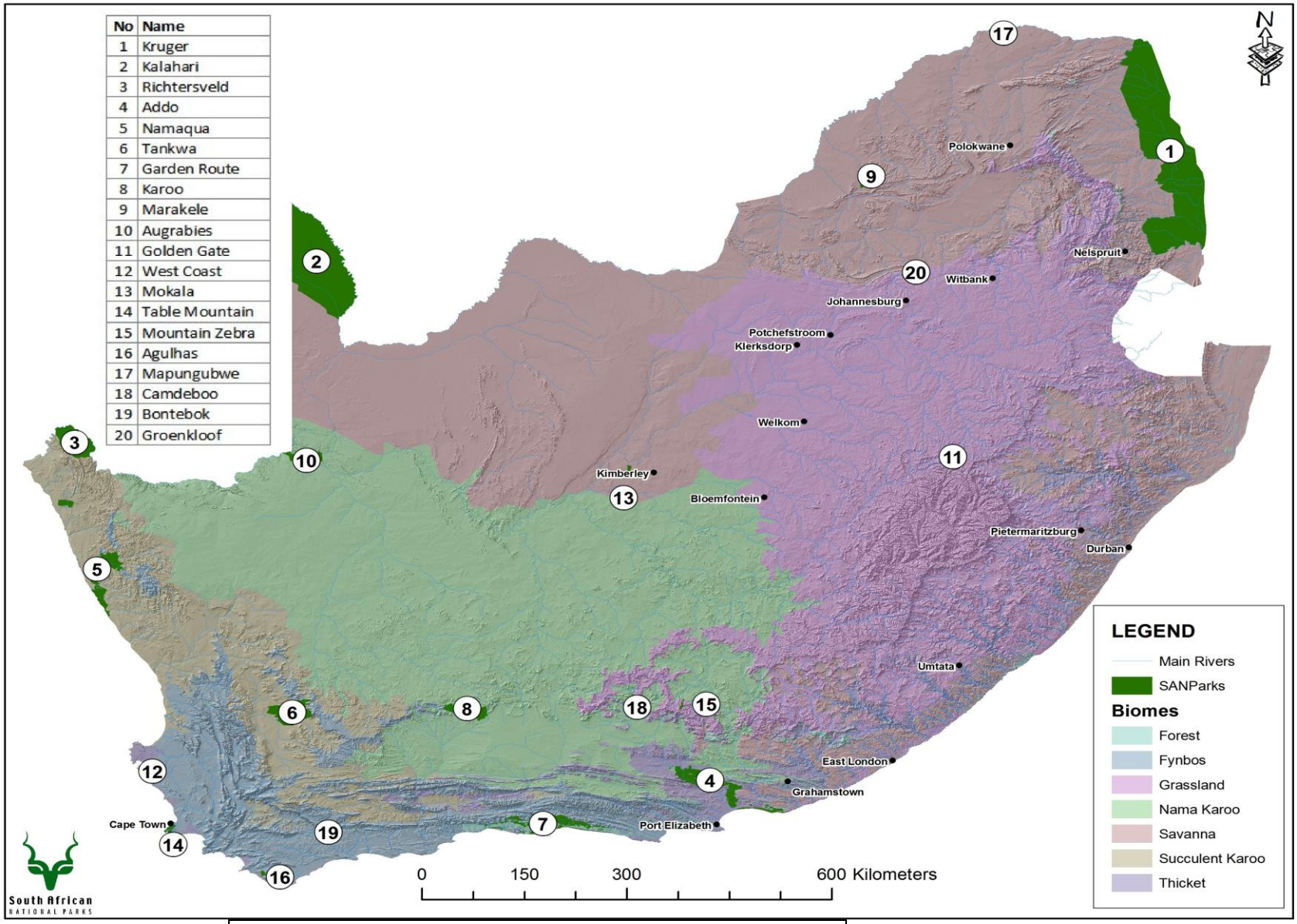

National Parks with elephant populations include:

No 1. Kruger; No 4. Addo; No 7. Garden Route; No 9. Marakele; No. 17 Mapungubwe

APPENDIX 2

EXAMPLES OF QUESTIONS:

1. Interviewees name\.....date…….
2. Your position in the Organisation and relevance of this position to the Communication Plan Formulation Process?
3. What is your involvement in Elephant Management?
4. What do you know of the Elephant Management procedures thus far?
5. To what extent has the Elephant Management process been in keeping with SANParks policy?
6. Has the process been controversial in any way?
7. What is your opinion of the way in which communication on elephant management has taken place thus far?
8. Was this communication process successful? If so, why? If not, why?
9. How do you think the process should evolve in future?
10. Who do you think should be the persons involved in the dissemination of information?
11. To what extent do you think stakeholders should be involved in the formulation of a Communication Plan on Elephant Management?
12. Who do you think these stakeholders should be?
13. How has the implementation of similar plans involving problem animals taken place in the past?