

**A critical assessment of the Namibian protected area
Management Effectiveness Tracking Tool**

By

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DECLARATION

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Abstract

Protected Areas (PAs) are one of the most effective mechanisms for biodiversity conservation. They are found in almost every country and have been adopted by the international community through various conventions and agreements. However setting aside areas as protected areas does not automatically qualify them to be effectively managed. Research around the world has shown that some PAs are not well managed due to different reasons in different parts of the world. Therefore it is important to determine management effectiveness of PAs to ascertain whether they are managed according to the objectives for which they were created.

The Management Effectiveness Tracking Tool (METT) is one of the tools developed to evaluate management effectiveness of PAs around the world. The tool has been implemented in a number of countries including Namibia where it has been modified into the Namibia Management Effectiveness Tracking Tool (NAMETT) through the United Nations Development Programme and Global Environment Facility's Strengthening the Protected Areas Network (SPAN) project. However the effectiveness of this tool in providing necessary information about PA management effectiveness was not ascertained before implementation. The Namibian PA management authorities on the other hand need a tool for determining management effectiveness of PAs for management decision-making and as part of their obligations through international conventions which they signed.

The aim of this research study was to analyse and assess the NAMETT as a management effectiveness tool for PAs in Namibia, by looking at the strength and weakness of the tool. This will inform whether its worthwhile adopting the tool as a standard management effectiveness evaluation tool for Namibia's PAs. To accomplish this NAMETT assessment data obtained from the two NAMETT assessments undertaken by SPAN project was analysed. Furthermore different qualitative techniques were used including a semi-structured questionnaire as part of a case study approach. A comprehensive literature review was undertaken in the process and links to students undertaking similar research projects and professionals in the PA management industry were established and complemented the research data.

Data obtained from NAMETT assessment undertaken by SPAN project appear to provide a picture of the different levels of management effectiveness in Namibia's PAs suggesting the tool could be adopted for management effectiveness of Namibia's PAs. Research data and information gathered shows that at the moment there is no management effectiveness tracking tool in Namibia. PA management authorities lack the necessary management effectiveness information for decision making. Currently only reports, the Incident Book Monitoring System (IBMS) and park inspections are the only sources of information for PA management authorities in Namibia. These tools are inadequate as they do not provide information at a strategic level which can help show trends and weakness and strength in PA management. Therefore a METT tool based on the World Commission on Protected Area's Framework of which Namibia is a signatory is warranted.

The NAMETT provides good information but lacks a link or section that should highlight the health of the ecosystem or provide information on biodiversity. Furthermore the tool has shortfalls in terms of implementation training and guidelines to assist implementers. Despite this, stakeholders who participated in the research project indicated that the tool should be adopted as the standard management effectiveness tool for PAs in Namibia. This however should come with alignment of the tool to local conditions and development of implementation guidelines as well as linkage to other form of PA management tools such as game counts and the IBMS.

There is lack of robust management system for PAs in Namibia which will consolidate implementation of NAMETT. Such a system should involve planning, implementation, reporting and adaptive management. Therefore if NAMETT is to be adopted there is a need for such a system to be in place to enable data and information from the different tools to be able to complement each other for informed decision making about PA management.

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ACRONYMS

AHGP	/Ai -/Ais Hotsprings Game Park
ARTP	/Ai -/Ais Richtersveld Transfrontier Park
CBD	Convention on Biological Diversity
DPWM	Department of Parks and Wildlife Management
GEF	Global Environment Facility
IBMS	Incident Book Monitoring System
IUCN	International Union for the Conservation of Nature
MET	Ministry of Environment and Tourism
METT	Management Effectiveness Tracking Tool
NAMETT	Namibia Management Effectiveness Tracking Tool
NCO	Nature Conservation Ordinance
NGO	Non-Governmental Organization
PA	Protected Area
PoWPA	Programme of Work on Protected Areas
RAPPAM	Rapid Assessment and Prioritisation of Protected Area Management
SNP	Sperrgebiet National Park
SPAN	Strengthening the Protected Area Network
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WCPA	World Commission on Protected Areas

Chapter 1: Introduction

The diversity of life on earth, both between and within species, and together with their habitats, is called “biodiversity” (Burke, 2006). Biodiversity keeps the world alive and healthy by producing air and fertile soils, decomposition of waste and dead materials, clean water and food. The better the level of health of the world’s biodiversity the more stable and productive the planet. However the loss of biodiversity through unsustainable practices is one of the biggest threats facing the planet. Populations and species are being eliminated at an accelerated rate leading to high rate of species extinctions. Common threats to biodiversity include:

- global climate change
- invasive alien species
- over-exploitation of natural resources
- unregulated tourism and recreation
- increase in human population
- uncontrolled bush fires
- uncontrolled mining and prospecting

These activities or events have negative effects on biodiversity the result of which leads to reduced stability and productivity of the planet to be able to support the human population.

A number of measures have been adopted around the world to maintain biodiversity conservation and protect habitats and species from unsustainable land uses and exploitation. Among the most recognized of these measures is the setting aside of areas of land, sea or fresh water as protected areas (PAs). A PA is generally defined as:

“An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources, managed through legal or other effective means”

(Hockings and Phillips, 1999:5)

PAs fulfill the global social objective of protecting ecosystems and conserving biological diversity, while offering opportunities for social and economic benefits. The importance of PAs is further reflected in their widely accepted role as an indicator for global targets and environmental assessments. PAs are recognized as important in maintaining biological diversity core 'units' for in-situ conservation. They are also indicators for success in achieving the Millennium Development Goal 7 (ensuring environmental sustainability), Target 9 (integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources) (Chape, et al 2005).

The world's PAs number nearly 114 000 and cover almost 20 million square kilometers (Ervin, 2007a). This shows that nations around the world have reserved over 12% of the world's land surface and over 0.5% of marine system as protected areas (Graeme et al 2006). They can be found in virtually every country of the world (Terborgh and Van Schaik 2002). Much of the growth in PAs has occurred over the last 30 years which is driven by widespread recognition of their many environmental benefits such as sequestering carbon, driving rural economies and providing refugia to an array of species (Ervin, 2007b).

Given the importance of PAs to national and global biodiversity conservation, and the social and economic objectives, it is important that they achieve their objectives as effectively as possible. PAs should be considered effective if they maintain biodiversity, abate threats, achieves management objectives, and contribute to local livelihoods (Ervin, 2003).

Therefore it is warranted for each country to undertake management effectiveness of its PAs to determine if they are achieving the objectives they are created for. This is also in line with Programme Element 4 of the Programme of Work on Protected Areas (PoWPA) which was formed at the 7th Convention on Biological Diversity (CBD) Conference of the Parties in 2004. A total of 188 countries are signatories to the CBD (Stolton, 2008). Namibia ratified the CBD in 1997 and thus forms part of the PoWPAs.

PAs are institutionalized within conservation agencies of the different countries and forms part of land use planning. Furthermore they are formed through relevant laws and legislation that guides operation and management of such areas. For example in Namibia protection of biodiversity is enshrined in the Namibian Constitution which states in Article 95 (1):

The state shall actively promote and maintain the welfare of the people by adopting inter alia, policies aimed at: (1) maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future.

The constitution paves the way for the Parks and Wildlife Management Bill (currently being finalized into an Act of Parliament) which will guide PA management and regulations and various other legislation aimed at management and sustainable utilization of Namibia's natural resources.

There are three categories of PAs in Namibia, state PAs, communal conservancies and private reserves. These represent different conservation management approaches. State Protected Areas (PAs) are managed by the state mainly for biodiversity conservation, in exception of a few recreation resorts most of these PAs follow in situ conservation management style. They provide refuge for endangered and threatened species while also providing breeding sanctuary for rare and endemic species. There are 21 national state PAs in Namibia, comprising approximately 18% of the country's land surface (114, 000 km²) (MET, 2006). These national PAs consist of 17 game parks, 2 nature reserves proclaimed under the Nature Conservation Ordinance (NCO No 4 of 1975) and 2 tourist recreation areas proclaimed under the Accommodation Establishments and Tourism Ordinance (No 20, 1973) (MET, 2006).

Apart from providing refuge to species, Namibia's PAs contribute greatly to the economy through tourism. Nature-based tourism activities are the top reasons why visitors come to Namibia. Research reveals that some 73% of visitors to Namibia are nature-based tourists and that they account for 65-75% of all holiday expenditures (Turpie et al, 2004). This same study revealed that PAs are worth N\$245 million (about US\$40 million) in terms of wildlife use (Turpie et al 2004). Therefore the national PA network in Namibia is not only a cornerstone of the nation's efforts to conserve biodiversity but it also has potential to become an engine for regional and national economic development. It generates direct income through park tourism and effectively underpins a large proportion of the economic values generated by tourism outside parks. Furthermore Namibia's PA network has acted as an important source for wildlife stocks outside parks, through both natural movement of wildlife and translocations (Brown et al, 2005).

Turpie et al (2005) place the total economic value of PAs in three categories:

- **Direct use value:** These are generated by the consumptive and non-consumptive use of the park resources. In Namibia's case most of these values are non-consumptive. Consumptive values include hunting concessions within protected areas and the associated tourism value generated by operation of these concessions. In addition live game is sold by the state from PAs to private game farms and reserves as well as to communal conservancies through translocation programmes. Game meat is also provided during festivals, and also as part of drought relief programmes.
- **Indirect Use Value:** These are indirect benefits provided by PAs. These benefits are derived from ecosystem functioning. The ecosystem provides a wide range of services. Biodiversity in protected areas contributes to an extent to carbon sequestration, water supply and regulation, and providing refugia and cultural values. However its difficult to quantify indirect use values in physical or monetary terms due to the fact that the services provided have no market value.
- **Non-Use value:** These include option and existence value. Option value is the value of retaining the option to use resources in future, and is often associated with the genetic diversity of PAs, the future potential value which is unknown. The existence value is the value that society derives from knowing that the biodiversity in PAs is preserved. These values maybe measured to a certain extent and are often larger than direct use values. Some estimates of these values for PAs in Namibia have been made. Research conducted found that tourists in Namibia are willing to pay N\$104 per person towards wildlife conservation, amounting to at least N\$28.7 million. International willingness to pay is also is also reflected in donor contributions to the wildlife sector, which amounted to some N\$54 million in 2003/4.

(Turpie et al, 2005:3)

This clearly demonstrates how valuable Namibia's PAs are to the current and future generation. With increased tourism and expansion of the PA network the value of Namibia's PAs is poised to increase.

Therefore PAs are an important heritage for Namibia and needs to be managed in a way that they achieve their objectives to further consolidate conservation of biodiversity and tourism development. It is on this basis that a research on the status of management effectiveness in Namibia's PAs is warranted to ascertain the current status and recommend steps that can assist in putting tools in place for effective management of PAs.

1.1 The Problem Statement

To maximize the potential of PAs, and to improve management processes, it is important to understand the strengths and weaknesses of their management and the threats that they face. Performance and management effectiveness of Protected Areas (PAs) require considerable amount of detailed and comparable data that is seldom available at PA or national level.

There are variety of reasons why management effectiveness of PAs is needed, foremost of which is accountability especially for state PAs whose management should be accountable to civil society. Management effectiveness results are needed to assist funding bodies, policy makers and conservation lobbyists to set priorities; or to promote better management policies and practices by management agencies (Hockings et al, 2006). Furthermore local communities and other stakeholders including civil society need to establish how far their interests are being taken into account in the management of PAs.

A number of tools have been developed around the world to monitor management effectiveness of PAs. These are discussed in details in Chapter 2. The Management Effectiveness Tracking Tool (METT) developed by the World Bank and World Wide Fund (WWF) for nature is one the tools implemented at individual PA site level. In 2004 METT was modified into a Namibian version called Namibia Management Effectiveness Tracking Tool (NAMETT) to suit local conditions. NAMETT has been implemented twice in 16 parks (18 park stations) of Namibia's 20 parks (2004 and 2009) as part of the United Nation's Development Programme (UNDP) and Global Environment Facility (GEF) Strengthening the

Protected Area Network (SPAN) Project of the Ministry of Environment and Tourism (MET). METT is mandatory for all GEF protected area projects around the world. By 2007 it was already implemented at 331 sites in 51 countries within Africa, Asia, Europe, and Latin America, covering a total area of over 50 million hectares (Dudley et al, 2007). Apart from NAMETT which has been implemented as part of GEF/UNDP SPAN Project, no other nationally recognized tool is used for management effectiveness evaluation of PAs.

However NAMETT is a new tool in PA management in Namibia and it presents both opportunity and constraint. Opportunity as a new management effectiveness tool that could provide reliable data and information over time that can help establish trends and assist decision makers. Constraint due to the fact that most PA management agencies in Namibia are not familiar with the tool and modalities of tool implementation.

Therefore it is wise to undertake evaluation of the tool to look at the different aspects of tool implementation and opportunity for modification and alignment of the tool to local conditions.

But how are PA management agencies and other stakeholder's supposed to know that PAs are achieving their objectives? There is a need to measure management effectiveness of the PAs through evaluation. Management effectiveness evaluation measures the degree to which a PA is protecting its values and achieving its goals and objectives. The overall aim is to use the evaluation result to be able to improve management (Lockwood et al, 2006).

1.2 Aim

The main aim of the research project is:

“To critically analyse and assess NAMETT as a management effectiveness tool for PAs in Namibia. Establish its strengths and weakness and opportunity for integration into Namibia’s PA management framework as a standard management effectiveness tool”

The purpose therefore is to evaluate the strengths and weaknesses of NAMETT and establish opportunity for potential integration of the tool in Namibia’s PA management system.

Furthermore the research will provide information on the general trend of management effectiveness in Namibia's PAs. This will mainly draw on the two NAMETT assessments conducted by the SPAN Project. Recent developments and progress made through the SPAN Project to Namibia's PA management effectiveness will also be discussed.

1.3 Research Objectives

This study has four objectives:

1. To identify shortcomings of current PA management practices and management effectiveness evaluation methods in Namibia.
2. To analyze the strengths and weaknesses of the NAMETT for Namibian PAs
3. To evaluate how the NAMETT could be incorporated into management of protected areas as a management effectiveness measure,
4. To identify mechanisms that can enhance its usefulness and contribution to decision making in PA management

1.4 Research methodology

Different methods were employed in conducting research for this master's project. Firstly literature on management effectiveness evaluation in PAs was gathered and reviewed. Secondly NAMETT data collected through the SPAN Project in 2004 and 2009 respectively was reviewed and analysed. Permission was obtained from the SPAN Project for use of these data. Thirdly semi-structured and unstructured interviews were held with PA management practitioners in Namibia. An open-ended questionnaire was administered to get people's views on NAMETT and management effectiveness in general. The NAMETT tool was also analysed to look at the different aspects of the tool including the wording of some of the questions on the tool and opportunity for modification of some of these.

For the NAMETT assessment form, 16 of the 20 National Parks and Game Parks (18 park stations) were assessed in 2004 and 2009 as part of the UNDP-GEF SPAN Project. Data was officially requested from the SPAN Project and obtained for analysis and interpretation as

part of this study. A qualitative questionnaire was developed as part of the research tools for data gathering for the purposes of this research project. A draft of the questionnaire was sent to individuals working in the PA management industry in Namibia and abroad for comments. A revised draft with comments obtained incorporated was submitted to Dr. Mark Dent supervisor for the research project at the University of KwaZulu-Natal for comments. Comments obtained were incorporated and a final draft was submitted for approval. Twelve individuals working in the PA management sector were interviewed using the qualitative questionnaire. The interviewees were deliberately identified by virtue of their positions in the PA management sector in Namibia and having participated in the NAMETT implementation in Namibia in either 2004 or 2009. Furthermore as part of the masters' research project semi-structured and informal discussions were held with professionals working in PA management in Namibia. The NAMETT tool self-assessment exercise was undertaken with staff members who had participated in the SPAN NAMETT assessment. With the self-assessment exercise the same staff members who had been interviewed using the tool by SPAN were instead this time given the assessment forms to fill on their own without being interviewed. The NAMETT tool self-assessment exercise was also administered across ranks within the same park to determine whether there was a difference in the responses. Furthermore the regional manager for Southern Namibia Parks was given NAMETT assessment forms to assess each of the individual parks under his mandate for comparison with scores obtained from the individual staff members.

1.5 Limitations and constraints of the research project

The study based most of the research focus on the NAMETT tool used in Namibia and drew lessons learnt and limitations and opportunities of using the tool solely on this data. Case studies of METT implementation in other countries could not be obtained. This could have presented better assessment of the tool looking at specific case studies and doing comparison. The fact that the self-assessment exercise was done only in the Southern Parks also limits comparison across PAs in Namibia as such it is not easy to extrapolate the data gathered to other PAs around Namibia.

1.6 Sequence of chapters

The structure of this dissertation consists of six chapters summarized in this section. Chapter 1 starts by describing the purpose of having PAs around the world and the need for effective management of these PAs. This is narrowed down to the situation in Namibia with regard to PAs and their contribution to the national economy. The chapter further sets out the problem statement, aim and the research objectives of the study. The research methodology used is briefly outlined as well as the constraints and shortcoming of the research project.

Chapter 2 sets a review of the literature on the subject. The chapter starts by discussing the need for management effectiveness of PAs, by laying down the threats and constraints to effective PA management. Furthermore management effectiveness of PAs is defined and the approaches to PA management effectiveness are outlined. International obligation of countries for management effectiveness evaluation of PAs through the World Commission on Protected Areas (WCPAs) and the Programme of Work on Protected Areas (PoWPA) of the Convention on Biological Diversity are discussed. The WCPA's framework on PA management effectiveness is explored and each component of the framework is discussed in detail. The chapter ends with a discussion on the different management effectiveness tools including the Management Effectiveness Tracking Tool (METT) and how it has been modified in Namibia and changed into the Namibia Management Effectiveness Tracking Tool (NAMETT).

The chapter on methods follows and discusses the different methodologies employed in collecting data and information for the purposes of this dissertation project. The study area is described and the NAMETT tool used in collection of data is discussed in detail. The qualitative questionnaire, self-assessment exercise, and data analysis are also discussed.

Chapter 4 presents the interpretation of the results. It begins with discussion of NAMETT results from 2004 and 2009 assessments carried out by the SPAN Project. Comparisons of scores from NAMETT assessment and self-assessment exercise is presented. The NAMETT tool is analysed by looking at the tools strengths and weaknesses. Next is the current PA management effectiveness evaluation tools used in Namibia. An interpretation of the

understanding of the need for management effectiveness of PAs as well as the perceptions of stakeholders is presented. The chapter ends with a look at the potential for NAMETT to be adopted as the standard PA management effectiveness evaluation tool in Namibia.

Discussion of results is presented in Chapter 5. The chapter discusses results of NAMETT assessments undertaken by SPAN and looks at the issues that need intervention from PA management authorities in Namibia. This is followed by discussion on the strengths and weaknesses of the tool itself. Finally the chapter discusses the advantages and disadvantages of potential integration of NAMETT as the standard management effectiveness tool for Namibia's PAs.

Chapter 6 begins with conclusions drawn from the results and discussion of the data and summarizes key findings discussed in chapter 5. Recommendations on the use of the NAMETT tool and way forward with regard to management effectiveness of PAs are presented.

Chapter 2: Literature Review

2.1 Setting the scene

Protected Areas (PAs) provide the most well known mechanism of biodiversity conservation and protection of species. They contribute to a country's social and economic development through promotion of sustainable use of renewable natural resources, tourism and recreational activities (Hockings and Phillips, 1999). PAs are among the most efficient and cost effective ways of conserving biodiversity (Balmford et al, 1995). They are generally considered the *sine qua non* (end product) of an effective strategy for conserving biodiversity (Sole' and Terborgh, 1999).

However for PAs to deliver the expected services and benefits they need to be effectively managed. A survey of about 197 national parks in Russia found gaps in infrastructure, management planning, and staffing (Tyrlshkin et al, 2003). In KwaZulu-Natal province of South Africa a survey revealed major gaps in data collection, park layout and design, field equipment, and research (Goodman 2003a, 2003b). The rate of habitat loss and fragmentation in Wolong's Nature Reserve, established in 1975 as one of China's premier panda parks at one point increased to levels similar to or higher than those in areas outside the park, rendering many areas in the park unsuitable as panda habitat (Liu et al, 2001).

In Namibia the government has made great strides in securing PAs and enhancing PA management for biodiversity conservation achieving 18% coverage of land surface within its PA system (MET, 2006). However the baseline is characterized by sub-optimal levels of management stemming from a number of barriers to PA management and administration. Some of these barriers include:

- Inadequate enabling policy
- Weak human and institutional capacity
- Lack of infrastructure and equipments
- Poor integration of PAs and landscape management
- Incomplete PA network coverage
- Undervaluation of PAs and insufficient PA system financing

MET (2006)

Furthermore a number of threats exist in Namibia. The predominant threats to biodiversity are alteration of habitats and unsustainable harvesting of natural resources. Eight main threats presents challenges to biodiversity conservation:

“

- Negative visitor impacts on fragile ecosystem e.g. off-road driving
- Small size and isolation of some of the PAs, leading to fragmentation of wildlife populations
- Illegal hunting of wild animals for food and for parts
- Invasive alien species
- Uncontrolled bush fires
- Uncontrolled mining and prospecting
- Illegal harvesting of plants (for subsistence and for the export market) and
- Over extraction of water –the availability of water tends to restrict animal distributions, concentrating populations of water dependent species in areas adjacent to waterholes which leads to land degradation”

MET (2006:10)

These threats stem from a combination of many factors including an inadequate and unharmonised legislative framework, lack of management plans or implementation thereof, lack of bio-regional conservation strategies, uncoordinated land development planning and a financial and human resource deficit for effective mitigation activities (MET, 2006).

2.2 The need for management effectiveness of PAs

It is important for governments, organizations and park agencies to be able to know how well PAs are managed in order for strategies where possible to be implemented to improve performance and also for adaptive management. Furthermore assessing PA management effectiveness is a key step in developing a protected area system masterplan. Such assessments can also:

“

- Reveal gaps in a protected area management system
- Guide protected area strategy and capacity development
- Enable adaptive management

- Guide effective resource allocation
- Promote accountability and transparency among key stakeholders and
- Build support for protected area management”

(ConserveOnline, 2007:1)

Funding bodies and policy makers use management effectiveness evaluation results to highlight problems and to set priorities while managers can use the result to improve their performance or report on achievements to senior managers, the government or external stakeholders. Communities, stakeholders and civil society need to establish how far their interests are being taken into account (Hockings et al, 2006). The process of management effectiveness evaluation can also deliver a number of benefits. For example improved communication and cooperation between managers and other stakeholders can be enhanced by evaluation. Previous evaluation have revealed that many managers have indicated that the main benefits to them come during the assessment process than from formal report writing (Hockings et al, 2006).

There is a need for management effectiveness evaluation to be seen in a positive light by staff of PA agencies and by stakeholders. Hockings (2006) indicates that:

“ Evaluation should be undertaken in a way that it portrays itself as a tool to assist managers in their work and not as a system for watching and punishing managers for inadequate performance. Furthermore evaluation must be used positively to support managers and be seen as a normal part of the process of management.”

(Hockings et al, 2006:5)

Evaluation of PAs should be linked to monitoring and planning. This provides the basis for assessing whether goals, objectives and strategies specified in organizational plans such as park management plans and strategic plans are being achieved. Management effectiveness evaluation can be an effective tool to ensure that management plans do not become shelf documents which are not used in the day to day management process, availability of

management effectiveness evaluation information can be particularly be important at times of formal review of plans (Hockings et al, 2006).

Information from management effectiveness evaluation of PAs can be useful for planning processes at different levels:

“

- System wide planning
- Protected area management planning
- Operational planning
- Project planning”

(Hockings et al, 2006:6)

Most PAs around the world are underfunded or experiences shortages of resources. Management effectiveness evaluation of PAs can go a long way in assisting PA managers in developing proposals for additional resources. Such proposals are more likely to win support when they can be justified on the basis of evaluation results (Hockings et al, 2006). Furthermore evaluation results can help in allocation of funds across a PA network.

There has been considerable recent interest in developing evaluation systems for management effectiveness for PAs (Child, 2004). Some PAs in South Africa are adopting the ISO 14001 Environmental Management Systems approaches to PA planning and management that incorporate ongoing evaluation at the PA level (Child, 2004). However there are no evaluation systems in place applied at national or regional levels within Africa (Child, 2004). Performance and management effectiveness tracking of PAs require considerable amount of detailed and comparable data that is seldom available at PA or national level. There is therefore a need for PA institutions and governments to introduce standard systems at national level that will assist in evaluation of management effectiveness and tracking of progress in PAs for effective management.

2.3 International obligation for management effectiveness evaluation

The Convention on Biological Diversity (CBD) was drawn up at the 1992 Earth Summit in Rio De Janeiro, Brazil. The Convention is aimed at conserving global biodiversity (at genetic, species and ecosystem level) and ensuring that its benefits are distributed equitably amongst the world’s people and is signed by 188 member countries (Stolton, 2008). At the 2004 CBD Conference of the Parties the focus was on the role that PAs can play in achieving the aims set out by the CBD, and as a result the Programme of Work on Protected Areas (PoWPA) was formulated (Stolton, 2008). PoWPA aims to establish a comprehensive, effectively managed and ecologically representative national systems of PAs for the conservation of biological diversity (Stolton, 2008). The PoWPA has four elements that directly divide into nine themes:

Table 1: The four elements of the PoWPA (Stolton, 2008:9)

“Programme element 1:	Programme element 2:	Programme element 3:	Programme element 4:
Direct actions for planning, selecting, establishing, strengthening and managing protected area systems and sites by: <ol style="list-style-type: none"> 1. Building protected area networks and the ecosystem approach 2. Site based protected area planning and management, and 3. Addressing threats to PAs 	Governance, participation, equity and benefit sharing by: <ol style="list-style-type: none"> 1. Improving the social benefits of PAs 	Enabling activities such as: <ol style="list-style-type: none"> 1. Creating an enabling policy environment 2. Capacity building; and ensuring financial stability 	Standards, assessment, and monitoring, including: <ol style="list-style-type: none"> 1. Developing management standards and effective management; and 2. Using science”

This illustrates that management effectiveness evaluation of PAs is important as provision has been made under Programme 4 for development tools and standards for management effectiveness evaluation. The PoWPA is the first major inter-governmental commitment that refers to management effectiveness of PAs and sets targets for assessing effectiveness (Stolton, 2008). Box 1 below outlines the PoWPA goal on management effectiveness, target and suggested activities.

Goal: To evaluate and improve the effectiveness of protected areas management

Target: By 2010, frameworks for monitoring, evaluating and reporting protected areas management effectiveness at sites, national and regional systems, and transboundary protected area levels adopted and implemented by parties.

Suggested activities of the Parties:

- Develop and adopt, by 2006, appropriate methods, standards, criteria and indicators for evaluating the effectiveness of PAs management and governance, and set up a related database, taking into account the IUCN-WCPA framework

Box 1: Goal 4.2 of the Programme of Work on Protected Areas (source: Stolton , 2008:10)

During the fourth International Union for the Conservation of Nature (IUCN) World Parks Congress held in Caracas in 1992, participants recommended that IUCN develop a system for monitoring management effectiveness of PAs. The IUCN adopted the recommendation and created an international task force with broader representation from different regions within the World Commission on Protected Areas (WCPA). This task force published a book titled: *Evaluating Effectiveness: A Framework for Assessing Management of Protected Areas* in 2000 (Hockings et al, 2000). This book has since been revised in 2006 (Hockings et al, 2006).

2.4 The World Commission on Protected Areas Framework

Through the work of this task force a framework for evaluating management effectiveness of protected areas has been developed. A framework instead of a standard tool was developed because situations require different types of assessment and in particular, differences in the

amount of time and resources available for the management effectiveness assessment of PAs in different parts of the world (Stolton, 2008). Therefore the framework guides protected area specialists on both the structure and process for developing an evaluation system with checklist of the issues that needs to be measured without specifically recommending only one tool (Stolton, 2008).

The WCPA management effectiveness evaluation of PAs framework reflects three main themes in protected area management (Hockings et al, 2006: viii):

“

- Design issues relating to both individual sites and protected area systems;
- Adequacy and appropriateness of management systems and processes; and
- Delivery of appropriate protected area objectives including conservation of values”

The framework is based on the principle that good PA management should follow a cyclical process with six stages or elements (Hockings et al, 2006). The framework can be used to develop rapid evaluation systems, assess management of entire systems of PAs, and individual sites (Leverington et al, 2008). “One benefit of using the framework approach is that all these assessments can be conceptually linked, using a common set of broad criteria and a similar approach to evaluation” (Leverington et al, 2008:12).

Understanding the framework requires understanding of the management cycle. The management cycle is based on the fact that good management needs to be rooted in a thorough understanding of the individual conditions related to each individual PA, and that it should be carefully planned, implemented and monitored, and this will lead to changes in management as required (Hockings et al, 2006a).

The management cycle identifies six important elements in the process of evaluation. The cycle starts with understanding the context of the PA, including its values and threats, existing status and pressures, establishment of a vision, planning and allocation of resources, as a result of management actions, producing results that should lead to desired outcome (Hockings et al, 2006b). This information assists in putting management decisions in context and is also very important for planning. If a PA has a management plan much of this information would be compiled already. Management effectiveness evaluation therefore is

used to identify priorities within a PA network or to decide on the time and resources that can be devoted to a specific project (Hockings et al, 2006b).

The framework demonstrates that it is crucial to provide the necessary information that can assist in management of PAs and provide basis for decision making (Table 1 below).

Table 2: The World Commission on Protected Areas framework (Hockings et al, 2006b)

Elements of Evaluation	Explanation	Criteria assessed	Focus of Evaluation
Context	What is the current situation? Assessment of importance, threats and policy environment	Significance Threats Vulnerability National Context Partners	Status
Planning	Are the designs of the area, planning systems and plans adequate? Assessment of protected area design and planning	Protected area legislation and policy Protected area system design Reserve design Management planning	Appropriateness
Inputs	Are resources for management adequate? Assessment of resources needed to carry out management	Resourcing of agency Resourcing of site	Adequacy
Processes	How is management carried out and does it meet relevant standards? Assessment of the way in which management is conducted	Suitability of management process	Efficiency and appropriateness
Outputs	What were the results? Assessment of the implementation of management programmes and actions; delivery of	Results of management actions Services and products	Effectiveness

	products and services		
Outcomes	What has been achieved? Assessment of the outcomes and the extent to which they achieved objectives	Impacts: effects of management in relation to objectives	Effectiveness and appropriateness

Hockings (2006b:638) summarizes the elements of the WCPA framework as follows:

“Planning: The planning element of evaluation examines the adequacy of the areas design, planning systems and plans.

Inputs: This element considers the adequacy of available resources-staff, funds, equipment and facilities-in relation to the management needs of an area.

Processes: Assessment looks at how well management is being carried out. Indicators may include policy development, enforcement, maintenance, community development and systems for natural and cultural resource management.

Outputs: Output monitoring focuses on whether the tasks, such as those set in the management plan or works programme, have been carried out, and the actual consequences that have resulted from such actions (or no action).

Outcomes: This element evaluates whether objectives of a protected area have been achieved: principally whether values have been conserved and whether threats to these values are being addressed effectively.

The WCPA framework therefore sets out direction on the elements which should be included when conducting management effectiveness evaluation of PAs. The elements cover the scope of PA management and therefore would give an indication of how effectively they are being managed, which is the main objective of conducting management effectiveness evaluation.

2.5 Management Effectiveness Evaluation

Momentum has been building on how to assess management effectiveness of PAs over the past decades. Since the early 1980s studies have shown that protected areas have inadequate design and coverage, lack sufficient management to address a host of threats, and face increasing levels of environmental degradation (Ervin, 2007b). As a result protected area assessment has become a major environmental concern leading to publication of three books (Brandon et al, 1998, Anderson and James, 2001, Terborgh and van Schaik, 2002), two meetings (The World Parks Congress and the World Forestry Congress) have included it on their agendas; and the World Wide Fund for Nature, the world's largest environmental organization, has included the management effectiveness evaluation of protected areas as one of its five major goals (Ervin, 2007a).

Management effectiveness evaluation is defined by the International Union for the Conservation of Nature (IUCN)'s World Commission on Protected Areas (WCPA) as the:

“Assessment of how well a protected area is being managed-primarily the extent to which it is protecting values and achieving goals and objectives”

(Stolton, , 2008: 5).

Ervin (2007a) lays down four main approaches for assessing protected area management effectiveness:

“

- An in-depth evidence-based approach uses the results of monitoring and stakeholder surveys to assess the degree to which management actions have achieved management objectives.
- A system-wide peer-based approach includes most or all of the protected areas within a given system. Participants assess a range of indicators related to key threats and critical management needs, typically in participatory workshops with peer review by PA managers and others to reduce biases.

- A rapid score card-based approach uses a score card to elicit expert opinions about PA management usually with a set of four or five pre-defined thresholds for each indicator.
- A categorical assumption-based approach draws on available data and develops assumptions to determine potential management effectiveness.”

Ervin, (2007a:8)

The choice of assessment approach and method depends on several factors including time, finance, capacity, and the purpose of assessment (Ervin, 2007b). Methodology such as in-depth, evidence-based approach gives a comprehensive assessment of PAs and can set thresholds for adaptive management. However it takes a great amount of time to carry out the assessment and will thus not be advisable to implement it over a big number of PAs but could be implemented in a few highly important PAs (Ervin, 2007b). Dependent on time and resources available the implementing agency or planning team could mix the approaches within a single PA system and adapt existing indicators and methodologies to suit local circumstances (Ervin, 2007b).

2.6 Management Effectiveness Evaluation Tools

Due to the fact that each individual evaluation is likely to have a different focus, several complementary approaches to evaluating management effectiveness have been developed based on the WCPA framework (Stolton, 2008). About 40 different assessment methods have been developed most specifically for individual sites or more likely for groups or networks of sites (Stolton, 2008). Internationally recognized methods include: Rapid Assessment and Prioritization of Protected Area Management (RAPPAM), United Nations Scientific and Cultural Organisation’s Enhancing our heritage, International Conservation Unions, World Commission on Protected Areas, WWF’s How is Your MPA Doing, The Nature Conservancy’s Conservation Action Planning and the WWF/World Bank Alliance’s Management Effectiveness Tracking Tool (METT) (Leverington et al, 2008). Each one of the methods is designed for a specific purpose and thus the tools should not be compared to each other (Table 1 below).

RAPPAM and METT have been widely applied across Asia, Africa, Eastern Europe and to a lesser extent in Latin America and Papua New Guinea. Latin America has a far greater diversity of management effectiveness evaluation methodologies than anywhere else in the world (Leverington et al, 2008).

Around Africa different management effectiveness evaluation tools have been employed in assessing different types of PAs and for different purposes. African countries have produced slightly different assessment systems. These include: Africa Rainforest study, Western Indian Ocean Marine Protected Area assessment, assessment in Central African Republic, PA management assessment in the Congo Basin, Uganda threat reduction assessment and the Egyptian site level assessment (Leverington et al, 2008).

Systems have also been created for specific biomes, for instance for MPAs and forest protected areas. The importance of flexibility in use of different assessment systems and tools was stressed at a special meeting of CBD in 2005 in Italy (Hockings et al, 2006).

Table 3: Different management effectiveness evaluation tools used around the world (Stolton, 2006).

Method	Purpose of the method	Implementing institution
Management Effectiveness Tracking Tool (METT)	Help track and monitor progress in the achievement of the World Bank/WWF Alliance worldwide protected area management effectiveness target	World Bank, WWF
Rapid Assessment and Prioritization of Protected Area Management (RAPPAM)	Quick and easy method for identifying major trends and issues that need to be addressed for improvement of management effectiveness in any system of protected areas. It is designed protected area networks or systems not individual PAs	WWF
How is your MPA doing?	Provides a step by step process for planning and evaluating the management effectiveness of MPAs	WCPA, WWF, US National Oceanic and atmospheric Administration (NOAA)
Conservation Measure Partnership's (CMP) Open Standards for the Paradise of Conservation	Provides steps and general guidance necessary for the successful implementation of conservation projects	CMP, Africa Wildlife Foundation, The Nature Conservancy, Wildlife Conservation Society, WWF
Enhancing our Heritage Toolkit	Uses the WCPA framework to develop a range of assessment tools for managers of natural World Heritage sites to build a comprehensive system of management effectiveness	United Nations Scientific and Cultural Organisation (UNESCO)

Source: Stolton , 2006

The majority of the PA assessments have been carried out by a few of these systems, of which the RAPPAM and METT systems are the most widely used.

A global study database on management effectiveness evaluation was started in 2005 with first results published in 2008 (Stolton, 2008). The study aims to strengthen the management of PAs by compiling existing work on management effectiveness evaluation, reviewing methodologies, finding patterns and common themes in evaluation results, and investigating the most important factors leading to effective management. The study provides PoWPA with information on the achievement of PoWPA's management effectiveness targets (Stolton, 2008). Over 6300 assessments from around the world have been entered into the global study database by the end of 2007 and a number of interesting observations have emerged (Leverington et al, 2008):

- Oceania has a high number of individual assessments, largely due to three extensive number of the park studies in Australia (two in New South Wales and one in Victoria), which assessed most protected areas in the systems including some very small reserves.
- The most used methodologies across the globe for management effectiveness evaluation to date are RAPPAM (over 1400 protected areas assessed) and the Management Effectiveness Tracking Tool (METT) (over 1000 protected areas assessed).

Pomeroy et al (2004,) outlines best practice guidelines for management effectiveness evaluation as:

- Should be useful to managers
- Should be practical in use and costs
- Balanced to seek and include both scientific input and stakeholder participation
- Flexible for use in different sites and in varying conditions; and
- Holistic through focus on both human and natural perspectives

Therefore before a PA agency or country chooses an assessment method a range factors should be considered including looking at the attributes of the tool chosen and suitability to the local conditions. Furthermore before a methodology is implemented it needs to be adapted to the local conditions and implementation planned.

The RAPPAM method is designed for assessment of networks of PAs rather than individual PAs. The METT tool on the other hand is used for management effectiveness evaluation at individual park level.

The METT was developed to help track and monitor progress in the achievement of the World Bank/WWF alliance worldwide protected area management effectiveness target of 75 million hectares (Hockings et al, 2006). Initially it was used only in forest protected areas, but is now being used in a range of terrestrial habitats and has been adapted for use in marine protected areas. It was also hoped that the tracking tool will be used more generally where it can help monitor progress towards improving management effectiveness (Hockings, et al, 2006). The scorecard includes all six components of management identified in the framework (context, planning, inputs, process, outputs and outcomes). It is designed to be basic and simple to use and provides an effective mechanism for monitoring progress towards more effective management over time. Furthermore it enables park managers and donors to identify additional needs and constraints (Hockings et al, 2006). The original purposes of the tracking tool were that it needed to be:

- “Capable of providing a harmonized reporting system for forest protected area assessment within both the World Bank and WWF
- Suitable for replication
- Able to supply consistent data to allow tracking of progress over time
- Relatively quick and easy to complete by protected area staff, so as not to be reliant on high levels of funding or other resources
- Capable of providing a “score” if required
- Based around a system that provides four alternative text answers to each question, strengthening the scoring system

- Easily understood by non-specialists
- Nested within existing reporting systems to avoid duplication of effort”

(World Wide Fund, 2007:2)

This version however has been revised and the original purposes expanded with time. The tracking tool is being used by the World Bank, WWF and the GEF as a monitoring tool for areas for which they are involved (World Wide Fund, 2007). In 2004 as part of the preparation for the UNDP-GEF’s SPAN Project the METT was slightly modified into NAMETT to suit local conditions. Modifications include defining which protected areas¹ should be assessed, recommendations on who should conduct the assessment, the level of staff to be assessed and the number of people to be involved in each assessment. The questionnaire was also modified by clarifying some of the questions and rewording them while questions which were deemed not to be necessary in the Namibian context were also removed (see appendix 5).

Management effectiveness evaluation is worth doing if the results are used to better manage PAs. At a local, regional and global level, results can be used to adapt plans and practices, adjust resource allocation, revise policies and affirm good work being undertaken (Hockings et al, 2006).

However there is also a risk of management effectiveness evaluation results leading to friction and loss of trust between parties. If evaluation results show negative trends, sensitive handling of such situations is essential so that improvements are encouraged without risk of conflict between parties. It is encouraged for evaluation teams to discuss and how to deal with such situations where assessments uncover incompetence, or deliberate misuse of power or resources (Leverington et al, 2008).

¹ Namibia has different categories of protected areas such as terrestrial parks, marine parks, private game reserves, heritage sites, communal conservancies and forests.

Chapter 3: Methods

3.1 Study Area

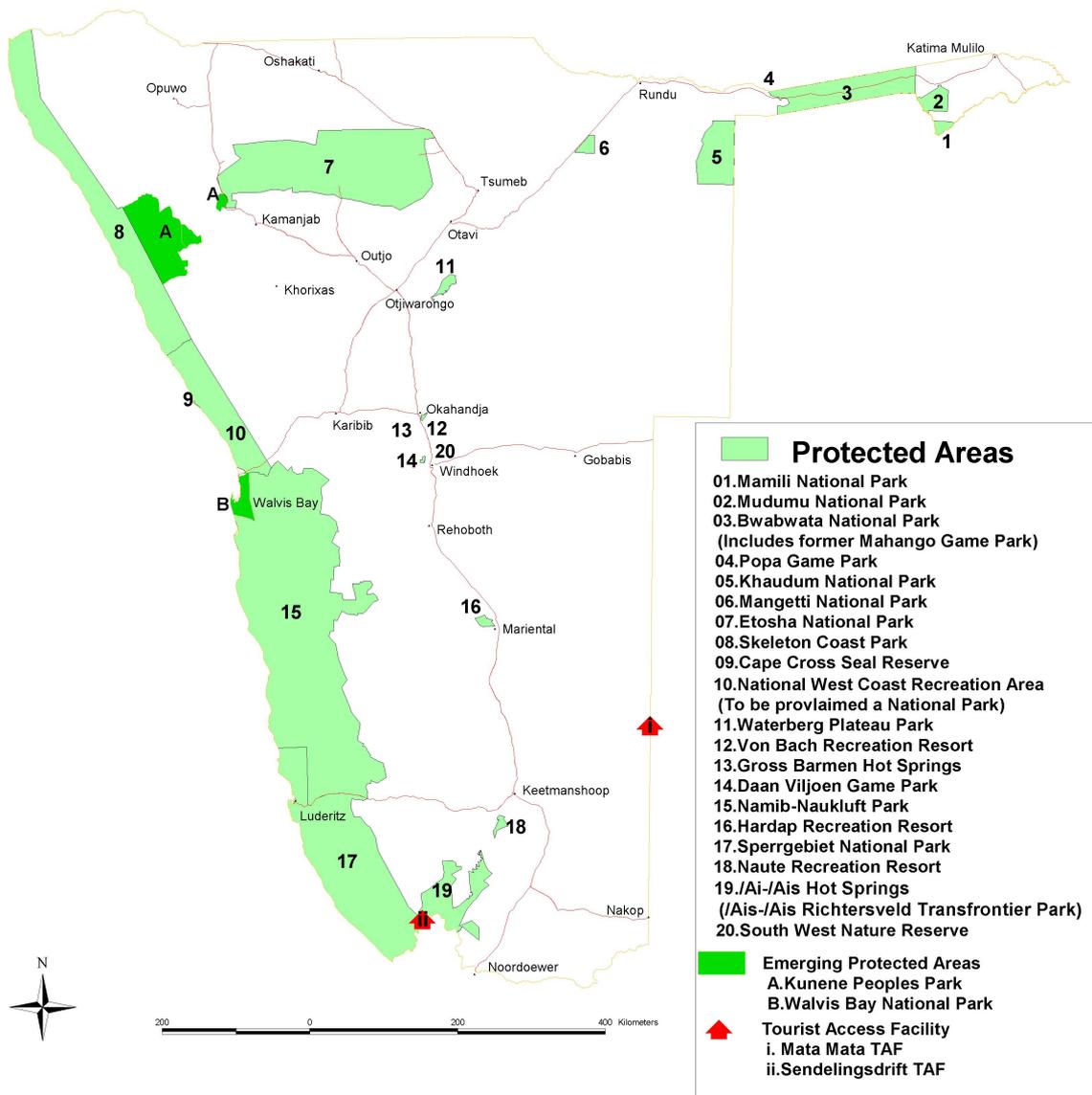
The main study area for this dissertation research project is the four arid parks situated in Southern Namibia under section Southern Parks of the Directorate of Parks and Wildlife Management of the MET in Namibia see Table 1 below. Three of the parks (/Ai-/Ais, Naute and Sperrgebiet) are in the Karas Region, the southernmost region in Namibia bordering the Northern Cape Province of the Republic of South Africa while Hardap Game Park is in the Hardap Region. However the qualitative questionnaire (section 3.2.3) was conducted both in the field and with people involved in PA management in Windhoek and the NAMETT tool implementation was undertaken in 16 terrestrial parks (18 park stations countrywide).

Table 4: The four parks in Southern Namibia that are the main study sites

Name	Size (km ²)	Proclaimed	Biome/Vegetation type	Special features
/Ai-/Ais Hot springs Game Park	4611	1968 (/Ai-/Ais) 1988 (Huns Mt)	Succulent Karoo and Nama Karoo Biome	<ul style="list-style-type: none"> • Forms part of the /Ai-/Ais/Richtersveld Transfrontier Park • Fish River Canyon with hiking trail • Apollo 11 rock paintings
Hardap Game Park	252	1968	Nama Karoo, dwarf shrub land	<ul style="list-style-type: none"> • 300 bird species and white pelican breeding site (one of two in Namibia) • Black Rhinos
Naute Game Park	225	1988	Nama Karoo Biome Dwarf shrub savanna	<ul style="list-style-type: none"> • Angling and watersports • Second largest dam in Namibia
Sperrgebiet National Park	26 000	2008	Succulent Karoo, Namib Desert, Savanna biome	<ul style="list-style-type: none"> • One of the world's 25 biodiversity hotspots • Home to 2439 endemic plants • Ramsar site

This includes data from most major national parks and game reserves in Namibia see map 1 below.

Map 1: Namibia's state protected areas



Map 1 above shows all PAs in Namibia including the four main study sites, /Ai-/Ais (19), Naute (18), Hardap (16), and Sperrgebiet (17).

From a biophysical perspective, the area in which these PAs are situated forms a biogeographical unit, with the distribution of species mainly determined by climatic determinants. Two important biomes of Southern Africa are found here, the Succulent Karoo and Nama Karoo and because they are each bordered by the Namib Desert, both biomes contain important signs of transition to hyper-aridity.

The landscapes of the area have evolved, together with the floral and faunal resources, to create a unique assemblage of species, geology and biogeography. Much of the area (including /Ai-/Ais and Sperrgebiet Parks) is in a transitional zone between the winter and summer rainfall regions. It experiences extremely low rainfall (less than 100mm in the north to less than 50mm near the Orange River in the southwest) and varies considerably from year to year. The little rain that does fall can occur at any time of the year, but with a tendency for the autumn months to receive slightly higher rainfall than other months.

Plants and animals have developed specific adaptations in response to these factors. The area incorporates some of the largest succulents (mega-succulents) including *Aloe dichotoma*, *Aloe ramosissima*, *Aloe pillansii* and *Pachypodium namaquanum*. The Succulent Karoo biome is recognized as one of the biological ‘hotspots’ of the world (MET, 2009).

The landscapes and associated biological assets are therefore extremely important. It is critical that these are properly managed and conserved. Some areas have remained relatively undisturbed by human intervention especially in the Sperrgebiet National Park which has been closed off to the public for over 100 years due to diamond mining. In contrast, the areas adjacent to the Orange River have been severely impacted by mining, grazing and agriculture. It is especially along the Orange River that these impacts must be significantly reduced through improved management and control. Planning is critical for all new developments or extensions to existing developments and this must include the use of sustainable development planning tools such as Environmental Impact Assessments (EIAs) and Environmental Management Plans (EMP’s).

3.2 The NAMETT tool

The NAMETT tool is the Namibian modified version of the World Bank/WWF, METT tool which is a mandatory tool for all GEF funded PAs project around the world. NAMETT just like METT tool is a rapid assessment based on a score card questionnaire. The score card includes six elements (context, planning, inputs, process, outputs and outcomes) of management identified in the WCPA. The tool is used to identify needs, constraints and priority actions to improve the effectiveness of protected area management. The tool is designed to be easily answered by those managing the PAs without any additional research. There are two sections on the assessment form which should be completed.

- ❖ **Datasheet:** Which details key information on the site, its characteristics and management objectives
- ❖ **Assessment form:** The assessment form includes three distinct sections, all of which should be completed.

The main part of the assessment form is a series of 30 questions that can be answered by assigning a simple score ranging between 0 (poor) to 3 (excellent). A series of four alternative answers are provided against each question to help the assessors to make judgments as to the level of score given (see appendix 2).

NAMETT has been implemented twice in Namibia as part of the SPAN Project firstly in 2004 before the inception of the project and in 2009 as part of the medium term evaluation of the project. In 2009 a number of guidelines were observed by the SPAN Project in implementing NAMETT (Mulonga and Paxton 2009):

- A pre-assessment discussion on the use of the tool was held prior to field data collection.
- The most senior staff member for the park was interviewed where possible with one or two of his subordinates. The interviews were undertaken in a group fashion.
- Where possible the same people who were assessed in 2004 were targeted for the 2009 assessment and the 2004 scores and notes were used as baseline to guide and ensure consistency in the evaluation.

The above guidelines were mainly based on lessons learnt from the 2004 assessment but also on guidance provided by the GEF on implementation of the tool by its PA projects worldwide (WWF, 2007). In all the parks the assessments involved staff members at warden level and above, however rangers participated in most of the assessments, providing perspectives of field staff. During the assessment, whenever the score was different from the 2004 score, justification was sought from the assessed individual (s) on why the score has changed. Most interviews were held at the site level. It was possible to see the type of environment being managed, the state of the vegetation and wildlife, the access conditions, and the vehicle/ office/ staff accommodation. After fieldwork the total scores for each park were summed up on the form. Where some questions were deemed irrelevant they were deliberately not answered, the final score was adjusted through multiplying the points scored by the ratio of questions answered, in order to prevent sites from being penalized for having no response to irrelevant questions. Scores were calculated by dividing the total number of questions on the form, which is 31, by the number of questions answered, and then multiplying the result with the summed up score. For example if 29 questions were answered and the sum of the scores collected on the form was 56. This means the final score is calculated as:

$$***31 total questions/29 answered questions* 56=60***$$

3.3 NAMETT self-assessment exercise by staff

The self-assessment part of data collection was conducted so as to gauge the views of the different staff members when they assess their park without being probed. During this exercise the individual staff who participated in the NAMETT interviews were given the NAMETT assessment form to fill in without anyone interviewing them. The respondents indicated the name and rank on the form, however anonymity was reassured for all the participants through the study ethics letter which was circulated to all participants for reassurances of privacy. The main objective of conducting this exercise was to gauge whether there would differences in scores between assessment done through the interview process and those filled without interviews by the same individuals to determine whether undertaking the assessment through interview or self-assessment affected the final score. Respondents filling the assessment form without being interviewed were not given scores of the interview

assessment, nor were they given a copy of the finished interview assessment form, prior to their completion of the individual self-assessment form. As such they had to fill in the form using their judgment and understanding of the status and circumstances of their park without any external influence. Furthermore staff members up to the rank of ranger level were also requested to do their own assessment of the PA to establish the differences in the perception of staff across ranks on the level of management effectiveness.

3.4 Qualitative questionnaire development and implementation

A questionnaire survey (Appendix 4) was undertaken to collect qualitative data and information on the perceptions of people operating in the PA management industry in Namibia on the NAMETT tool. The questionnaire was designed in collaboration with the UNDP/GEF's SPAN Project of the Ministry of Environment and Tourism in Namibia. The draft questionnaire benefited from comments from experts who have worked with METT in and outside Namibia such as Mr. Jonathan Smith former Project Assistant of SPAN who worked on the development of NAMETT, and now works for the United Nations Environment Programme (UNEP) in London. Mr. Nico Willemse (Versatile Environmental consultants) Monitoring and Evaluation specialist, also assisted in the questionnaire development. A draft with comments incorporated was reviewed by Dr. Mark Dent supervisor for this master's research project. His comments and suggestions and comments from various other individuals were integrated in the questionnaire. A draft for pilot testing was then produced which led to further refining of the questions before the survey was implemented.

The questionnaire entailed both open and close-ended questions to be able to capture different opinions about NAMETT. Follow-up questions were asked where possible to enable respondents to expand on particular topics for more understanding and information gathering.

The sampling for the questionnaire involved identifying individuals working in the PA management sector in Namibia who had implemented NAMETT or were knowledgeable about the tool. The target was to interview all individuals in Namibia who are exposed to management effectiveness tools for PA management. Provisionally 21 people were identified as being exposed to NAMETT and could thus participate in the questionnaire survey. However due to time limitations and distance, only 12 people of the targeted 21 were

interviewed (see Appendix 3). These composed of staff from the Ministry of Environment and Tourism (MET), MET PA projects implementing staff of SPAN and Enhancing Wildlife Based Economy in Rural Areas Projects, and an individual involved in a private game park. Furthermore semi-structured interviews were conducted with the Project Coordinator for the Integrated Community-Based Ecosystem Management Project of the MET. Although the number of people interviewed maybe small, the fact that these individuals represent MET management and field staff as well as the donor projects supporting PA management in Namibia adds weight to the information obtained from the questionnaire.

Questionnaires were administered between October and November 2009 in both Windhoek, the Capital City of Namibia where MET is headquartered and also in the field for the field-based staff. Respondents were put at ease through explaining the purpose of the research project and presenting them with the ethical clearance letter (prepared through guidance of the University of KwaZulu-Natal as a requirement for undertaking research under the auspices of the University) which guarantees confidentiality of the information collected (appendix 6).

3.5 Data Analysis

Data collected through the questionnaire survey was coded and analysed using the SPSS questionnaire analysis tool at the Multidisciplinary Research and Consultancy Centre of the University of Namibia producing summary sheets of the different responses of the interviewed individuals. The NAMETT assessment data for the 16 PAs for both 2004 and 2009 was obtained from the SPAN Project. Scores of each PA in the focal study site and repeat self-assessment by the individual staff members were put in an Excel database and analysed accordingly. Furthermore notes and information from different discussions with individual professionals in the PA management field was collected and summarized.

3.6 Validity and reliability

The validity and reliability of information and data collected can be affected by the techniques and instruments used in collection of such information or data. To further strengthen the validity of information collected a number of different tools (literature review,

questionnaire survey, NAMETT tool) were used to collect information and data for the purposes of this research project.

The questionnaire survey used to collect qualitative data was pre-tested on a few respondents and the preliminary results were used to adapt the research design of the tool. For example some of the questions were modified after piloting and follow-up questions were also asked where necessary to elicit more information from respondents. The demography of respondents in this case is not a factor in the collection of information, but rather the ranks of the officials of MET interviewed could possibly influence the responses. Although re-assured of anonymity through the ethical clearance letter, some junior staff could certainly answer in light of not to be seen as critical of the system. The major weakness of the research which was highlighted at the beginning is limited knowledge on implementation of the NAMETT tool among PA practitioners in Namibia. It was therefore difficult to gather information on opportunities and limitations of the tool from a wide range of people as only a few individuals had thorough knowledge of NAMETT.

This study focuses on analytical rather than statistical generalization. This is a limitation as it is difficult to demonstrate external validity in one study when focusing on analytical generalisation (Tellis, 1997). However Yin (1994:36) recommends trying to “generalize a particular set of results to some broader theory”. This has been attempted in most of the chapters of this study. While the external validity of the study may not be high, it is hoped that the results will go a long way in assisting the PA managers and practitioners in Namibia with regard to PA management.

Different sources of information were also consulted, including a wide range of local and international publications, as well as professionals working with or in the parks. Experts on management effectiveness of protected areas including the METT and NAMETT tools were also consulted and their opinions and comments were sought with both the preparation of the project proposal and design of the research tools, as well as during analysis and interpretation of the data and information.

The sample of stakeholders involved in the questionnaire survey also varied widely. Both senior management and field staff of the MET were involved in the research project and were

thus interviewed with the questionnaire. Other respondents include; Non-Governmental Organization staff as well as partner projects involved in PA management.

Furthermore contacts were made with a postgraduate student pursuing his doctoral studies with a research project component on management effectiveness of protected areas at the University of Queensland in Australia. Relevant documents as well as proposals were shared and comments on drafts were provided in a mutual beneficial way.

Chapter 4: Results and Discussion

This chapter analyses and discusses the results of the research undertaken. It starts with presentation of results of NAMETT data assessment obtained from the SPAN Project; then moves on to analyse data and information gathered through NAMETT self-assessment exercise as well as the qualitative questionnaire. Furthermore the chapter discusses stakeholders' view of NAMETT, analysis and discussions of the strengths and weaknesses of the tool itself including a focus on whether the tool should be adopted by MET and opportunities for enhancement of the tool is explored.

Furthermore opportunities for modifying the tool and specific issues that should be taken into consideration when undertaking NAMETT implementation are fully discussed.

4.1 Results of NAMETT assessment for 2004 and 2009 and current status of protected area management effectiveness evaluation in Namibia

This section compares the NAMETT scores for the 16 PAs assessed (18 park stations) in 2004 and 2009 respectively. The assessment scores show that all assessed parks scores increased in 2009 compared to 2004 apart from Naute Game Park which dropped almost 50% from its 2004 scores. The parks whose scores increased substantially are: Bwabwata East, Sperrgebiet, Mudumu, and Mamili Parks whose scores increased by 20 or more points (Figure 1 below).

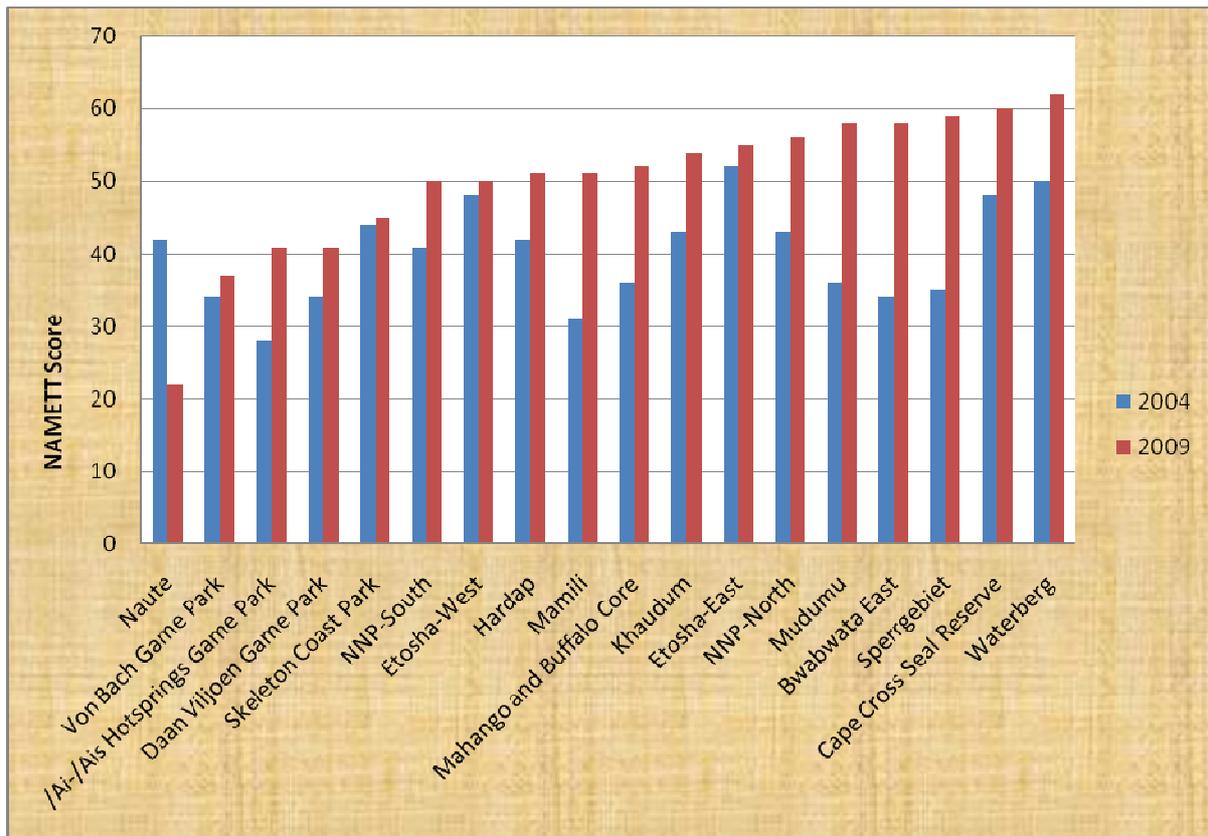


Figure 1: NAMETT assessment scores for 2004 and 2009 for Namibia’s 18 parks

Assessment data shows that the scores for these parks increased due to a number of reasons including official park proclamation (two new PAs were proclaimed while one formerly a game reserve was upgraded to a national park), infrastructure development, establishment of new park bases, improvement in staff numbers, provision of equipments and training. Most of these interventions were through donor funded projects such as SPAN, Succulent Karoo Ecosystem Programme, Namibia Coast Conservation and Management and the Caprivi Parks Project.

There was minimal change in scores in Skeleton Coast, Etosha East, Etosha West and Von Bach Parks. The NAMETT assessment results show that the management effectiveness in these parks had no substantial improvement.

Overall however NAMETT results show significant improvement in management effectiveness of PAs in Namibia. According to the SPAN Project 2009 NAMETT report these results can be tied to a number of major improvements over the five years since the last NAMETT was undertaken (Mulonga and Paxton, 2009). Examples include provision of

equipment through donor funding, improvement in staff turnover and drafting of management and work plans in the PAs. Further improvement was brought by the fact that funding for MET increased through negotiation with treasury for approval to retain 25% of park entry fees, thus providing sustainable supplemental income to the PAs. Before then all park fees collected were channeled to treasury. However overall the budget is still viewed as small and is regarded as a major factor constraining management activities.

The NAMETT is used as an indicator for the SPAN Project at both the objective level and to gauge impacts of the project in four field demonstration sites. At the objective level, the indicator is “net improvement in management effectiveness for PA land.” Progress is measured with the size of PA land areas that have moved into a higher category of management effectiveness using the following definition of NAMETT categories: High: >50, Intermediate: 40-49 and Low: Less than 40. This definition was set by the project itself based on the baseline scores obtained from the first assessment.

In 2004, eight parks were categorized as low meaning they were performing below their potential while another eight were categorized as intermediate. Only two parks had scores that put them in the high category (see table 4 below). The 2009 assessment shows that major improvements have occurred as five parks that were classified as low have moved to the high category while one has moved to intermediate. Only one remained low, as well as the newly assessed Mangetti National Park which does not have baseline score as it was not assessed in 2004. Most parks classified as intermediate have moved to the high category, except for two parks - one remained intermediate while one dropped to the low category. The two parks previously in the high category have retained their grading.

Table 5: Protected area management effectiveness category changes from 2004 to 2009

Site	Category 2004	Category 2009
Ai-Ais Hot Springs Game Park	Low	Intermediate
Mamili	Low	High
Von Bach Game Park	Low	Low
Daan Viljoen Game Park	Low	Intermediate
Bwabwata East	Low	High
Bwabwata West (Mahango and Buffalo Core)	Low	High
Sperrgebiet	Low	High

Mangetti National Park	N/A	Low
Mudumu	Low	High
Namib Naukluft Park - South	Intermediate	High
Namib Naukluft Park - North	Intermediate	High
Naute	Intermediate	Low
Hardap	Intermediate	High
Khaudum	Intermediate	High
Skeleton Coast Park	Intermediate	Intermediate
Cape Cross Seal Reserve	Intermediate	High
Etosha-West	Intermediate	High
Waterberg	High	High
Etosha-East	High	High

The following table indicates the total land area falling under each category as per the 2009 results.

Table 6: Total protected area land falling under each category as per the 2009 results

Total land area	Category
105,794km ² (83%)	High
21,041 km ² (16 %)	Intermediate
1,093km ² (1 %)	Low

The 2009 results account for a net improvement in management effectiveness of 88 % of the PA land in Namibia according to the NAMETT assessment.

The improvement in the score in the Bwabwata, Mudumu and Mamili National Parks has been significant. The proclamation of the Sperrgebiet National Park and the consolidation of the park management base and structure by the MET substantially improved this park's score.

Both the 2004 and 2009 NAMETT assessment in Namibia shows similar trends to other comparative studies of management effectiveness around the world in which PA designation, objectives, and overall planning is strong but financial sustainability and management, community relations and outreach, monitoring and management planning is weak (Ervin, 2007a).

The SPAN Project report shows that most of the improvement in issues was mainly due to donor funding contributing to activities such as staff training, equipment purchase and formulation and implementation of management plans (Mulonga and Paxton, 2009). However some other notable activities are seen as having contributed to the improvement in management effectiveness of PAs. These include two PAs which were previously managed without legal status which were officially proclaimed while one PA received a proclamation upgrade from a game reserve to a national park. This improved substantially the area covered by PAs.

The fact that most of the change in management effectiveness in the PAs can be attributed to donor funding means the improvement is not sustainable as most donor funding phases out and the situation could reverse. As such the MET needs to address the issues through provision of adequate budgets to be able to manage PAs optimally

4.2 Current protected area management effectiveness evaluation methods and tools used in Namibia

Information and data gathered suggests there is no standard management effectiveness tool currently used for tracking management effectiveness in PAs. Structured and unstructured interviews held with professionals and field staff working in the PA management revealed that the Incident Book Monitoring System (IBMS), monthly and quarterly reports, annual reports and physical inspections are the only tools used to gauge how well-managed Namibian state PAs are.

Monthly reports are prepared by each park and sent to the regional head who collates them and prepares a regional PA monthly report sent to head office. These monthly reports are collated and prepared as quarterly reports and all quarterly reports are collated into annual reports at the end of the year. Physical inspections of the parks are undertaken by the regional head to verify whether information received in the reports reflects the situation on the ground.

The IBMS is a new tool recently introduced in state PAs in Namibia. It is a replica of the Event Book Monitoring system (EBMS) introduced in community conservancies around Namibia by the Natural Resource Working Group of the Community Based Natural Resource

Management (CBNRM) Programme. It is a personalized A5 ring file maintained by a ranger or warden of a park. The file contains a set of booklets, with monitoring themes/topics outlined in the booklet e.g. poaching, human wildlife conflict incidents, rainfall etc (Stuart-Hill et al, 2004). As events occur the ranger records in the booklets which are collated by the warden who summarizes the events of the whole month to prepare a monthly IBMS report, which is submitted to the Chief Warden who collates IBMS reports of all the parks under his supervision and gives a report to the Chief Control Warden (regional head).

Data analysis is undertaken at the MET headquarters in Windhoek where an IBMS coordinating person enters all the data in a database and prepares reports for headquarters as well as feedback reports to the field stations. For each monitoring topic/theme there is a complete system that begins with data collection, goes through monthly reporting and ends with long-term reporting. Colour coding is used to avoid confusion between the data flow levels for example yellow is the colour for data collection, blue is for monthly/quarterly reporting and red for tracking long-term trends (Stuart-Hill et al, 2004). Before the system is implemented in a particular park, training is undertaken with staff members and an agreement is reached with the staff members on what they want to monitor apart from the normal obligatory themes, as some of the monitoring themes might be different in the different parts of the country. For example mining is monitored in the central and southern parts of Namibia and not in the north and northeast where there are no mining activities in the parks.

The system is very easy to use as it has been simplified and contains pictures and icons to assist some of the staff members who might not be fully literate to understand and recall when they are using the IBMS. An annual audit of the IBMS is undertaken in the parks by an external IBMS expert twice a year. The process involves auditing the IBMS books of the staff members, archiving previous data, updating the long-term reporting charts and issuing of new record books to the staff members. However at present the IBMS has only been implemented in a selected number of parks by donor projects such as SPAN and is not used in a number of other parks. The IBMS is seen as a very useful tool by MET and the director of parks has emphasized on how it helps him to make informed decisions (Ben Beytell, *pers.com*). Furthermore a regional manager for the central parks in Namibia has requested for the system to be implemented in the parks under his management.

Apart from the IBMS and park reports, respondents to the questionnaire survey indicated that NAMETT has been implemented twice in the parks across the country as a management effectiveness evaluation tool. However this has been done only as part of the SPAN Project and the system has not been adopted by the MET which is the agency responsible for PA management in Namibia.

At the moment MET relies on reports from the field and the IBMS as reporting tools, between the parks and head office. There is no integrated management effectiveness tool within the MET for assessing management effectiveness of the different parks. The MET standard park report format is based on eight programme areas identified by the MET as the main elements of PA management. These include: protected area management, wildlife management, community based natural resource management, economic development, law enforcement, environmental education and information, human resources development, and general activities. The reporting generally looks at the activities that are undertaken at a given interval in the park under each of the themes. The annual reports are prepared in the same format. There is no framework for assessing plans and inputs against processes, outputs and outcomes as such there is no management circle which can assist in documenting lessons learnt and assist with adaptive management. This is a major gap in Namibia's PA management system. Having an iterative management system helps in ensuring planning, implementation and results are coordinated together and assessed accordingly. The Gondwana Private Park in Southern Namibia presents a good example on how an iterative management process works (Box 2 below).

Case Study: The Gondwana Private Park is situated in Southern Namibia. It borders the /Ai-/Ais/Richtersveld Transfrontier Park. The park measures 102, 000 ha in size and combines both game population management and tourism. It is home to a number of species including Gemsbok, kudu, mountain zebra, and the rare black rhino. Gondwana uses a iterative management system which entails development and implementation of park management and development plans, annual work plans linked to the budget. The work plan is linked to the management and development plan for the park. The management and development plans are reviewed every five years, while the annual work plans are reviewed every three months (quarterly). At the end of the year an annual report based on the work plan is presented and reviewed together with the corresponding financial report. As such it is easier to see inputs, progress and outputs of the management system. Every five years the park management and development plan is reviewed based on lessons learnt from the annual work plans and adapted accordingly.

Source: Dr. Chris Brown (Namibia Nature Foundation)

Box 2: Integrated management processes in Gondwana Private Park

The case study above demonstrates an effective system of PA management which involves planning, implementation of activities and evaluation of progress made and adaptation. The system allows evaluation of progress made in a particular PA in relation to resources spent. Without a system in place it becomes difficult to gauge whether progress is being made and to motivate and justify the financial resources spent on managing PAs which is key information required by donors and political leaders.

The IBMS which has been implemented in Namibia's PAs concentrates on biological conditions and cannot be regarded as a comprehensive assessment tool for management effectiveness of PAs. Therefore there is a need for a comprehensive assessment tool for management effectiveness evaluation of PAs in Namibia one that is based on the WCPA framework of which Namibia is a signatory.

4.3. NAMETT assessment of study sites and staff self-assessment

The 2009 assessment shows improvement in management effectiveness for three of the four sites (/Ai-/Ais, Naute, Hardap and Sperrgebiet parks). As we have observed in section 4.1 above, the scores of all parks assessed increased apart from Naute Game Park. This park had

a substantial drop in scores in 2009 compared to 2004. The Sperrgebiet National Park recorded the biggest improvement in management effectiveness from a score of 35 in 2004 to 59 in 2009 of the four main study sites (see Figure 2 below).

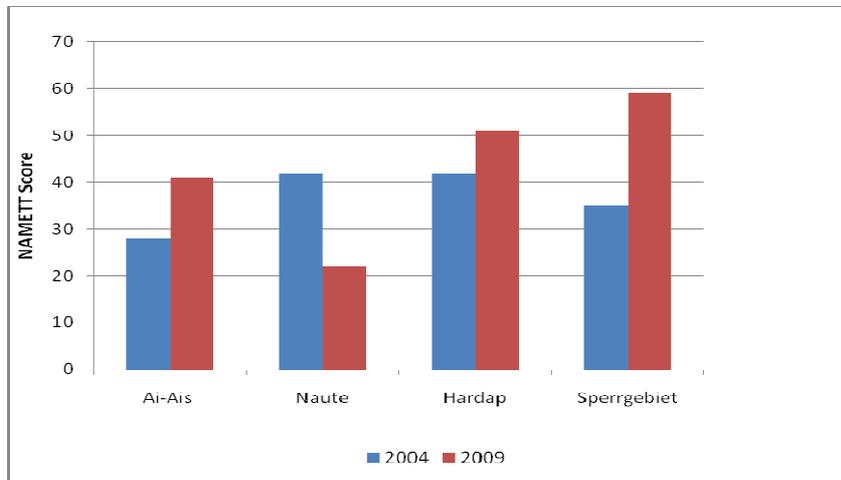


Figure 2: NAMETT assessment scores for 2004 and 2009 for the four study sites

Interview scores (scores obtained from the main NAMETT assessment conducted by SPAN Project) and self-assessment scores (scores obtained from the self-assessment exercise undertaken through research for this study) show differences across the study sites. The difference between interview and self-assessment scores is marginal at /Ai-/Ais and Hardap and substantial at Naute and Sperrgebiet Parks (Figure 3 below). This suggests that the overall NAMETT score differs when an interview is conducted and when individuals fills the assessment form without an interview.

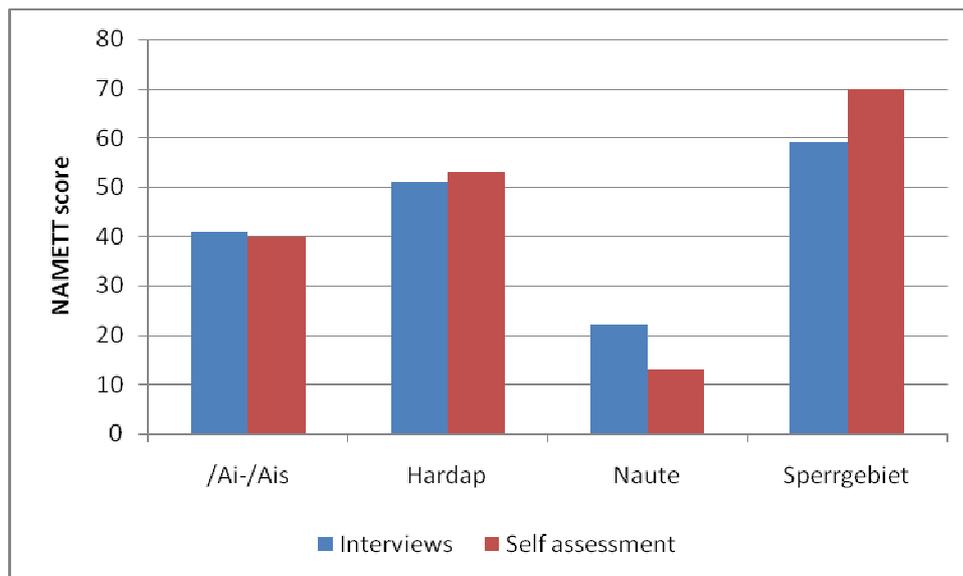


Figure 3: Comparancies between interview score and self-assessment scores for the four study sites

Interviews of individual staff members of the same PA shows little difference in scores at /Ai-/Ais. However the scenario is different at Hardap where the score of 53 by the warden is much higher compared to his two rangers who scored 33 and 36 respectively (figure 4 below). At /Ai-/Ais the new ranger (one and half years in the park) scored slightly higher than his two colleagues; one a long term serving ranger in the park and the warden who has been in the park for six years. However the scenario shows bigger discrepancy at Hardap where the new warden (less than one year in the park) score far surpasses his two rangers (one a long-term serving and one a new ranger but slightly more years in the park compared to the warden). The two scenarios in /Ai-/Ais and Hardap suggests that the perception of new staff members when assessed will differ from those who have been in the park for a longer period of time. This can be attributed to the fact that new staff members takes time to acquaint themselves with the situation when they are appointed to a park. It takes time for them to understand the level of the different aspects of management of the park.

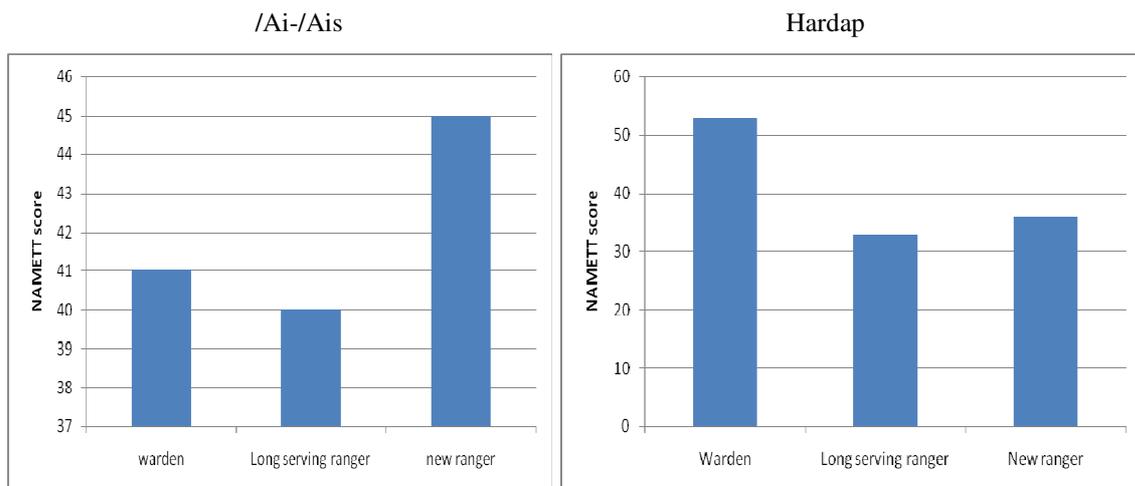


Figure 4: Differences in self-assessment scores of three different staff members of /Ai-/Ais and Hardap Parks

Differences are also observed between the self-assessment scores of the regional manager and the scores of the individual park managers. The biggest difference is observed at Naute where the regional manager score is 36, while the self-assessment score of the park manager is 13. This shows a big difference between the perception of the different level of management of the PA between the two staff members at different hierachy of management level. The same wide margin difference in scores is observed with the Sperrgebiet National Park where the score of the park manager and the regional manager is 70 and 49 respectively (Figure 5

below). This shows that perception at different level of hierachy of management of the PA differs. The understanding of how well managed the park is of the regional head who stays in an urban area far from the parks and visits irregularly is different from those of the park managers who lives and works in the PAs.

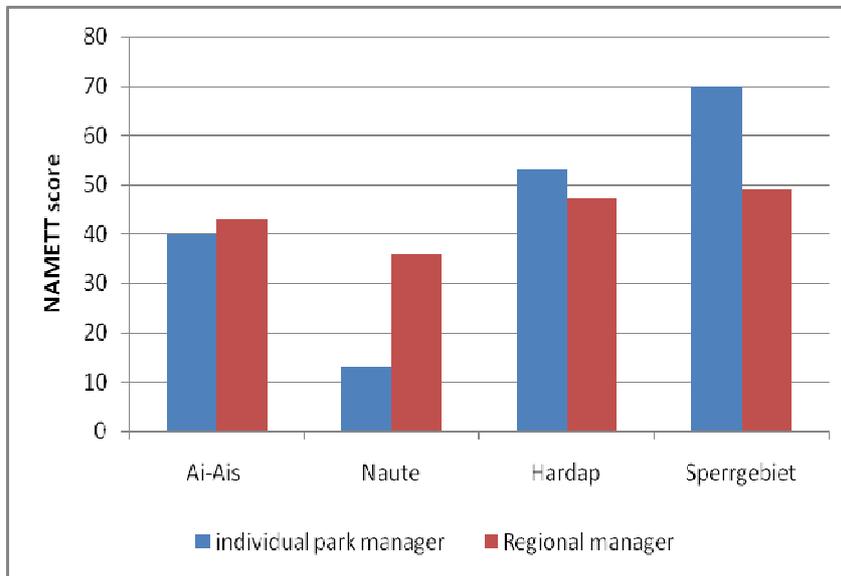


Figure 5: Self-assessment scores for the individual park managers and regional manager for the four study sites

A similar scenario is observed at the Oranjemund Field Station in the Sperrgebiet National Park. The scores of those of the Chief Warden who is the head of the park and those of the warden and ranger differ, although they are all at the same station and work in the same park (see figure 6 below). This clearly shows that the results of the NAMETT assessment could be influenced by individual personal perception. The perception of how well-managed a PA is differs across the different ranks of staff members. This can be a result of the number of years of experience or the education levels of the individuals across ranks.

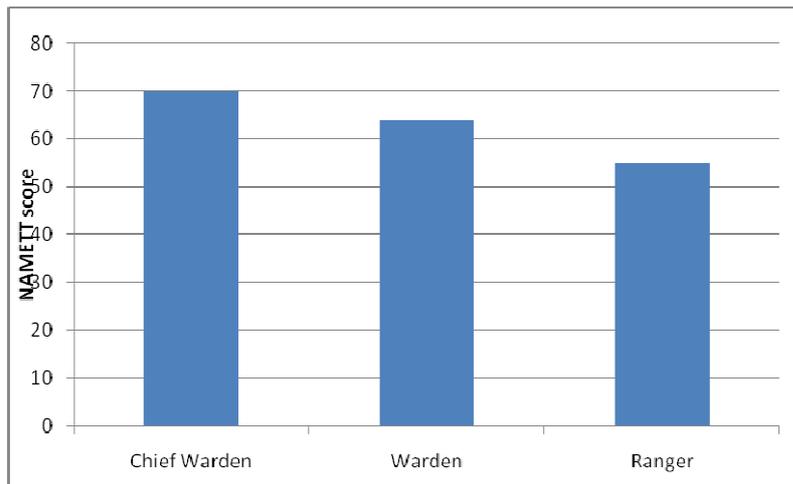


Figure 6: Differences in scores of three staff members of different ranks at the same station in the Sperrgebiet National Park

The data presented in this section suggests that there are a number of factors that have an influence on NAMETT assessments. The main observation is that the assessments can be influenced by the rank of the staff member in the particular PA or by the methodology employed by the assessor whether it is self assessment or interview implementation of the tool. Although this study did not investigate what are the causal factors for this scenario evidence points to the fact that the longer the staff members has been working in a particular area the better the quality of the information gathered as they will have detailed knowledge of most aspects of the PA. Furthermore staff members who works and resides in a particular PA seems to provide reliable data and information compared to the regional manager. When interviewed these staff members demonstrated good knowledge of the PA and challenges and opportunities compared to the regional manager through data collected in the comment section of the NAMETT Tool (appendix 2). The regional manager’s assessment forms has very little comments and his knowledge about the situation on the ground was not as detailed as the individual park managers.

Not much difference was observed with regard to methodology in two of the four study sites. The difference was very marginal in /Ai-/Ais and Hardap but substantial in Naute and Sperrgebiet. However this suggests that the final score could be influenced by the methodology employed. Observations from assessments and discussions with some of the SPAN Project staff members who were involved in NAMETT assessments suggests that interview method leads to better NAMETT assessments due to the interaction between the assessor and the respondent and discussions on issues leading to different perceptions or

scoring. This also leads to a better understanding of the situation and justification of a certain score allocated to an issue. However time limitations and distances between places when conducting assessments (most PAs are rural areas) influences decision whether to conduct interviews or implement a self assessment exercise.

4.4 Understanding of the need for management effectiveness evaluation of PAs

Eleven of the twelve people interviewed in the qualitative questionnaire survey indicated that it was necessary to undertake management effectiveness evaluation of PAs. A number of reasons were given by the respondents on why it is necessary to undertake management effectiveness evaluation (see table 6 below).

Table 7: Reasons why management effectiveness is necessary in PAs according to respondents

Response	Respondent
To give the state an idea on how the parks are managed and whether they are making a contribution to the GDP	MET management staff
To measure the success rate in managing protected areas	MET regional manager
To find out or assess whether management objectives are met and resources employed are used efficiently and effectively	MET management staff
For public accountability and also for assessment of the health of biodiversity	Head of an NGO
To assess if the park is properly managed	MET regional manager
To determine the standard of management in PAs	MET management staff
Important to monitor against a set of goals and targets for the parks	Project staff
To monitor/ensure that PAs are effectively managed	Project staff
Every system needs a monitoring method	MET field staff
To gauge progress and highlight shortcomings of PAs	MET field staff

Other reasons given include: to track progress of individual PAs in terms of management, to establish potential bottlenecks for effective PA management so that they can be addressed and that management effectiveness is a good internal exercise which assists in identifying important and least crucial areas that needs attention.

The responses given by this sample of people interviewed suggests there is common understanding among the respondents that management effectiveness of PAs is important and should be carried out to assess how PAs are being managed to ascertain whether they are managed to meet their objectives.

4.5 Strengths and weaknesses of the NAMETT tool

The METT on which NAMETT is derived from is a simple user friendly tool designed to be easily implemented and modified to certain areas and conditions around the world. The tool is cheap to implement and does not require a high level of education from users. Data gathered is easily analysed and provides quick information about management effectiveness of a particular PA. Furthermore METT tool helps provide trends on management effectiveness of PAs over a long period of time enabling decision makers to be able to monitor and report on progress over time.

Eight of the nine people who responded to the question of whether NAMETT was useful in terms of management effectiveness evaluation in the qualitative questionnaire indicated that it was useful while one indicated that he had no idea.

Reasons why respondents think the tool is useful include: because it is easy and fast, it indicates strength and weakness of PAs to realize effective management, gives a comparison with the previous year, gives a general overview of progress and more importantly helps to define which areas are weak and needs more attention, because it is the only management effectiveness tool that is available, gives baseline scores and can be used to track changes over time and that information obtained from NAMETT can assist in local level monitoring and decision making at management level.

The responses show that respondents regard NAMETT as a useful tool for management effectiveness evaluation of PAs. However eight respondents indicated that there was room for improvement within NAMETT as a tool. Respondents feel NAMETT can be improved to better capture more information on management effectiveness of PAs and that the tool could be better structured for easier capturing of information. Suggestions in this regard include

adding more questions to the tool; change/improve on the existing ones and adapting the tool to each individual park.

When asked if NAMETT results correlates to other measures of park success or progress only nine people responded to this question. Three indicated that NAMETT results correlates to other measures of park success or progress, and five indicated that NAMETT did not correlate to any measure of park success or progress while one individual was not sure. Of the three people who indicated that NAMETT correlates to other measures of park success only one gave a reason indicating that it covers all basic aspects of PA management from objectives to other smaller aspects.

A number of reasons were given by respondents who felt that the tool does not correlate to other measures of park success or progress. The scoring gives different picture because issues score differently, so the success on one issue might not come clearly with NAMETT tool as the final score depends on all other issues and not the success of one issue. Other respondents felt that NAMETT is not linked to biodiversity indicators and hence it is difficult to measure biodiversity success. One respondent indicated that NAMETT results are based on personal perception of the respondent during the NAMETT assessment and thus it is difficult to correlate personal perception to activities of park successes. Furthermore there was indication that there was no system in place to correlate NAMETT results to park successes.

The concept of scoring progress in NAMETT is also seen as a challenge. Staff of the SPAN Project who implemented NAMETT in 2009 indicated that it is difficult to weigh various responses and decide on the scores. Phrasing in some of the questions is also difficult while specific answers on the score sheet influence interviewers and interviewees. One respondent suggested that the scoring sheet should be expanded to give more options for example instead of four options only (0-3 scoring point options) a six option scoring sheet (0-5) could be developed so as to give both the interviewers and interviewees more options during the assessment. Currently with some of the questions on the assessment form the options are limited.

Closer analysis of the tool reveals that most questions (referred to as issue on the NAMETT tool) under PA context and planning are applicable and relevant to the Namibian PA management situation. However some questions under processes, and inputs cannot be

assessed at PA level in most of the Namibian PAs due to the fact that they are handled by other directorates under the MET, whose staff members are not based in the field. For example: personnel management, staff training, budget, purchase and maintenance of equipment are all handled by the Directorate of Administration and Support Services of the MET and thus are out of the hands of the park field staff. This is the same situation with regard to research which is handled by the Directorate of Scientific Services and environmental education which is under the Directorate of Environmental Affairs. The critical factor here is that staff members of these directorates are not based in the parks with the exception of Etosha National Park. They are all at head office in Windhoek. As such the day to day implementation of activities they are supposed to attend to in the park is left unattended. Therefore this creates a dilemma when conducting management effectiveness evaluation in the PAs and assessing these issues which the Directorate of Parks and Wildlife Management (DPWM) are not mandated to undertake. This can affect overall scores of the assessed parks.

The NAMETT implementation process also needs to be standardized. There is a strong need for the assessments to involve more than one staff member working in the certain PA. A group effort is favoured by respondents. For fair NAMETT assessment to take place according to the respondents who participated in the qualitative questionnaire survey, all the staff from the different directorates needs to be interviewed as a group for consensus on different issues of NAMETT assessment. However the “manager factor” should be avoided during group assessment through good coordination of the discussions by the interviewer and explanation of the purpose of the assessment. The manager factor arises when junior staff cannot express their personal views due to fear of their manager who is also part of the interview or when he dominates all the discussions.

Further analysis of the tool shows that some of the questions are too general or need to be rephrased. A good example is question number 27 on the tool (Appendix 2) which looks at the condition assessment. The question: “*Is the protected area being managed well*” is too general and should be streamlined to be specific on the objective of the question. The criteria of the question should also specify or have an explanatory note on what specifically is meant by important biodiversity, ecological and cultural values whether its rare and endemic species or keystone species to a particular PA. Question 30 is on whether there is monitoring and evaluation taking place in the park also needs to be specific on whether this is a monitoring

and evaluation method linked to the WCPA framework or simply a reporting and inspection exercise undertaken to determine implementation of activities.

A number of observations were reported by the SPAN Project on the opportunities and challenges of NAMETT implementation. The report indicates that it is a challenge to weigh various responses and decide on scores and that there are situations where none of the four alternative answers on the tool appear to fit conditions in the protected area precisely. In this situation the nearest answer is used and a comment is added in the comments section of the form. Furthermore some phrasing in questions or specific answers influences interviewers and interviewees, and could affect the final score (Mulonga and Paxton, 2009).

Other factors include interviewer and interviewee bias. Those conducting the assessment need to be conversant with the tool before conducting interviews. Interviewing new staff members can also result in inconclusive or skewed answers. Assessments performed with more than one staff member led to greater discussions. In some cases, staffs are wary that they were being assessed on how they were running the park and needed reassurance that the review was not a critique of them as individuals.

The SPAN report also shows that it is quite easy to raise scores for each park, as a little bit of improvement from 1 to 2 would double the score (Mulonga and Paxton, 2009). The report further indicates that there is a need for good consideration when deciding on the classification of scores to decide categories of management effectiveness. The definition of the NAMETT categories used in the SPAN Project log frame (i.e. High – More than 50, Intermediate – 40-49, and Low – Less than 40) may not have been the most effective way to categorise the scores, in order to capture the trend of improvement in park management effectiveness for the Project as the results shows that these were set low leading to the project achieving higher scores more than expected at the end of project (Mulonga and Paxton, 2009).

Past assessments of NAMETT by the SPAN Project suggests that NAMETT is a process oriented rather than output and outcome oriented tool. The six questions related to outputs and outcomes tend to be too general to assess individual park performance. In order to comprehensively assess park performance, the NAMETT tool needs to be combined with

outcome oriented assessment that can look at change in intactness of biological, ecological and cultural values using data collected on a regular basis” (Mulonga and Paxton, 2009:11).

4.6 NAMETT as a management effectiveness tool for PAs in Namibia

Participants in the questionnaire survey indicated that NAMETT can be used as a standard management effectiveness evaluation tool for PAs. Reasons provided include:

- NAMETT can help provide information for PA management
- Because MET participated in its development
- Can support decision making such as resource allocation to PAs
- Since there is no other method for management effectiveness evaluation of PAs

A number of responses were given by respondents on the question of whose responsibility would it be to carry out management effectiveness evaluation in PAs (Table 4 below).

Table 8: Which organization should carry out management effectiveness evaluation of protected areas?

Organization	Existing/suggested	Reason
Directorate of Parks and Wildlife Management	Existing	Have good knowledge of park management and conservation
Internal auditors	Suggestion	Independent evaluators who should have knowledge of PAs
National Park Advisory Council	Suggestion	This will be an independent body that monitors and carries out management effectiveness of PAs
MET senior staff	Existing	Because once problem areas are identified they can start working on a solution
MET regional managers	Existing	Because they are aware of internal issues that outsiders will not be aware off
External agency (e.g. UNDP)	Existing	Because they represent GEF and they support PA management in Namibia
MET	Existing	Because the system needs to be institutionalized
Namibia Nature Foundation	Existing	Because they have expertise, background and idea of what’s going on in PAs in Namibia

Most of the respondents indicated that management effectiveness needs to be institutionalized within MET and be carried by MET itself. A coordination office or focal person is seen as the best mechanism for fully institutionalization of system in Namibia's PAs.

Respondents were asked to indicate the frequency for NAMETT implementation in PAs for management effectiveness. Figure 7 below shows that most of the respondents favor annual assessments. Other respondents indicated twice a year, once in two years and quarterly.

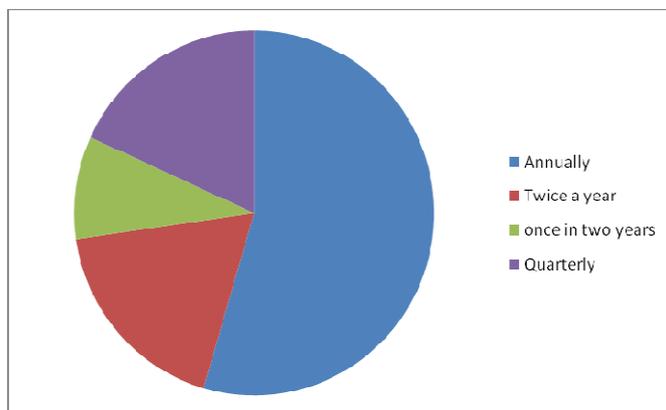


Figure 7: Suggested frequency of management effectiveness evaluation in protected areas

However some of the respondents expressed reservations for use of the tool as a standard management effectiveness evaluation for PAs. They feel that the tool does not provide essential information on biodiversity and as such it should be linked to the IBMS before it can become a standard PA management effectiveness tool. Furthermore these respondents indicated that for the NAMETT to be the standard management effectiveness evaluation tool there is a need for modifications based on recent experience. One respondent who was involved in the NAMETT implementation in 2009 indicated that there is a need for NAMETT to specifically capture information on the park management plans implementation and execution of activities.

If modified well to local conditions NAMETT provides an opportunity to Namibia's PAs for a broader management effectiveness evaluation tool that can go a long way in assisting decision making and informed financial resource priority based allocation among other advantages. Survey results shows that MET staff interviewed including senior management

staff supports adopting the tool for management effectiveness evaluation of PAs. They indicated that the tool will assist them in monitoring progress made in their PAs.

4.7 Mechanisms that can enhance usefulness of the NAMETT for protected area management effectiveness evaluation in Namibia

Most MET staff interviewed indicated that NAMETT should be modified to local conditions. This according to the respondents can be done through addition of some issues not covered by the tool and capture of other necessary important information on PA management. This could be achieved through a workshop with both junior and senior staff members of MET.

There was a strong indication from most respondents for NAMETT to be linked to the IBMS. Respondents feel that NAMETT would then be more credible as IBMS provides hard data on biodiversity situation of specific PAs. Incorporation of the two tools however is not possible as the objective of each is different. NAMETT is a broader evaluation tool, while IBMS is only meant for collection of biodiversity information in PAs. Information obtained from IBMS does not mean the park is well managed as biodiversity health is just one component of PA management. Similarly NAMETT increase in scores does not mean the biodiversity health is in good state as other issues such as infrastructure or staff training could improve the score while degradation of biodiversity components could be increasing due to factors such as climate change or disasters such as droughts or wild fires whose provision for assessment is not included on the NAMETT assessment form. However data from the two tools could complement each other through looking at the trends in biodiversity aspects captured by the IBMS and PA management aspects captured through the NAMETT. Annual game surveys could also be used in this case to ascertain whether wildlife population numbers and biodiversity health (captured through the IBMS) correlates to the improvement in management effectiveness results from NAMETT.

The scenario above will work best if implemented through an iterative management system of PAs as discussed in section 4.2. This will ensure that planning, implementation, reporting and adaptive management for all the tools is undertaken at once and the result of each then helps complement the other tools results.

Furthermore NAMETT needs to be streamlined to clarify some of the questions and bring them in line with the situation in Namibia. Rephrasing some of the questions and clarifying objectives of some will go a long way in assisting assessors to get the necessary information as some of the SPAN Project staff members involved in the NAMETT 2009 implementation indicated the challenges of using the tool during assessments (Mulonga and Paxton, 2009).

Effective implementation of NAMETT would require a review and modification of the tool. Furthermore there is an opportunity for developing the questionnaire further to include highlights and recent major successes or negative events which may justify change in scores. This could be a quick summary rather than the comment section provided which is much longer and takes time to read.

A best practice guideline can also be developed for implementation of NAMETT in Namibia's PAs. This can draw from recent experience of NAMETT by the SPAN Project as well as relevant studies and research and could be used as the training manual for implementers. Development of a database in which current NAMETT information collected by SPAN and future data that would be collected could be stored for safety and easier access would go a long way to justify the necessity of this tool as trends in management effectiveness in PAs could easily be tracked using the database.

If NAMETT is to be implemented then capacity for NAMETT implementation needs to be sourced and necessary resources set aside. A focal person should then be identified and trained to be able to undertake evaluations and analyse and summarize data into reports which would be easily accessible to stakeholders and senior management staff of the MET. are submitted to management for action. NAMETT evaluation could then be linked to adaptive management and review of park management and strategic plans.

Chapter 5: Conclusions and recommendations

5.1 Introduction

The key findings of the project in relation to objectives set are reflected upon in this chapter. Conclusions are drawn based on the outcomes of the data collected and discussions presented in Chapter 4. The outcomes are discussed in light of the expectations of outcomes at project inception.

5.2 Management effectiveness of protected areas

The need for management effectiveness evaluation of PAs has become central to PA management around the world. Protected area management agencies, civil society, donors and communities are increasingly demanding to know if PAs are being managed to meet their objectives. There is a need for reassurance of stakeholders and civil society that the financial resources spent on PA management brings the desired results. The desired state is management of PAs that ensures biodiversity conservation, geological and cultural heritage preservation and provision of the social and economic benefits.

Many countries around the world, including Namibia are signatories to the CBD and thus are obliged through the CBD's PoWPAs and WCPAs to ensure management effectiveness of PAs. The WCPAs has since developed a framework for assessing management effectiveness of PAs. A number of management effectiveness tracking tools have since been developed based on the framework. The METT tool developed by the World Bank/WWF alliance on PAs is based is also based on this framework. Both these international NGOs and the CBD's programmes advocates for implementation of management effectiveness tracking tools based on the WCPA framework. Thus far a number of assessments have been undertaken and some donors have adopted some of the tools for use in the areas that they support. A good example is the GEF-UNDP alliance on PAs which have adopted the METT tools for use by all its PA management projects around the world. There is no standard tool recommended for use in PAs around the world. Case studies and research mainly conducted by the WCPA's Management Effectiveness Task Force team has indicated that different tools are suited to

different areas and conditions around the world. As such its encouraged for each specific area to do their own assessment and determine which tool would best suit their area and whether modification of the specific tool is necessary.

5.3 Current state with regard to management effectiveness evaluation of protected areas in Namibia

There is currently no management effectiveness evaluation tool based on the WCPA framework adopted by the MET for management effectiveness evaluation of PAs in Namibia. Data and information gathered indicates that park reports (monthly, quarterly, and annual), physical inspections and the IBMS are the only tools used by the MET for reporting on activities in the PAs. These however cannot indicate the degree of management effectiveness of PAs.

NAMETT has been implemented twice as part of the UNDP-GEF funded SPAN Project. The assessment involved both SPAN and MET field staff. Information and data collected through the two NAMETT assessments shows that there is good progress in PA management in Namibia, however there is still room for improvement. A number of issues such as underfunding of PAs, maintenance of equipment and lack of enabling policy to combat law enforcement hinder effective PA management. Furthermore the assessment revealed that most of the improvement in PAs captured by the NAMETT assessment was through donor funds. Therefore rendering the progress made unsustainable as donor funding is short-lived. Intervention through finalisation of the current draft Parks and Wildlife Management Bill into an Act will go a long way in improving management effectiveness of PAs. At the moment lack of appropriate legislation constrains a number of management activities including law enforcement which is critical for averting illegal harvesting of natural resources. Alternative source of funding for PAs and returning some of the income generated by PAs for operations could alleviate funding constraints. Self-sustaining funding mechanisms need to be in place for individual PAs to be able to generate income through tourism and concessioning and utilising the income in PA management activities.

Therefore the two NAMETT assessments provided good information which can assist with decision making and prioritization of issues and interventions in the different PAs.

5.4 Strengths and weaknesses of the NAMETT tool

The NAMETT is designed to be simple and user friendly tool for management effectiveness evaluation. The SPAN Project use of the tool shows that much needed information on PAs can easily be obtained through implementation of NAMETT. Results help decision makers to be aware of issues and areas that need intervention. This can go a long way in helping the MET to be aware of the management effectiveness of each specific park or area.

The tool however should be used in a manner that the implementing agency is aware of the different technicalities that should be taken into consideration when using the tool. For example some of the questions on the assessment form might not apply to certain areas, while in some parks the functions of park management agency whose staff are assessed is very much narrower rendering most of the questions on the assessment form to be inapplicable.

Furthermore lessons learnt from NAMETT implementation by the SPAN Project shows that the whole concept of “scoring” progress using the tool is fraught with difficulties and it is a challenge to weigh different responses and decide on the score. As such it is very important for people undertaking the implementation to be well conversant with the tool and be trained on how to use it and also understand the circumstances of the parks and areas in which the tool should be implemented.

Interviewing more than one staff member of a particular PA is much more useful and provides genuine data and results. Other challenges include situations where new staff members are assessed. This may lead to fraught answers and inconclusive responses due to lack of surety. In some cases staff being assessed seems to be wary that they are being assessed on how they are running the park and re-assurances are always needed to ensure that it is the system that is being assessed and not the staff as individuals. Therefore all these technicalities need to be taken into consideration when using the NAMETT tool and assessors have to be well conversant with the tool for reliable data collection.

5.5 Possible integration of NAMETT as a management effectiveness tool in Namibia's protected management

Section 5.4 above shows that the NAMETT tool has both advantages and disadvantages and presents technicalities that could affect outcomes of assessments if not addressed. However when implemented well the tool provides useful information. Lessons learnt from implementation of the tool by the SPAN Project shows that the technical challenges of implementing the tool and some of its weaknesses can be addressed through proper preparation of the assessment, training of the assessors as well as knowledge of the area and the organization/agency responsible for the PAs to be assessed.

Given this scenario and the fact that Namibia has international obligations for management effectiveness evaluation (section 5.2 above) it would be beneficial for the MET to adopt NAMETT for management effectiveness evaluation of the PAs. Information gleaned from these assessments will go a long way in assisting the MET in decision making, planning and adaptive management of PAs. Adoption of NAMETT could be implemented in phases. A piloting exercise could be undertaken to determine the modalities of future implementation plan and resources required within MET. The final decision whether to adopt the tool could benefit from information from such a pilot exercise together with information from the two assessments undertaken by SPAN.

If MET decides to adopt NAMETT then a focal person with knowledge of the tool and who is capable of providing training and support for management effectiveness evaluations is needed to facilitate the process. This person should have knowledge of database management for long term data collection. This would create an opportunity for this focal person to serve as the link between head office and field staff. At the moment the information and communication gap between field staff and senior management staff in Windhoek is very wide.

The mere action of implementing a management effectiveness evaluation tool brings about much needed discussions and awareness within PA management staff for improved management of PAs.

Furthermore NAMETT can benefit PA managers and policy makers in many ways including: detection of unexpected trends, developing appropriate policies and strategies; learning from successes and failures and promotion of transparency and accountability in PA management (Ervin, 2007b).

NAMETT assessment results can help benefit other processes of PA management such as park management plan review and allocation of resources to PAs. The NAMETT evaluations could be implemented in the iterative management processes which the MET needs to develop as part of its new strategic plan. The tool will support other management processes such as planning, budgeting and boosting annual reports with valuable information and compliment other tools such as the IBMS in delivery of critical information for decision making on PAs (Figure 8 below).

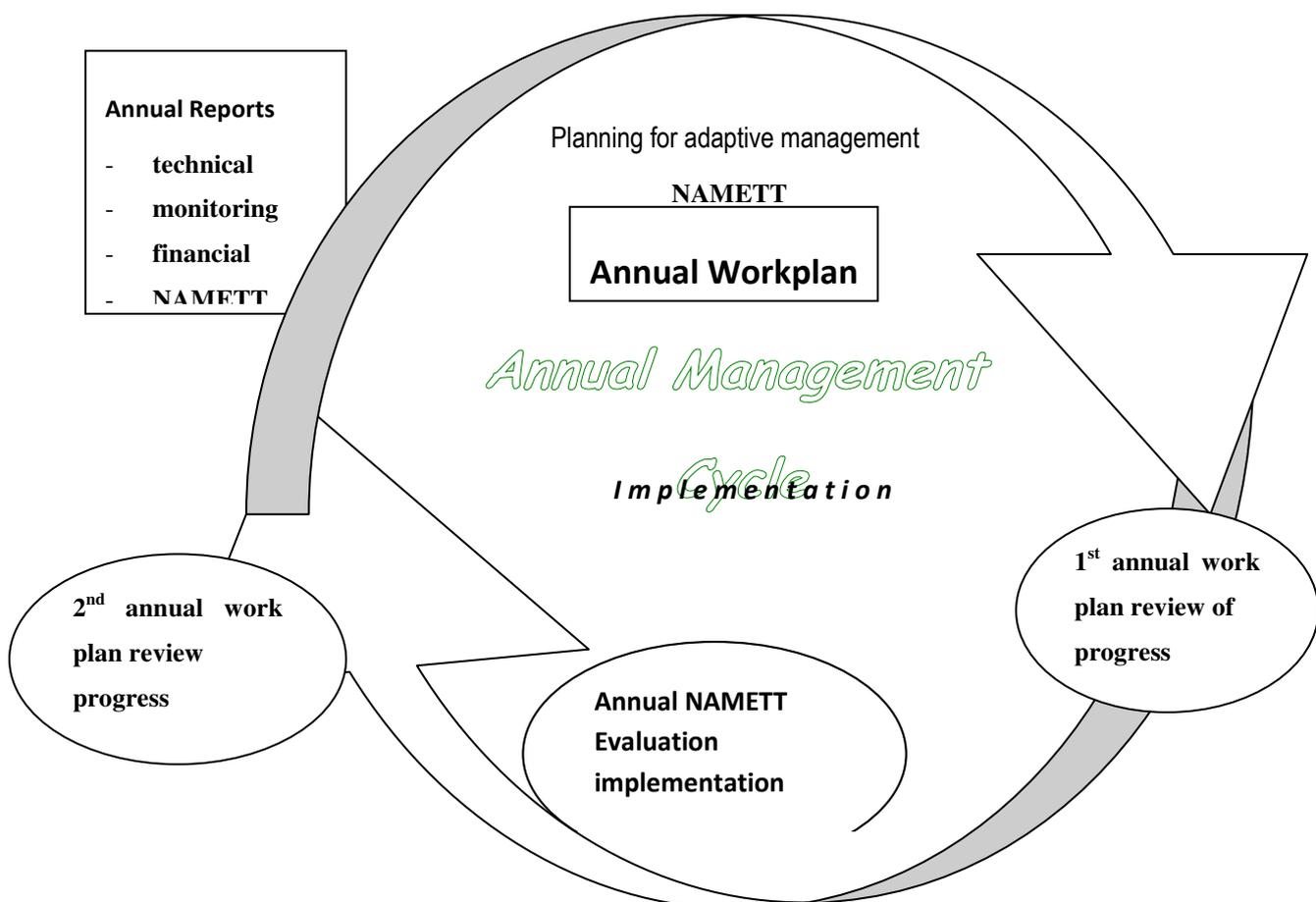


Figure 8: Park management cyclic system that enhances management effectiveness in PAs with NAMETT integrated as part of the tools for monitoring.

MET senior management and field staff interviewed indicated that it will be beneficial for MET if it adopts NAMETT as the tool will provide valuable information on management effectiveness of PAs.

5.6 Making the NAMETT tool more useful for protected area management effectiveness in Namibia

Based on the research conducted for this study, including both literature review and data and information collected, it can be concluded that the NAMETT tool needs further modifications and alignment to local conditions for better information and data capture on management effectiveness evaluation. The tool itself needs to be scrutinized to ensure questions and issues on the tool are in line with local conditions for PA management for example removal of questions which addresses issues that park staff in Namibia are not responsible for but which could be part of park staff duties in other countries.

A PA management system that will link the NAMETT data to other tools used to ascertain the status of PAs such as the IBMS and game surveys is needed in Namibia's PA management framework. This will make it easier to determine management effectiveness of the different PAs by using data and information from different tools and methods.

The NAMETT tool should be adapted and aligned further to local situation of PA management. A number of technicalities on the tool itself need to be addressed. For example questions that do not apply to the Namibian PA management situation need to be removed from the tool and wording of some of the questions changed for easier implementation of the tool. A workshop on management effectiveness evaluation of PAs could be organized through the SPAN Project to discuss and align the NAMETT tool to local PA management situation. Participation of both field and management staff would be critical at such a workshop to agree on the changes to the tool and guidelines on implementation.

There is a need to develop a local guide and best practice booklet for implementation of the NAMETT tool. Such a guidebook should be targeted at practitioners and MET staff members involved in NAMETT assessment implementation. The guidebook should include the following lessons learnt from NAMETT implementation by the SPAN Project:

- NAMETT assessment interviews should involve more than one individual in each PA, assessors should weigh up differing views to reach a final score, promoting objectivity in the assessments.
- Where possible, the same people should be targeted for successive assessments in the different PAs and notes should be used as baseline to guide and ensure consistency in the evaluation.
- During successive assessments, whenever the score is different from the previous score, justification should be sought from the assessed individual (s) as to why the score had changed.
- Interviews should be held at site level. It is possible to see the type of environment being managed, the state of the vegetation and wildlife, the access conditions, and other elements being assessed such as equipments, staff and infrastructure.
- Questions deemed irrelevant should be left blank and the final score should be adjusted accordingly (see section 3.1).

5.7 Further research on management effectiveness evaluation of protected areas in Namibia

This research study is the first of its kind in Namibia. It is therefore imperative that further research would be undertaken on management effectiveness evaluation of PAs to further consolidate the current limited knowledge on this topic.

A much broader study that could cover other parks where some of the data are not collected and wider questionnaire survey targeting a large number of respondents including the recently proclaimed marine protected area, conservancies and private reserves would provide a bigger and wider scope of analysis and discussion and help guide the use of the NAMETT tool and further provide further direction on further aligning the tool to local conditions.

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8. Appendix

Appendix 1: Names of staff members assessed in 2004 and 2009

Site Name	2004 assessed	2009 assessed
/Ai-/Ais Hotsprings Game Park	Wayne Handley.(Ranger:Naute)	Eben Naude(Warden),Wayne Handley (S.Ranger),Max Witbooi(Ranger)
Bwabwata National East	Richard Aingura.(Warden)	M. Shikongo (Warden),S. Siloka(Chief Warden)
Cape Cross Seal Reserve	Mr M. Le Roux (Chief Warden)	H B M Le Roux (Chief Control Warden)
Daan Viljoen Game Park	Penda Shimali (Warden)	Likius Viva Tjivikua(Ranger), Penda Shimali (Warden)
Etosha National Park-EAST	Shane Kötting (Warden); Michael Sibalatani (Chief Control Warden)	Michael Sibalatani(Chief Control Warden),Rehabeam Erckie(Chief Warden)
Etosha National Park-WEST	Bonny Simata (Warden)	Michael Sibalatani, (Chief Control Warden),Shedrick Kaseba(Chief Warden),Shayne Kottling(Warden),Richards Aingura(Warden)
Hardap Game Park	Georgina van Wyk (Warden) Sabina Nakwaya (Ranger)	Obert Rukoro(warden),Ellis Eiseb(Ranger)
Khaudum National Park	Dries Alberts (Warden) T. Max Ciqac (Ranger)	P. Steyn(chief warden),D. Alberts(Warden)
Mahango and Buffalo Core	Leeverty Muyoba (Warden)	P.Steyn(Chief Warden)
Mamili National Park	Helmut Tjikurunda (Warden)	S.Siloka(Chief Warden)
Mudumu National Park	Helmut Tjikurunda (Warden) Matambo Singwangwa (Ranger)	S.Siloka(Chief Warden)
Namib Naukluft Park-NORTH	W. Sitentu & E. Kalundingo (Rangers) H. M Le Roux (Chief Warden)	H. M Le Roux (Chief Control Warden)
Namib Naukluft Park-SOUTH	Timothy Iita (Warden) H. M. Le Roux (Chief Warden)	Trygve Cooper (Chief Warden)
Naute Game Park	Wayne Handley	Eben Naude(Warden), Wayne Handley(S.Ranger),Max Witbooi(Ranger)
Skeleton Coast Park	John Paterson, Warden	Mr G Somaeb(Chief Warden), M. Sibalatani (Chief Control Warden)
Sperrgebiet National Park	Trygve Cooper (Chief Warden)	Trygve Cooper (Chief Warden)
Von Bach Game Park	Penda Shimali (Warden)	Likius Viva Tjivikua(Ranger), Penda Shimali (Warden)
Waterberg Plateau Park	Boas Erckie (Chief Warden)	Boas Erckie (Chief Control Warden)

Appendix 2: Namibia Management Effectiveness Tracking Tool Questionnaire

***Strengthening the Protected Area Network
(SPAN) Project***

**Reporting Progress in Namibia's
Protected Areas**

Namibia METT (NAMETT)

**Adapted from the *Management Effectiveness Tracking Tool* (METT) developed
by World Bank/WWF – Forest Alliance**

<http://www.panda.org/> <http://www.worldbank.org/>

Reporting Progress in Namibia's Protected Areas: Data Sheet

Name of protected area			
Location of protected area (country and if possible map reference)			
Date of establishment (distinguish between agreed and gazetted*)	Agreed	Gazetted	
Ownership details (i.e. owner, tenure rights etc)			
Management Authority		Size (ha)	
Number of staff	Permanent	Temporary	
Budget			
Designations (IUCN category, World Heritage, Ramsar etc)			
Reasons for designation			
Brief details of World Bank funded project or projects in PA			
Brief details of WWF funded project or projects in PA			
Brief details of other relevant projects in PA			
List the two primary protected area objectives			
Objective 1			
Objective 2			
List the top two most important threats to the PA (and indicate reasons why these were chosen)			
Threat 1			
Threat 2			
List top two critical management activities			
Activity 1			
Activity 2			
Date assessed	D / M / Y	Assessor(s)	

Details of those assessed/ interviewed (<i>incl. name, position/post, phone, email</i>)	
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Issue	Criteria	2004	2009	Note
1. Legal status Does the protected area have legal status? <i>Context</i>	The protected area is not gazetted	0	0	
	The government has agreed that the protected area should be gazetted but the process has not yet begun	1	1	
	The protected area is in the process of being gazetted but the process is still incomplete	2	2	
	The protected area has been legally gazetted (or in the case of private reserves is owned by a trust or similar)	3	3	
2. Protected area regulations Are inappropriate land uses and activities (e.g. poaching) controlled? <i>Context</i>	There are no mechanisms for controlling inappropriate land use and activities in the protected area	0	0	
	Some mechanisms for controlling inappropriate land use and activities in the protected area exist, but there are large gaps.	1	1	
	Mechanisms for controlling most inappropriate land use and activities in the protected area exist.	2	2	
	Mechanisms for controlling all inappropriate land use and activities in the protected area exist and are being effectively implemented	3	3	
3. Law enforcement Can staff enforce protected area rules well enough? <i>Context</i>	The staff have no effective capacity/resources to enforce protected area legislation and regulations	0	0	
	There are major deficiencies in staff capacity/resources to enforce protected area legislation and regulations (e.g. lack of skills, no patrol budget)	1	1	
	The staff have acceptable capacity/resources to enforce protected area legislation and regulations but some deficiencies remain	2	2	
	The staff have excellent capacity/resources to enforce protected area legislation and regulations	3	3	
4. Protected area objectives Is PA managed with the aim of meeting the stated objectives? <i>Planning</i>	No firm objectives have been agreed for the protected area	0	0	
	The protected area has agreed objectives, but is not managed according to these objectives	1	1	
	The protected area has agreed objectives, but these are only partially implemented	2	2	
	The protected area has agreed objectives and is managed to meet these objectives	3	3	

Issue	Criteria	2004	2009	Note
5. Protected area design Does the protected area need enlarging, corridors etc to meet its objectives? <i>Planning</i>	Inadequacies in design mean achieving the protected areas major management objectives of the protected area is impossible	0	0	
	Inadequacies in design mean that achievement of major objectives are constrained to some extent	1	1	
	Design is not significantly constraining achievement of major objectives, but could be improved	2	2	
	Reserve design features are particularly aiding achievement of major objectives of the protected area	3	3	
6. Protected area boundary demarcation Is the boundary known and demarcated? <i>Context</i>	The boundary of the protected area is not known by the management authority or local residents/neighbouring land users	0	0	
	The boundary of the protected area is known by the management authority but is not known by local residents/neighbouring land users	1	1	
	The boundary of the protected area is known by both the management authority and local residents but is not appropriately demarcated	2	2	
	The boundary of the protected area is known by the management authority and local residents and is appropriately demarcated	3	3	

Issue	Criteria	2004	2009	Note
7. Management plan Is there a management plan and is it being implemented? <i>Planning</i>	There is no management plan for the protected area	0	0	
	A management plan is being prepared or has been prepared but is not being implemented	1	1	
	A management plan exists but it is only being partially implemented because of funding constraints or other problems	2	2	
	A management plan exists and is being implemented	3	3	
Additional points <i>Planning</i>	A1 The planning process allows adequate opportunity for key stakeholders to influence the management plan	+1	+1	
	A2 There is an established schedule and process for periodic review and updating of the management plan	+1	+1	
	A3 The results of monitoring, research and evaluation are routinely incorporated into planning	+1	+1	
8. Regular work plan Is there an annual work plan? <i>Planning/Outputs</i>	No regular work plan exists	0	0	
	A regular work plan exists but activities are not monitored against the plan's targets	1	1	
	A regular work plan exists and actions are monitored against the plan's targets, but many activities are not completed	2	2	
	A regular work plan exists, actions are monitored against the plan's targets and most or all prescribed activities are completed	3	3	
9. Resource inventory Do you have good information which you use to manage the area? <i>Context</i>	There is little or no information available on the critical habitats, species and cultural values of the protected area	0	0	
	Information on the critical habitats, species and cultural values of the protected area is not sufficient to support planning and decision making	1	1	
	Information on the critical habitats, species and cultural values of the protected area is sufficient for key areas of planning/decision making but the necessary survey work is not being maintained	2	2	

Issue	Criteria	2004	2009	Note
	Information concerning on the critical habitats, species and cultural values of the protected area is sufficient to support planning and decision making and is being maintained	3	3	
10. Research	There is no survey or research work taking place in the protected area	0	0	
Is there a programme of management-orientated monitoring and research work?	There is some <i>ad hoc</i> survey and research work	1	1	
<i>Inputs</i>	There is considerable survey and research work but it is not directed towards the needs of protected area management	2	2	
	There is a comprehensive, integrated programme of survey and research work, which is relevant to management needs	3	3	
11. Resource management	Requirements for active management of critical ecosystems, species and cultural values have not been assessed	0	0	
Is the protected area being managed consistent to its objectives (e.g. for fire, invasive species, poaching)?	Requirements for active management of critical ecosystems, species and cultural values are known but are not being addressed	1	1	
<i>Process</i>	Requirements for active management of critical ecosystems, species and cultural values are only being partially addressed	2	2	
	Requirements for active management of critical ecosystems, species and cultural values are being substantially or fully addressed	3	3	
12. Staff numbers	There are no staff	0	0	
Are there enough people employed to manage the protected area?	Staff numbers are inadequate for critical management activities	1	1	
<i>Inputs</i>	Staff numbers are below optimum level for critical management activities	2	2	
	Staff numbers are adequate for the management needs of the site	3	3	

Issue	Criteria	2004	2009	Note
13. Personnel management Are the staff managed well enough? <i>Process</i>	Problems with personnel management constrain the achievement of major management objectives	0	0	
	Problems with personnel management partially constrain the achievement of major management objectives	1	1	
	Personnel management is adequate to the achievement of major management objectives but could be improved	2	2	
	Personnel management is excellent and aids the achievement major management objectives	3	3	
14. Staff training Is there enough training for staff? <i>Inputs/Process</i>	Staff are untrained	0	0	
	Staff training and skills are low relative to the needs of the protected area	1	1	
	Staff training and skills are adequate, but could be further improved to fully achieve the objectives of management	2	2	
	Staff training and skills are in tune with the management needs of the protected area, and with anticipated future needs	3	3	
15. Current budget Is the current budget sufficient? <i>Inputs</i>	There is no budget for the protected area	0	0	
	The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage	1	1	
	The available budget is acceptable, but could be further improved to fully achieve effective management	2	2	
	The available budget is sufficient and meets the full management needs of the protected area	3	3	
16. Security of budget Is the budget secure? <i>Inputs</i>	There is no secure budget for the protected area and management is wholly reliant on outside or year by year funding	0	0	
	There is very little secure budget and the protected area could not function adequately without outside funding	1	1	
	There is a reasonably secure core budget for the protected area but many innovations and initiatives are reliant on outside funding			
	There is a secure budget for the protected area and its management needs on a multi-year cycle			

Issue	Criteria	2004	2009	Note
17. Management of budget Is the budget managed to meet critical management needs? <i>Process</i>	Budget management is poor and significantly undermines effectiveness			
	Budget management is poor and constrains effectiveness			
	Budget management is adequate but could be improved			
	Budget management is excellent and aids effectiveness			
18. Equipment Is equipment adequately maintained? <i>Process</i>	There is little or no equipment and facilities			
	There is some equipment and facilities but these are wholly inadequate			
	There is equipment and facilities, but still some major gaps that constrain management			
	There is adequate equipment and facilities			
19. Maintenance of equipment Is equipment adequately maintained? <i>Process</i>	There is little or no maintenance of equipment and facilities			
	There is some <i>ad hoc</i> maintenance of equipment and facilities			
	There is maintenance of equipment and facilities, but there are some important gaps in maintenance			
	Equipment and facilities are well maintained			
20. Education and awareness programme Is there a planned education programme? <i>Process</i>	There is no education and awareness programme			
	There is a limited and <i>ad hoc</i> education and awareness programme, but no overall planning for this			
	There is a planned education and awareness programme but there are still serious gaps			
	There is a planned and effective education and awareness programme fully linked to the objectives and needs of the protected area	3	3	

Issue	Criteria	2004	2009	Note
21. State and commercial neighbours Is there co-operation with adjacent land users? <i>Process</i>	There is no contact between managers and neighbouring official or corporate land users	0	0	
	There is limited contact between managers and neighbouring official or corporate land users	1	1	
	There is regular contact between managers and neighbouring official or corporate land users, but only limited co-operation	2	2	
	There is regular contact between managers and neighbouring official or corporate land users, and substantial co-operation on management	3	3	
22. Residents Do people resident or regularly using the PA have input to management decisions? <i>Process</i>	They have no input into decisions relating to the management of the protected area	0	0	
	They have some input into discussions relating to management but no direct involvement in the resulting decisions	1	1	
	They directly contribute to some decisions relating to management	2	2	
	They directly participate in making decisions relating to management	3	3	
23 A. Traditional authorities Do traditional authorities near the protected area have input to management decisions? <i>Process</i>	They have no input into decisions relating to the management of the protected area	0	0	
	They have some input into discussions relating to management but no direct involvement in the resulting decisions	1	1	
	They directly contribute to some decisions relating to management	2	2	
	They directly participate in making decisions relating to management	3	3	
23 B. Local communities Do near the protected area have input to management decisions? <i>Process</i>	They have no input into decisions relating to the management of the protected area	0	0	
	They have some input into discussions relating to management but no direct involvement in the resulting decisions	1	1	
	They directly contribute to some decisions relating to management	2	2	
	They directly participate in making decisions relating to management	3	3	

Issue	Criteria	2004	2009	Note
Additional points <i>Outputs</i>	A4 There is open communication and trust between local stakeholders and protected area managers	+1	+1	
	A5 Programmes to enhance local community welfare, while conserving protected area resources, are being implemented	+1	+1	
24. Visitor facilities Are visitor facilities (for tourists, pilgrims etc) good enough? <i>Outputs</i>	There are no visitor facilities and services	0	0	
	Visitor facilities and services are inappropriate for current levels of visitation or are under construction	1	1	
	Visitor facilities and services are adequate for current levels of visitation but could be improved	2	2	
	Visitor facilities and services are excellent for current levels of visitation	3	3	
25. Commercial tourism Do commercial tour operators contribute to protected area management? <i>Process</i>	There is little or no contact between managers and tourism operators using the protected area	0	0	
	There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters	1	1	
	There is limited co-operation between managers and tourism operators to enhance visitor experiences and maintain protected area values	2	2	
	There is excellent co-operation between managers and tourism operators to enhance visitor experiences, protect values and resolve conflicts	3	3	
26. Fees If fees (tourism, fines) are applied, do they help protected area management? <i>Outputs</i>	Although fees are theoretically applied, they are not collected	0	0	
	The fee is collected, but it goes straight to central government and is not returned to the protected area or its environs	1	1	
	The fee is collected, but is disbursed to the local authority rather than the protected area	2	2	
	There is a fee for visiting the protected area that helps to support this and/or other protected areas	3	3	
27. Condition assessment	Important biodiversity, ecological and cultural values are being severely degraded	0	0	

Issue	Criteria	2004	2009	Note
	Some biodiversity, ecological and cultural values are being severely degraded	1	1	
	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted	2	2	
	Biodiversity, ecological and cultural values are predominantly intact	3	3	
<i>Additional points</i> <i>Outputs</i>	A6 There are active programmes for restoration of degraded areas within the protected area and/or the protected area buffer zone	+1	+1	

Issue	Criteria	2004	2009	Note
28. Access assessment Are the available management mechanisms working to control access or use? <i>Outcomes</i>	Protection systems (patrols, permits etc) are ineffective in controlling access or use of the reserve in accordance with designated objectives	0	0	
	Protection systems are only partially effective in controlling access or use of the reserve in accordance with designated objectives	1	1	
	Protection systems are moderately effective in controlling access or use of the reserve in accordance with designated objectives	2	2	
	Protection systems are largely or wholly effective in controlling access or use of the reserve in accordance with designated objectives	3	3	
29. Economic benefit assessment Is the protected area providing economic benefits to local communities? <i>Outcomes</i>	The existence of the protected area has reduced the options for economic development of the local communities	0	0	
	The existence of the protected area has neither damaged nor benefited the local economy	1	1	
	There is some flow of economic benefits to local communities from the existence of the protected area but this is of minor significance to the regional economy	2	2	
	There is a significant or major flow of economic benefits to local communities from activities in and around the protected area (e.g. employment of locals, locally operated commercial tours etc)	3	3	
30. Monitoring and evaluation <i>Planning/Process</i>	There is no monitoring and evaluation in the protected area	0	0	
	There is some <i>ad hoc</i> monitoring and evaluation, but no overall strategy and/or no regular collection of results	1	1	
	There is an agreed and implemented monitoring and evaluation system but results are not systematically used for management	2	2	
	A good monitoring and evaluation system exists, is well implemented and used in adaptive management	3	3	
TOTAL SCORE				

Appendix 3: Names people interviewed with the qualitative questionnaire survey

No	Name	Position	Organisation
1	Mr. Ben Beytell	Director-DPWM	MET
2	Kenneth Uiseb	D/Director-Scientific services	MET
3	Mr. Colgar Sikopo	D/Director-DPWM	MET
4	Mrs. Midori Paxton	Project Coordinator	SPAN
5	Mr. Simon Mayes	Field Coordinator	SPAN
6	Dr. Chris Brown	Executive Director	NNF
7	Mr. Harry Tjihukununa	CCW-South	MET
8	Mr. Mannie Le-Roux	CCW-NNP	MET
9	Mr. Andre Baumgarten	Project Manager	EWERAP
10	Mr. Trygve Cooper	CW-Sperrgebiet	MET
11	Mr. Wayne Handley	S/Ranger-Ai-Ais	MET
12	Mr. Obert Rukoro	Warden-Hardap	MET

Appendix 4: Questionnaire survey used in collecting qualitative data

NAMIBIA MANAGEMENT EFFECTIVENESS TRACKING TOOL

Questionnaire survey

Version 2

Enumerator _____ **Questionnaire Number** _____ **Date** _____

Name: _____

Organization: _____

Position _____

Duty Station _____

1. Do you know about management effectiveness of protected areas?

Yes _____ No _____

2. In your own views what do you think is management effectiveness of protected areas?

3. What is the most important function of PA management (Rank from the most important to the least. 1 (highest rank) 9 (lowest rank))

No	Aspect	Rank
1	Biodiversity management	
2	Monitoring and research	
3	Personnel management	

4	Law enforcement	
5	Tourism management	
6	Park neighbor collaboration	
7	Infrastructure maintenance	
8	Rehabilitation and restoration	
9	Other (please specify) _____	

4. (a) What measures do you currently employ in measuring management effectiveness (ME)

(b) How often do you use the above method to measure ME

(c) Does the method(s) provide information on ecological/biodiversity aspects?

Yes _____ No _____

(d) What type of ecological/biodiversity information is provided

(e) In what form is the information provided

(f) How regularly is the evaluation undertaken?

(g) Who or which agency undertakes this evaluation

5. Do you think its necessary to undertake management effectiveness evaluation of protected areas

Yes_____ No_____

Give reason for your answer

6. (a) Are you aware of the World Bank/WWF's Management Effectiveness Tracking Tool (METT) and the METT adapted for Namibia (NAMETT)?

Aware of NAMETT_____

Aware of METT_____

Aware of both_____

Not Aware of any_____ (move to question 11)

b) (i) Have you used any of the two tools for management effectiveness evaluation?

Yes_____ No_____

(c) (ii) If yes which tool have you used_____

7. What was the main reason for using the tool?

Do you think the tool is helpful in terms of management effectiveness evaluation (

Yes_____ No_____

(a) Give reason for your answer above

(b) Do you think the tool can be improved to better capture more information on Protected Area Management Effectiveness (PAME)/ better assess PAME

(i) Yes _____ No _____

(ii) If YES can you indicate what changes you think can improve the tool if NO provide reasons

(c) Do you think the tool can be better structured for easier capturing of information?

Yes _____ No _____

If yes is there a need to add more questions or change /improve on the existing questions

Add more questions _____

Change/Improve on the existing ones _____

Why? _____

8. Do you find data and information that is obtained from NAMETT assessment useful in terms of decision making for PA management

Yes _____ No _____

If yes please explain how the information is used and give examples if possible

9. Do you think NAMETT results correlate to other measures of park successes or progress

Yes _____ No _____

Please give reason for your response above

10. Do you think the NAMETT tool can be used as the standard tool for management effectiveness evaluation in Namibia's protected areas

Yes _____ No _____

(a) Give reason for your response

(b) If No how best do you think management effectiveness should be evaluated in Namibia's PAs

(c) If yes how can the tool be integrated into PA management in Namibia for Management effectiveness evaluation

In your own opinion who should carry out these evaluations once NAMETT is integrated and Why?

Institution to carry out evaluation _____

Reason why institution is suitable for carrying out evaluation _____

11. What intervals do you think management effectiveness evaluations should be undertaken in PAs

12. If you're familiar with management effectiveness tools in general , what gaps do you notice?

13. How can a PAME assessment best evaluate biodiversity/ecological aspects?

THANK YOU VERY MUCH FOR YOUR TIME

Appendix 5: Modifications to the METT questionnaire prior to the 2004 assessment resulting in NAMETT

Namibia METT modifications

This is a review and preliminary notes for the application of the METT following discussions within PMU and with Directors of DPWM and DSS.

Where

Aim is to assess all protected areas under MET.

Parks designated as 'priority' under project to be assessed first, followed by other PAs, followed by some key conservancies.

See attached table

Who

1. *Who to carry out assessments*

PMU will carry out all assessments, assisted/accompanied by MET staff.

2. *Who to assess*

- a. The Chief Warden responsible for each PA,
- b. Highest ranking officer present in each PA (if not Chief Warden),
- c. One other – APU/Ranger/Scout

3. There is also the potentially valuable possibility of self-assessment from Windhoek/regional offices: ask Chief Control Warden to complete (perhaps focusing on scoring rather than full comments). These would be compared with the assessments completed in the field.

Individual questions

The following is a collection of suggested improvements.

Question	Comment
Datasheet	Objectives/Threats/Activities – would be interesting to compare official answers with those perceived by PA staff Record assessor and assessed.
2	Concerns legal capacity (see q. 3) Do the staff have a clear definition of what is illegal?
3	Concerns human capacity (see q. 2) Are the staff able to enforce the regulations?

4	Make question wording more explicit: "...is managed with the aim of meeting the objectives."
6	There is no answer for 'people knowing better than staff' – but then how would that be assessed?
7	Is it a new plan or an old plan? Old plans follow no set format, new plans do. Is the plan approved? This is perhaps not as important as whether or not the management plan is consulted or used. So, remove word "approved" from question. For score 0 – is this because there are no staff to develop one?
8	'Work plan' may be known as 'development plan', but although one may stem from the other, they are not exactly the same.
9	Is the inventory being used effectively, or are staff blissfully unaware that a tremendous resource is sitting unused? Question should be adjusted to include element of 'effective use'.
10	Who is undertaking the research? Who gains access to/retains the data once collected/analysed? Is it ongoing/maintained? 'Survey' may be interpreted as 'aerial survey' – better to use 'monitoring'.
11	Very big question – see q. 27. Question should contain "consistent to its objectives". Are staff able to accomplish the required management tasks?
12	Question could more usefully address balance/composition of staff: not total number of staff which is important, but right distribution. Is the structure/hierarchy top-heavy, or lacking people in management positions? Redesign question/answers to reflect this.
13	Motivation, etc – management in terms of 'right person for right job' should be dealt with in q. 12.
14	Ensuring <i>appropriate</i> training for staff is key here. This depends upon stated objectives of PA management.
16	Once approved, the budget is almost totally secure.
20	Important to ascertain who is carrying out programme, and whether it is aimed at local people, visitors, staff, etc.
22/23	Originally the same question asked about indigenous people and local people. Could be made more useful by redesigning and adding a further question, so that the question is asked of: i) residents, ii) traditional authorities, iii) others including neighbouring communities/local people.
24	'Visitor facilities' should include services such as guides/guards/scouts, etc. Not assessing NWR. Don't assume that all tourist accommodation is managed by NWR.
25	NWR does not count as a commercial operator.
27	See also q.11. The question should be "Is the PA being managed well?", and reference made to important biodiversity, ecological and cultural values.
29	Important to note differences between direct and indirect flows.

Other issues

It would be very useful to coordinate the routine monitoring system already being developed in MET with the routine METT assessments carried under the project. The PMU should meet with Jo Tagg/Greg Stuart-Hill to discuss.

Appendix 6: Ethical clearance letter

Samson Mulonga
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Dear Participant

RE: CONSENT TO PARTICIPATE IN THE MANAGEMENT EFFECTIVENESS TRACKING TOOL RESEARCH PROJECT OF MR. SAMSON MULONGA OF KEETMANSHOOP, NAMIBIA

Mr. Samson Mulonga (Bachelor of science: Natural Resources, University of Namibia) contact details provided above is studying for a two year distance learning degree programme of Masters in Environment and Development at the Centre for Environment, Agriculture and development of the University of Kwazulu Natal.

As part of this programme Mr. Mulonga is required to undertake a mini-dissertation research project. As such Mr. Mulonga has embarked on a research project titled: A critical assessment of the Namibian protected area Management Effectiveness Tracking Tool (NAMETT). The purpose of the research project is to evaluate whether NAMETT can be used as the standard tool for management effectiveness evaluation of Protected Areas (PAs) by looking at the strengths and weaknesses of the tool and potential for development and integration in Namibia's PA management system. Furthermore the research will provide information on the general trend of current management effectiveness in Namibia's PAs.

Part of this research project is a questionnaire survey targeted at the Ministry of Environment and Tourism (MET) staff of the Directorate of Parks and Wildlife Management (DPWM) who are responsible for PA management in Namibia as well as other individuals who are involved in using the NAMETT tool in Namibia. The questionnaire consists of a set of questions aimed at gathering individual opinion on management effectiveness of Namibia's PAs and tools used as well as opinions on NAMETT.

Therefore you have been identified as one of the respondents of the questionnaire by virtue of being a staff member of DPWM or as a stakeholder in the PA management industry in Namibia. Your participation in the questionnaire will be confidential and information provided is solely for the purposes of the research project and shall not be exposed to a third party. Furthermore once the research project is completed information collected will be stored in a designated place through the guidance of the University of KwaZulu-Natal. Your participation is voluntary and should you decide not to participate your decision will be respected. Furthermore you are free to withdraw from participating in the questionnaire at any stage for any reasons.

The questionnaire survey will be administered by Mr. Samson Mulonga under the supervision of Dr. Mark Dent (Tel. +27-33-260-5730, Fax +27-33-260-6118, Dent@ukzn.ac.za), of the University of Kwa-Zulu Natal who will guide the research project.

Thank you very much

Samson Mulonga

Student: Protected Areas Management

University of Kwa-Zulu Natal

Student Number: 208521008