

EFFECTIVENESS OF ENVIRONMENTAL MANAGEMENT FRAMEWORKS IN SOUTH AFRICA:

Evaluating stakeholder perceptions and expectations

by

Khanyiso Edmund Mtolo

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Faculty of Science and Agriculture,

University of KwaZulu-Natal (Pietermaritzburg)

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Abstract

The interest in environment and environmental management in South Africa is growing rapidly. Although the sector is still developing, South Africa has achieved commendable progress compared to global trends and standards. As the natural resources are becoming increasingly vulnerable by over-utilization and environmental degradation, the development and implementation of effective decision support tools is becoming increasingly important. For these reasons, it is likely that environmental management tools will continue to develop in South Africa and it is therefore vital that these tools are developed to ensure that development is conducted in an environmentally sound and sustainable manner.

Environmental Management Frameworks (EMFs), as one of the decision support tools within the Integrated Environmental Management system, were officially proclaimed under National Environmental Management Act, Act 107 of 1998, Environmental Impact Assessment Regulations (NEMA EIA Regulations) of 2006, which have since been amended to NEMA EMF Regulations. The Department of Environmental Affairs, as a leading agent in addressing environmental issues, is tasked with ensuring that Environmental Management Frameworks become efficient and effective in South Africa. In spite of existing Integrated Environmental Management (IEM) tools such as Strategic Environmental Assessment (SEA), Environmental Impact Assessment (EIA), Environmental Management Plan (EMP), and Environmental Management Systems (EMS), there has been a strong debate by stakeholders around the development of Environmental Management Frameworks as decision support tools in spite of other existing planning tools at national, provincial and local levels. Debates are around, for example, the actual need for EMFs, their application, context and scope, and around the outcomes from applying Environmental Management Frameworks in South Africa.

The lack of knowledge around Environmental Management Frameworks and their potential impacts, both within Government and in the general public, makes research and development of Environmental Management Frameworks essential to provide a clear pathway towards understanding the potential impacts. Therefore, this research has been conducted to evaluate perceptions and expectations of stakeholders involved in the development process of Environmental Management Frameworks. By understanding stakeholders' perceptions and expectations, it is hoped that the research findings will be

utilized to devise possible strategies to make Environmental Management Frameworks efficient and effective in South Africa.

The results of the research lead to the formulation of a number of recommendations that will hopefully lead to their adoption, as suggested above. It is also the intention that the research will be absorbed by a wider audience, so that the challenges in the potentially successful implementation of EMFs in the future are more fully understood. Recommendations include the need for legal enforcement of EMFs with the Department of Environmental Affairs setting in place succinct EMF regulations and guidelines as a matter of urgency; that the Department of Environmental Affairs establish viable partnerships with key stakeholders to benefit from their collective wisdom; and that government should enhance such public-private partnerships in the development of EMFs by ensuring realistic budgetary allocations to achieve desired outcomes.

This dissertation acknowledges the new EMF Regulations of 2010 but adheres to the NEMA EIA Regulations of 2006. The research was already finalized when the new EMF Regulations came into effect.

DECLARATION

I, Mtolo Edmund Khanyiso, declare that:

- (i) The research reported in this dissertation, except where otherwise indicated, is my original work.
- (ii) This dissertation has not been submitted for any degree or examination at any other university.
- (iii) This dissertation does not contain other person's data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other researchers.
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Signed:

Date:

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Dedication

I dedicate this project to all the family members and friends, those who have passed on and those still alive, for the inspiration they provided during the period of the research. Furthermore, I dedicate this project to my Mother, lovely wife Ms Jabu Mtolo, my children; Aphiwe, Athabongile, Akhanya, Slindile and Bambino, and my nephews and nieces for understanding and support.

List of acronyms and abbreviations

| | |
|--------|---|
| CA | Competent Authority |
| CARA | Conservation of Agricultural Resources Act |
| CBO | Community Based Organization |
| CEAD | Centre for Environment and Development |
| Cogta | Co-operative Governance and Traditional Affairs |
| CSIR | Center for Scientific and Industrial Research |
| DAFF | Department of Agriculture, Forestry and Fisheries |
| DANIDA | Danish International Development Agency |
| DEA | Department of Environmental Affairs |
| DEAT | Department of Environment and Tourism |
| DFA | Development Facilitation Act |
| DM | District Municipality |
| DME | Department of Minerals and Energy |
| DoA | Department of Agriculture |
| DPLG | Department of Provincial and Local Government |
| DPSA | Department of Public Service and Administration |
| DWA | Department of Water Affairs |
| DWAF | Department of Water Affairs and Forestry |
| EA | Environmental Authorization |

| | |
|-------|---|
| EAP | Environmental Assessment Practitioner |
| ECA | Environmental Conservation Act |
| EIA | Environmental Impact Assessment |
| EIM | Environmental Impact Management |
| EIR | Environmental Impact Report |
| EMF | Environmental Management Framework |
| EMP | Environmental Management Plan |
| EMS | Environmental Management System |
| GIS | Geographic Information System |
| I&APs | Interested and Affected Parties |
| IDP | Integrated Development Plan |
| IEM | Integrated Environmental Management |
| IGRFA | Intergovernmental Relations Framework Act |
| JPOI | Johannesburg Plan of Implementation |
| LED | Local Economic Development |
| MDG | Millennium Development Goals |
| MEC | Member of Executive Council |
| MSA | Municipal Systems Act |
| MTEF | Medium Term Expenditure Framework |
| NEMA | National Environmental Management Act |
| NGO | Non-Governmental Organization |

| | |
|------|---|
| NWA | National Water Act |
| PAIA | Promotion of Access to Information Act |
| PAJA | Promotion of Administrative Justice Act |
| PPP | Public Participation Process |
| PPP1 | Policy, Programme, Plan |
| PSC | Project Steering Committee |
| RoD | Record of Decision |
| SDF | Spatial Development Framework |
| SEA | Strategic Environmental Assessment |
| SEMP | Strategic Environmental Management Plan |
| SLA | Service Level Agreement |
| ToR | Terms of Reference |

CHAPTER ONE

INTRODUCTION

1.1 Background

Sustainable development has, in the past decade, become a key agenda item for most of the international and national environmental management and assessment conventions and workshops (DEAT, 2006). This study explores the dynamics within the field of environmental management and assessment by evaluating impact assessment tools with more emphasis on Environmental Management Frameworks (EMF), which is designed to fulfill the international obligations of promoting sound environmental management as part of sustainable development.

An EMF is a new environmental management and assessment tool introduced in 2006 in South Africa. The then Department of Environmental Affairs and Tourism (DEAT), now known as the Department of Environmental Affairs (DEA), by virtue of being the environmental custodian in South Africa, promulgated EMF under National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations of 2006 (DEAT, 2006), which have since been amended to the NEMA EMF Regulations of 2010. EMF became part of the suite of environmental management and assessment tools which include the Strategic Environmental Assessment (SEA), EIA, Environmental Management Plan (EMP), and Environmental Management Systems (EMS) as indicated in Fig 2.7. The above tools are further explained in Chapter Two, Section 2.3. EMF, as a concept and an environmental management tool, is receiving mixed reactions depending on the premise from which each stakeholder, for example, government officials, and Interested and Affected Parties (I&APs) considers environmental concerns.

An EMF aims at adding value to the EIA application process through tackling environmental issues even before development takes place through analysis of environmental sensitivity within a particular geographical area. With EMFs fully implemented, it is hoped that dissatisfaction by developers with EIA processes, which are often delayed can be overcome. Delays in approving EIAs in the past have resulted in some spheres of government politicizing EIA processes, thereby invoking the argument that EIA listed activities in some areas are unnecessary or overemphasized and simply result in delaying much needed development. Therefore, the essence of this study is to

explore the diversity and impact of the above mixed reactions to EMFs as a result of the perceptions and expectations of the concerned stakeholders. It is the intention to conduct research into the ways in which stakeholders perceive EMF as a tool in environmental management and assessment. Furthermore, the study also focuses on understanding what are stakeholders' perceptions and expectations of the EMFs in achieving sustainable development goals. The product of this research aims at assisting the DEA in marketing the EMF as an efficient environmental management tool thereby improving the usage of EMFs in decision making.

In the rest of the chapter, in line with the research intentions mentioned above, the problem statement is set out, and is intended to highlight the need for this research work. The problem statement is followed by sections setting out aims and objectives and the structure of the dissertation.

1.2 The problem statement

In South Africa, EMFs impact directly on the local municipalities' jurisdiction in as far as development planning is concerned. It is the researcher's opinion that EMFs have a potential to add value to the planning processes within municipalities, for example, Integrated Development Planning (IDP), a mandatory plan reflecting overall development plans by a particular municipality (discussed in Chapter Two, Section 2.4.1.2). Furthermore, EMFs have a potential to provide the means of integrating the concept of ecological sustainability into planning, especially in their Spatial Development Frameworks (SDFs), a system which shows spatial geographical attributes of a particular municipality in order to support that municipality's IDP. The challenge reflected through the adopted municipality IDPs and SDFs is that environmental concerns are not adequately addressed.

The above challenge might test the viability and implementation of inter-governmental relations that are enshrined in Chapter 3 of the Constitution of the Republic of South Africa as well as the Intergovernmental Relations Act (IGRA) of 2005. At the January 2006 Cabinet Legkotla, a biannual parliamentary session held to discuss ways in which to improve coordination between government departments, the Cabinet approved the development of templates for inter-departmental protocols

to further strengthen the frameworks for inter-governmental relations (DPLG 2007). Although national, provincial and local government roles and responsibilities are defined in as far as cooperative environmental management is concerned, national government departments are obliged to develop capacity and support strategies, of which EMF is one, to assist provinces and municipalities in fulfilling their environmental development obligations. These strategies are sometimes not properly discussed with the relevant authorities at all levels. The problem is that coordination between spheres of government is fragmented and fragile. As a result, unintended consequences such as confusion, conflicts, frustration, and resentment experienced for example at Sedibeng Municipality in Gauteng and Pixley ka Seme Municipality in Mpumalanga Province where authorities could not decide on EMF roles and responsibilities within their mandates, were a result of miscommunication regarding strategies between organs of state. Inevitably, this leads to conflict of interests, which in turn leads to unnecessary duplication and resource wastage.

Since EMFs are developed under the NEMA EIA Regulations of 2006, municipalities might perceive EMF development as the DEA's strategy of usurping environmental management powers vested in municipalities through municipal bylaws thereby jeopardizing the cooperative governance principles. It is apparent that EMFs must be properly defined and adequately contextualized within the existing environmental management and development tools across the government and nongovernment spectrum from national to local spheres. Therefore, EMFs are introduced to promote inter-governmental relations and incorporate environmental issues into the IDP process. The problem is that EMFs appear to have not achieved the above aim because the perceptions and expectations about the EMFs by stakeholders have never been assessed and understood. By understanding EMF perceptions and expectations, transformation of stakeholders' mindset on environmental management, in general, can be possible.

Insufficient and inadequate capacity within organs of state poses a threat to the successful development and implementation of EMFs. Most government departments are understaffed due to the lack of recruitment of competent officials and lack of strategies to retain existing staff members, thus staff turnover is always high. Due to poor intergovernmental relations and weak cooperative governance, communication between government spheres and key stakeholders in EMF development is negatively affected.

If the perceptions and expectations around the EMFs are understood by the stakeholders, the possibility of greater coordination between spheres of government can be achieved as well as successful integration of environmental concerns into SDFs and IDPs. Therefore, this research uses seven (7) study areas and seven (7) EMFs, discussed in Table 3.1, in order to fulfill the aims and objectives outlined in 1.3 below.

1.3 Aim and objective of the research

The aim is to firstly: explore stakeholder perceptions and expectations of EMF as a legislated environmental management and assessment tool; and secondly: to facilitate and improve marketing and acceptance of EMF by stakeholders in the future. For the purpose of this research, marketing and acceptance refer to understanding how to make EMF efficient in order to enhance positive reception and use by the stakeholders.

The objectives of this research are to:

- Determine stakeholders' participation in EMF development;
- Examine perceptions and expectations these stakeholders have on EMF as a new environmental and development tool;
- Assess the level of cooperation between stakeholders and all three spheres of government; and
- Justify the relationship between EMF and conventional IEM tools in terms of legislative requirements, purpose, development, and application.

1.4 Structure of the dissertation

The remainder of the dissertation consists of the following chapters. Chapter Two contains a literature review which explores the theoretical background to the global evolution of environmental management, South African environmental legislation and EMF and concludes with a conceptual framework within which the research is conducted. In Chapter Three the research context and the methodologies employed to gather data for the study are covered. In Chapter Four the results from the data gathered in Chapter Three are presented. In Chapter Five the analysis and interpretation

of the results are presented. In Chapter Six the research overview, recommendations, strategic issues are discussed. Also, brief concluding remarks in line with the aims and objectives of the research are made.

1.5 Summary

In Chapter One, the research topic was introduced by highlighting the problem statement which prompted the researcher to identify the subject of EMFs as worth studying. Aims and objectives were introduced in this chapter. Chapter One was concluded by the outline of the structure of the research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

International and local literature is reviewed in order to understand the global and national perspective of the EMFs. Although exploring the stakeholders' perceptions and expectations of EMFs is the main purpose of this research, a broad understanding of environmental management in its entirety as well as its associated processes is crucial. Hence EMFs form part of the broader environmental strategy. Therefore, the global evolution of environmental management will be reviewed, South African environmental legislation will be explored, then EMFs will be focused on, and a framework will be proposed in which the research of this dissertation will be situated.

2.2 Global evolution of environmental management

The focus of this topic will be on international development of environmental management through integrated environmental management (IEM) as well as the extent to which IEM has evolved over time in South Africa.

According to Fuggle and Rabie, 2009, the industrial development superseded ecological conservation because of the need for economic and social stability in most countries after World War II. The European Recovery Programme commonly known as the 'Marshall Plan', in 1947 became the vehicle for economic recovery through rapid industrialization and massive revamp of infrastructure in Europe (Dulles, n.d). This programme was initiated by the United States of America to assist its allies financially after the war as well as to politically promote capitalism. Despite positive gains, the programme produced environmental challenges, such as pollution and degradation that, in general, increased. The concern about the environment gained momentum in the early 1970s and '80s as in the post war years there was a marked increase in the quantity and variety of pollutants. This led to incidents such as the heavy metal poisonings in Japan in the 1960s and the toxic waste contamination problems in the US in the 1970s as well as other countries, such as the United Kingdom, Netherlands, and the rest of the European Communities (Therivel et al., 1992). During the 1960s, writings such as Rachel Carson's *Silent Spring* and Alvin Tofler's *Future Shock* highlighted the effects of pollution on fauna and flora caused by chemicals

such as DDT and the resultant negative change in human lives. Figure 2.1 illustrates the impacts associated with different unsustainable development practices on the environment as a result of the post-war industrial development associated with the Marshall Plan as presented by Rachel Carson and Alvin Tofler.

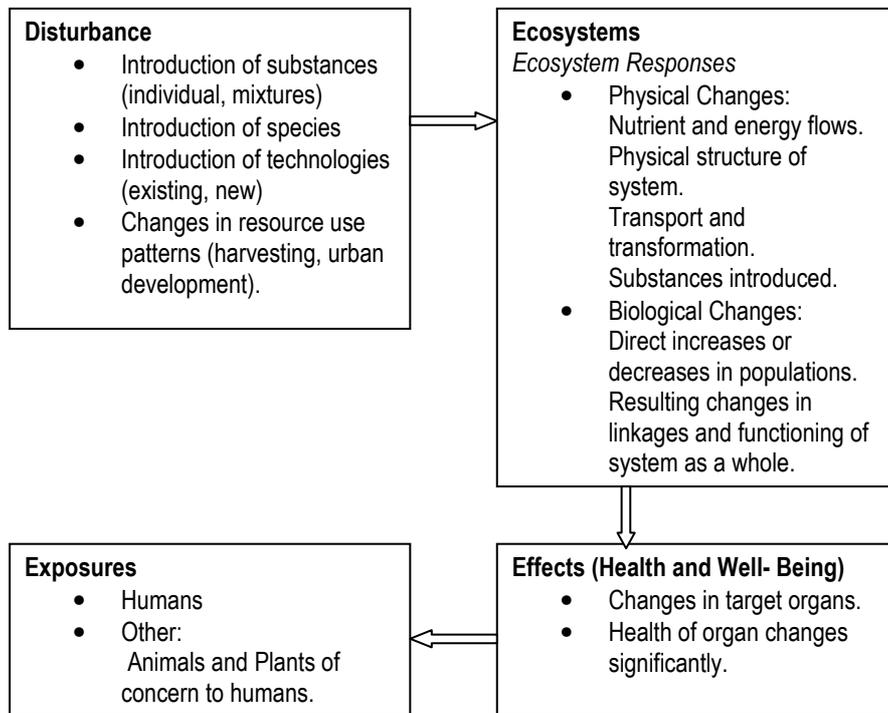


Fig 2.1: A generic picture of the changes in the environment once development has been introduced into the environment

Source: Draggan et al, (1987 : 3)

Figure 2.1 illustrates the aftermath of the Marshall Plan where development was skewed in favour of the countries with powerful economies like the United States, France, and the United Kingdom. Economic development superseded any other form of development. Detractors of the Marshall Plan, such as Andrei Vinshisky, the Soviet Union spokesman at the United Nations, made a speech on the 18th September 1947, dismissing the Marshall Plan as a 'tool which seeks to undermine the principles of the United Nations as the United States government counted on the cooperation of the Governments of the United Kingdom and France to confront the European countries in need of relief' (Dulles 1993). This necessitated the renouncing of countries in need of

relief inalienable right to dispose of their economic resources and to plan their national economies in their own way. The failure of the Marshall Plan, it was contended, was due to the fact that it promoted economic dependency and political dominance.

In response to the public outcry over the negative impacts associated with development on the environment, the World Commission on Environment and Development (the Brundtland Commission) was established in 1983 with the aim of setting 'a global agenda for change' (Therivel et al., 1992; DEAT, 2004; Rogers et al., 2008; Fuggle and Rabie, 2009). The main purpose of the Brundtland Commission was 'to examine critical issues in environment and development and formulate realistic proposal for dealing with the issues'; 'propose new forms of international cooperation concerning those issues'; and 'raise the levels of understanding and commitment to action' (Therivel et al., 1992: 24). The Commission concluded that it was impossible to separate economic and social development issues from environmental issues, hence the creation of the term 'sustainable development'. The Brundtland Commission Report (1987: 43) defines sustainable development as, 'development that meets the needs of the present generation without compromising the ability of the future generations to meet their own needs'.

Sustainable development was an item at the top of the agenda during the United Nations Conference on Environment and Development, also known as 'Earth Summit' or 'Rio de Janeiro Summit' of June 1992 (Therivel et al., 1992; DEAT, 2004; Rogers et al., 2008). 170 countries attended the summit. Agreements reached included, amongst others, a treaty on climate change, including a non-binding proposal for developed nations to 'stabilize their emissions of greenhouse gases at 1990 levels by the year 2000'; 'a treaty on the need for countries to protect biodiversity within their border; the Rio Declaration, a set of 27 non-binding principles on environmental and development issues'; 'agenda 21, an 800 page non-binding action plan for achieving sustainable development'; 'a proposed UN Commission on sustainable development; increases of nearly one billion pounds per year in the Third World aid'; and 'a set of non-binding principles for conserving and rationally exploiting forests' (Therivel et al. 1992: 25).

Furthermore, the World Summit on Sustainable Development of 2002 held in Johannesburg, commonly known as the Johannesburg Summit established 37 negotiated targets, including

Paragraph 162 which emphasised that member States should take immediate steps to make progress in the formulation and elaboration of national strategies for sustainable development and implementation in 2005 (DEAT 2006). The resolution became known as the Johannesburg Plan of Implementation (JPOI). Resolutions of the Summit, other than the JPOI, emphasised that countries needed to adopt bold, goal oriented policies and national development strategies to meet the Millennium Development Goals (MDG); sustainable development paradigm to be integral with social, economic, environmental and governance parameters; sustainable development to recognize and acknowledge the context and constraints that decision-makers must take into account when policies are adopted aimed at growing the economy, sustaining our ecosystems and meeting basic social and human needs; national strategies to build on existing programmes and strategies; and need for a long-term framework that facilitates co-ordinated action within government and with social structures (DEAT, 2008). Environmental management consideration became an integral part of the development process in many countries especially the member states hence the development of IEM.

IEM is a relatively new concept based on international development standards since 1980s (DEAT, 2004). In South Africa IEM was introduced to the Minister of Environmental Affairs by the Council for the Environment during 1989 in the form of a document called 'Integrated Environmental Management in South Africa' (DEA, 1992). By definition, IEM is the process which seeks to understand and manage environmental impacts of any proposed development project from the initial or planning phase to the decommissioning or completion of the project. IEM defines a philosophy which prescribes a 'code of practice for ensuring environmental considerations are fully integrated into all stages of development and decision-making process' The IEM philosophy and principles are applied to planning, assessment, implementation, and management of any proposal or activity – at national, provincial and local level – that has potentially significant effect on the environment. The principles of IEM, only those appropriate to the research in question as there were about 19 specified by DEA (1992: 5) and DEAT (2004: 9-10) were, to mention but a few: 'Accountability and responsibility of all stakeholders in the process for each stage of the development activity life cycle, in particular with regard to information provided, decisions taken and implementation requirements'; 'decisions must take into account the interests, needs and values of all interested and affected parties and all relevant forms of knowledge, including

traditional knowledge'; 'inter-governmental coordination and harmonization of policies, legislation and actions relating to the environment is required'; 'environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all components of the environment and all the people in the environment'; and 'decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law'. In order to ensure that IEM principles are implemented in South Africa, review of legislation with regards to environmental management became a necessity especially after 1994.

2.3 South African environmental legislation

The superseding piece of legislation, the Republic of South Africa (RSA) Constitution (1996, Chapter Two, Sections 24, 27, 32, 33, 36, 38, and 39) strongly advocated for the protection of the environment as a human right. The NEMA (Chapter 5, Section 23(1) (2)) which repealed some sections in the Environment Conservation Act (ECA) of 1989 further promoted IEM principles and the use of environmental management and assessment tools. South Africa developed its Strategic Framework for Sustainable Development in 2006 to achieve its 2014 vision in order to meet the MDG as advocated by the Johannesburg Summit of 2002 (DEAT, 2006). The Rio de Janeiro Summit of 1992 provided a platform for the adoption of Agenda 21 (Local Agenda 21) designed to encourage sustainable development throughout the world, especially of the member states. According to a Council for Scientific and Industrial Research (CSIR) lecture by Vasna Ramasar on IEM at the University of KwaZulu-Natal Centre for Environment and Agricultural Development (CEAD) (2005), the principles of Agenda 21, amongst other things, entailed the, 'integration of environmental management issues into developmental planning'; and 'informed decision-making' by all the relevant authorities and stakeholders. DEA, as the South African Government's environmental custodian, developed various environmental management and assessment tools but for the purpose of this research relevant impact management and assessment tools such as the SEAs, EIAs, EMPs and EMSs as supported by RSA Constitution of 1996 (Chapter 2, Section 24) of the Bill of Rights; NEMA (Chapter 5, Section 23(1); (Van der Linde 2006) will be briefly discussed. Table 2.1 below shows integration of supportive measures to enable effective environmental management and assessment to achieve sustainable development in South Africa. Table 2.1 further explains in details an ideal setting and situations in which environmental

management can be tackled and managed as a whole with the engagement and involvement of all government spheres and broader stakeholders. White Paper, from which Table 2.1 is referenced, is a guiding document that enabled pieces of legislation explained above to successfully regulate environmental management in relation to IEM principles highlighted above.

Table 2.1: Supportive measures to enable environmental management and assessment in South Africa

| Powers and responsibility | Mandate | Implementing government institutions | | | |
|---------------------------------|--|--------------------------------------|--------------------------------------|----------------------------------|--|
| | | DEA | Provincial environmental departments | Local environmental departments. | Sectoral (cluster of entities with common environmental interest and mandates) national departments. |
| Information | National, sectoral, provincial and local sphere. | X | X | X | X |
| | | All civil society sectors | | | |
| State of the Environment Report | DEA | X | | | |
| Guidelines | Intergovernmental co-operation between sectoral departments and national and provincial departments of the environment | X | X | X | X in national and provincial spheres |
| Participation | DEA | X | X | X | X |
| | | All interested and affected parties | | | |

| | | | | | |
|---|--|--|---|---|---|
| Tools and instruments, for example, SEA, EMF, EIA, EMP, EMS | Intergovernmental co-operation between sectoral departments and national and provincial departments of the environment and agreements with all interested and affected parties | X | X | X | X |
| | | Parties contracted under agreements | | | |
| Institutional capacity building, that is, human, financial, and physical resources and skills | DEA and provincial environment departments and sectoral departments. DWA for water resource management | X | X | X | X |
| Research and development | DEA through agreements with sectoral departments, parastatals, research institutions, business and industry, NGOs, governments and institutions in other countries | X | X | X | X |
| | | Plus parastatals, research institutions, business and industry and NGOs | | | |

Source: White Paper on Environmental Management Policy for South Africa. DEAT (1997: 54)

Therefore, sustainable development that would be appropriate and specific to the South African context would entail 'shared and accelerated growth, targeted interventions and community mobilization to eradicate poverty, and ensure ecologically sustainable use of our natural resources and eco-system services' (DEAT, 2006: 18). Table 2.2 reflects the possibility of achieving sustainable development when there is a strong political will.

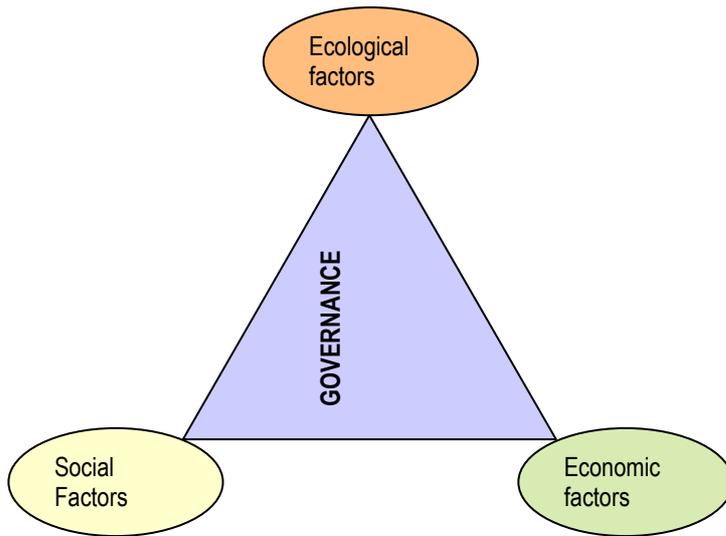


Fig 2.2: An idealized framework for sustainable development.

Source: DEAT (2006: 19)

Rogers et al. (2008) differentiated between three approaches to sustainable development as depicted by table 2.2 below:

Table 2.2: Sustainable development

| Economic approach | Ecological approach | Socio-cultural approach |
|--|---|--|
| 'This approach seeks to maximize income while maintaining a constant or increasing stock of capital' Rogers et al. (2008: 23). | 'This approach seeks to maintain resilience and robust biological and physical systems' Rogers et al. (2008: 23). | 'This approach seeks to maintain stable social and cultural systems' Rogers et al. (2008: 23). |
| 'Sustainable economic growth means that real Gross National Product | 'Sustainable ecological growth is | 'Sustainable socio-cultural growth is directly concerned with increasing the |

| | | |
|---|---|---|
| (GNP) per capita is increasing over time and the increase is not threatened by feedback from either biophysical impacts or from social impacts' Rogers et al. (2008: 43). | about maintenance of essential ecological processes and life support systems, the preservation of genetic diversity, and the sustainable utilization of species and ecosystems' Rogers et al. (2008: 44). | standard of living of the poor, which can be measured in terms of increased food, real income, education, health care, water supply, sanitation, and only indirectly concerned with economic growth at the aggregate' Rogers et al. (2008: 44). |
|---|---|---|

Source: Rogers et al. (2008 : 23, 43, 44)

Taking from the discussion on sustainability as highlighted in the above table, the big question about sustainability is; have developing countries, in general, and South Africa in particular, managed to achieve balance between three pillars of sustainability such as economic, social and environmental factors in their developmental initiatives? According to Rogers et al. (2008), 'sustainability' is the term chosen to describe a way to bridge the gulf between development and environment. If sustainability is to be a reality in developing countries, South Africa included, decision making has to include all stakeholders as recommended in the resolutions of the Rio and Johannesburg Summits.

In support of the above statement, it is the researcher's observation that in developing countries politicians has exclusive powers regarding their political mandates and ambitions in making decisions, ignoring expert inputs from the relevant stakeholders, which might have devastating environmental consequences thus defeating the ends of sustainable development. For example, the Premier of KwaZulu-Natal Province in 2007, Mr. Sbusiso Ndebele, made a political declaration to the international and national business communities in Durban that the processing of EIA applications for development in the province would be completed within three months, which in scientific terms is not possible as the requirements of the full EIA process from the initial application to the final record of decision has many phases that take at least a month each to complete efficiently and effectively as shown in Figure 2.3. Another example is the court case against former Premier of the Western Cape Peter Marais, and the former Western Cape MEC for environmental affairs and development planning, for flouting the EIA process by granting a Record of Decision (RoD) for the development of Roodefontein Golf Estate near Plettenberg Bay without

taking cognizance of the ecological demands of the area. Conservation and environmental groups took the matter to the Court of Law. The Court of Law found that the EIA process was indeed flawed and the people responsible had to vacate their offices by the instruction of the then New National Party leader, Martinus Van Schalkwyk (Sapa, 2009). Another challenge to sustainability at the municipal level, where service delivery is supposed to be executed, is that most of the development plans such as IDP, SDF and Local Economic Development Plans (LED) lack substance regarding environmental concerns in development issues. Some municipalities do not have a functional environmental unit in their line or staff functions. Even those municipalities that have environmental units in their line functions are unable to execute their mandates due to incapacity thereby negatively affecting sustainability concept. This challenge to municipalities resulted in the Department of Provincial and Local Government (DPLG), known as Department of Cooperative Governance and Traditional Affairs (Cogta) since 2010, in collaboration with national and provincial governments such as the DEA and others developing intervention strategies through local government task teams and providing municipal infrastructural grants to capacitate and support municipalities. An EMF development for identified municipalities is one of the strategies aimed at capacitating and supporting municipalities in improving service delivery. Table 2.3 indicates South Africa's location of administrative and executive powers and responsibilities in the field of environmental management:

Table 2.3: Location of administrative and executive powers and responsibilities in environmental management

| Powers and responsibility | Lead agent | Implementing government institutions | | | |
|--|--|--------------------------------------|--------------------------------------|----------------------------------|--------------------------------|
| | | DEA | Provincial environmental departments | Local environmental departments. | Sectoral national departments. |
| National Policy development | DEA | X | X | X | X |
| Provincial policy | Provincial environment departments | | X | X | X |
| Norms and standards for participation | DEA | X | X | X | X |
| Norms and standards for impact management | DEA = national minimum standards Provincial departments of the environment = specific provincial standards | X | X | X | X |
| Norms and standards for environmental management systems (EMS) | DEA | X | X | X | X |
| Norms and standards for resource use | DEA = national minimum standards, and sectoral lead agents, for example, the Department of Water Affairs (DWA) for water quality. Provincial departments of the environment = specific provincial standards | X | X | X | X |
| Monitoring | DEA and provincial environment departments, and sectoral lead agents, for example, DWA for water resource management | X | X | | |
| | | Plus civil society | | | |
| Enforcement | DEA and provincial environment departments, and sectoral lead agents, for example, DWA for water | Legislation and regulations | | | |
| | | X | X | | X |

| | resource management | Bylaws | | | |
|---|---|--------|---|---|---|
| | | | | X | |
| Management of the Receiving Environment | Sectoral departments, for example, DWA, Department of Agriculture (DoA) | X | X | | |
| Remediation | DEA and provincial environment departments, and sectoral lead agents, for example, DWA for water quality management | | X | X | X |

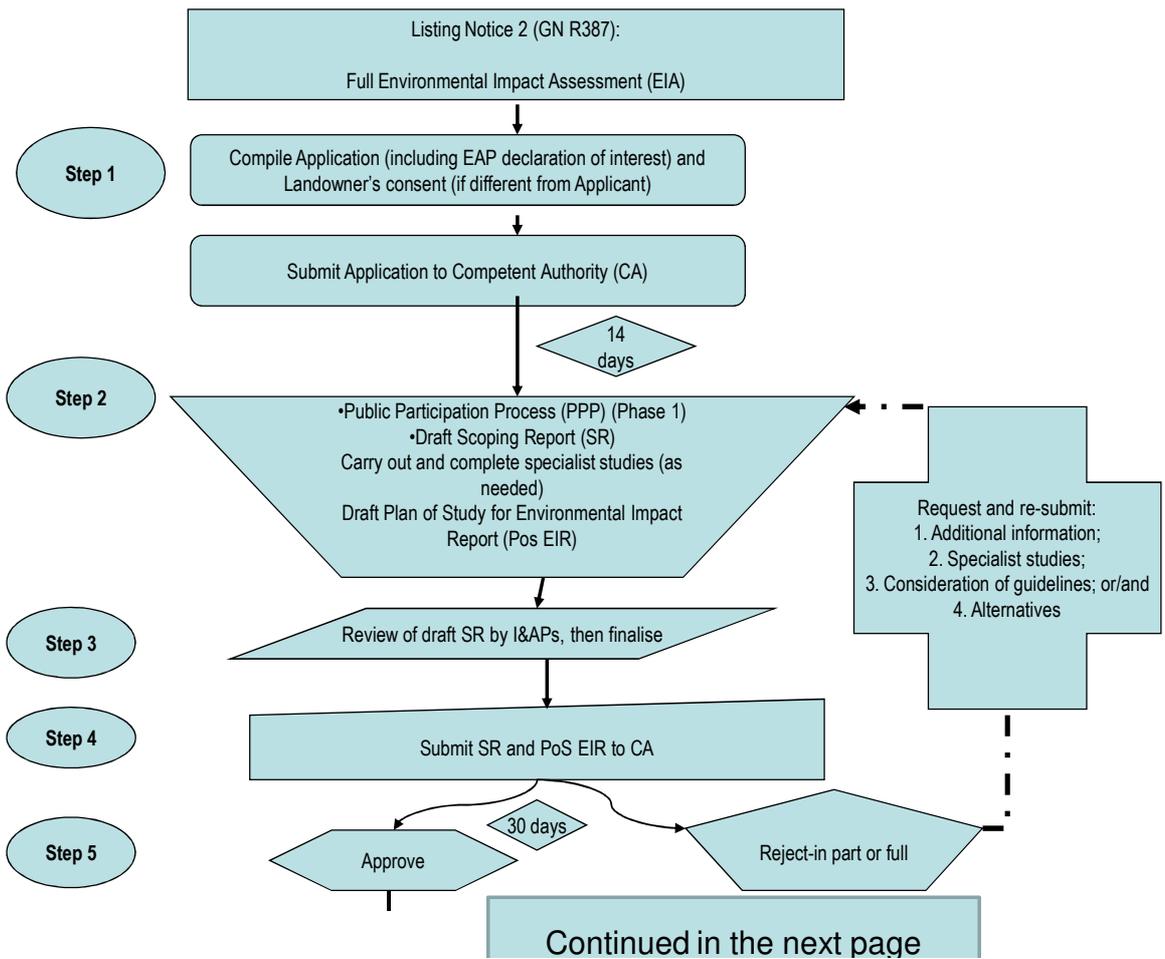
Source: (DEAT 1997: 52)

Using EMF as an example of broader environmental management, the DEA in co-operation with provincial departments initiated the development of EMFs as mandated by NEMA, Section 24(2) (b) and (c) to identified municipalities at district or local levels which lack financial and human resources. The Minister or Member of Executive Council (MEC), in concurrence with the national Minister, is mandated to effect EMF developments in accordance with Regulation 69 of the NEMA EIA Regulations of 2006. An EMF is to be implemented within a specific geographical area where there are demanding and conflicting development pressures either of local, provincial or national interest. EMF becomes a strategic tool at a national level and operational guide and/or tool at provincial and local levels that attempts to understand all the environmental issues including sensitivity within a particular geographical area. In South Africa, an EMF is legislated in terms of NEMA Section 24(3). EMF's major role is to understand environmental sensitivity as shown in Figure 2.1.

Tools such as, amongst others, SEAs, EMFs, EIAs, EMPs and EMSs are tools developed to address assessment of impacts in the development processes. A brief discussion of individual environmental tools is given below to understand what each of these tools means regarding definition, purpose, and objective in IEM.

2.3.1 Environmental Impact Assessments (EIAs)

In South Africa, EIAs became legislated for in 1989. An EIA is a procedure which serves to provide information to local authority planners, other regulators and authorizing bodies, other interested parties and the general public, about certain proposed developments and their likely effects on the environment (Carroll and Turpin, 2002). EIAs enable developers, on whose behalf the EIA is generally undertaken, to meet their own environmental standards. EIAs enable stakeholders to minimize environmental impacts and facilitate the approval process.



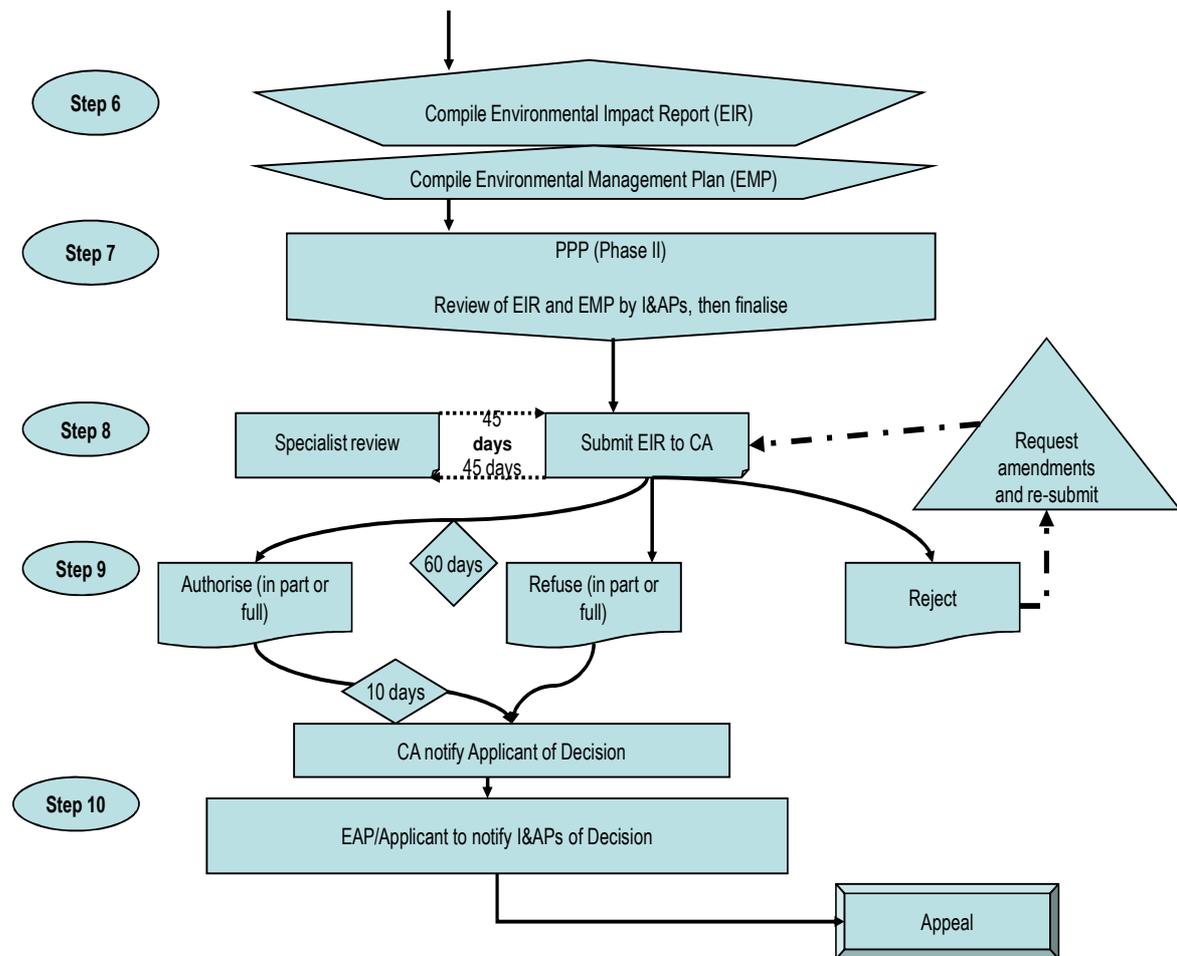


Fig: 2.3. A generic full EIA process in South Africa

Source: DEAT (2008)

From the above diagram is clear that the declaration made by the KwaZulu-Natal Premier, Mr. Sbusiso Ndebele that EIA processing would take 90 days or 3 months to complete was a political statement not supported by scientific evidence as shown in the fig: 2.3. It takes at least 204 days or 6 to 7 months to complete the full EIA process. Although the NEMA EIA Regulations of 2006 have been amended and repealed by NEMA EIA Regulations of 2010, nothing much, in terms of listed activities has significantly changed except the addition of Listing Notice 2 which deals with sensitive geographical areas and the formulation of standalone NEMA EMF Regulations.

2.3.2 Environmental Management Plans (EMPs)

According to Hlela (2004: 12) there are two important definitions of EMPs; internationally, the World Bank defines an EMP as ‘the set of mitigation, monitoring and institutional measure to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset

them, or reduce them to acceptable levels'; and locally EMP is defined as 'a tool that details the mitigation of one variable during the construction phase, or provides a comprehensive overview of the management and monitoring requirements for the duration of the project'. Simply, an EMP is a monitoring and auditing tool during project construction and decommissioning. For each project which has potential negative impacts on the environment, an EMP should be produced to ensure that valued features are protected, working methods are employed and required standards are maintained.

2.3.3 Strategic Environmental Assessments (SEAs)

In South Africa, a SEA is defined as 'a process that integrates sustainability considerations in the formulation, assessment and implementation of policies, plans and programmes (PPPs)' DEAT, (2007: 1). In South Africa, SEAs play a role in placing environmental concerns in the political agenda by taking detailed information from different aspects of the environment and bringing those aspects together in an accessible form for the decision-maker as shown in Fig 2.4. According to Vicente and Partidario (2007), some SEAs are founded on a project's EIA based approaches, whilst other SEAs are founded on policy and planning methodological practices, resulting in different approaches to the assessment of conflicts at strategic level. At local municipality level, a SEA is developed according to the Municipal Systems Act (MSA) of 2000 to ensure, amongst other things, that municipal services are provided to the local community in an equitable and financially and environmentally sustainable manner. The challenge is that there are no guidelines provided by the MSA for developing a SEA.

EMFs establish blueprints for managing environmental issues throughout the stages of development. EMFs are used to draft EMPs for utilization throughout the phases of the proposed development. Such EMFs are structured to: suit the proposed development and be in situ, articulate environmental responsibilities and accountability, and accommodate the need for ongoing environmental monitoring and reporting. Requirements of such EMFs involve a description of the project and relevant legislative requirements as well as environmental management measures which would be addressed during the proposed works.

With the above approach to EMFs by World Bank, EMFs can be regarded as templates within which EIAs operate and EMPs are produced (World Bank EMF B14 – 163 report, n.d). This means that EMFs aim to provide an overall framework of the potential impacts of a development project. Contrary to World Bank EMF, in South Africa EMFs provide mechanisms through which policies can be developed taking into account environmental management principles and also provide a policy screening tool for evaluating the environmental consequences of existing policies (DWA, 2002, known as the Department of Water Affairs (DWA) since 2010). Evaluating environmental consequences ensures that policies which are developed have the greatest opportunity to effect positive environmental change. The similarity between World Bank and South African EMF approaches is that EMFs provide the guidelines to ensure that project activities are consistent with the legislation and the policies of the country, during the planning, implementation, and decommissioning stages.

Currently in South Africa, the DEA is in the process of developing EMF guidelines to assist environmental role players such as government departments (national, provincial, and local), specialists, knowledge and research institutions, as well as broader stakeholders as prescribed in Chapter 8 of the 2006 NEMA EIA Regulations. Therefore, EMF is aimed not only at promoting co-operation and agreements between organs of state but also at encouraging co-operation between public and private sectors according to NEMA principles and White Paper on Environmental Management in South Africa (refer to Table 2.1).

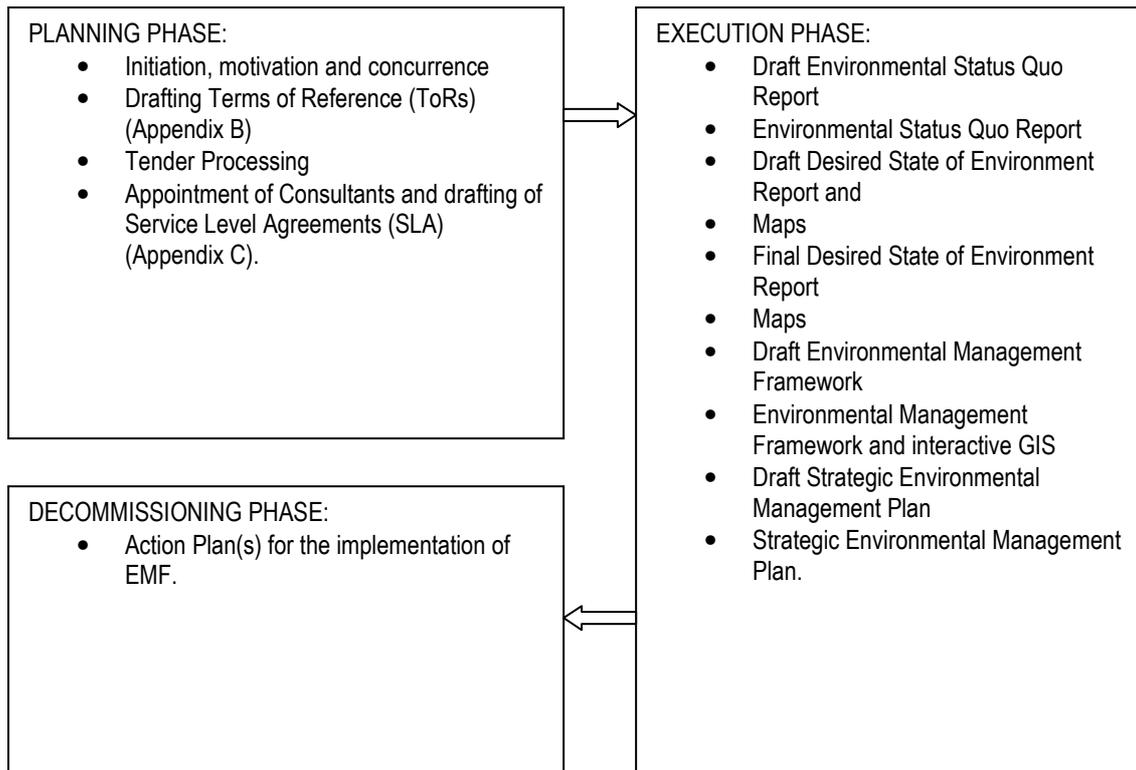


Fig 2.5: EMF as an environmental management template in South Africa.

Source: (DEAT, 2006)

Broadly, an EMF as an environmental management template provides role players with an early indication of the area in which it would be potentially appropriate to undertake an activity; provides for the facilitation of co-operative governance through the identification of different regulatory responsibilities and recommending mechanisms for addressing needs of the relevant authorities; and provides the competent authority with the information on which to base decision making (DEAT, 2006: 69).

Furthermore, the objectives of EMFs, as they appear in the DEAT Government Gazette, No. 28753 are to support the process of delineating geographical areas within which additional specified activities are to be identified in terms of NEMA; to support the process of delineating geographical areas within which activities listed in terms of NEMA may be excluded by identifying areas that are not sensitive to the potential impacts of such activities; to support informed and integrated decision making by making significant and detailed information about an area available before and/or after

activity proposals are generated; to contribute to environmentally sustainable development by anticipating potential impacts and by providing early warnings in respect of thresholds, limits, and cumulative impacts; and to support the undertaking of environmental impact assessments in the area by indicating the scope of potential impacts and information needs that may be necessary for environmental impact management.

According to an e-mail response from Britz (pers.com., 09 June 2007) to a question on EMF versus SEA, EMF is very similar to SEA. An EMF aims at providing information on three levels: Firstly; 'What is the status quo of the area?', secondly; 'Where, ideally, would one want this area developed with regards to conservation, and so on ...?' and, thirdly; 'How does one move from the status quo to the ideal situation?' With regards to IEM context, an EMF can assist authorities to identify sensitive and non-sensitive areas for development and conservation purposes as indicated in fig 2.6. Considering the above, a section on EMFs was included under NEMA EIA Regulations, and it is hoped that the information coming out of various EMFs can assist provinces and municipalities to determine where listed activities do not need assessment (where the area is not sensitive to the specific type of development) or where additional activities will require assessment. Therefore, an EMF is a tool on its own and can add value within the IEM processes.

Table 2.4: Comparison between SEA and EMF in development processes.

| SEA | EMF |
|--|---|
| SEA is the process of environmental management | EMF is the product of environmental management |
| Voluntary | Voluntary yet mandatory once adopted |
| Centralized process hence it can only be done at policy level | Decentralized process hence it can be done at all government levels |
| Decide on a vision, sustainability objectives and associated criteria and indicators. | Identify relevant strategic issues and objectives, and desired state of the environment in the area. |
| Gather and synthesize existing information and determine environmental status quo and trends including resource opportunities and constraints. | Identify and assess status quo, development pressures and trends in the area and opportunities and constraints. |
| Consider future scenarios and trends as well as assess and evaluate significance of key effects of strategic alternatives. | Provide information on the kind of activities that would, or would not, have a significant impact on attributes, and those that would be undesirable in the area. |

Source: DEAT (2007: 40)

NB: There are many similarities and overlaps between SEAs and EMFs as environmental assessment and management tools in South Africa. The main difference is that SEAs are not legislated and function at plan, policy and programme level whereas EMFs are legislated and functions in a geographical area where there are development pressures as indicated by Fig 2.4.

EMFs attempt to integrate all three pillars of sustainable development, that is: economic, social, and environment factors. According to Felehetsa Environmental (2008), an EMF is most effectively used in assisting authorities to develop resource plans and strategies and land allocation plans for their areas. However, an EIA is project based and limits the broader understanding of environmental issues, an EMP describes only the management of activity in isolation, and SEA focuses on high level issues without verifying realities. Therefore, EMF's role is to address the challenges mentioned above by presenting the detailed status quo of a geographical area as well as engaging broader stakeholders into preparing a desired state of environment. The end product of this exercise is a concise strategic environmental management plan that has legal standing and can articulate development opportunities and constraints within a given municipal area.

2.4.1 EMFs and other planning tools at provincial and local levels

It can be concluded that an EMF is a strategic planning tool at a national scale which can be used as an operational guiding tool at provincial and local scales. For the purposes of this research only two most relevant planning tools will be made mentioned of, for example, bioregional planning and integrated development planning.

2.4.1.1 Bioregional Planning

Bioregional planning is a management strategy that strives towards achieving sustainable development by recognizing the relationship between the conservation of biodiversity, human well-being and economic efficiency within a given geographical area (DPSA 2005: 20). In comparison with EMFs, bioregional planning is not defined by political boundaries, but by geographic boundaries of human communities and ecological systems. A common feature of EMFs and bioregional plans is that bioregional plans contain ecosystems defined by the landforms, vegetative cover, cultural heritage, and history as identified by the local communities, scientists and governments. This information forms part of the status quo phase in EMF development.

2.4.1.2 Integrated Development Planning (IDP)

IDP is an approach to local planning which focuses on local issues rather than being a sector-or-dimension-driven approach (DPSA 2005: 21). Compared with EMFs and bioregional plans, the key consideration in the IDP process that drives decision making is the priority issues that are identified and defined by every municipality through analyzing the existing local situation and focusing on the problems facing the municipality and the people living in the area, as well as its development potential. However, a key concern among the role players in the IDP process is how to achieve alignment between the development sectors to support municipal development, including line departments such as the DEA. EMFs have the capability to address the above concern through concerted efforts by diverse stakeholders in decision making within the municipal area.

2.5 EMF conceptual framework

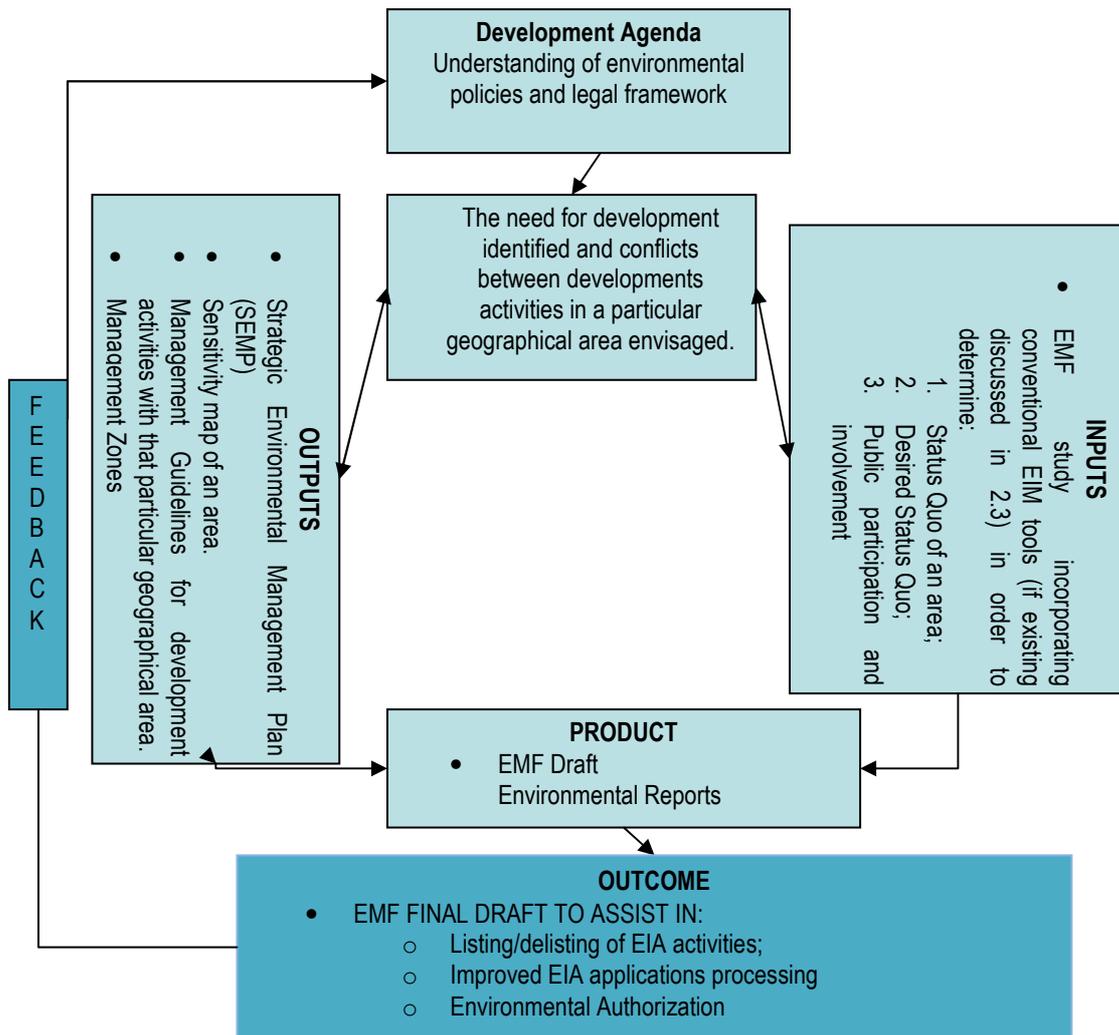


Fig 2.6: Model for EMF conceptualization.

An EMF conceptual framework is shown above in relation to the above literature discussion as well as perceptions and expectations of the stakeholders during this research process. Fig 2.6 is a conceptual framework envisaged in terms of EMF functioning. Thus, the conceptual framework is normative and not empirical. Two schools of thoughts are explored regarding the mental modeling of the EMF, namely: integration of EMFs and theoretical conceptualization of EMFs within the existing planning tools.

2.5.1 EMF as an operational tool within the bigger EIA process

With regards to Fig 2.6 EMF is a new tool aimed at harmonizing development conflicts. The conceptual framework assumes EMFs recognize the existing environmental assessment and management tools and legislation in order to add value to IEM processes. In order to make the EMF tool effective and efficient, new development activities identified should include thorough consultation with relevant and broader stakeholders to give their perceptions and expectations to the process. Such consultation will assist in soliciting adequate and appropriate participation at an early stage of the development process. An EMF draft as an output will be produced with reports, public participation processes, and applicable legal requirements relevant to that development area. Once reviewed and approved by the majority stakeholders an EMF final draft incorporating both provincial and local planning tools should be produced.

The final EMF draft should be used in an EIA process through fast tracking of the application, listing or/ and delisting of certain activities, and the granting of Environmental Authorization (EA). Once the EA has been granted, a contractor will be in a position to compile an EMP for project implementation. An EMS will be compiled in order to evaluate and monitor the project. EIA processing, EMP, and EMS form the outcomes and complete the project cycle.

2.5.2 Theoretical conceptualization of EMFs within the hierarchy of IEM tools

With reference to Fig 2.6 it is clear that EMFs can play a role in addressing the EIA backlogs and fast tracking some of the EIA development applications through delisting of certain activities within a particular geographical area once the last draft of EMF is finalized and efficiently put to use. By the same token, EMF can be used to consolidate Environmental Authorization by listing certain activities within the geographical area. Interestingly, there is a continuing debate by the stakeholders, including DEA about the position that EMF should adopt as a tool within the hierarchy of IEM tools. The NEMA EIA Regulations of 2006 and the EMF guideline documents that exist within DEA are not clear on the contextualization of EMFs within the broader spectrum of IEM tools. The resultant speculations about the relationship between EMF and IEM tools are regrettable. It is, therefore, hoped that this conceptual framework could resolve the contradictions, thereby contribute to more productive and robust debate about EMFs as valuable tools within the IEM framework.

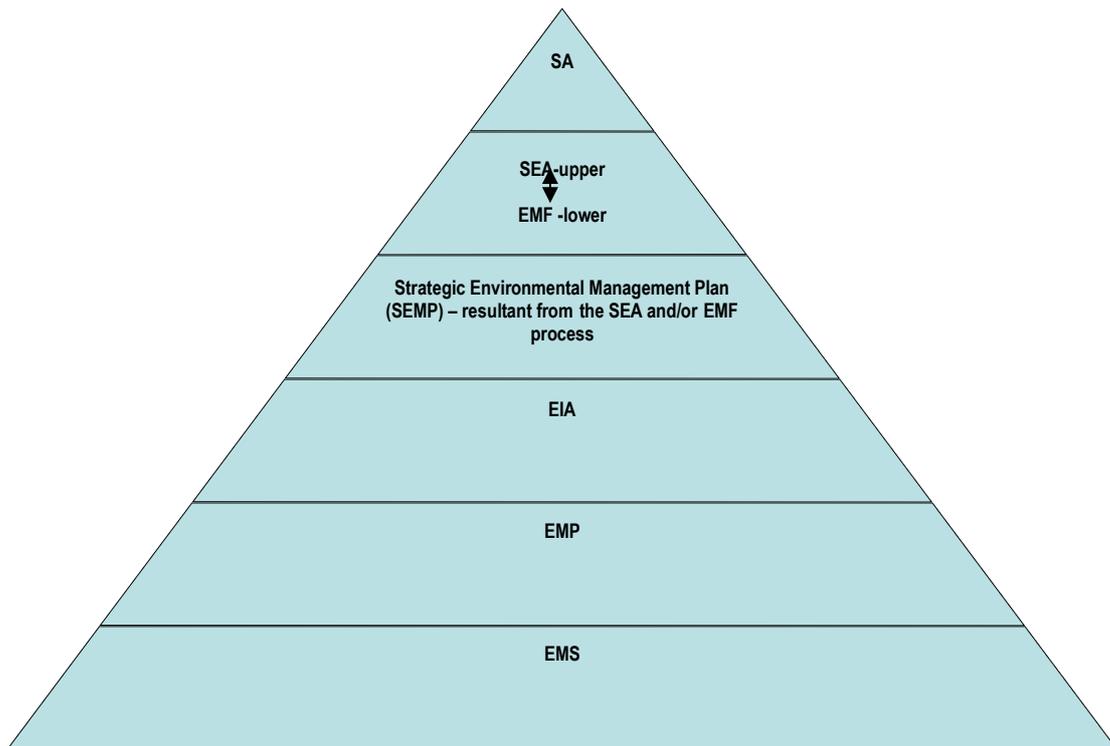


Fig. 2.7: Conceptual Contextualisation of EMF on the IEM hierarchy.

Figure 2.7 positions EMF at the same level as the SEA but at the lower level. At the moment there are many overlaps that exist between the two tools. Some stakeholders claim that by developing SEA, it is not proper and necessary to develop a duplicate tool such as an EMF. From the discussion on differences between SEAs and EMFs as shown on Table 2.4 above, it becomes evident that the two tools can exist at the same level, although SEAs can be regarded as a management planning tool, which is at the upper level, whereas EMFs can be regarded as an operational planning tool, which is at the lower level. A SEA can be used to inform the status quo phase in an EMF development process.

In an EMF development process, the SEMP is basically formulated to identify opportunities and constraints to development within a particular geographical area. SEMP assists in an EIA process by informing the decision makers about which activities to list or delist through management guidelines. This conceptual framework assumes that EMFs can be perfectly placed within the IEM

hierarchy without compromise or trade off with existing tools. EMFs value as a support tool for decision-making can be appreciated. Therefore, the IEM hierarchy can be presented as follows:

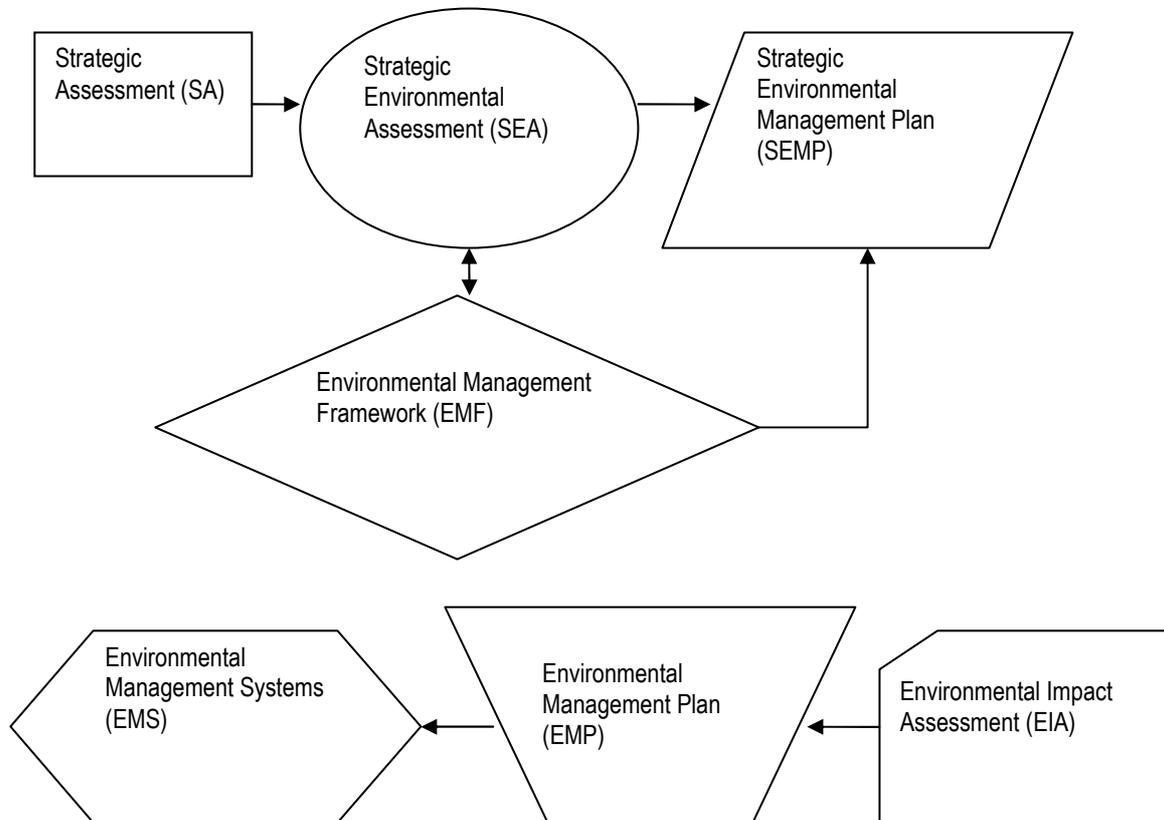


Fig 2.8: EMF in relation to broader IEM.

2.6 Summary

In Chapter Two some of the literature dealing with the environment in general and EMFs in particular was reviewed. International and local literature was reviewed in order to gain insight into the subject of EMFs. The global evolution of EMFs internationally was briefly discussed. Historical development of EMFs in South Africa was discussed as supported by national environmental legislative framework. EMF as a concept and interrelationship between the EMFs and other planning tools, both at the provincial and local municipality levels were discussed. An EMF conceptual framework was formulated to steer the research into the hypothetically intended outcomes. EMF conceptualization within broader IEM was explore

CHAPTER THREE

CONTEXT AND METHODOLOGY

3.1 Introduction

In this chapter the research context and methodologies employed in order to fulfill the research aims and objectives are focused on. In the first section of this chapter the context in which the study was conducted is discussed whereas in the second section the methodologies adopted to acquire the data are highlighted.

3.2 Context

After the first democratic elections in 1994, South Africa was divided into 9 provinces, which are: Gauteng, North West, Eastern Cape, Western Cape, Northern Cape, Mpumalanga, KwaZulu-Natal, Free State, and Limpopo, so as to manage the country efficiently. Each province was divided into district municipalities which were sub-divided into local municipalities. These divisions and sub-divisions were made mainly to improve service delivery to the people. The historical information of each case study is provided in Fig 3.1 and Table 3.1. In order to facilitate services delivered the government of South Africa is organized into three spheres: national, provincial, and local. National government is responsible for making national laws and policies. Provincial government is responsible for managing implementation of the national laws and policies within the municipalities. Municipalities are at the centre of service delivery in the local sphere. Since the management of the environment is the responsibility of the three spheres, the development of EMFs within the study areas is centrally budgeted for by the national government, that is, the DEA. Empowered by NEMA Chapter 4, all spheres of government are involved in each study EMF through a project steering committee (PSC) whereby the DEA and the affected provinces and municipalities collaborate in developing EMFs as shown in Table 2.1. The above approach to developing EMFs is an umbrella approach established by the DEA in the national development of EMFs in South Africa as stipulated by NEMA Section 24 (3) of 1998 and NEMA EIA Regulations of 2006 (Regulation 69 – 72). Different provinces and municipalities interested in developing EMFs have to comply with the DEA approach regardless of the location and the different development pressures experienced (Table 3.1).

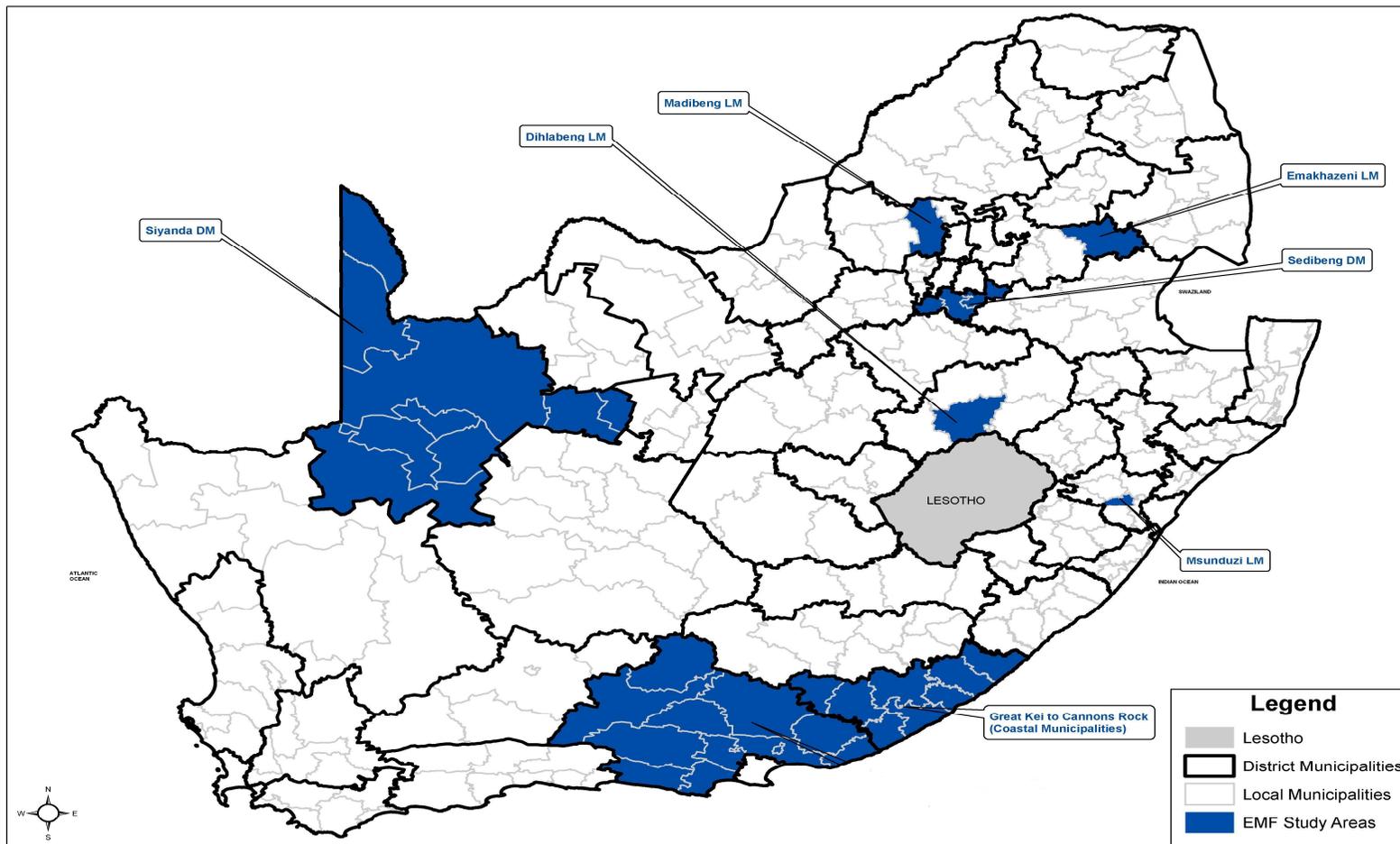


Fig 3.1: Map showing the location of the study areas

Note: LM means local municipality, whereas DM means district municipality.

Table 3. 1: Detailed analysis of the study areas.

| | SEDIBENG DISTRICT MUNICIPALITY EMF IN GAUTENG PROVINCE | GREAT KEI TO BOKNEI COASTAL EMF IN EASTERN CAPE PROVINCE | UMSUNDUZI LOCAL MUNICIPALITY EMF IN KWA ZULU-NATAL PROVINCE | DIHLABENG LOCAL MUNICIPALITY EMF IN FREE STATE PROVINCE | EMAKHAZENI LOCAL MUNICIPALITY EMF IN MPUMALANGA PROVINCE | SIYANDA DISTRICT MUNICIPALITY EMF IN NORTHERN CAPE PROVINCE | MADIBENG LOCAL MUNICIPALITY EMF IN NORTH WEST PROVINCE |
|-------------------------|---|---|---|---|---|---|--|
| Location | Southern border of Gauteng Province | Great Kei to Canon Rocks | 80 km inland north west of Durban Metropolitan | Eastern Free State | North of the Mpumalanga Province | Northern border of the Northern Cape province | Within North West Province |
| Area description | Bordering to the north on the city of Johannesburg, to the north east of Ekurhuleni Metropolitan Municipality and in the south to the border of the | Coastal area between Kei river and Boknei in the eastern coast of Eastern Cape Province | A gateway to Indian Ocean in the east and Drakensberg mountains in the West | Situated in the Thabo Mofutsanyana District Municipality Region | Bordering to the north in part on the Thaba Chweu local municipality, to the east and west of Mbombela and Steve Tswete local municipalities and to the south with the Albert | Bordering Namibia in the West and Namakwa District Municipality in the South. | Situated approximately 40km from Pretoria, 55km from Johannesburg and 50km from Rustenburg |

| | | | | | | | |
|------------------------------|--|--|---|---|--|--|---|
| | Free State Province | | | | Luthuli local municipality | | |
| Population | 908 107 (Sedibeng District Municipality IDP 2006 - 2011) | 2 088 201 (Cogta, 2009) | 600 000 (Umsunduzi Local Municipality IDP 2007-2011) | 114 105 (NRA, 2009) | 59 000 (Emakhazeni Local Municipality IDP 2007 – 2011) | 822 727 (Siyanda District Municipality IDP 2007 – 2011) | 419 681 (Madibeng Local Municipality IDP 2007 -2011) |
| Area of jurisdiction | Emfuleni, Lesedi and Midvaal local municipalities | Buffalo city metropolitan, Amathole, Great Kei, Ngqushwa and Ndlambe district municipalities | Pietermaritzburg city and surrounding townships and suburbs | Bethlehem, Clarens, Paul Roux, Fouriesburg, Rosendal Transitional Local Councils and Maluti Transitional Rural Councils | Dullstroom, Belfast, Machadodorp and Waterval Boven | Mier !Kai! Garib, Khara Hais, !Kheis, Tsantsabane and Kgatelopele local municipalities | Brits town, Hartebeespoort, Skkerpoort and rural areas and villages |
| Area in hectares | 420 124 | 521 000 | 640 000 | 137 883 34 | 473 661 | 1 200 000 | 381 400 |
| Development pressures | Commercial and residential expansion | Intense commercial, recreational and residential developments | Industrial, residential and commercial expansion | Intense residential, agricultural and industrial | Intense mining, economic and agricultural developments | Intense mining, residential and agricultural developments | Extensive farming, intensive agriculture, |

| | | | | | | | |
|-----------------|---|--|--|--|---|--|--|
| | | | | developments | | | nature reserves / game farming, mining |
| EMF need | To create a consistent open space management system across local municipalities | To assist decision-makers in promoting efficient resource management strategies and manage development activities within coastal areas | To assist with development planning as well as to identify and protect sensitive or important natural attributes | To control urban sprawl and manage natural resources effectively | To improve compatibility of land uses based on a gradation system | To protect, manage and optimize natural and urban landscapes | To harmonize development activities resulting from the above-mentioned development pressures |

3.3 Understanding stakeholder perceptions and expectations and the crisis surrounding EIA applications and backlogs.

It is the researcher's view that the piloting of EMF in the municipalities highlighted in Table 3.1 prompted the need for this research as the lessons learnt from the exercise would enable the DEA and other stakeholders to learn ways in which to use EMFs more effectively and efficiently and to expand the literature on the subject of EMFs. Inconsistency and unreliability in stakeholder involvement and participation in most of the EMFs pilot projects is a major concern in the development of EMFs in the study areas. Understanding stakeholders' perceptions and expectations of the EMF development process became necessary.

Lindsay and Norman (1977:97) define perceptions as 'a way of conceiving something; conscious understanding of something; opinion of an individual or a group of people; an intuitive judgment based on personal experience, heuristics and available information'. Existing tools utilized by the respondents in decision-making ultimately trigger conception, understanding, opinions, and intuitive judgment of what an EMF means as against other tools.

Gauline (2009: 48) defines expectations as 'a belief about what will occur in the future; the expected result after a course of action; and the degree of probability of an occurrence based on probability, what would be expected to happen'. The manner in which respondents perceive EMFs inevitably involves invested beliefs of what EMFs should achieve in the future. The idea about the link between perceptions and expectations is illustrated in Figure 3.2. Figure 3.2 illustrates that stakeholders' perceptions about EMFs are shaped by past experiences of environmental management and assessment tools developed and used prior the development of EMFs.

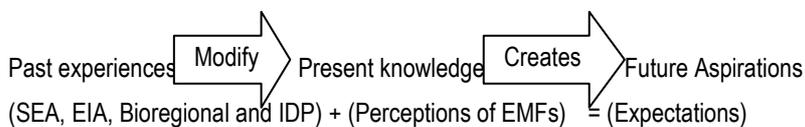


Fig 3.2: Perception model.

According to (Zeithaml, et al. 1990), perceptions and expectations are influenced by factors such as:

- Word of mouth communications: perceptions and expectations being influenced by what role-players hear about it;
- Personal needs: role-players are engaged in service delivery process because of their personal ambitions such as wanting to utilize service for their respective needs in as far as sustainable development is concerned;
- Past experiences: understanding of previous practices has an edge in current and future environmental practices (refer to Figure 3.2); and
- External communications: Delivery of products by the service providers plays a crucial role in shaping perceptions and expectations of the role-players.

All of the above factors depend on the stakeholders' reliability, responsiveness, competence, courtesy, credibility, access, communication, and understanding of environmental role-players. Therefore, it is the researcher's opinion that EMFs can be successfully implemented using the above theory in shaping stakeholders' perceptions and expectations on EMFs (refer to 4.4).

In 2006, the DEA added the development of EMFs to its business plan with the aim of improving environmental management practices in the country, especially in the provincial and local spheres (DEAT, 2006). The idea of including an EMFs in the DEA business plan was prompted by the promulgation of NEMA EIA Regulations of 2006 (DEAT, 2008). Chief-Directorate Environmental Impact Management under the Environmental Quality Protection branch was tasked with ensuring the success of the DEA - EMF initiative. The establishment of a separate fully funded and resourced unit to undertake the EMF functions at DEA became a necessity. Furthermore, financial assistance solicited from the donor agents such as the Danish International Development Agency (Danida) and the DEA medium term expenditure framework (MTEF) was allocated to pilot the development of EMFs in the above mentioned seven municipalities. Therefore, Directorate EIM, Provincial and Local Government Capacity and Support became the new unit mandated to develop EMFs in order to improve capacity within provinces and municipalities. However, the concern with poor stakeholder participation and involvement in the development of EMF pilot projects as explained above made it necessary to do this research. Poor stakeholder interest in the EMF pilot projects happened despite explicit legal requirements to have the environment managed concurrently by the national, provincial, and local government spheres.

3.4 Methodology

In this section the methods used in data gathering are described in order to fulfill the aims and objectives of the research.

3.4.1 Data gathering

Data gathering was achieved through four approaches, as set out below:

3.4.1.1 Literature Review

Although a literature review is not a data gathering technique, nevertheless, it provides ways of developing the researcher's theoretical framing of the research. This is the reason a literature review is presented as part of the data gathering methodologies used for the purposes of the research.

Both local and international literature was reviewed to familiarize the researcher with some studies on the subject. The sources of literature consulted can be divided into three categories according to Welman et al. (2005: 4):

1. Primary literature sources: These are the first publications of a piece of work. Governmental published primary literature sources such as the DEAT EIM series (refer to Chapter 2, Sections 2.1); (refer to Chapter 2, Section 2.2.); Constitution of the Republic of South Africa (refer to Chapter 2, Section 2.2); NEMA Act (refer to Chapter 2, Section 2.2); NEMA EIA Regulations and Guidelines (refer to Chapter 2, Section 2.3); White Paper on Environmental Management of South Africa (refer to Tables 2.1 and 2.3); Municipal Systems Act (refer to Chapter 2), Government Gazette (refer to Chapter 2, Section 2.3); and the EMF planning documents such as ToRs and SLAs (refer to Appendices B and C) where all of the EMF projects were reviewed. Unpublished sources such as EMF notes (refer to Chapter Two and Chapter Three), correspondence (refer to Chapter Two, Section 2.3), research papers (refer to Chapter Two, Figs. 2.4 and 2.5) and PSC committee minutes and opinions were also reviewed.

2. Secondary literature sources: These constitute the subsequent publications of primary literature and they are aimed at a wider audience and are easier to locate than primary literature.

Books (whole research works), magazines (refer to Chapter 2), newspapers (refer to Chapter 2), pamphlets (refer to Fig. 2.3), and journals (refer to Chapter 2) were reviewed.

3. Tertiary literature sources: These are designed either to help locate primary and secondary literature or to introduce a topic. Internet (refer to Chapter 2, Section 2.1 and Section 2.3) and bibliographies were consulted.

3.4.1.2 Participant observation

This is a research methodology where the researcher is an active part of the group being studied. For example, in this research the researcher was part of the PSC being studied.

Individual members of the PSC and groups were observed from the 'inside' as it were, as the researcher was a member of the PSC on all the EMF projects listed above. As both a DEA employee and the researcher, it was inevitable that the researcher had a set of preconceived ideas informed by the crisis surrounding the backlog and the experience of the DEA programmes around the development of EMFs. Such preconceived ideas relate to issues raised for EIA backlogs: weak legal enforcement, lack of capacity, inadequate institutional arrangements, poor stakeholders' participation and involvement, and lack of political will hence little or no punishment is applied to those who undermine the rules and regulations governing the environmental management. The issues outlined above were raised during the 2008 bi-monthly Work Group workshops held to discuss challenges experienced in environmental management issues by the DEA and provincial environmental departments. The preconceived ideas of the researcher did not influence the perceptions and expectations of the informants because that could have compromised the quality of the data collected. However, the preconceived ideas were used as 'tags' upon which more information from the informants could be expanded or elaborated. High standards of professionalism were maintained throughout the course of research.

In order to maintain professionalism, a set of established guidelines in participant observation were strictly followed. For example:

- permission of the PSC members was obtained by the researcher through the Chairperson of the meeting;

- disclosure of the research aims and objectives was made to informants;
- voluntary disclosure of the identities was made by the informants during the sessions;
- no interruption to or influence on the informants was attempted by the researcher during the discussion session; and
- no emotional attachment between the researcher and informants (Welman, 2005).

The proceedings of the PSC discussions were recorded. The use of the participant observation guidelines mentioned above formed the basis for the analysis of data as reflected in Chapter 4.

In terms of the EMF development requirements outlined in Appendices A and B for all the EMF study projects, Table 3.4 below lists the stakeholders represented in each study project. The importance of this table is that it identifies the types of informants used in the research. It also shows that environmental management and assessment as shown in Table 2.1 laid the foundations for co-operative management as promulgated in Chapter 4 of the NEMA Act of 1998.

Table 3.2: Stakeholders in DEA-funded EMF projects; 2008/09.

| Name of the Project | Service Provider | Participating Government Spheres | | | Other |
|---------------------------------------|--|----------------------------------|---|---|---|
| | | National | Provincial | Local | |
| Great kei to Cannon Rocks Coastal EMF | SRK Consulting | DEAT | Eastern Cape Department of Economic Development and Environmental Affairs | Amathole and Cacadu District Municipalities | Eastern Cape Parks Board in the Eastern Cape Province |
| Dihlabeng EMF | Council for Scientific and Industrial Research | DEAT | Free State Department of Tourism, Environment and Economic Affairs | Dihlabeng Local Municipality | None |
| Sedibeng EMF | Felehetsa Environmental Consulting (Pty)Ltd | DEAT | Gauteng Department of Agriculture, Conservation and Environmental Affairs | Sedibeng District Municipality | Environmental groups, Wildlife education, research and conservation |
| Msunduzi EMF | SRK Consulting | DEAT | KwaZulu-Natal Department of Agriculture and Environmental Affairs | Msunduzi Local Municipality | Business, government, and private sector |
| Emakhazeni EMF | Strategic Environmental Focus | DEAT | Mpumalanga Department of Agriculture and Land Affairs | Emakhazeni Local Municipality | Environmental Groups such as Mpumalanga Conservancy groups, property owners association |
| Madibeng EMF | Strategic Environmental Focus | DEAT | North West Department of Agriculture, Conservation and Environment | Madibeng Local Municipality | None |
| Siyanda EMF | Environomics | DEAT | Northern Cape Department of Tourism, Environment and Conservation | Siyanda District Municipality | None |

3.4.1.3 Key informant interviews

Since the objective of the research was to gain insight and experience into stakeholders' perceptions and expectations about EMFs in line with the researcher's EMF experience and preconceived ideas emanating from the EIA backlog, semi-structured interviews with key informants were conducted. Most of the interviews were carried out during meetings and workshops' tea and lunch breaks, and some were conducted telephonically. These interviews provided a greater opportunity for discussion and learning from the informants about problems, perceptions, and expectations due to the less formal nature of these interviews which focused mainly on preconceived ideas as explained in 3.4.1.2.

Averages of 5 to 10 informants per PSC meeting were interviewed depending on the attendance number of and co-operation from the selected informants. Interviews were also conducted during the 10 years EIA conference held on the 24th and 25th of November 2008 in Somerset West, in the Cape. The conference provided an opportunity to discuss experiences on environmental management and assessment tools as the delegates were drawn from national and international fronts. National and international scholars, businessmen, professionals, politicians, and journalists were represented in the conference.

3.4.1.4 Questionnaire survey

To consolidate findings drawn from the participant observation and key informant interviews, a questionnaire survey was employed. To satisfy ethical considerations and professionalism, the purpose and objectives of the questionnaire were clearly articulated, and the name and contact details of the researcher were disclosed at the beginning of the questionnaire. Informants were not asked to indicate their names but rather the organization they represented. The issues covered by the questionnaire were similar to the ones covered in the methodologies of the participant observations and key informant interviews. The structure and contents of the questionnaire are shown in Appendix A.

It should be noted that the questionnaire was composed of open-and closed-ended questions in order to balance interview content. For example, sections B, C, D, E, and F contained multiple choice questions, whilst section G contained open-ended questions. All of the closed-ended

questions in each section of the questionnaire were concluded with open-ended questions which encouraged the informants to further express what they thought and felt in response to questions in that particular section.

3.4.1.4.1 Piloting

It became critical to pilot the questionnaire to junior, middle and senior management at the DEA. Informants for this piloting were drawn from the DEA head office because they were the people dealing with EMF planning and its implementation in the provinces and municipalities. Furthermore, the DEA was funding this research and the product of this research had to assist in developing a working document that would benefit the department. Thus, it was thought proper for a limited number of environmental impact management staff of the DEA to participate in piloting. The purpose of piloting was to:

- Detect possible flaws in the questionnaire's content and structure;
- Identify ambiguous or irrelevant questions; and
- Confirm the methodology employed when administering the questionnaire to the respondents.

3.4.1.4.2 Survey

Once the flaws and irregularities were detected and remedied in the pilot exercise, a number of questionnaires were to be distributed to the selected informants at the information sharing workshop planned to take place in Pretoria on the 13th and 14th of November 2008. The importance of this workshop was that identified senior environmental officials during the key informant interviews were expected to attend. Therefore, the questionnaire survey was utilized as a supplement to shortcomings discussed in 3.4.1.3.

3.5 Summary

In Chapter Three, an introduction to the location of the study areas and the context in which the study was undertaken was provided. The terms 'perception' and 'expectations' were explained because these were the main aspects of the research. The methodology used in gathering data was set out. The techniques used in data gathering were discussed and included literature review, observation, key informant interviews, and a questionnaire survey.

CHAPTER FOUR

RESULTS

4.1 Introduction

Following the methodologies used in Chapter Three, Section 3.4 to gather data, a number of themes came to the fore. The themes resulted from positive correlation between data collected from the methods used in Section 3.4, hence data gathering revolved around the common ideas explained in Section 3.3. In Section 2.3, it was explained that the shortcomings in each environmental management and assessment tool discussed necessitated the development of EMFs as proactive tools in environmental management and assessment. Therefore, it was the researcher's assumption that in order for EMFs to benefit environmental management and assessment, EMFs have to address the shortcomings which are presented as preconceived ideas in Chapter 3. For the purpose of this research, only 8 resultant themes will be considered in meeting the research aims and objectives as highlighted in Chapter 1, Sections 1.3 and 1.4. These themes are:

- Lack of legal enforcement;
- Weak intergovernmental relations;
- Poor stakeholder engagement;
- Budget constraints;
- Unclear roles and responsibilities;
- Unreliable information sourcing;
- Undefined scope of EMFs; and
- Poor attendance at meetings.

In this chapter, results from each methodology highlighted in Section 3.4 are presented. The main themes that emerged as being of concern to the research sample will follow. The perceptions and expectations of informants in comparison with what the EMFs are supposed to do will be discussed.

4.2 Presentation of the results

4.2.1 Participant Observation

Data gathering was done through direct interaction between the researcher as part of a group and the key informants as the members of the PSC for the EMF study projects highlighted in Table 3.5. A total of 32 PSC meetings were planned for the duration of the research. Only 17 of the total planned meetings took place. The list of attended meetings against planned meetings in each study area is given in Table 4.1.

Table 4.1: PSC meetings per EMF project as from January to December 2008.

| Great Kei to Cannon Rocks coastal DM (EC) | | Dhlabeng LM (FS) | | Msunduzi LM (KZN) | | Sedibeng DM (GP) | | Emakhazeni LM (MP) | | Madibeng LM (NW) | | Siyanda DM (NC) | | Total | |
|---|---|------------------|---|-------------------|---|------------------|---|--------------------|---|------------------|---|-----------------|---|-------|----|
| P | A | P | A | P | A | P | A | P | A | P | A | P | A | P | A |
| 3 | 1 | 4 | 2 | 6 | 3 | 8 | 5 | 5 | 2 | 4 | 2 | 2 | 2 | 32 | 17 |

Key:

P = Planned PSC meetings EC = Eastern Cape Province FS = Free State Province
 A = Attended PSC meetings KZN = KwaZulu-Natal Province GP = Gauteng Province
 DM = District Municipality MP = Mpumalanga Province NW = North West Province
 LM = Local Municipality NC = Northern Cape Province

A total of 15 meetings were cancelled or postponed indefinitely for various reasons, such as a consultant not being able to deliver a report on time for discussion in the meeting and PSC members excusing themselves from the meetings due to other commitments.

Regarding preconceived ideas, the main challenge using this approach was the inconsistent and unreliable stakeholder involvement and participation. The number of informants attending each meeting varied depending on the issues to be discussed and the timing of the meeting.

4.2.2 Key informant interviews

Semi-structured interviews were held one-on-one with the purposefully selected informants from among the PSC members during tea and lunch breaks. 60 informants were interviewed from the 17 PSC meetings attended including those informants who preferred a telephonic response to the interviews. 25 informants were interviewed during the 2 days of the 10 years EIA conference held on the 24th and 25th of November 2008 in Somerset West in the Cape. Informants in the conference were drawn from national and international environmental authorities present using purposive sampling as described in Section 4.2.1.

Regarding preconceived ideas, the challenge with this methodology was the over-elaboration and exaggeration of issues by the informants. Also noticeable was that some informants used the opportunity to express their emotions regarding general environmental management practices. Some informants felt they were not competent enough to be participating in the research due to their lack of experience and ability in the subject within the EMF field. Those informants would in turn request a researcher to contact more knowledgeable informants in their organizations such as senior officials. Under the circumstances, snowball sampling was employed in order to gather more information from the identified informants. Due to the seniority of the informants identified, some form of formal interview became necessary, hence the use of a questionnaire survey.

4.2.3 Questionnaire survey

4.2.3.1 Pilot questionnaire survey

A total of 10 pilot questionnaires were distributed to the staff members at the DEA: Environmental Impact Management Chief-Directorate. Informants were carefully selected in accordance with the classification outlined in 3.4.1.4.1. For example, pilot questionnaires were distributed to informants at the level of Assistant Director (10), Deputy Director (12), Director (13), and Chief Director (14).

Table 4.2: Pilot questionnaire

| PILOT QUESTIONNAIRE SURVEY | | INFORMANTS (DEAT LEVELS) | | | |
|----------------------------|-----------------|--------------------------|----|----|----|
| Number sent out | Number Returned | 10 | 12 | 13 | 14 |
| 10 | 7 | 2 | 3 | 1 | 1 |

NB: Occupational levels used in Table 4.2, for example 10 = Assistant Director, 11 = Deputy Director, 13 = Director and 13 = Chief Director. In summary, 10 pilot questionnaires were sent out to DEAT employees from level 10 to 14. Seven completed pilot questionnaires were returned (2 from level 10, 3 from level 12, 1 from level 13, and 1 from level 14).

Results as shown in Table 4.2 assisted the researcher to amend the questionnaire structure and contents so as to accommodate the DEA interests without compromising the original purpose of the research. Comments and other inputs were screened for their relevance to the research as a whole. It is worth noting that views coinciding with the researcher's preconceived ideas as discussed in Section 3.3 were highlighted in all returned pilot questionnaires. Therefore, the final questionnaire focused on variables such as EMF legislative framework, general perceptions and expectations about EMFs, stakeholder engagement, and experience by the informants of EMFs. However, the responses from this exercise do not form part of the analyses of research results as the purpose was to inform the content and the format of the final questionnaire for the survey in 4.2.3.2.

4.2.3.2 Questionnaire survey

A total of 50 questionnaires were distributed to the potential informants attending the 2 days Innovation Hub EMF information sharing workshop held on the 13th and 14th of November 2008.

Attendees were assigned identity tags which identified those using personal and organizational details. The tags made it easy for the researcher to systematically select the representative sample for the study. Of the 50 distributed questionnaires, 18 were filled in and returned and 7 spoilt. Table 4.3 illustrates the detailed response rate from all the respondents who received the questionnaires. A format example of the questionnaires is demonstrated in Appendix A.

Table 4.3: Questionnaire survey

| QUESTIONNAIRE SURVEY (Questionnaires) | | | | | RESPONDENTS (Government Sphere) | | | | |
|---------------------------------------|-------------------------------|---------------|---------------------|---------------------------|---------------------------------|------------|-------|------------------|-------|
| Number distributed | Number filled in and returned | Number spoilt | Number not returned | Total percentage returned | National | Provincial | Local | Service Provider | Other |
| 50 | 18 | 7 | 25 | 36% | 1 | 6 | 6 | 1 | 4 |

NB: Spoilt questionnaires refer to those that were returned incomplete and were discarded. Informants were given from 13th November 2008 to the 15th December 2008 to return questionnaire.

In accordance with the identity tags supplied at the information sharing workshop, Section A of the questionnaire allowed each informant to state his/her organizational details. Informants catered for in the questionnaire were national, provincial, local, service provider, and 'other' (referring to those informants who wanted to remain anonymous). The informants indicated above were all represented in the workshop.

Table 4.4: Questionnaire return rate by the informants

| National | | Provincial | | Local | | Service provider | | Other | |
|----------|---|------------|---|-------|---|------------------|---|-------|---|
| H | R | H | R | H | R | H | R | H | R |
| 5 | 1 | 15 | 6 | 15 | 6 | 5 | 1 | 10 | 4 |

Key:

H = Questionnaires handed out

R = Questionnaires returned

Table 4.4 shows that the return rate of the questionnaires by the informants was generally poor. However, the sample was accepted as being valid and reliable. The questionnaire survey return rate was 38%, that is, 18 out of 50 questionnaires were filled and returned.

The challenge experienced in the questionnaire survey was the ignorance and arrogance of some informants as they perceived their business workload and schedule to be too demanding to include responding to the questionnaire. Questionnaires were regarded by the informants as being insignificant. Some informants would cheat in answering questions or not complete the questionnaire, hence there were spoilt questionnaires. Some questionnaires were not returned because the informants did not attend the second day of the workshop. Even though some of the informants requested extensions and promised to fax the interviews, the chances were slim that such informants would co-operate once back in their places of work. In the process of following up by telephone and other communication by the researcher, the questionnaire was probably given to a junior staff member for completion. This probability would have a negative impact on the quality of the data being gathered. In accordance with the preconceived ideas by the researcher, this challenge can be associated with inconsistency and unreliable stakeholder involvement and participation.

4.3 Main findings

The shortcomings of the existing environmental management and assessment tools and the EMF experience at policy level was used by the researcher as the point of departure in formulating the basis for research through the identification of perceptions and expectations by the stakeholders as discussed in Section 3.3. Furthermore, the suggestions and comments by the DEA informants used in pilot questionnaire survey were used to expand on some of the preconceived ideas in order to achieve aims and objectives of the research as contemplated in Chapter 1. Their impact was further discussed in each research technique discussed in 4.2.

During the participant observation, a total of 40 themes were elicited from the informants. Using the key informant interviews, a further 25 themes were raised by the informants. No significant themes were raised in the questionnaire survey except the DEA suggested themes. Therefore, preconceived ideas were used for control of the data to enhance the quality of the information.

Firstly, perceptions and expectations by the stakeholders were presented as key words in a tabular format. A certain level of variation was allowed to accommodate new ideas relevant to the research raised by the informants. In all data gathering methodologies the themes with the same meaning as the key words were put together in a matrix table. For example, the themes raised by informants such as 'poor EMF management'; 'inadequate legal tools'; 'fragmented legislation'; 'fluid legislation', et cetera with the same connotation as the key words 'lack of legal enforcement' were grouped together and consolidated. Another example is the themes of 'delegate problems'; 'diaries'; 'subsistence and transport'; 'boredom' et cetera were grouped together under a new theme: 'meeting attendances'. 65 informant themes were consolidated into 10 themes. To avoid bias towards preconceived ideas, the researcher coded all the 10 themes and rated them in accordance with their frequency of appearance within each methodology used. Each theme was further encoded to ensure objectivity in rating each theme. Only the top 8 themes were considered for report writing because they were most appropriate to accomplish intended aims and objectives as discussed in Chapter 1.

Table 4.5 shows the frequency of themes per methodology used in data gathering and the use of scores to rate each theme.

Table 4.5: Rating of themes in accordance with frequency of occurrence

| Themes | Frequency of the themes per methodology | | | | Score | Ranking |
|--------|---|-------|-------|--|-------|---------|
| | 17 PO | 85 KI | 18 QS | | | |
| KA | 17 | 32 | 02 | | 51 | 3 |
| KB | 15 | 41 | 09 | | 65 | 1 |
| KC | 08 | 27 | 13 | | 48 | 4 |
| KD | 14 | 39 | 11 | | 64 | 2 |
| KE | 17 | 09 | 16 | | 42 | 5 |
| KF | 15 | 21 | 0 | | 36 | 6 |
| KG | 09 | 21 | 02 | | 32 | 7 |
| KH | 14 | 05 | 02 | | 21 | 8 |

KEY:

Frequency

'17 PO' means Participant Observation (17 attended PSC meetings).

'85 KI' means Key Informants (85 interviewed informants).

'18 QS' means Questionnaire Survey (18 returned questionnaires).

Encoded themes

'KA' represents 'budget'; 'KB' represents 'legal enforcement'; 'KC' represents 'stakeholder engagement'; 'KD' represents 'intergovernmental relations'; 'KE' represents 'roles and responsibilities'; 'KF' represents 'meeting attendances'; 'KG' represents 'scope of the EMFs'; and 'KH' represents 'information sourcing'.

4.4 Informants' perceptions and expectations of EMFs

Tables 2.1 and 2.2 have indicated that environment management is a concurrent function of the three organs of state. The question of whether the theory presented in the abovementioned tables is supported or unsupported by the informants concerning their perceptions and expectations will be discussed. Table 4.6 highlights common perceptions and expectations that the informants have about EMFs. For the purpose of this report, only dominant perceptions and expectations in all methodologies are discussed.

Table: 4.6: Respondents' perceptions and expectations of EMFs

| Theme | Perceptions /issues | Expectations |
|-----------------------------|--|--|
| Legal enforcement | <ol style="list-style-type: none"> 1. In all study areas, the majority of informants perceive that the issue of 'concurrence' is very ambiguous and misleading. Questions like, 'Does concurrence mean agree or permit or support?' were encountered. This gives the idea that EMFs have weak legal standing. 2. EMF does not give guidance in terms of solving land clashes. An example was cited of the Eastern Cape Province where golf estates developments pose a serious threat to the environment. Gauteng Province was concerned with land clashes such as land reforms and land redistributions. 3. The majority of informants perceive the relatively more focus of legislative requirements in EMFs is on development and no guidance is provided on enforcement and monitoring once the EMF is in place. In the Free State some respondents went as far as to say 'EMFs are dead tools if they cannot be enforced'. 4. An overarching perception in the majority of stakeholders is that EMF ToRs take into consideration a lot of fragmented environmental pieces of legislation used by all spheres of government such Conservation of Agricultural Resources Act (CARA), National Water Act (NWA), Provincial Ordinances, Development Facilitation Act (DFA), et cetera. Furthermore, EMF at the time of research is explained in terms of NEMA EIA Regulations which have failed to solve EIA backlogs in the country. | <p>The question of who is really the Competent Authority in EMFs has to be clarified.</p> <p>EMF should help to solve land claims and assist in settling land disputes.</p> <p>A 'cradle to grave' approach should be adopted in EMF policy decisions.</p> <p>EMF legislative requirements should be clarified. Furthermore, standalone EMF Regulations and Guidelines need to be promulgated.</p> |
| Intergovernmental relations | <ol style="list-style-type: none"> 1. Even though the Constitution of the country, IGRA and NEMA are clear on co-operative governance, EMFs do not consider dynamics between district and local municipalities. The question whether an EMF is a concurrent function between national, provincial, and district or local government needs to be clarified. An example of this confusion in intergovernmental relations occurred when the Provincial Task team management was | <p>EMF should be developed to enforce relations and respect for policies of each government entity.</p> |

| | | |
|------------------------|---|---|
| | <p>tasked to develop a turnaround strategy in Umsunduzi local municipality thereby rendering municipality management redundant. The Task team management disapproved of the budgeting of resources for environmental projects as the district is mandated to manage environmental issues.</p> <p>2. Most government departments are working in isolation against one another. An example was given in Chapter Two regarding an EMF developed by Water Affairs without concurrence from the DEA. Ekurhuleni Metropolitan and other municipalities have developed their EMFs without consultation with the DEA.</p> | |
| Budget | <p>1. In all study areas, the budget provided could not cover the full scope of the EMF; therefore informants perceive that as a challenge in the quality of the EMF product. The Public Participation Process (PPP) in all study areas was inadequately prepared and poorly executed because comprehensive PPP is very demanding and expensive. In Kwazulu-Natal air quality studies could not be fully carried out as the resources needed could not be provided.</p> <p>2. Some informants believed that conventional tools like SEAs, EIAs, IDPs, and SDFs seem to be more affordable than EMFs.</p> | More funds should be made available if EMFs are to be successfully implemented and effective. |
| Stakeholder engagement | <p>1. EMF ToRs are developed by the DEA and given to affected provinces and municipalities for information only. This denies ownership of the tool by provinces and municipalities yet the tool is developed to assist provinces and municipalities. The Free State, North West, and Mpumalanga Provinces highlighted this perception.</p> <p>2. EMF fails to bring together government departments into EMFs. In the PSC meetings, few government department at all levels participated.</p> | EMFs should encourage participation by all environmental sectors, civil societies, and the public in general as specified in the White Paper on Environmental Management in South Africa (Table 2.3). |

| | | |
|----------------------------|---|--|
| Roles and responsibilities | <ol style="list-style-type: none"> 1. According to informants, roles and responsibilities in EMF are not clarified. For example, EMFs are being widely established and the DEA is doing little to enforce uniformity due to autonomy of each government sphere and no guidelines on which to base EMF strategy. The Ekurhuleni Metropolitan in Gauteng Province, Zululand District Municipality in Kwa Zulu-Natal Province, and Mangaung Local Municipality in the Free State Province are mentioned as examples. 2. EMF role and responsibility in assisting with EIA backlogs and applications is not yet clear. The relationship between EMF and other tools is not understood. Mpumalanga and KwaZulu-Natal informants had this perception. | EMF to be developed to clarify roles and responsibilities of each and every stakeholder in environmental management. Furthermore, the context under which EMF is going to assist in EIA application processes should be clarified. Interrelationship between EMF and other tools at all levels should be harmonized. |
| Meeting attendances | <ol style="list-style-type: none"> 1. EMFs do not make PSC attendances mandatory. In Gauteng poor attendances at the PSC meetings resulted in the EMF project at the Sedibeng District Municipality being terminated. 2. EMFs do not make provisions for different levels of competence for maximum participation for effective results. Furthermore, service providers are not compelled to deliver according to a work plan. | EMF planning should take into consideration uncertainties and plan around them. Sanctions should be applied in case of non-attendance by the stakeholders. Non-payment clause should be effected once the service provider does not deliver according to a work plan. |
| Information sourcing | <ol style="list-style-type: none"> 1. EMF encourages plagiarism because most EMF service providers rely on desktop information which is not referenced. Little or no ground-truthing is done. Some of the information is outdated and unreliable. Mention was made that SDF information at municipality levels leaves much to be desired, yet service providers rely on SDF studies to compile EMF information. 2. EMFs do not specify information copyrights. This has led to service providers trading or using the information meant for clients for their own gain. | EMFs should adopt a different approach to environmental management and assessment in order to add value to existing plans, policies and programmes. In this way EMFs would be used as an independent and reliable information source. EMFs should also be dynamic to accommodate new findings. |
| Scope of the EMF | 1. According to informants especially in Eastern Cape Province, SEAs are <i>best suited to</i> | Scope of the EMFs should be clearly defined and standardized |

| | | |
|--|--|---|
| | <p><i>PPPs especially at regional and local levels, and EIAs are best applicable at project level.</i></p> <p>Therefore, the question is: Where are EMFs best applied? The perception is that EMFs scope and application are not clearly defined.</p> <p>2. EMFs scope is misleading because the DEA seems to be violating protocol in dealing with EMF development processes. EMFs are done at different non-standardized scales, for example, some EMFs are done at local municipality level, whereas others are done at district level.</p> | <p>nationally. Protocol as narrated in IGRFA should be observed at all times when communicating EMF issues within governments department spheres at all levels as well as the broader stakeholders.</p> |
|--|--|---|

From the information presented in Table 4.6 above, it can be deduced that, in order to meet the expectations of the stakeholders in as far as EMFs are concerned, a lot of research on innovative means of improving effectiveness and efficiency has to be conducted as a matter of urgency. Once the means of improving the applicability of the EMFs have been devised and deployed, there is a possibility that EMFs can benefit IEM in general and specifically address the EIA backlogs as presented in Tables 3.2 and 3.3.

4.5 Summary

The results were presented from the data gathered from all seven study areas using the data collection methods described in Chapter Three from all seven study areas. The results from participant observation, key informant interviews, and questionnaires were presented, and the relationship between the results was established. Key findings were discussed with particular focus on the methodology used to arrive at the key themes in the results. Informants' perceptions and expectations of EMF for each theme were discussed.

CHAPTER 5

ANALYSIS OF THE RESULTS

5.1 Introduction

The results presented in Chapter Four are analyzed in this chapter. In line with the discussion presented in the preceding chapters, the writer interprets and discusses the results with the intention of assessing the extent to which the aims and objectives of the research were met. The findings are not repeated but their meaning and implications are discussed in the light of the purpose of the research.

5.2 Overview of the results

In Chapter Four key results and themes were presented, therefore it is imperative to illustrate the impact these themes had on project progress in each study area. Table 5.1 illustrates the interrelationship between the progress of the projects and the research findings.

Table 5.1: EMF projects' progress during the time of the research

| EMF Project | Date Initiated | Expected Completion Date | Time Delayed as per SLA | Date Completed | Progress at the end of 2008 (To be read in conjunction with Appendix B and C as well as Figure 2.5) |
|---------------------------------------|----------------|--------------------------|-------------------------|-----------------------------|--|
| Great Kei to Cannon Rocks Coastal EMF | 14/12/2006 | 31/10/2007 | 23 months | January 2010 | EMF final draft has been produced and put up for public scrutiny before the final product is officially adopted. |
| Dihlabeng Local Municipality EMF | 29/03/2007 | 30/11/2007 | 26 months | In progress | Preliminary draft EMF. |
| Sedibeng District Municipality EMF | 13/11/2006 | 30/11/2007 | 13 months | Terminated in November 2008 | Produced a status quo report and the project was terminated due to lack of co-operation between the stakeholders and the service provider. |
| Msunduzi Local Municipality EMF | 07/05/2007 | 31/07/2008 | 13 months | December 2009 | Completed EMF final report and circulated for public scrutiny before final adoption. |
| Emakhazeni Local Municipality EMF | 02/02/2007 | 28/02/2008 | 15 months | August 2009 | EMF complete and adopted. |
| Madibeng Local | 02/02/2007 | 31/03/2008 | 16 months | October 2009 | EMF complete and awaiting formal adoption. |

| | | | | | |
|--|------------|------------|-----------|------------|-----------------------|
| Municipality EMF | | | | | |
| Siyanda District Municipality EMF | 02/02/2007 | 30/11/2007 | 03 months | March 2008 | Complete and adopted. |

NB: Please refer to Table 3.1 and Figure 3.1 to identify which EMF project is referred to in the above provinces.

Table 5.1 reveals the reality of the progress of each EMF in the study area. The generally poor EMF progress portrayed in Table 5.1 indicates that the informants on average believe that, in order for EMF to make an impact in environmental management and assessment, the following challenges have to be met;

- Weak legal enforcement;
- Poor intergovernmental relations;
- Insufficient budget;
- Poor stakeholder engagement;
- Unclear roles and responsibilities;
- Poor meeting attendance;
- Unreliable information sourcing; and
- Undefined scope of EMFs.

The negative perceptions about EMFs by the informants depicted above go against the JPOI resolutions and principles of IEM as explained in Section 2.2. In contrast to the IEM principles, in terms of the poor progress shown in Table 5.1 and issues of EMFs shown in Table 4.6, the development of EMFs has been described by the following statements: 'it lacked accountability and responsibility of all stakeholders in the process for each stage of the development activity life cycle, in particular with regard to information provided, decisions taken and implementation requirements'; 'decisions do not take into account the interests, needs and values of all interested and affected parties and all relevant forms of knowledge, including traditional knowledge'; 'inter-governmental co-ordination and harmonization of policies, legislation and actions relating to the environment is poor'; 'EMF development is not integrated and does not acknowledge that all elements of the environment are linked and interrelated, and EMF development does not take into account the effects of decisions on all components of the environment and all the people in the environment'; and 'decisions are not taken in an open and transparent manner, and access to information is not provided in accordance with the law', that is, Promotion of Access to Information Act (PAIA) and Promotion of Administrative Justice Act (PAJA).

Therefore, the link between the information in Table 5.1 and Table 4.6 can be attributed to the slow progress of EMF development in all study areas, for example:

- In Eastern Cape Province, the main factor which stalled the progress of the Great Kei to Cannons Rock Coastal EMF was the lack of co-operation between the district and local municipalities. The politics between municipalities delayed the signing of a Service Level Agreement (SLA) and caused a massive delay in the development of an EMF.
- In Free State province, the main factor which stalled the progress of the Dihlabeng Local Municipality EMF was unclear roles and responsibilities. The province did not take any responsibility for organizing the successful development of EMF because of the perception that EMFs are a national competency. As a result the SLA signing was delayed and meeting attendance was poor. Also the sourcing of information was a challenge.
- In North West Province, the main factor which stalled the Madibeng Local Municipality EMF was the challenge of the successful alignment of the SDF and EMF tools in the area. Local Municipality authorities felt there was no need for an EMF, hence the SDF played a major role in development decision-making via the DFA and MSA.
- In Mpumalanga Province, the challenge to EMF development was the conflicting mandates of institutions tasked with environmental management in the area. During the PSC meetings it emerged that other national departments such as the Department of Minerals (DM) and Department of Agriculture, Fisheries and Forestry (DAFF) had already conducted their own studies and had authorized environmental activities without any consultation. Attempts to bring the above departments and other stakeholders into the process delayed the progress in the development of an EMF.
- In Gauteng Province, the Sedibeng District EMF was terminated due to unsatisfactory delivery by the service provider. Poor sourcing of information, poor stakeholder engagement, poor attendance of the meetings, and weak legal enforcement resulted in the termination of the project.
- In KwaZulu-Natal Province, at the Msunduzi Local Municipality EMF inception meeting, stakeholders needed more information included in the projects which escalated the cost of the project. The time taken to negotiate variation order by the DEA and the province within the separate bureaucratic structures resulted in the delay in the project as the participation from the concerned stakeholders took preference.
- In Northern Cape, although Siyanda District Municipality EMF is the only one completed in the study areas at the time of the research, public participation delayed the project

because identified stakeholders did not see the need to participate in the project. The project continued to the finish without adequate participation by the stakeholders.

It is, therefore, imperative that future EMF development projects address the shortcomings discussed above in order to make the EMF tool efficient and effective.

5.3 Key results

5.3.1 Weak legal enforcement by government

The South African Constitution and NEMA have been portrayed as being some of the most progressive pieces of legislation in the world in as far as environmental management is concerned (refer to Chapter Two, Section 2.3). It is of great concern that the implementation of the legislation is very fragmented and that there is a lack of enforcement. Government departments in various spheres are using different pieces of environmental legislation that are incompatible with one another. At an Emakhazeni PSC meeting of the 20th of February 2008, held in Belfast, a mention was made of an EMF developed by the former Department of Water Affairs and Forestry (DWAF) without the knowledge of the former DEAT as a lead agent in the development of environmental impact assessment tools. By law, an EMF is developed in accordance with the NEMA EIA Regulations of 2006 which explicitly state that the DEA Minister is the Competent Authority in EMF development processes (refer to Chapter Two, Section 2.3). Another example of weak environmental legal enforcement raised by respondents, at the same PSC meeting, was the granting of prospecting rights to a mining consortium by the DM in Wakkerstroom without consulting with other affected entities such as the DEA and DWA. This strongly challenged the legal enforcement of EMFs in the country, in general, and implementation of intergovernmental relations, in general.

What the above examples indicate is that the three pieces of environmental legislation, namely, NEMA of 1998, the National Water Act (NWA) of 1998, and Minerals and Petroleum Resources Act of 2002 are fragmented but should be aligned to ensure consistent application. The above discussion shows that fragmented pieces of legislation inevitably impact negatively on the legal enforcement of EMFs or any other impact assessment tool (refer to Chapter Two, Section 2.3) in South Africa.

Another example in the debate about weak environmental legal enforcement involves a court case between the City of Johannesburg and Gauteng Development Tribunal (335/08) [2009] ZASCA 106 (22 September 2009). The court found that Chapter V and VI of the DFA of 1995 are invalid and are in conflict with the Town-Planning and Townships Ordinances of 1986. Therefore, the opinion was that the existence of parallel authority in the hands of two separate bodies, with its potential for the two bodies to speak with different voices on the same subject, cannot but be disruptive to orderly planning and development within a municipal area. All of the above examples have a direct link to EMFs being successfully or unsuccessfully implemented in the country.

An EMF requires pieces of environmental legislation from all spheres of governance to be considered during the development process (refer to Appendix B, Clause 2.2.2). By encompassing the entire sectoral pieces of legislation, EMFs are exposed to endless debates about the location of administrative and executive powers and responsibilities in EMF development (as illustrated by Table 2.3, also discussed in 5.3.2). Respondents felt that with the above mentioned examples and complicated mandatory planning tools in the hands of various spheres of governance, it is impossible for EMFs to have a solid legal standing and results will be the same as that of the prior impact assessment and management tools alluded to in Chapter 2, Section 2.3.

5.3.2 Unclear roles and responsibilities

Having highlighted the impacts caused by fragmented environmental management by government departments in implementation, it is logical to next consider protocols around roles and responsibilities. Essentially, there is a lack of formal protocols that detail the roles and responsibilities of all spheres of governance in the development of EMFs. Section 35(2) of the Intergovernmental Relations Act (IGRA) states that protocols must explain why a protocol is considered to be necessary and then state the exercise of a particular power and/or the performance of a particular function. When asked about the ToRs and SLAs (Appendix B and C) that act as the protocol for EMF development processes, the respondents felt that such protocols are tailor-made only to suit the DEA requirements as a lead agent. According to some respondents SLAs and ToRs are sent to the province and local municipalities only for endorsement (explained in Chapter One, Section 1.2). Respondents felt the development of EMFs is centralized and as a

result the question of who is responsible for development of EMFs was debated to the extent that it was felt that amendments had to be made to cater for all the affected spheres of government. The amendments meant that only signatories are catered for in the outcomes of EMFs and, vitally, excludes I&APs. The perception was that the role and responsibilities of I&APs were not clarified and those clauses appearing on ToRs and SLAs were strongly contested and objected to. Delays in EMF development projects by the DEA were inevitable as there were many loopholes in the drafting of ToRs and SLAs that resulted in conflict and resentment by some role players especially the local authorities (explained in 5.2 above). This was apparent in most of the PSC meetings as there were queries regarding the content and the format of the ToRs and SLAs. In most instances legal services of the affected organizations would revise and modify many clauses thereby delaying the completion of the project. All EMF projects sponsored by the DEA fell behind schedule (refer to Table 5.1) as a result of the above issues.

Furthermore, the role of EMFs in integrated environmental management was a bone of contention, and the majority of respondents were used to conventional environmental management tools such as SEAs, EIAs, and EMPs (explained in Chapter 2) hence they questioned the usefulness of EMFs in their areas of jurisdiction. At the time of the research more than 50% of the respondents felt that EMFs had no place in IEM and other planning tools at both provincial and local levels.

5.3.3 Inadequate institutional arrangements

At a national level, EMFs are viewed by the DEA as being supporting and capacitating to local governments. There are other directorates in national, provincial, and local government that have their own interventions which are likely to interfere with or take precedence over EMFs at provincial and local levels. For example, there is DEA Social Responsibility Projects and Programmes directorate, which contracted employees at level 10 and deployed them to district municipalities. These contract employees are yet to be given EIM directorate programmes such as EMFs aimed at supporting and empowering municipalities.

The DEA - Biodiversity directorate is mandated with assisting provincial departments to establish their respective biodiversity and conservation plans through formulation of bioregional plans (explained in Chapter 2, Section 2.4, and Section 2.4.1.1.). At the time of this research, no common

grounds had been established between biodiversity and EIM directorates to align and integrate bioregional plans and EMFs. Furthermore, there is the DEA Local government planning and intervention directorate which communicates consistently with municipalities regarding their programmes aimed at empowering local governments. With these arrangements at the DEA, local governments become fragmented and ineffective.

Co-operation between the national and provincial governments is hampered by the fact that multiple departments are merged to form single departments with multiple mandates, with some mandates superseding others. For instance:

- The Sedibeng EMF is co-managed by the DEA and Gauteng Department of Agriculture, Conservation and Environmental Affairs (known as Gauteng Department of Agriculture and Rural Development since January 2010);
- The Madibeng EMF is co-managed by the DEA and North West Department of Agriculture, Conservation and Environment (known as North West Department of Agriculture, Conservation, Environmental and Rural Development since January 2010);
- The Emakhazeni EMF is co-managed by the DEA and Mpumalanga Department of Agriculture and Land Affairs (known as Agriculture, Rural Development and Land Administration since January 2010) ;
- Dihlabeng EMF is co-managed by the DEA and Free State Department of Tourism, Environment and Economic Affairs (known as Free State Department of Tourism, Environment and Economic Affairs since January 2010);
- Msunduzi EMF is co-managed by the DEA and KwaZulu-Natal Department of Agriculture and Environmental Affairs (known as KwaZulu—Natal Department of Agriculture, Environmental Affairs and Rural Development since January 2010) ;
- Great Kei to Cannon Rocks Coastal EMF is co-managed by the DEA and Eastern Cape Department of Economic Development and Environmental Affairs (Eastern Cape Department of Economic Affairs, Environment and Tourism since January 2010); and
- Siyanda EMF is co-managed by the DEA and Northern Cape Department of Tourism, Environment and Conservation (known as Northern Cape Department of Environmental and Nature Conservation).

The above arrangements at provincial level are a clear testimony of poor co-ordination and balance in as far as DEA intervention programmes are concerned hence it is clear that the amalgamation of departments with different mandates into a single department is likely to skew priorities and functions. It is no surprise, therefore, that attendance at EMF PSC meetings (discussed below) does not receive priority by provincial managers. Budget constraints experienced by sections of the above provincial departments became a major concern whenever the scope of EMFs is extended with financial implications for which the DEA could not budget. Only one department in KwaZulu-Natal, the Department of Agriculture, Environmental Affairs and Rural Development managed to contribute some funds towards the development of Msunduzi Local Municipality EMF, although it was not enough to cover the extended scope of work.

At a local level, It is still not clear whether EMF development should be managed by the municipal planning sections, technical services sections, or community development sections. Appropriate personnel for EMF development at local level have not yet been finalized. Due to complexity of the Great Kei to Cannon Rocks Coastal EMF project in the Eastern Cape Province, for example, inadequate institutional arrangements became the limiting factor. The EMF project consolidated 2 large district municipalities into one large project. The question that needed an answer was which municipality should take precedence over the others in leading the project. Buffalo City Metropolitan Municipality played a very active role in that particular EMF. SLAs and ToRs could not be signed in due time because of the misunderstandings about power relations by the authorities of the concerned municipalities.

5.3.4 Budget constraints

The research revealed that the DEA was viewed as the financial provider for the development of EMFs around the country. Therefore, at provincial and local levels, little or no budget was allocated to EMF projects. If one looks at IDPs of different municipalities no mention is made of an EMF as one of the core projects to achieve sustainability. The DEA can provide funding for what is equivalent to the EMF ToRs, whereas the full development of EMFs needed by both the provinces and municipalities greatly escalates the cost of the project. These are costs which the DEA cannot afford. For example, the Msunduzi EMF costs increased by 40% after the inception meeting where stakeholders insisted on an amendment to the original ToRs to cater for their expectations and

needs. An average cost of an EMF is one million Rands. The question is, therefore: 'Is it possible for the DEA to raise millions to support EMF development in all municipalities in South Africa?' Some of the provinces and municipalities such as the KwaZulu-Natal Department of Agriculture, Environmental Affairs and Rural Development, the Western Cape Department of Environmental Affairs and Development Planning, the Rustenburg Local Municipality and Mogale Local Municipalities in North West Province, and the Nelson Mandela Bay Metropolitan in Eastern Cape Province have already taken the initiative to budget for their EMF developments and this can be viewed as a step in the right direction for sustained use of EMFs by the municipalities.

The inflation rate has also affected EMF processes because most of the EMF projects run across different financial years. The financial year 2008/09 co-occurred with the global economic recession that negatively affected EMF processes in as far as travelling and subsistence costs were concerned. Punctual development of EMFs regarding starting and finishing of a project should be encouraged in order to control economic challenges such as inflation. Respondents perceived that EMF developments are part and parcel of DEA business plans and the DEA has to take full responsibility for the effective management of EMF projects.

Due to the dynamic nature of EMFs, the additional costs arise from a range of issues which include additional work. The firm of SRK cited the following reasons for the negative budget impacts Msunduzi Local Municipality EMF project with which it was involved:

1. It was necessary to collect and collate data and information which, although they were available, were not always readily accessible and in most cases required significant reworking, for example, consolidation, re-formatting, and editing of scientific and spatial data sets, to enable these to be used in the project;
2. A number of additional meetings were required to:
 - i. Resolve information issues, such as ground-truthing and sourcing and purchase costs;
 - ii. Make key strategic decisions relating to the project such as commissioning of specialist studies and general project management costs;

iii. Facilitate integration of EMF data sets with other related specialist studies as per clause 2.2.3 and 2.3.4 of the ToRs (Appendix B) in order to consolidate the EMF information generated; and

iv. Identify, plan and agree on additional work so that decisions could be collectively taken to either accept an increase in costs or not.

5.3.5 Unreliable information sourcing

The issue of accessing information has been a concern for most service providers. Provinces and municipalities did not seem to have information that would enhance EMF development despite the fact that a lot of studies had been carried out by these institutions. Institutional arrangements to some extent had been a contributing factor in this regard. For example, Sedibeng District Municipality EMF experienced major delays in the progress of EMF development due to the fact that the Gauteng Department of Agriculture and Rural Development did not co-operate with the service provider. Directorates which were meant to source information for consultants believed that EMFs did not fall in their line of duties. As a result, the project was terminated with costs to the DEA.

Validity and reliability of information sourced, especially spatial information, was questionable to most of the PSC members. Some service providers did not ground-truth most of the spatial information sourced, and information contradicted very much with reality. For instance, a map layer would indicate some areas being a conservation area whereas in reality the place had been developed a long time. In Sedibeng, the north east edge of the EMF area was mapped as having natural vegetation cover and operational mining, however, it emerged that the national Department of Agriculture had new data on the area which reflected that the same area portrayed as having natural vegetation cover had already been developed for residences, and the mines had been decommissioned and rehabilitated a long time ago. The consultant developing an EMF for the area had obtained data that were outdated compared to what the national Department of Agriculture had, and did not bother to verify such data. Furthermore, information that should be acquired from other service providers was not available because there is no sharing of information by professionals. An example was given of a situation where a provincial government employee was processing an EIA application and had to utilize studies done through various planning tools for the

area. SEA studies revealed that the area where the EIA application had been launched was not developable because it was a conservation area, but the SDF plan indicated that the area in question was earmarked for large-scale property development. Most service providers still think in narrow terms, are slow to think across boundaries when conducting studies such as the ones above, and do not realize the importance of the relationships between and cumulative impacts of the final products. Therefore, the theme of access to information highlights the lack of institutional memory around data that have been already collected, stored, and processed. This is a long-standing problem (George, 2005). This also highlights the lack of accountability on the part of consultants mainly because ToRs have not, in most cases, insisted that the intellectual property rights of the outcomes of consultancy work rest with the client – in this case it is invariably the State (Fincham pers.com., 2009).

5.3.6 Undefined scope of the EMF

The ideal extent and scope of an EMF as an environmental assessment and management tool was confusing to most of the respondents. The fact that stakeholders' roles and responsibilities in EMFs are not yet defined meant that the scope and extent of EMF applications are not yet finalized. To compound the situation, the DEA, at the time of the research, was still in the process of developing EMF guidelines, whereas the EMF projects around the country were already in progress. The question that was not answered by the management satisfactorily was whether an EMF was applicable at a large scale, equivalent to district municipalities or province, or at a small scale, equivalent to local municipalities. Furthermore, an additional question raised by respondents from the participant observation and semi-structured interviews was whether an EMF would be an operational or strategic environmental impact assessment and management tool in the various spheres of government. The required level of involvement by each sphere of government is not yet defined. Therefore, it is not yet known whether EMFs are going to be utilized at a planning (strategic) level by the national departments or at a service delivery (operational) level by the provinces and municipalities.

5.3.7 Poor attendance at the EMF PSC meetings

Inconsistent attendance of the PSC meetings was a very disturbing occurrence to the DEA as the lead agent to EMF development projects. Since EMFs proved not to be a priority to most of the

managers, different junior staff members would be delegated to represent the organization without prior arrangement with the organizers, especially the DEA and service providers. No positive contribution from the attendees could be expected against such practices. When meetings were planned to cater for the attendance of appropriate managers of their respective organizations, prior commitments were cited as a reason for not attending. This led to meetings being rescheduled with a lot of accompanying inconvenience. In fact, it was very difficult to plan and at the same time avoid clashing with other commitments of attendees.

According to some respondents, EMF meetings were unproductive since there was little progress made at these forums. Even a little progress would be the repetition of the issues discussed in the preceding meetings just to inform the new attendees delegated by their respective organizations. Budget constraints were also contributory factors, hence subsistence and travelling funds were not always readily available for attendees, a fact exacerbated by the realization that EMFs were not perceived as being a priority by provinces and municipalities.

5.4 Summary

In Chapter Five the data provided in Chapter Four was interpreted. The results were discussed in terms of progress made in each study area during the research period. Table 5.1 portrays the actual EMF progress. The informants' perceptions and expectations of EMFs are discussed in details. Key themes outlined in Section 4.3 were interpreted.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

A brief review of the research is made in order to highlight the significance and coherence of the research. Recommendations for each theme regarding perceptions and expectations as discussed in Chapter Four are made. Then the strategic issues are considered in relation to the research purpose. Lastly, remarks and comments are made on the outcome of the research.

6.2 Research review

The research's primary aim, as stated in Chapter One was to explore the understanding by stakeholders of environmental issues with emphasis on EMFs and with reference to government authorities at all levels. Secondly, it was attempted to establish to what extent stakeholders' perceptions and expectations stimulate or inhibit EMFs as tools to bridge the gaps identified in existing environmental assessment and management tools as presented in Chapter One, Section 1.4. Therefore, the researcher designed his research using perceptions and expectations of EMFs by the stakeholders directly involved in the development of the EMFs and those stakeholders entrusted with policy-making. The research established that since the gaps were identified by the stakeholders themselves (refer to Section 3.3), it is through their perceptions and expectations of what EMF should or should not be that one can suggest ways in which EMFs can more effectively be articulated by government authorities.

The literature reviewed and discussed in Chapter Two assisted the researcher to clarify his understanding of the progress made in EMF development both locally and internationally. Comparative analysis of past and present environmental assessment and management tools as presented in the literature reviewed made it possible to identify the benefits that the development of EMFs could bring to bridge the gaps identified between the various tools. A conceptual framework presented in Section 2.5 was drawn in order to depict the envisaged EMF functioning within the broader integrated environmental management system.

In Chapter Three different but complementary research methodologies were highlighted. In order to accomplish the aims and objectives of the research set out in Chapter One and the literature review in Chapter Two, a set of data gathering techniques such as participant observation, key informant interviews, and questionnaire survey were employed (Section 3.4.1).

Chapter Four presented the results from the data gathering methodologies used in Chapter Three. Key findings in the form of themes were presented.

The analysis of the results presented in Chapter Four was presented in detail in Chapter Five. Each key theme was analyzed in accordance with the study aims and objectives highlighted in Chapter One.

6.3 Recommendations

6.3.1 Legal enforcement

It is clear from Table 4.6 that stakeholders perceive that EMFs cannot be enforced due to weak legal representation and unclear legal standing. Furthermore, EMF development is voluntary but enforceable once adopted by the Minister. Guidance on the enforceability of EMFs is not clarified as there are no implementation and monitoring guidelines in place once the tool has been developed.

Recommendation 1

Clear EMF regulations and guidelines should be developed by the DEA as a matter of urgency.

6.3.2 Stakeholders' engagement

Perceptions by the stakeholders revealed that engagement is still a challenge because interest in EMFs has not yet been properly generated. As a result, EMFs have not managed to enforce co-operative governance according to NEMA principles.

Recommendation 2

The DEA should establish viable partnerships with the broader stakeholders in order to inculcate collective wisdom in issues about sustainability.

6.3.3 Roles and responsibilities

Intergovernmental relations as discussed in Chapter Four, showed that the process of co-operation among all spheres of government in developing EMFs was inadequate due to unclear roles and responsibilities of stakeholders in the development process of EMFs. For example, most provincial offices and municipalities were ill-informed about the need for co-operation among organs of state in EMF development. This resulted in roles and responsibilities being confused and misunderstood.

Recommendation 3

It is the responsibility of the government authorities, especially the DEA in connection with EMFs, to ensure that government employees dealing with projects that require co-ordination from various entities such as EMFs are capable of project management and understanding of the politics in the country.

6.3.4 Meeting attendance

As a result of the unclear roles and responsibilities, poor stakeholders' engagement, weak legal enforcement, and unclear scope of EMF's the attendance at meetings has been inconsistency and poor, as shown in Table 4.1.

Recommendation 4

The DEA needs to develop and promote working EMF implementation and a marketing strategy in order to inculcate participation by the affected stakeholders.

6.3.5 Information sourcing

Poor sourcing of information by the EMF service providers makes the EMF tool inadequate because stakeholders cannot make use of poor quality information to ensure sustainable environmental performance.

Recommendation 5

In the drafting of ToRs and SLAs the copyrights of the EMF product should be clearly articulated so that they belong to the client and not the service provider. This would avoid infringement of information rights, and save repetition of information acquisition.

6.3.6 Scope of the EMFs

According to stakeholders' perceptions it was revealed that it is not clear at what level EMFs are most applicable. Although NEMA Section 24 (3) clearly states that an EMF is initiated by the Minister or MEC, in concurrence with the Minister, however, the Act does not clarify whether it is in the local or district municipalities that EMFs are best applied. The roles of national and provincial governments in EMF development are confused.

Recommendation 6

The scope and detail of information required in EMFs should be clarified in order to make EMFs viable and useful. The DEA as the custodian of environmental resources in South Africa should take the responsibility to ensure that EMFs are efficient and effective.

6.3.7 Budget

Stakeholders' perceptions revealed that authorities undermine the role of EMFs in their planning because the necessary funds to develop EMFs are not allocated. The quality of EMFs will always be of concern due to budgetary constraints.

Recommendation 7

Government authorities should enhance productive public-private partnerships in the development of EMFs by ensuring realistic budgetary allocations to achieve desired outcomes.

6.3.8 Intergovernmental relations

According to stakeholders' perceptions, it is clear that government employees at all levels are unskilled in establishing relations with other agencies. For example, information in Table 5.1 reveals that slow progress has been the result mostly of poor intergovernmental relations.

Recommendation 8

Since EMF development requires co-operation between national, provincial, and local spheres of governance, working together has the potential to improve relations between government spheres.

6.4 Strategic issues

6.4.1 Clarification of the issue of concurrence in the development of EMFs

Although NEMA EIA Regulations 69 – 72 set out the purpose of EMFs and the manner in which they are developed in South Africa, many stakeholders are still not clear about the process of developing EMFs in accordance with the Regulations and the protocol requirements. The debate about concurrence was tackled during an EMF information session held in Pretoria in November 2008, but no consensus was reached on the issue. In that session authorities from all government spheres and consultants were invited, but not all of the invited attended. The environment is included in Schedule 4 of the Constitution as a functional area of concurrent national and provincial legislative competence. Simply put, national and provincial governments have the power to make decisions in as far as environmental management is concerned, and that should be done in a harmonious manner. Furthermore, the Intergovernmental Relations Framework (IGRFA), Act of 2005 establishes a framework for the national, provincial, and local governments to promote and facilitate intergovernmental relations, and provides for mechanisms and procedures to facilitate the settlement of intergovernmental disputes. Chapter 3 of the IGRFA specifically provides for organs of state to enter into implementation protocols as an Agreement where the implementation of policy, the exercise of the statutory power, the performance of a statutory function, or the provision of a service depends on the participation of organs of state in different spheres of government. Therefore, if EMFs are to succeed in South Africa, national and provincial governments should understand the need to involve and inform one another about any EMF initiative, especially those EMF initiatives aimed at empowering local governments. Roles and responsibilities of each sphere of government in the EMF process should be clarified. Understanding between MEC and Ministers should be strengthened so as to do away with fragmented approaches to environmental management in general.

6.4.2 Improvement of project management skills

The drivers of the EMF process should have a sound knowledge of managing an EMF as a project from the start to the finish. This means that project managers involved in EMF development should state objectives, measurable indicators, outcomes or/and outputs, allocated responsibilities, timelines, and budget in their project planning. Lack of skills in project management in all the projects studied delayed progress, with the above variables compromised. The consequences

were prolonged time-frames because no project could start before the SLA was signed. It took more than three months to have the SLA signed by the relevant authorities. As a result of the above, costs of the projects escalated to an extent that the DEA incurred extra costs due to poor project management by the stakeholders. Improved skills in project management would assist in maximizing EMF benefits such as social, economic, and ecological gains within the political sphere, inter-sector co-operation, and harmonization of governance. This could be achieved through guidance of the ToRs from the start of every EMF project. Improved skills in project management inevitably result in capacity building, which in turn, improves service delivery. The challenge currently is that neither ToRs nor SLAs cater for this issue.

6.4.3 Facilitation of co-management and co-governance

Table 6.1 below indicates the need for progressive evolving concepts of management to be adopted by EMF authorities in facilitating strategic management.

Table 6.1: *Evolving concepts for management*

| Point of departure | From | To |
|--------------------------------|-------------------------------------|---|
| | Things | People |
| Mode | Blueprint (Zone and legislate) | Learning process (Adapt to people's needs) |
| Goals | Predetermined (Imposed) | Evolutionary (Consensus policy and delivery) |
| Keyword | Planning (Protect) | Participation (Equitable development) |
| Locus of decision making | Centralized | Decentralized (Resistance to letting go) |
| Methods | Standard and universally applicable | Diverse and locally applicable, adapted |
| Relationship with stakeholders | Control and educate | Enable and empowering |

Source: Hay, 2006.

In terms of EMF co-management issues, the above table indicates that, in order to succeed in EMF development, all stakeholders should be involved in a substantive manner in EMF management activities thus sharing management functions, rights, and responsibilities. Civil societies play a vital role in this regard.

In terms of EMF co-operative governance, EMF development should involve co-operation between responsible authorities at national, provincial, and local levels.

6.5 Remarks

Table 4.6 has shown that although stakeholders have negative perceptions about the EMFs as a viable tool in environmental management, the expectations they have of the tool clearly indicate that, if improvements in the planning and implementation of the EMF tool are made by the decision-makers, stakeholders are prepared to use the tool for its intended purpose. One of the main purposes of EMF development is to facilitate the compilation and consideration of applications for environmental authorization in order to address EIA backlogs. Bearing in mind that an EMF is also a mechanism to ensure that future development in an area occurs in a manner that is appropriate to its unique features and characteristics, government authorities should consider the following (adapted from Drewell, 2008):

- EMFs recognize that all forms of capital are subsets of natural, human, and social capital ;
- Everything about EMFs is linked in an IEM plan, therefore every action taken in EMF development must be considered in the context of its effect on the whole system; and
- EMF development should be based on the idea that EMF projects should not be about trade-offs, that is, profit versus the environment, but about seeking to simultaneously maximize value for all.
- Therefore, based on a set of fundamental principles for environmental management and assessment in terms of Section 2 of NEMA and the above factors, EMF practitioners, especially government authorities, need to reframe the purpose of EMFs and then work out what each and every EMF stakeholder should be doing, not on the periphery, but in the mainstream of EMF activities. 'Collaborative action based on voluntarism, joint resource commitment and shared responsibility of all actors for the whole project can serve public interests as well as private interests' (Glasbergen et al 2007: 4).

6.6 Summary

The research was reviewed regarding what each chapter contained and to what extent the chapters are interlinked and interrelated with one another to achieve the intended aims and objectives of the study. Recommendations based on the key findings presented in Chapter Four and discussed in Chapter Five formed the second section of the chapter. Strategic issues identified from the research were discussed as an addition to the recommendations made. Closing remarks by the researcher concluded the chapter.

References

B14-163, n.d. *Environmental Management Framework: Airport and Surrounds. Volume B. BAC, Australia*. [Online]. Available at: [http:// www.newsparellelrunaway.com.au/files/pdf/B14.pdf](http://www.newsparellelrunaway.com.au/files/pdf/B14.pdf). [Accessed 05 September 2007].

Carroll, B and Turpin, T., 2002. *Environmental Impact Assessment Handbook: A Practical Guide for the Planners, Developers and Communities*. Hobbs the Printers, Great Britain.

Department of Co-operative Governance and Traditional Affairs, 2009. *Cannon Rocks to Boknei Coastal Municipalities Economic Growth Report 2009 -2011*. [Online].

Available at: <http://www.cogta.gov.za>

[Accessed 28 April 2010]

Department of Environmental Affairs and Tourism, 2007. *Integrated Environmental Management Series: Strategic Environmental Assessment*, Pretoria: Republic of South Africa

Department of Environmental Affairs and Tourism, 2006. *A Strategic Framework for Sustainable Development in South Africa: Draft for Public Comment*, Pretoria, Republic of South Africa.

Department of Environmental Affairs and Tourism, 2005. *Guideline 6: Environmental Management Frameworks in terms of the EIA Regulations*, Pretoria: Republic of South Africa.

Department of Environmental Affairs and Tourism, 2004. *Overview of Integrated Environmental Management, Integrated Environmental Management, Information Series 0*, Pretoria: Republic of South Africa.

Department of Provincial and Local Government, 2005. *Intergovernmental Relations in South Africa: Implementation Protocol Guidelines and Guidelines on Managing Joint Programmes*. Pretoria, Republic of South Africa,

Department of Water Affairs and Forestry, 2002. *Environmental Management Frameworks*. [Online]. Available at: http://www.dwaf.gov.za/Docs/OTHER/Environmental_Management_Framework_Draft.doc. [Accessed 24 February 2008].

Department of Environmental Affairs and Tourism, 1998. *Environmental Impact Management, Guideline Document: EIA Regulations Implementation of Sections 21, 22 and 26 of the Environment Conservation Act*, Pretoria: Republic of South Africa.

Department of Environmental Affairs and Tourism, 1997. *White Paper on Environmental Management Policy for South Africa*. Gazette No. 18894, Pretoria: Republic of South Africa.

Department of Environmental Affairs, 1992. *Guideline Document 1: The Integrated Environmental Procedure*. Gazette No 4996, Pretoria: Republic of South Africa.

Draggan, S. Cohrssen J.J. and Morrison, R.E. 1987. *Environmental Monitoring, Assessment, and Management: The Agenda for Long-Term Research and Development*. Praeger Publishers, London.

Drewell M, 2008. Reflections on why CSR is a sideshow: *The nature of business and the challenges of globally responsible leadership*. University of South Africa, Pretoria.

Dulles, A.W, 1993. *Marshall Plan*. [Online]. Available at: <http://www.spartacus.schoolnet.co.uk/USAmarshallP.htm>. [Accessed 25 August 2009].

Emakhazeni Local Municipality. 2007. *Integrated Development Planning Report 2007 – 2011*. [Online]
Available at: www.emakhazeni-lm.gov.za
[Accessed 28 April 2010]

Environment conservation Act of 1989 [Act No. 73 of 1989]. (Part I, III and V), Pretoria: Republic of South Africa.

Felehetsa Environmental, 2007. Sedibeng District Municipality: *Sedibeng District Municipality Environmental Management Framework*. Johannesburg, South Africa.

Fuggle, R.F, Rabie M.A 2009. *Environmental Management in South Africa*. Juta & Co. Ltd, Cape Town.

Gauline G, 2009. Evolution: Natural Selection is Proven Wrong. [Online]. Available at: <http://www.biology-online.org/dictionary/Expectations#> [Accessed 12 October 2009].

George, S 2005: Research collaboration – the challenge of transgressing boundaries, In (eds) Fincham, R., Georg, S and Holm Nielsen, E, *Sustainable Development and the University: New strategies for research, teaching and practice*. Brevitas, Howick, South Africa, pp 34 – 52.

Glasbergen P., Biermann, F and Mol A, 2007. *Partnerships, governance and sustainable development: Reflections on Theory and Practice*. Edward Elgar Publishing Limited, UK.

Hay, D., 2006. *Centre for Environment and Development: Integrated Catchment Management Studies*. University of Kwa Zulu-Natal, Pietermaritzburg.

Hlela, S., 2004. *An evaluation of the use of Environmental Management Plans in Integrated Environmental Management in KwaZulu-Natal*. University of KwaZulu-Natal, Pietermaritzburg.

Intergovernmental Relations Framework Act 2005 [Act No. 13 of 2005]. (C.2 and 3), Cape Town: Republic of South Africa.

Jay, S., 2007. Journal of the International Association for Impact Assessment: *Impact Assessment and Project Appraisal*; Customers as decision-makers, strategic assessment in the private sector:, Volume 25, Number 2. pp. 75 – 83.

Lindsay P & Norman D. A, 1977. *Human Information Processing: An Introduction to Psychology*. [Online]. Available at: http://www.sapdesignguild.org/resources/optical_illusions/intro_definition.html. [Accessed 12 October 2009].

Madibeng Local Municipality, 2007 *Integrated Development Planning Report 2007 – 2011* [Online] Available at: www.madibeng-lm.gov.za [Accessed 28 April 2010]

Municipal Systems Act 2000, Act 32 of 2000: Local Government Municipal Structures. No.1187. Pretoria, South Africa

Zeithaml P.C, Zeithmal V.A and Berry L.L.,1990. "Environmental Management- Revising the Marketing Perspective," *Journal of Marketing*, Vol. 48, Spring 1984, pp. 33-46.

National Environmental Management Act 1998, Act 107 of 1998: EIA Regulations of 2006. Gazette No. 28753. Pretoria, Republic of South Africa

National Environmental Management Act - Second Amendment Bill 2003 [B56 -2003]. Gazette No. 25289, Pretoria: Republic of South Africa.

National Environmental Management Act 1998 [Act 107 of 1998]. (C.4 and 5), Pretoria: Republic of South Africa.

Natural Resource Assessment, 2009. *Dihlabeng Resource Study Report 2009*. [Online] Available at: <http://www.nra.co.za> [Accessed 28 April 2010]

Ramasar V, 2005. Centre for Environment and Development: *A Lecture on Integrated Environmental Management*. 18 April 2005. Centre for Environment and Development, Pietermaritzburg.

Rogers, P.P Jalal, K.F and Boyd, J.A., 2008. *An Introduction to Sustainable Development*. Earthscan, USA.

Sapa, 2009. *Ex-minister gets bail on car theft rap: David Malatsi's case postponed*. TheTimes [Online]. Available at: <http://www.thetimes.co.za/News/Article.aspx?id=1030751> [Accessed 09 July 2009].

Sedibeng District Municipality, 2006. *Integrated Development Planning Report 2006 -2011*. [Online]. Available at: <http://www.sedibeng-dm.gov.za/idp/> [Accessed 28 April 2010]

Siyanda District Municipality, 2007. *Integrated Development Planning Report 2007 – 2011*. [Online] Available at: www.siyanda-dm.gov.za [Accessed 28 April 2010]

Therivel, R. E. et al, 1992. *Strategic Environmental Assessment*. Earthscan Publications Ltd, London.

Umsunduzi Local Municipality, 2006. *Integrated Development Planning Report 2007 -2011*. [Online] Available at: <http://www.msunduzi-lm.gov.za> [Accessed 28 April 2010]

Van der Linde, M. 2006. *Compendium of South African Environmental Legislation*. University of Pretoria Law Press, Pretoria.

Vincente, G. and Partidario, M. R, 2007. *SEA – Enhancing communication for better environmental decisions: Environmental Impact Assessment Review* Volume 26, Issue 8. pp. 696 – 704.

Welman, Kruger and Mitchell, 2005. *3rd edition; Research Methodology*. Oxford University Press, Cape Town.

Personal Communication

Fincham, R., 2009. Supervisory meeting: *EMF Research for Mtolo Khanyiso*. [Verbal and notes] (14 October 2009).

McCourt, L., 2008. DEAT Strategic meeting: *EIM Capacity and Support Directorate*. [Verbal] (23 June 2008).

Britz, A., 2008. DEAT Implementation Workshop: *EIM Chief Directorate Information sharing session*. [Verbal] (17 September 2008).

Britz, A., abritz@deat.gov.za, 2007. General Questions Regarding EMF Development in South Africa. [E-mail] Message to K. Mtolo (kmtolo@deat.gov.za). Sent Tuesday 02 June 2007, 07:42 AM

APPENDIX A

EMF Research Questionnaire

SECTION A

GENERAL

Please specify by marking with “X” the organization you belong to from the ones that appear below:

| | |
|----------------------------------|--|
| National Government Department | |
| Provincial Government Department | |
| Local Government Department | |
| Service Provider | |
| Other (please specify): | |

Date on which questionnaire completed:

ENVIRONMENTAL MANAGEMENT FRAMEWORKS (EMFs)

SECTION B

LEGAL REQUIREMENTS

Please choose either A, B or C as the statement you feel most accurately reflects the issue being discussed, for each of the following six questions:

| | | |
|-----|--|--|
| 1.A | EMF is a mandatory environmental management tool. | |
| B. | EMF is a voluntary environmental management tool. | |
| C. | EMF is neither a mandatory nor voluntary environmental management tool. | |
| | Please add any comments you feel are important regarding this question: | |
| 2.A | The Environmental Conservation Act of 1989 provided provisions for the establishment of EMFs. | |
| B. | The National Environmental Management Act, 1998 effected provisions for the establishment of EMFs, in terms of NEMA EIA regulations. | |
| C. | Municipal Systems Act provided for the establishment of EMF within municipal areas of jurisdiction. | |

| | | |
|-----|--|--|
| | Please add any comments you feel are important regarding this question: | |
| 3.A | Any person, with the approval of the Competent Authority, can initiate an EMF within a specific geographical area. | |
| B. | Only the Member of Executive Council can initiate an EMF within a specific geographical area. | |
| C. | Only the DEAT Minister or Member of Executive Council, in concurrence with the DEAT Minister, can initiate an EMF within a specific geographical area. | |
| | Please add any comments you feel are important regarding this question: | |
| 4.A | Any person, with the approval of the Competent Authority, may adopt an EMF within a specific geographical area. | |
| B. | Only the Member of Executive Council can adopt an EMF within a specific geographical area. | |
| C. | Only the DEAT Minister or Member of Executive Council, in consultation with the DEAT Minister, can adopt an EMF within a specific geographical area. | |
| | Please add any comments you feel are important regarding this question: | |
| 5.A | EMF development should consider national laws and policies. | |

| | | |
|------|--|--|
| B. | EMF development should consider national laws and policies and provincial ordinances. | |
| C. | EMF development should consider national laws and policies, provincial ordinances and municipal by-laws. | |
| | Please add any comments you feel are important regarding this question: | |
| 6. A | By law, development decision-makers should consider EMF in their planning process. | |
| B. | By law, development decision-makers may consider EMF in their planning process | |
| C. | By-law, development decision-makers should neither consider nor ignore EMF in their planning process | |
| | Please add any comments you feel are important regarding this question: | |

SECTION C

PERCEPTIONS

Which of the following, in your opinion, best fits your perceptions of EMFs? Choose either A, B or C.

| | | |
|------|---|--|
| 1.A. | EMF is a tool which guides development patterns within a specific geographical area. | |
| B. | EMF is a tool which seeks to redefine integrated environmental management practices in general. | |
| C. | EMF is a tool which controls development processes within local authorities | |
| | Please add any comments you feel are important regarding this question: | |
| 2.A. | EMF provides an alternative to existing environmental management tools such as Strategic Environmental Assessments (SEAs); Environmental Impact Assessments (EIAs); Integrated Development Plans (IDPs) and Spatial Development Plans (SDPs). | |
| B. | EMF provides an extension to existing environmental management tools such as Strategic Environmental Assessment and Environmental Impact Assessment as well Integrated Development Plans and Spatial Development Plans | |
| C. | EMF provides an overall framework within which existing environmental management tools such as Strategic Environmental Assessment and Environmental Impact Assessment as well Integrated Development Plans and Spatial Development Frameworks | |

| | | |
|------|---|--|
| | can be applied. | |
| | Please add any comments you feel are important regarding this question: | |
| 3. A | EMF identifies opportunities for development within a specific geographical area. | |
| B. | EMF identifies opportunities and constraints for development within a specific geographical area. | |
| C. | EMF identifies constraints for development within a specific geographical area. | |
| | Please add any comments you feel are important regarding this question: | |
| 4. A | EMF is best initiated in consultation with the Environment Assessment Practitioner. | |
| B. | EMF is best initiated in consultation with the Competent Authority. | |
| C. | EMF is best initiated in consultation with the Developer. | |
| | Please add any comments you feel are important regarding this question: | |
| 5.A | EMF promotes co-management and co-operative governance. | |
| B. | EMF identifies co-management and co-operative governance opportunities. | |
| C. | EMF alters co-management and co-operative governance practices. | |
| | Please add any comments you feel are important regarding this question: | |

| | | |
|------|--|--|
| | | |
| 6. A | Public participation is legally binding in the EMF development process. | |
| B. | Public participation is optional in the EMF development process. | |
| C. | Public participation is not necessary in the EMF development process | |
| | Please add any comments you feel are important regarding this question: | |
| 7.A. | By law, development decision-makers should consider EMF in their spatial development planning process. | |
| B. | By law development decision-makers may consider EMF in their spatial development planning process | |
| C. | Neither A nor B above. | |
| | Please add any comments you feel are important regarding this question: | |

SECTION D

EXPECTATIONS

Please respond by writing 'Y' if you agree with the statement or 'N' if you disagree with the statement.

| | |
|--|--|
| 1. An EMF encourages sustainable development | |
| 2. The concept of EMF is easily understood | |
| 3. An EMF is customized to the context of the area | |
| 4. An EMF is undertaken with reference to environmental goals and priorities of the specific geographical area. | |
| 5. The scope of an EMF is comprehensive, covering all levels and types of environmental decision-making in the area | |
| 6. An EMF integrates ecological, social, and economic aspects that are relevant in the area | |
| 7. The process of developing an EMF provides for appropriate levels of public participation | |
| 8. The process of developing an EMF must be carried out fairly, impartially and professionally, paying attention to legal and policy requirements as well as development guidelines applicable to the area | |

| | |
|--|--|
| 9. An EMF does not place specific focus on the issues and information that matter in decision-making in the area | |
| 10. EMF as a tool can be used to grant or refuse environmental authorization | |
| 11. EMF should not support the process of delineating geographical areas within which additional activities are to be identified in terms of NEMA | |
| 12. EMF should support the process of delineating geographical areas within which activities listed in terms of NEMA may be excluded by identifying areas that are not sensitive to the potential impacts of such activity | |
| 13. EMF anticipates potential impacts and provides early warnings in respect of thresholds, limits and cumulative impacts. | |
| 14. EMF indicates the scope of potential impacts and information needs that may be necessary for environmental impact assessment | |
| Please add any comments you feel are important regarding this section: | |

SECTION E

STAKEHOLDER ENGAGEMENT

For each of the questions below, please rate your response in a scale of 1 to 5 where: 1 = Strongly Agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly Disagree

| | |
|--|--|
| 1. An EMF provides opportunity for interested and affected parties (I&APs) to obtain accurate and comprehensive information about development activities in their area | |
| 2. An EMF creates a framework within which integrated development planning can occur. | |
| 3. An EMF enhances honest, open and equitable development planning | |
| 4. EMF provides I&APs with an opportunity to indicate their viewpoints, issues and concerns regarding the activity, alternatives and mitigation | |
| 5. EMF provides for the enforcement of legislation, norms and standards | |
| 6. The EMF process enhances the concept of co-operative governance | |
| 7. The EMF process enables the realization of the concept of co-management | |
| 8. EMF enables I&APs to incorporate their needs, preferences and values into the development activity | |
| 9. EMF provides opportunity to avoid and resolve development disputes and reconcile conflicting interests | |
| 10. The EMF process facilitates transparency and accountability in decision-making | |
| 11. The EMF process facilitates involvement of all I&APs in the development process | |
| 12. EMF provides I&APs with the opportunity for enhancing positive development impacts | |
| 13. The EMF process acknowledges concerns and provides feedback on I&APs inputs | |

| | |
|--|--|
| 14. The EMF process allows participating I&APs to be aware of their roles and responsibilities in the development process | |
| 15. EMF ensures that resources are protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner | |
| Please add any comments you feel are important regarding this section: | |

SECTION F

INTERGOVERNMENTAL RELATIONS

Please write “T” if you agree with the statement, “F” if you disagree with the statement and “U” if you are undecided on the columns corresponding to the statement, where “T” represents “True”, “F” represents “False” and “U” represents “Undecided”.

| | |
|---|--|
| 1. EMF aims to promote intergovernmental relations through enhancement of co-operative governance on environmental matters | |
| 2. All participating spheres of governance in EMF development, that is, national, provincial and local governments, are aware of the need for EMF as a tool in their developmental planning | |
| 3. Roles and responsibilities of each sphere of governance participating in EMF development are clarified and understood | |
| 4. There is adequate sharing of information between participating spheres of governance including the broader role-players during the development process of EMF | |
| 5. National DEAT does enough to build capacity across spheres of governance including broader role-players to ensure smooth development | |

| | |
|---|--|
| process of EMFs | |
| 6. Provinces are playing their part in ensuring harmonious integration of EMF as a new tool with other existing environmental tools both at provincial and local levels | |
| 7. Municipalities are playing an active role in the development of EMFs within their areas of jurisdiction | |
| Please add any comments you feel are important regarding this section: | |

SECTION G

EMF EXPERIENCE

1. Have you been involved in EMF development?

If yes, for which geographical area was the EMF done?

2. Have you seen the end-result of the EMF process?

(a) If yes, was the end-result user-friendly?

Comment

(b) Was the EMF end-result easy to understand?

Comment

3. Can you explain lessons learnt from your EMF experience?

4. Would you recommend EMF as a tool worth embracing in environmental decision-making?

Substantiate.

APPENDIX B

Generic EMF TORs

TERMS OF REFERENCE FOR OUTSOURCING THE DEVELOPMENT OF THE ENVIRONMENTAL MANAGEMENT FRAMEWORK

1. REQUEST FOR PROPOSAL (RFP)

1.1 The objective of this RFP is to appoint a suitable independent Service provider that can support the Department Environmental Affairs (DEA), Province and Municipality with the development of the Environmental Management Framework (EMF) for that particular Municipality.

2. SCOPE AND EXTENT OF WORK

2.1 The role of the Service Provider is to assist the DEA, Province and Municipality to develop EMF for that particular Municipality. Description of the location of that particular municipal area where EMF is needed is outlined together with the conflicting development pressures that warrant the development of EMF.

2.2 The appointed service provider/s will undertake the following:

2.2.1 INITIAL MEETING WITH PROJECT TEAM

After appointment, the consultant/s will meet with the relevant officials to:

1. Establish a Project Steering Committee, which should include from DEAT, Province, Municipality/s, other relevant authorities and I&APs.
2. Confirm the scope of work for the project.

3. Agree upon time frames for the deliverables.
4. Agree upon roles and responsibilities within the Project Steering Committee.
5. Agree upon the scope of, and stakeholder groupings to be included in the consultation process.

2.2.2 LITERATURE REVIEW

The consultancy team should ensure that the project takes cognisance of all relevant legislation and guideline documentation, including the following:

- The National Environmental Management Act (Act 107 of 1998, 'NEMA'), in particular Sections 2, 23 and 24, as well as its Implementation Acts and amendments.
- The Development Facilitation Act (Act 67 of 1995, 'DFA')
- The NEMA EIA Regulations Government Notices 385, 386 and 387 promulgated in terms of chapter 5 NEMA, 1998. Of particular importance are the guidelines and regulations pertaining to Environmental Management Frameworks.
- The Guideline Document developed by the National Department of Environmental Affairs on Strategic Environmental Assessment in South Africa, February 2000.
- Conservation of Agricultural Resources Act (Act 43 of 1983).
- Provincial legislations and ordinances
- Biodiversity Act
- Air Quality Act
- Provincial, National and Local air quality intervention strategies

Provincial and Municipal Documentation / Studies:

- ❖ The current Integrated Development Plans for that particular Municipality
- ❖ Spatial Development Frameworks for that particular Municipality
- ❖ The Provincial Spatial Development Framework 2000
- ❖ Any relevant EIA studies that are currently being undertaken in the study area.
- ❖ Any relevant strategic planning documents compiled by the relevant local authorities.
- ❖ The Provincial Conservation Plan
- ❖ Buffer Zones phase 1 & 2 study in order to identify pollution sources and industrial areas and classes
- ❖ Provincial State of the Environment Report
- ❖ Air Quality Management Plan (if available)
- ❖ Proposed Conservation Initiatives by Province and Municipality

2.2.3 PREPARE AN ENVIRONMENTAL STATUS QUO REPORT

This report must address/include the following:

1. A spatial representation of the status quo of the environment. This must indicate inter alia:
 - Sensitive natural environments (such as riparian areas, wetlands, ridges, grassland areas, and potential red data fauna and flora habitat). Must include ground truthing in areas where none is recorded.
 - Areas unsuitable for human habitation due to the history of the area or incompatible adjacent land use (e.g. due to dolomitic conditions or sites previously used for disposal of waste by land fill).

- State of degradation.
 - Cultivated areas / or areas potentially suitable for agriculture.
 - Categorisation of areas unsuitable for development due to its high agricultural resource potential and envisaged /or current impact on these areas by development thus far.
 - Current land uses and approved developments
 - Identification of the key environmental issues (opportunities and constraints) in the study area.
2. Identification of the key environmental issues (opportunities and constraints) in the study area.
 3. Identification of the key agricultural issues/indicators in the study area (emphasis to be placed upon urban sprawl, agricultural resource potential, geology, hydrology, etc.).
 4. A spatial representation of existing land uses as well as legal and illegal development trends within the study area.
 5. A spatial representation of planned and existing land uses that may threaten the environmental resources within the area.
 6. A composite site sensitivity plan of the study area.
 7. A review and comparison of all relevant spatial plans and other planning documents for the area.
 8. A spatial representation of planned and/or existing land uses that are potentially in conflict over the same land resources.
 9. Status of services provision/capacity.
 10. Transportation infrastructure and network capacity.
 11. State of open space availability/provisions in the area.
 12. Local Authority IDP planning.

A draft of this report must be submitted to the project team for comments prior to finalisation. This report forms the basis of consultation to establish the desired land use and develop strategies to be implemented in order to guide development in the study area.

2.2.4 PREPARE AN ENVIRONMENTAL MANAGEMENT FRAMEWORK

The following aspect must be developed and then integrated to form the basis of the EMF:

1. The desired state of the environment
 - The Status Quo Report must be used to facilitate a consultative public participation process through which the desired state of the environment for the area will be established.
 - This desired state of the environment must be spatially represented in the same format as in the status quo report to enable comparison.
 - The desired state must be compared to the Status Quo Report; all land use planning documentation and the proposed Focus Areas.
 - The desired state report may need to detail the identified conflicts over land use planning and identify strategies for resolution of these conflicts.
2. Proposed environmental control zones
 - Based on the spatial component of the desired state of the environment and bio-physical constraints and opportunities, the study area must be divided into environmental control zones. The purpose of such strategic environmental zoning would be to facilitate future decision-making on environmental requirements and acceptability of development applications. This must include a spatial representation of such zoning within the area in respect of one or more activities in a manner that will identify –
 - areas in which the undertaking of an activity should be allowed to take place without further investigation;
 - areas in which the undertaking of an activity may be allowed subject to an environmental authorisation being granted in terms of these regulations; and
 - areas in which the undertaking of an activity should not be considered;

3. A strategy for maintaining productive agricultural activity on land where agriculture has been identified as a feasible and desired land use.
4. A strategy for maintaining land where open space is identified as the land use of choice.
5. A Strategic Environmental Management Plan that will address management guidelines and responsibilities.
6. A system to evaluate, monitor and report on progress made towards the state of the environment and land uses in the study area. A realistic set of indicators coupled with measurable time scales must be developed.

The document must include all the relevant action plans required for the implementation of the EMF and all the strategies that form part thereof.

A draft copy of the EMF (or relevant components thereof) must be circulated for comment to identified stakeholders. After incorporation of comments, the draft EMF would need to be work shopped with the project team and the relevant officials of the District and local authorities.

The consultant(s) must then effect the changes derived from the workshop. The final EMF should be incorporated to the next Integrated Development Plan and spatial development framework for the study area. The outcomes of the EMF will also be used to demarcate exclusion areas, or areas of particular sensitivity in terms of the proposed NEMA EIA Regulations.

2.2.5 DELIVERABLES

1. After appointment the successful consultant(s) will be required to submit an amended work plan. The plan is to include an outline of the various draft and final reports to be produced and the delivery dates, as well as a communication (public participation) strategy. Comment periods for draft documents are also to be specified.
2. Provide the following documents as set out in the scope of work above:
 - Draft Environmental Status Quo Report.
 - Environmental Status Quo Report.

- Draft Environmental Management Framework
- Environmental Management Framework (EMF) and interactive GIS
- Draft Strategic Environmental Management Plan
- Strategic Environmental Management Plan
- Action plan(s) for the implementation of the EMF
- Glossy summary report

3. Progress reports at intervals agreed upon with the project team.
4. Documented workshops and Project Team meetings held and recorded.
5. Power Point presentation of the outputs of the project (a copy must be available for Departmental use).
6. The consultant may be required to provide four hard copies of all draft reports.
7. The electronic copy must be produced in Word 2000/XP
8. All spatial information must be provided in a GIS format in compliance with the agreed standards.
- 2.3 The service provider/s shall submit a preliminary budget containing the hours and amount to be spent on each case, before work can commence.
- 2.4 Companies may be invited to give presentation as and when required.

3. TIMING OF ASSIGNMENT

All work is to be carried out in accordance with the time schedule as agreed with the Programme Manager.

4. PERFORMANCE MEASURES

The performance measures for the delivery of the EMF must be closely monitored by relevant authorities.

5. REPORTING

The service provider must submit monthly and quarterly progress reports to the Programme Manager, within 4 days after the end of each month and quarter for the duration of the project.

6. MONITORING PROGRESS ON ASSIGNMENTS

The Programme Manager shall do the ongoing management of the service agreement.

7. CONTINUITY AND PROFILE OF SENIOR STAFF ON THE PROJECT

The service provider must guarantee the presence of the senior in charge of fieldwork throughout the duration of the contract. If the senior has to leave the project, a period of at least a month is required in which the senior must work parallel with the next person (senior consultant with similar expertise and equal years of experience) appointed to be able to transfer skills and knowledge.

8. CONDITIONS OF TENDER

Bids will be subject to Supply Chain Management conditions as follows:

The Preferential Procurement Policy Framework Act, Act No. 05 of 2000 will apply to this tender. In accordance with this Act, submission will be adjudicated on the 90/10 points system. Price and technical scores will make up the total of 90 points. The remaining 10 points will be split in accordance with the specific goal of the department.

The proposal should include, amongst other, the following:

- 8.1 A proposed plan of action.

- 8.2 A list of references;
- 8.3 Ability to ensure continuing of staff on the project.

9. SPECIAL CONDITIONS

9.1 The Curriculum Vitae of the staff who will be available for the duration of the work;

NOTE: Failure to submit the CV's will invalidate your bid proposal.

9.2 The bid proposals should be submitted with all required information containing technical information as well as price information. The successful consultancy team's expertise should include but not be limited to the following (please provide relevant CV's):

- Environmentally management proficiency.
- Ecological and agricultural background.
- Planning skills (Town Planning, Landscape Architecture, and Engineering).
- Resource Economics.
- Facilitation skills.
- Report writing skills.
- Administrative support.
- GIS Skills.
- Knowledge of the DFA, NEMA and the ECA.
- Research skills .

Curriculum Vitae (CVs) for each member on the team, detailing their qualifications and experience relevant to this request, must be included in the proposal submitted to the Department. In addition each proposed member must submit a signed declaration that indicates his or her involvement with a project that may be affected by the Scope of Works for this project. This is required to ensure the objectivity of the team.

- 9.3 Only bidders who score at least (40 points) for the technical information will be preferred.
- 9.4 Supplier/s who claim any preference points for HDI is/are requested to submit certify copy/ies of shares certificate or a certified list of the Board of Directors or Trustees, as may be applicable. **NOTE: Failure to adhere to this condition will invalidate points claimed.**
- 9.5 Preferences will be given to BEE companies or companies/firms with strong
- 9.6 BEE partnerships, in order to address South Africa's socio-economic disparities in line with the Broad Base Black Economic Empowerment legislation.
- 9.7 A service level agreement shall be signed with the preferred bidder. The successful bidder may not alter its (buy out HDI points) BEE status during the contract period. DEAT reserve the right to terminate the contract should the successful bidder no longer meet the BEE requirement.
- 9.8 **DEAT** reserves the right to invite short listed suppliers/companies to present their bid proposals for final decision
- 9.9 Bidders must be prepared to work at rates not exceeding those prescribed by the office of the Auditor-General or the Department of Public Service and Administration (DPSA).
- 9.10 Suppliers are required to fill the information below

| | |
|--|--|
| % Management by HDI groups. | |
| Number of consultants from HDI groups working on the project. | |

10. ADDITIONAL INFORMATION ON BID PROPOSAL

- 10.1 The supplier / service provider should provide details of staff training, highlighting training and development policies and procedures, with specific reference to affirmative action policies and initiatives.
- 10.2 A breakdown of the hourly tariff inclusive of value-added tax for services rendered. Expenditure incurred without the prior approval of the Programme manager will not be reimbursed.
- 10.3 In so far as possible, a comprehensive budget, showing the charge out rates of all the staff to be involved in investigations and also including all other costs factors such as traveling.
- 10.4 How a joint venture (if the bidders are a joint venture between a BEE firm and a non BEE firm) will split the work between the firms. The detail must be such that **DEA** can audit the actual work allocation during the delivery to enforce the transfer of skills between the two firms. *(The percentage involvement of each company in the joint venture should also be indicated)*. Please note that all members of the joint venture should sign the contract and are jointly and severally liable for the entire assignment.
- 10.5 The DEA is not held responsible for any costs incurred by the bidder in the preparation and submission of the bids.
- 10.6 Please take note that **DEA** is not bound to select any of the firms submitting proposals. DEA reserves the right not to award any of the bids and not to award the contract to the lowest bidding price as well as to renegotiate the bid of the preferred applicant.

10.7 Traveling costs and time spent or incurred between home and office of consultants and **DEA** Head office will not be for the account of **DEA**.

11. FURTHER INFORMATION

Should you require any further information in this regard, contact
DEA Representative

12. INFORMATION REQUIRED

Bid Evaluation can only be done on the basis of information asked for. The comprehensiveness of the bid can therefore be decisive in the awarding thereof.

13. PAYMENT TERMS

DEA undertakes to payout in full within 30 (thirty) days all valid claims for work done to its satisfaction upon presentation of a substantiated claim. No payment will be made where there is outstanding information/work not submitted by the Service Provider/s until that outstanding information is submitted.

EVALUATION CRITERIA

All bid proposals submitted will be evaluated in accordance with the 90/10 principle and the evaluation criteria.

| No. | Category | Total | Score |
|-----|----------|-------|-------|
| A. | PRICE | 30 | |

| | | | |
|-----------|---|-----------|--|
| B. | INFORMATION | 60 | |
| 1. | Capability (profiles of key staff and persons to be assigned to the project) | 10 | |
| 2. | A methodology and proposed plan of action to achieve the objectives | 15 | |
| 4. | The experience and in-depth knowledge in the fields of EIAs, communication both verbal and written and computer literacy, that is Microsoft, Excel, etc. | 15 | |
| 5. | Experience in the in developing course material, conducting training, monitoring and evaluation of a training course, and consequent review and amendment of the course material. | 15 | |
| 6. | Programme on how the company would transfer skills or provide evidence of the past skills transferred to either HDI employed within the company or in the community. | 5 | |
| C. | EQUITY OWNERSHIP | 10 | |

| | | | |
|----|---|---|--|
| 7. | Effective Ownership by Black people (broadly defined per BBEE Act of 2003, as amended). | 5 | |
| 8. | Women Equity Ownership | 3 | |
| 9. | Disability | 2 | |

NB: This format is subject to alteration to accommodate Broad Base Black Economic Empowerment Act, 53 of 2003.

In evaluating the technical information contained in the bid, the evaluation committee will be guided by the following:

- Bidder's understanding of the brief – The bid provides a clear indication that the bidder fully understands the purpose and scope of the work and the bidders' own roles and functions in this regard.
- Capability – The bid provides a clear indication that the bidder's team comprises people with the necessary experience, skills, qualifications, knowledge and skills required to ensure the efficient and effective generation of the required deliverables to the highest standards of quality.
- Track Record – The bid provides clear information on previous, relevant projects that confirm that the bidder has the required experience and success track record in the area of general project management and management related projects.
- Quality of the Bid – The bid is structured, laid-out, formatted and organised in such a way that the evaluation committee is easily able to access the bid in accordance with the evaluation criteria and are provided with an insight into the quality of deliverables that may be expected from the bidder if successful.

- Affirmative action – The bid clearly describes the bidder's contribution to ensuring the transformation of the this project (be specific) management services sector through affirmative action programmes and provides insight into the success, or otherwise, of these programmes.
- Skills transfer – The bid clearly describes the bidder's contribution to ensuring the transformation of this work (be specific) e.g environmental management services sector through, among others, mentorship, bursary, on-the job-training and/or other initiatives that successfully transfer skills to historically disadvantaged individuals.

APPENDIX C

To be signed between the National, the Province, the Municipality and the EMF Service Provider contracted

SERVICE LEVEL AGREEMENT

between

THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA IN ITS NATIONAL DEPARTMENT (DEA)

and

THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA IN ITS PROVINCIAL DEPARTMENT

and

THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA IN ITS LOCAL/DISTRICT MUNICIPALITY

and

PROFESSIONAL SERVICE PROVIDER

AGREEMENT

between

THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA IN ITS DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM,
HEREINAFTER REFERRED TO AS "THE DEPARTMENT"

Address :

Represented by

In his/her capacity as

Duly authorised to enter into this Agreement

And

THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA IN ITS PROVINCIAL DEPARTMENT HEREINAFTER REFERRED TO AS "THE
PROVINCE"

Address:

dd

Represented by:

In his/her capacity as:

Duly authorised to enter into this Agreement

And

THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA IN ITS LOCAL/DISTRICT MUNICIPALITY HEREINAFTER REFERRED TO AS
“THE MUNICIPALITY”

Address:

Represented by:

In his/her capacity as:

Duly authorised to enter into this Agreement

And

PROFESSIONAL SERVICE PROVIDER HEREINAFTER REFERRED TO AS “THE CONSULTANT”

Address:

ee

Company Registration Number:

Represented by:

In his/her capacity as:

Duly authorised to enter into this Agreement

DEFINITIONS

- 1.1 "Director-General" refers to the person appointed as the Head of the Department of Environmental Affairs and Tourism;
- 1.2 "the DDG" refers to the person appointed as the Head of the Environmental Quality and Protection Branch within the Department of Environmental Affairs and Tourism;
- 1.3 "the Agreement" means this Agreement, the tender documents, all annexures and any amendments hereto;
- 1.4 "the Department" means the Government of the Republic of South Africa in its Department of Environmental Affairs and Tourism.
- 1.5 "the Province" means the Provincial Department.
- 1.6 "the Municipality" means the Local/District Municipality.
- 1.7 "the Parties" means the Department, the Province, the Municipality and the Consultant.
- 1.8 "Accounting Officer" means the Director-General.
- 1.9 "Project" means the projects referred to in clause 2.3
- 1.10 "the Tender" means the E1080 appointment of service providers for outsourcing the development of the Environmental Management Framework for the Local/District Municipality, for an agreed period.

2. APPOINTMENT AND ACCEPTANCE

- 2.1 The Department hereby appoints the Consultant to act as an independent contractor and not as an agent or employee of the Department or the Province or the Municipality.
- 2.2 The Consultant hereby accepts the appointment and undertakes to execute his/her duties and responsibilities in accordance with the terms and conditions of the Agreement.
- 2.3 The Consultant agrees to make the services of the project team to be involved in the project for the development of the Environmental Management Framework for the Local/District Municipality, for an agreed period.

3. DURATION OF THE AGREEMENT

- 3.1 The rights and obligations of the parties of this agreement shall commence on the date of the last signing of the agreement and shall terminate on the agreed period thereafter, provided that, this agreement may be extended by agreement between the parties on such terms and conditions that the parties may then agree to.

4. DUTIES OF THE CONSULTANT

- 4.1 The Consultant shall not have the power to enter into any agreement(s) or to otherwise bind or incur liability on behalf of the Department or the Province or the Municipality
- 4.2 The Consultant shall ensure that its actions do not result in a legal claim against the Department, the Province and the Municipality.
- 4.3 The Consultant shall exercise the highest degree of skill, care and diligence that can be expected of its profession.
- 4.4 The Consultant shall ensure the presence of the senior in charge of fieldwork throughout the duration of the contract. If the senior has to leave the project, a period of at least a month is required in which the senior must work parallel with the next person (senior consultant with similar expertise and equal years of experience) appointed to be able to transfer skills and knowledge.

- 4.5 The Consultant shall on time and within budget provide the services as set out in this agreement and the annexures thereto.
- 4.6 The Consultant shall prepare an Environmental Status Quo Report which will address the following:
- 4.6.1 A spatial representation of the status quo of the environment. This must indicate inter alia:
- Sensitive natural environments (such as riparian areas, wetlands, ridges, grassland areas, and potential red data fauna and flora habitat). Must include ground truthing in areas where none is recorded.
 - Areas unsuitable for human habitation due to the history of the area or incompatible adjacent land use (e.g. due to dolomitic conditions or sites previously used for disposal of waste by land fill).
 - State of degradation.
 - Cultivated areas / or areas potentially suitable for agriculture.
 - Categorisation of areas unsuitable for development due to its high agricultural resource potential and envisaged /or current impact on these areas by development thus far.
 - Current land uses and approved developments
- 4.6.2 Identification of the key environmental issues (opportunities and constraints) in the study area.
- 4.6.3 Identification of the key agricultural issues/indicators in the study area (emphasis to be placed upon urban sprawl, agricultural resource potential, geology, hydrology, etc.).
- 4.6.4 A spatial representation of existing land uses as well as legal and illegal development trends within the study area.
- 4.6.5 A spatial representation of planned and existing land uses that may threaten the environmental resources within the area.
- 4.6.6 A composite site sensitivity plan of the study area.
- 4.6.7 A review and comparison of all relevant spatial plans and other planning documents for the area.
- 4.6.8 A spatial representation of planned and/or existing land uses that are potentially in conflict over the same land resources.
- 4.6.9 Status of services provision/capacity by the DLM.

- 4.6.10 Transportation infrastructure and network capacity.
- 4.6.11 State of open space availability/provisions in the area.
- 4.6.12 Local Authority IDP planning.
- 4.7 A draft of this report must be submitted to the project team for comments prior to finalisation. This report will form the basis of consultation to establish the desired land use and develop strategies to be implemented in order to guide development in the study area.
- 4.8 The Consultant shall ensure that the following aspects are developed and integrated to form the basis of the EMF:
 - 4.8.1 The desired state of the environment
 - The Status Quo Report must be used to facilitate a consultative public participation process through which the desired state of the environment for the area will be established.
 - This desired state of the environment must be spatially represented in the same format as in the status quo report to enable comparison.
 - The desired state must be compared to the Status Quo Report; all land use planning documentation and the proposed Focus Areas for the “Zone of Choice”.
 - The desired state report may need to detail the identified conflicts over land use planning and identify strategies for resolution of these conflicts.
 - 4.8.2 Proposed environmental control zones
 - Based on the spatial component of the desired state of the environment and bio-physical constraints and opportunities, the study area must be divided into environmental control zones. The purpose of such strategic environmental zoning would be to facilitate future decision-making on environmental requirements and acceptability of development applications. This must include a spatial representation of such zoning within the area in respect of one or more activities in a manner that will identify –
 - areas in which the undertaking of an activity should be allowed to take place without further investigation;

- areas in which the undertaking of an activity may be allowed subject to an environmental authorisation being granted in terms of these regulations; and
 - areas in which the undertaking of an activity should not be considered;
- 4.8.3 A strategy for maintaining productive agricultural activity on land where agriculture has been identified as a feasible and desired land use.
- 4.8.4 A strategy for maintaining land where open space is identified as the land use of choice.
- 4.8.5 A Strategic Environmental Management Plan that will address management guidelines and responsibilities.
- 4.8.6 A system to evaluate, monitor and report on progress made towards the state of the environment and land uses in the study area. A realistic set of indicators coupled with measurable time scales must be developed.
- 4.9 The document must include all the relevant action plans required for the implementation of the EMF and all the strategies that form part thereof.
- 4.10 A draft copy of the EMF (or relevant components thereof) must be circulated for comment to identified stakeholders. After incorporation of comments, the draft EMF would need to be workshopped with the project team and the relevant officials of the Municipality.
- 4.11 The Consultant(s) must then effect the changes derived from the workshop. The final EMF would then be supported by DTEEA and DLM and should be incorporated into the next Integrated Development Plan and spatial development framework for the study area to be developed by DLM. The outcomes of the EMF will also be used to demarcate exclusion areas, or areas of particular sensitivity in terms of the proposed NEMA EIA Regulations.
- 4.12 The Consultant is responsible for providing the Department, the Province and the Municipality with monthly feedback reports.
- 4.13 Drafts of each of the primary deliverable reports shall be submitted to each of the parties for comment. Once each party has submitted their comments and the consultant has incorporated them in the final report, further changes required thereafter will be billed for. Time spent on initial changes to the draft reports in the event that the above was not delivered satisfactorily, shall not be billed for by the consultant.
- 4.14 In addition to the above, any other deliverable in this Agreement or annexure thereto.

5. DUTIES OF THE DEPARTMENT

- 5.1 The Department shall ensure that the Consultant is afforded reasonable, necessary and timely support and assistance by the Department and the province to effectively perform its duties and responsibilities in terms of the Agreement.
- 5.2 Designated Officer/s shall act as the Project Officer/s, for control, *ad hoc* instructions and communication between the parties.
- 5.3 The Department undertakes to payout in full within 30 (thirty) days all valid claims for work done to its satisfaction after confirmation from province and the municipality that the claim can be substantiated. No payment will be made where there is outstanding information/work not submitted by the Consultant until that outstanding information is submitted provided that:
- 5.3.1 All claims for payment to the Department must be copied by the consultant to Province and the Municipality.
- 5.3.2 Province and the Municipality must provide to the consultant and copy to the Department details of any queries or further substantiation required on claims within the 30 day period, or the consultant will be deemed to have furnished the confirmation in question.
- 5.4 The Department shall do the ongoing management of the project.

6. DUTIES OF THE PROVINCE

- 6.1 The Province shall ensure that the Consultant is afforded reasonable, necessary and timely support and assistance to effectively perform its duties and responsibilities in terms of the Agreement.
- 6.2 Designated Officer shall act as the Provincial Project Officer.
- 6.3 The Province shall provide the Consultant with the available documentation and information relevant to the study timeously
- 6.4 The Province will make themselves available for the various agreed workshops and meetings and will review and make comments on all draft documents as per the agreed schedules.

6.5 The Province shall submit reports to the Department for each invoice provided by the Consultant indicating its satisfaction or otherwise with the claim made.

6.6 The Province shall chair the Project Steering Committee, referred to below

7. DUTIES OF THE MUNICIPALITY

7.1 The Municipality shall ensure that the Consultant is afforded reasonable, necessary support and assistance to effectively perform its duties and responsibilities in terms of the Agreement.

7.2 Designated Municipal Officer/s shall act as a Municipal Project Officer/s.

7.3 The Municipality shall provide the Consultant timeously with the available documentation and information relevant to the study.

7.4 The Municipality will make themselves available for the various agreed workshops and meetings and will review and make comments on all draft documents as per the agreed schedules.

7.5 The Municipality shall submit reports to the Department for each invoice provided by the Consultant indicating its satisfaction or otherwise with the claim made.

7.6 The Municipality shall convene the Project Steering Committee, referred to below.

8. DELIVERABLES

8.1 An amended work plan, which will be agreed upon by the Department, Province and Municipality after reviewing the existing information and within 2 weeks of the signing of this agreement and will be attached to this agreement. The plan will include key performance areas, key performance indicators, targets, reporting milestones, key activities, timeframes, budget, monthly reporting. (The plan is to include an outline of the various draft and final reports to be produced and the delivery dates, as well as a communication / public participation strategy. Comment periods for draft documents are also to be specified).

- 8.2 Provide the following documents
- Draft Environmental Status Quo Report.
 - Environmental Status Quo Report.
 - Draft Environmental Management Framework
 - Environmental Management Framework (EMF) and interactive GIS
 - Draft Strategic Environmental Management Plan
 - Strategic Environmental Management Plan
 - Action plan(s) for the implementation of the EMF
 - Glossy summary report
- 8.3 Progress reports at intervals agreed upon with the project team.
- 8.4 Documented workshops and Project Team meetings held and recorded.
- 8.5 Power Point presentation of the outputs of the project (a copy must be available for Departmental use).
- 8.6 The consultant will be required to provide hard copies of all draft reports.
- 8.7 The electronic copy must be produced in Microsoft Word.
- 8.8 All spatial information must be provided in a GIS format in compliance with the standards of the Department, the Province and the Municipality.
- 8.9 The service provider/s shall submit a preliminary budget containing the hours and amount to be spent on each case, before work can commence. The Project Gantt chart and Cost schedules, annexed to this agreement, shall form the basis of payment for the contract

9. PROJECT STEERING COMMITTEE

- 9.1. The Municipality shall convene a Project Steering Committee which will meet at regular intervals and at least monthly to oversee the project.
- 9.2. The Project Steering Committee shall be chaired by Province.
- 9.3. The Project Steering Committee shall consist of at least the following:
 - 9.3.1 The National Project Officers
 - 9.3.2 Provincial Project Officers
 - 9.3.3 Municipal Project Officers
 - 9.3.4 Senior consultants including the consultant referred to in 4.4. above.
 - 9.3.5 Other officials from relevant government departments as deemed necessary by the above members of the Project Steering Committee.
- 9.4 The functions of the Project Steering Committee shall include:
 - 9.4.1 Monitor the implementation of the project, including that the workplan is adhered to;
 - 9.4.2 Provide comments on the deliverables as set out above;
 - 9.4.3 Ensure that the consultant receives all relevant information and documentation timeously;
 - 9.4.4 Discuss and attempt to resolve any disputes that may arise between the parties in respect of any of the deliverables, before invoking Clause 17.

9. FEES PAYABLE

- 9.1 Payments will be made to the consultant within 30 days of receipt of an invoice approved and authorized for payment by the provincial project officer.
- 9.2 Payment will be made in terms of an agreed set of milestones as set out in the attached Gantt chart workplan. The consultant shall on a monthly basis, prepare a schedule indicating which work has been completed for the month, and for which substantiation has been provided, per task on

the Gantt chart work plan. The total amount invoiced to date shall be limited to the accrued budget allowed for the work done and cost per task and substantiated in terms of the Gantt chart work plan.

9.3 Invoices shall state clearly the nature of work done, the number of hours worked.

9.4 All payments shall be made directly into the bank account of the Consultant.

10. REIMBURSABLE EXPENSES

10.1 The Consultant will be compensated directly by the Department during his/her contract period for the following expenses which are reasonably directly related to the appointment, at rates approved for the Public Service and in accordance with normal departmental procedures:

10.1.1 The cost of accommodation (three star equivalent) and meals in accordance with the Department's policy, if the Consultant performs duties away from his/her headquarters.

10.1.2 Air transport (economy class equivalent).

10.1.3 The use of a private motor vehicle for purposes relating to this contract.

10.1.4 Class A Car rental in cases where the Consultant is away from headquarters when performing official duties.

10.1.6 Other expenses such as parking and toll gate fees, incurred in the execution of his / her duties.

10.1.7 Expenses that are not provided for in this agreement will not be paid.

10.2 The address of the headquarters of the Consultant in this regard is;

11. OVERHEADS OF THE CONSULTANT

11.1 The Consultant will be responsible for the provision of all accommodation, equipment and other office infrastructure required for the execution of this contract.

12. OWNERSHIP AND PUBLICATION OF REPORTS

12.1 The Department will upon payment therefore, become the owner of the information, documents, programmes, advice, recommendations and reports collected, furnished and/or compiled by the Consultant during the course of, and for the purpose of executing this Agreement, all of which will be handed over to the Department on request, but in any event on the termination of this Agreement for whatever reason. The Consultant relinquishes its right of retention of any other rights to which it may be entitled.

12.2 The copyright of all documents, programmes, recommendations and reports compiled by the Consultant during the course and for the purposes of finalising the project will vest in the Department, and may not be reproduced or distributed or made available to any person outside the Department's service, or to any institution in any way, without the prior written consent of the Department.

12.3 In the event of the Consultant providing documents or any other data to the Department, the development of which has not been at the expense of the Department, copyright shall not be vested in the Department. The Consultant shall be required to indicate in advance to which documents and/or materials, this provision applies.

12.4 The Consultant hereby indemnifies the Department against any action, claim, damage or legal cost that may be instituted against the Department on the grounds of an alleged infringement of copyright of any other intellectual property which results directly from an action of the Consultant acting in the execution of the scope of work referred to in clause 6.

12.5 All information, documents, recommendations, programmes, project records and reports collected or compiled must be regarded as confidential and may not be communicated or made available to any person outside the Department's service and may not be published either during the currency of the Agreement, or after termination thereof without the prior written consent of the Department.

12.6 The Department hereby permits the Consultant to copy and distribute all information, documents, recommendations, programmes and reports collected and compiled by the Consultant during the course and for the purpose of the finalisation of the project, solely for the purpose and in the execution of the Consultant's obligations in terms of this Agreement.

13. NO AGENCY OR PARTNERSHIP

13.1 The relationship between the Parties in terms of the Agreement shall involve a close collaboration between two independent contracting Parties and in the circumstances shall not imply any partnership in the legal sense, nor shall it constitute either Party the agent or authorised representative of the other Party unless a specific delegation or instruction to act on behalf of the Department is given by the Director-General.

14. LIMITATION OF CESSION

14.1 The rights and obligations of the Parties in terms of this Agreement shall be personal and incapable of being ceded, assigned or delegated by either of them to any other person outside of the Consultant or the Department, save with the written consent of the other Party.

14.2 Each Party warrants that he is acting as a principal and not as an agent for an undisclosed principal.

15. INDULGENCES

15.1 No extension of time, latitude or other indulgence which may be given or allowed by either Party to the other shall constitute a waiver or alteration of this Agreement, or affect such Party's rights, or prevent such Party from strictly enforcing due compliance with each and every provision of this Agreement.

16. BREACH OF AGREEMENT

- 16.1 In the event of a breach by the Consultant of any of the terms and conditions of this Agreement, and in the event that the Consultant fails to remedy such breach within fourteen (14) working days after receiving written notice from the Department to do so, the Department shall be entitled without prejudice to any other right it might have, to exercise all or any number of the following rights:
- 16.1.1 To suspend further payments to the Consultant;
 - 16.1.2 To appoint any other person or persons to complete the execution of the project, in which event the Consultant shall be held liable for costs incurred in the appointment of such person or persons as well as reasonable costs related to the delayed project;
 - 16.1.3 To enforce strict compliance with the terms and conditions of the Agreement at no additional costs to the Department;
 - 16.1.4 To cancel this contract.
- 16.3 The Department may terminate the Agreement should the Consultant, inter alia, make himself guilty of misconduct in terms of the code of conduct of its profession or if the Consultant acts dishonestly or contrary to the integrity required from its profession.
- 16.4 In the event of a breach by the Department of the terms and conditions of this Agreement, and in the event of the Department remaining in default after fourteen (14) working days written notice calling for rectification of the matter, the Consultant shall be entitled to:
- 16.4.1 Enforce strict compliance with the terms and conditions of the Agreement;
- or
- 16.4.2 To cancel the Agreement.
- 16.5 In the event of the Agreement being terminated for whatever reason, the Consultant will be entitled to payment for work done for acceptable deliverables for which it had not yet been paid.
- 16.6 If, owing to circumstances beyond the control of the Consultant, it becomes impossible for the Consultant to fulfill any of its obligations in terms of this Agreement, the Department, upon receipt of a written request from the Consultant, shall consider granting the Consultant the

necessary permission to defer such performance for such period as may be required under the circumstances, which permission shall not be withheld unreasonably.

- 16.7 The Department reserves the right to terminate this Agreement or temporarily defer the work, or any part thereof, at any stage of completion, should it be decided not to proceed with the project. The Department may terminate the agreement by giving ten (10) days notice to the Consultant. Should the Agreement be so terminated the Consultant shall only be paid for the appropriate portion of the work completed.

17. SETTLEMENT OF DISPUTES

- 17.1.1 Should any disputes and/or difference of opinion arise between the parties regarding the interpretation of any or all the provisions of this Agreement during the term of or on the termination thereof that cannot be amicably settled, the aggrieved party shall forthwith give the other party 14 (fourteen) days written notice to this effect.

- 17.2 After notice in terms of clause 17.1 disputes and/or differences shall be resolved in the following manner:

17.2.1 Both parties shall, by agreement, appoint an impartial mediator. Should the parties not be able to agree on a mediator, then it is agreed that the Law Society of South Africa shall appoint a mediator.

17.2.2 Should the matter not be resolved through mediation, both parties shall have the right to have the matter resolved through the High court having jurisdiction in this matter in which case the defaulting party may be liable for all legal costs incurred on a scale as between attorney and client.

18. INTERPRETATION

18.1 In this Agreement, except where the context otherwise requires

18.2 The singular includes the plural; and

- 18.3 Any reference to a natural person includes a body corporate, firm or association.
- 18.4 The headnotes to the clauses of this Agreement are included for reference purposes only and shall not affect the interpretation of the provisions to which they relate.
- 18.5 Words and phrases defined in any clause shall bear the meanings assigned thereto.
- 18.6 The various parts of the Agreement are severable and may be interpreted as such.
- 18.7 The expressions listed in Clause 1 bear the meaning assigned to them and cognate expressions bear corresponding meanings.
- 18.8 If any provision in a definition is a substantive provision conferring rights or imposing obligations on any Party, effect shall be given to it as if it were a substantive clause in the body of the Agreement, notwithstanding that it is only contained in the interpretation clause.

19. GENERAL

- 19.1 Any changes to the scope of work must be raised at Project Team meetings, and if agreed, minuted at such meetings, and that charges for such variations will be at Consultant's standard rates unless otherwise agreed. Any changes of scope not so minuted will not be performed by Consultant and if performed, no additional fees will be recoverable.
- 19.2 The Agreement shall be governed by, construed and interpreted according to the law of the Republic of South Africa.
- 19.3 The Parties agree that the High Court, Pretoria shall have jurisdiction in respect of any matter arising from this Agreement.

20. DOMICILIUM CITANDI ET EXECUTANDI

- 20.1 The Department chooses as its domicilium citandi et executandi for all purposes arising from this Agreement, to serve all notices and legal documents:

STREET ADDRESS :

POSTAL ADDRESS :

TELEPHONE NUMBER :

FAX NUMBER :

20.2 The Province chooses as its domicilium citandi et executandi for all purposes arising from this Agreement, to serve all notices and legal documents:

STREET ADDRESS:

POSTAL ADDRESS:

TELEPHONE NUMBER:

FAX NUMBER:

20.3 The Municipality chooses as its domicilium citandi et executandi for all purposes arising from this Agreement, to serve all notices and legal documents:

STREET ADDRESS:

POSTAL ADDRESS:

TELEPHONE NUMBER:

FAX NUMBER:

20.4 The Consultant chooses as its domicilium citandi et executandi for all purposes arising from this Agreement, to serve all notices and legal documents

STREET ADDRESS :

POSTAL ADDRESS :

TELEPHONE NUMBER :

FAX NUMBER

- 20.5 Each of the Parties shall be entitled at any time by way of written notice to the other Party, to change its domicilium citandi et executandi to another physical address within the Republic of South Africa.
- 20.6 Any notice in terms of the conditions of the Agreement must either be :
- 20.6.1 Delivered by hand during normal business hours of the recipient; or
 - 20.6.2 Sent by prepaid registered post to the address chosen by the addressee; or
 - 20.6.3 Sent via facsimile.
- 20.7 A notice in terms of the provisions of the Agreement will be considered to be duly received
- 20.7.1 if hand-delivered on the date of delivery; or
 - 20.7.2 if sent by registered post, ten (10) days after the date it was posted unless the contrary is proved;
 - 20.7.3 if sent via facsimile, on the same day of dispatch.
- 20.8 Notwithstanding anything to the contrary contained or implied in this Agreement, the written notice of communication actually received by one of the Parties from the other, including by way of facsimile transmission, shall be adequate written notice or communication to such Party.

THUS DONE AND SIGNED BY THE DEPARTMENT AT

ON THIS DAY OF YEAR

AS WITNESS

SIGNATURE

For THE GOVERNMENT OF THE
REPUBLIC OF SOUTH AFRICA IN ITS
DEPARTMENT OF ENVIRONMENTAL
AFFAIRS AND TOURISM

1. _____

FULL NAME

2. _____

SIGNATURE

FULL NAME

THUS DONE AND SIGNED BY THE PROVINCE AT

ON THIS DAY OF YEAR

AS WITNESS

1. _____

SIGNATURE

For THE PROVINCIAL GOVERNMENT

FULL NAME

2. _____

SIGNATURE

FULL NAME

THUS DONE AND SIGNED BY THE MUNICIPALITY AT

ON THIS DAY OF YEAR

AS WITNESS

1. _____

SIGNATURE

FULL NAME

For LOCAL/DISTRICT MUNICIPALITY

2. _____

SIGNATURE

FULL NAME

THUS DONE AND SIGNED BY THE CONSULTANT AT

ON THIS DAY OF 2007.

AS WITNESS

1. _____

SIGNATURE

For THE CONSULTANT

FULL NAME

2. _____

SIGNATURE

FULL NAME