

Investigating the role of Ezemvelo
KZN- Wildlife in Environmental Impact
Assessment

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DECLARATION

I, Dumisani Emmanuel Mthembu do hereby declare that the whole of this thesis is my own original work, unless specifically indicated to the contrary in the text.

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Abbreviations

CONAMA	National Commission for the Environment
COREMA	Regional Commission for the Environment
CEQA	California Environmental Quality Act
CEQ	Council for Environmental Quality
CEEA	Canadian Environmental Assessment Act
DEAT	Department of Environmental Affairs and Tourism
DAEA	Department of Agriculture and Environmental Affairs
EFL	Environmental Framework Law
EID	Environmental Impact Declaration
EIS	Environmental Impact Statement
EIR	Environmental Impact Report
ECA	Environment Conservation Act
EC	European Community
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
FEARO	Federal Environmental Assessment and Review Office
FONSI	Finding of No Significant Impact
IAP	Interested and Affected Parties
IEM	Integrated Environmental Management
EKZN-Wildlife	Ezemvelo KwaZulu-Natal Wildlife
EKZNW	EzemveloKwaZulu-Natal Wildlife
EKZNWB	Ezemvelo KwaZulu-Natal Wildlife Board

KZNNCMA	KwaZulu-Natal Nature Conservation Management Act
N	Number
NEPA	National Environmental Policy Act
NEMA	National Environment Management Act
NGO	Non-Government Organizations
RoD	Record of Decision
SA	South Africa
UNEP	United Nations Environment Programme
USA	United States of America

Abstract

Environmental Impact Assessment (EIA) is the systematic identification and evaluation of the potential impacts (effects) of proposed projects, plans, programmes, or legislative actions relative to the biophysical, cultural, and socioeconomic components of the natural environment (Canter 1996). The overall purpose of EIA is to assist in shaping the development process, not to prevent development from taking place and to ensure that the environmental consequences of development proposals are systematically assessed and taken into account. Since the Earth Summit in Rio de Janeiro in 1992, there has been a substantial increase in the adoption of EIA worldwide (Sheate 1996).

The main aim of this report is to investigate the role of Ezemvelo KwaZulu-Natal Wildlife (EKZN-Wildlife) with respect to EIAs inside and outside the protected areas in KwaZulu-Natal. It has four objectives.

- To establish the role EKZN-Wildlife should play in the EIA process inside and outside protected areas
- To establish which institutions should manage the EIA process for EKZN-Wildlife developments
- To ascertain if EKZN-Wildlife can be designated as a relevant authority
- To establish if EKZN-Wildlife should consult professionally in IEM for income generation

The research method used to achieve these objectives were qualitative, with respondents purposefully chosen from EKZN-Wildlife, DAEEA and environmental consultants. A self-administered questionnaire method was used to collect data, and both open-ended and closed questions were asked. Techniques such as Likert scale and semantic differential were used to allow respondents to express feelings by ratings with respect to opposing concepts. The data analysis was mainly through reduction and displays in the form of tables and graphs.

This report, amongst its findings, found that apart from being an IAP, the role of EKZN-Wildlife in EIA should be that of providing specialist input in particular to biodiversity related issues during the EIA process. It was also found that appointing EKZN-Wildlife as a relevant authority would be inappropriate and could have negative consequences. Concerning the scheduled activities that EKZN-Wildlife undertakes, the report found that self-assessments could be considered for small projects but not for big projects. This report also found that an environmental consulting role for EKZN-Wildlife may not be a viable option to generate income.

This report recognizes that EIAs incorporate much more than mere consideration of green issues and recommends that EKZN-Wildlife should adopt an interdisciplinary team approach when dealing with EIAs. EKZN-Wildlife should also engage the relevant authority in a constructive dialogue so that its role during the EIA process can be defined explicitly. This report also recommends that EKZN-Wildlife should investigate the nature and the possibility of providing the necessary specialist review during the EIA process.

Chapter 1: Introduction

1.1 The founding and the role of Environmental Impact Assessment

Environmental impact assessment (EIA) is the systematic identification and evaluation of the potential impacts (effects) of proposed projects, plans, programmes, or legislative actions relative to the biophysical, cultural, and socioeconomic components of the natural environment (Canter 1996). In addition to being a systematic process, Sheate (1996:25) suggests that, “EIA is inherently procedural, informational, preventative and iterative” to ensure that environmental considerations are taken into account before decisions are made about proposed projects. It stands to reason that EIA is a process that seeks to promote the integration of environmental considerations during development.

According to Glasson (1999) the National Environmental Policy Act (NEPA) of 1969 was the first legislation requiring EIA for significant projects, and has been referred to as one of the most significant developments in environmental law. According to Sheate (1996) it is a major consequence of the environmental thinking that took place between 1960 and 1970. During this period, there was a growing concern worldwide that the deterioration of the environment was increasing. For example, loss of biological diversity was alarmingly high, so much so that Gowdy (1999) cited in Becker and Jan (1999) referred to it as the most serious of the myriad of environmental threats mankind faced.

Clearly, drastic actions had to be undertaken in order to deal with these environmental problems. Consequently, a United Nations Conference on the Human Environment was

held in Stockholm in June 1972. Amongst other things that resulted from the Stockholm Conference, was the establishment of United Nations Environmental Programme (UNEP). According to Sheate (1996) the primary purpose of UNEP was to monitor the environmental changes on the planet. EIA, as a multi-purpose process for environmental protection and management, planning, resource management, decision-making and sustainable development was to play a critical role in ensuring that the UNEP achieved its goals. By 1973, EIA systems were being adopted in many developed countries.

Another major milestone was the June 1992 Rio de Janeiro Conference on Environment and Development. This conference, popularly known as the Earth Summit, marked a turning point in dealing with environmental problems. Amongst the highlights of the Earth Summit was the adoption of 27 principles. In particular, principles 15 and 17 were geared at ensuring that all the signatories took steps to combat environmental deterioration. Principle 15 urged all the States to adopt the precautionary principle. This meant that where there were threats of serious or irreversible damage, or where scientific uncertainty existed, cost-effective measures had to be taken to prevent environmental degradation (Johnson 1993). Principle 17 advocated that environmental impact assessment should be adopted as a national instrument for assessing proposed activities that could cause significant adverse impact on the environment (Johnson 1993). The Earth Summit called on all such activities to be subjected to evaluation by a competent national authority.

In a review of environmental impact assessment effectiveness, Sadler (1996: 2) argues that:

“The environment matters more than ever before. Human activities are altering natural cycles and ecosystems on an unprecedented scale. Risks and impacts are more significant than ever before. The impact of human activities on the biosphere is reaching critical thresholds, with the consequent threat of ecological breakdown and social conflict. Environmental impact assessment is more important than ever before”.

Testimony to this is the United Nations Conference on Sustainable Development in Johannesburg 2002. The Johannesburg Summit highlighted the work by Sadler (1996) as environment and development problems took centre stage during the conference, as did recognition of the necessity to deal with them. EIA has indeed become a multi-purpose process that seeks to promote long-term societal goals that reflect and express the ideals of sustainable development. The work of Connelly and Smith (1999) provides some of the core ideals and themes within sustainable development. These ideals are the critical indicators of sustainable development and they include the need for intergenerational obligation, economy-environment integration, environmental protection, participation, social justice and the quality of life. It is clear that EIA plays a critical role in sustainable development by promoting these ideals.

In South Africa (SA), these ideals are the central elements of the National Environment Management Act, Act 107 of 1998 (NEMA). In addition to having these ideals, NEMA presents a set of environmental principles that must be observed when interpreting and

applying the law. These principles indicate how NEMA can be best applied to protect the environment.

The argument by Sheate (1996) forms the basis for another important role of EIA. Sheate argues that, for conservationists, EIA has been seen as an important tool because it brings the environment into decision-making where previously it was disregarded. It goes without saying that it is in everyone's interest to use EIA legislation to strengthen existing conservation legislation. Sheate (1996) also points out that EIA has to provide information on the existing environment, as well as the likely significant effects a proposal may have on the environment. This simply means that any other form of environmental protection legislation which applies to a particular area should be identified through the EIA process and therefore be taken into account in the decision making process.

1.2 Problem statement

South Africa has gradually undergone a transformation process, which included transforming environmental legislation. This process resulted in making environmental impact assessment (EIA) a legal requirement for all identified activities since September 1997. The promulgation of the National Environment Management Act, Act 107 of 1998 (NEMA) has sought to further consolidate and strengthen environmental legislation.

According to Wood (1999) South Africa has a proud history of EIA. This history dates back in 1984, when a committee was formed with the intention of seeking ways to

integrate environmental considerations with development (Fuggle 1992). As will be shown in chapter two, this was the beginning of the process of environmental law reform in South Africa. The highlights of these changes started with the enactment of the Environment Conservation Act, Act 73 of 1989 (ECA). This Act gave the Minister power to make regulations. In 1992, the Department of Environmental Affairs and Tourism released the IEM guideline series, outlining a proposed IEM process. Between 1992 and 1997 several voluntary EIAs were undertaken following this process. In 1997, regulations R1182 and R1183 relating to EIA activities and a revised EIA process were promulgated.

These changes are of significance because they identified the different institutions and the roles these institutions should play during the EIA process and in environmental management. It has to be noted that the management of environmental and natural resources in South Africa is both a national and provincial competence. This is in accordance with the Constitution of the Republic of South Africa, Act 108 of 1996 which stipulates that, nature conservation is mainly a provincial function even though at a central level, DEAT remains as a policy formulating and coordinating body.

In KwaZulu-Natal, the EKZN-Wildlife is a parastatal institution mandated to manage and conserve the natural resources in the province, in accordance with the constitution and the KwaZulu-Natal Nature Conservation Management Act, Act 9 of 1997 (KZNNCMA). Section 20 (1) of the KZNNCMA makes provision for the establishment for EKZN-

Wildlife, whose primary function is nature conservation inside and outside protected areas.

Sections 4 (2), (3) and (4) of the ECA makes provision for the relevant authority. In KwaZulu-Natal the relevant authority is the Department of Agriculture and Environmental Affairs (DAEA). Part of its responsibility is to deal with requests to carry out scheduled activities. On the other hand the EKZN-Wildlife is mandated to manage and conserve the biodiversity of the province inside and outside the protected areas. Both these institutions, the EKZN-Wildlife and the Department of Agriculture and Environmental Affairs (DAEA) have the duty to protect the environment in KwaZulu-Natal. However, it is not clear to what extent EKZN-Wildlife should be involved in environmental impact assessments or the role it should play in EIA inside and outside the protected areas. This research seeks to establish the role that EKZN-Wildlife should play in EIA inside and outside protected areas, and asks whether EKZN-Wildlife should be designated as a relevant authority that oversees the EIA process in the province.

1.3 Aims and objectives

The aim of the study is to assess the role that the EKZN-Wildlife should play in EIA process inside and outside protected areas in KwaZulu-Natal. Given the powers conferred on it by the KwaZulu-Natal Nature Conservation Management Act, Act 9 of 1997, how should EKZN-Wildlife respond to development that threatens its mandate and what authority should it have in the EIA process?

The study has four objectives.

- To establish the role EKZN-Wildlife should play in the EIA process inside and outside protected areas
- To establish which institutions should manage the EIA process for EKZN-Wildlife developments
- To ascertain if EKZN-Wildlife can be designated as a relevant authority
- To establish if EKZN-Wildlife should consult professionally in IEM for income generation

Chapter 2. A comparative review of EIA systems

2.1 Introduction

The National Environmental Policy Act of 1969 (NEPA) of the USA has been referred to as a “seminal enactment” and the most famous statute of its kind on the planet (Farber & Morrison 2000). Since the enactment of NEPA, EIA systems have been established in various forms throughout the world and many states began by adopting legislation equivalent to the NEPA at the state level (Canter 1996). The EIA systems adopted vary from country to country. Some were in a form of mandatory regulations, acts, statutes, or directives. Regardless of the legal basis, they all generally require the preparation of the EIS or report by the designated agency or proponent before permission is given for a project to proceed. This section gives a comparative review of EIA systems in selected countries. Although the procedures differ from country to country, Wood (1995) provides a generic EIA process typical of most EIA systems (Figure 2.1.). The following section will provide an overview of the EIA system operative in several countries, and will also consider the EIA review process in these countries.

2.2 United States of America (USA) and California

NEPA was the first law to focus on environmental concerns with a comprehensive environmental policy, and is believed to be the most far reaching environmental and conservation measure ever enacted by the congress (Wood 1995). Even though NEPA has received wide recognition, Wood (1995) argues that the history of environmental control in the United States is remarkably brief, but vigorous.

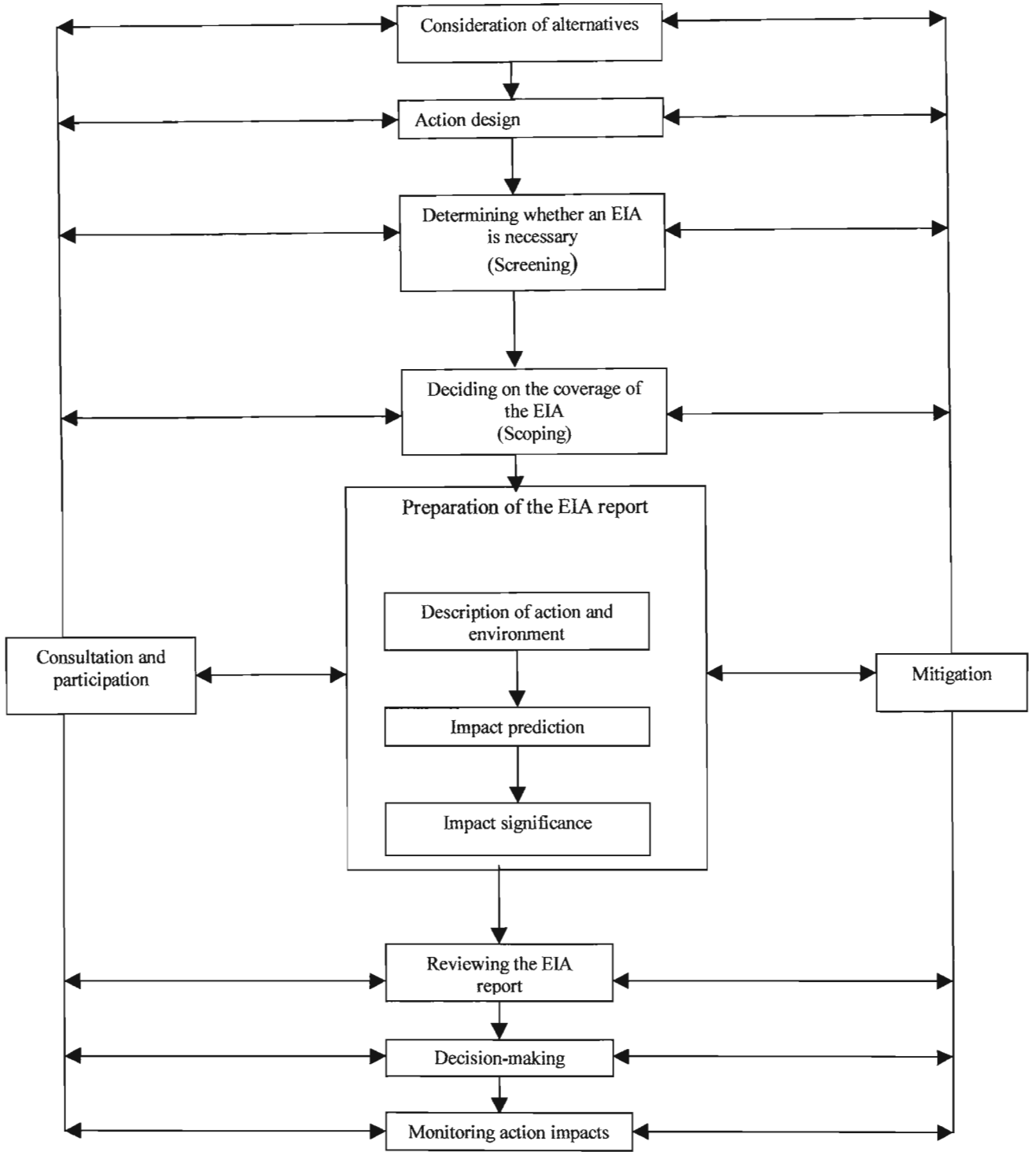


Figure 2.1 The environmental impact assessment process (Wood 1995:6).

Figure 2.1 illustrates EIA as a cyclical process with linkages in various stages. Four main stages are evident in figure 2.1, these being the screening process which determines whether an EIA is necessary, the scoping process which decides what the EIA needs to cover and then the preparation of the environmental impact report (EIR). The other important stage in the EIA process is the role played by the relevant authority in reviewing the reports and taking decisions. Central to the EIA process is the consultation and participation of the interested and affected parties (IAP), the considerations of alternatives and the mitigation of adverse effects to the environment.

Taking its cue from NEPA was California, establishing an extensive EIA system when it passed the California Environmental Quality Act (CEQA) in 1970. According to Glasson (1994) this is regarded as one of the most advanced EIA systems worldwide. It is for these reasons that the American and Californian EIA systems have been reviewed.

2.2.1 EIA review and decision making process

In the USA, NEPA led to the establishment of the Council for Environmental Quality (CEQ), which acted as a principal advisor to the President on environmental policy matters, and to integrate environmental, economic and social actions within the agencies of the federal government. NEPA also led to the establishment of the Environmental Protection Agency popularly known as EPA.

The EPA is required by NEPA to receive all EISs prepared by agencies. Once received, EPA is required by law to officially notify the public about the availability of the draft

EISs and is also required to forward them to all relevant federal, state, tribal, and local organizations likely to wish to comment. The other crucial reason why draft EISs are sent to the EPA is because the EPA is required to critically review all draft EISs and filing prior to decision making. The review is in accordance with the procedure designed for draft EISs. Basically, the review establishes whether the report is sound or not or whether there were environmental concerns and objections. It also has to note if there were no objections. Overall, the review gives an indication whether the report is environmentally satisfactory or not and then ensures that all deficiencies identified are corrected in the final EIS, failing which the matter is referred to CEQ for resolution. There is also a provision for mediation by CEQ if EPA and other agencies disagree on the acceptability of impacts.

Unlike at the USA federal level, California does not have an institution similar to CEQ, but instead, it has an institution similar to EPA called the State Clearing House. The State Clearing House is responsible for receiving and distributing documents prepared under CEQA. It ensures that interested public agencies have a say and that the comments are incorporated in the final EIR. The problem with the State Clearing House is that it has no power to enforce the Act and therefore agencies may not necessarily follow the recommendations of the EIR (Sheate 1996).

The agencies referred to above are required by the CEQA to be established. They are called the lead authorities. Their function is to determine whether the EIA must be performed on a particular proposal. According to Sheate (1996) the lead authorities are

required to perform the initial studies in order to determine whether an EIA is essential or not. Depending on the outcome of the initial study, if the lead authority concludes that any part of the proposal may either individually or cumulatively cause a significant adverse effect on the environment, the lead authority then prepares the draft environmental impact report. However, if the initial study concludes that there is no significant impact, a negative declaration is prepared which is equivalent to finding of no significant impact (FONSI) in NEPA. Sometimes FONSI are mitigated to avoid preparing the EIS. In NEPA, there is a provision for a categorical exclusion list, which is a predetermined list of all actions that have no significant impact on the environment.

With regard to public involvement and participation, both systems stress the need for public consultation and review during the process. In America, the proponents of the project are required by law to consider the views of the interested and affected individuals, groups or surrounding communities. In California, no proposal may be approved under CEQA if the concerns raised by IAP have not been considered and necessary changes have not been made (Sheate 1996). Such changes are to be performed by another agency. The only exception to this is when specific economic, social or other considerations make mitigation measures or alternatives infeasible. Clark and Richards (1999) suggest that effective public involvement requires an interactive approach. According to Bisset (2000), cited in Lee and George (2000), this approach involves a two-way process of exchange of information between the public and the proponent, compared to information dissemination, which is a one-way process. The two-way process gives the public the opportunity to comment on the merits of the proposed project

(Bisset 2000). In other words, the extent with which the agencies take into account the views of the surrounding community and the interested public is critical to effective and efficient implementation of NEPA.

In the American system, there is more emphasis on this simply because in some cases, public participation may provide the only opportunity to the public to scrutinize the planning and the decisions taken by agencies. As a result, the CEQ regulations require agencies to make a diligent effort to involve the public in preparing and implementing the NEPA procedures. Agencies are required to consider the comments, and explain the comments received and their disposition in the final EIS.

The USA EIA system contains a categorical exclusion list. This is a predetermined list of actions that have no significant impact on the environment. For the project to go ahead, the actions in the list are subjected to public review and comment. This process does not require any further procedures once the exclusion has been determined, however, it does allow voluntary record keeping and justification (Wood 1995). Alternatively, an environmental assessment is undertaken to determine the significance of the potential impacts. Depending on the outcome, if there is no finding of significant impact, then the environmental impact statement is prepared.

The assessment of alternatives during the NEPA process has been called the heart of the NEPA process. Having said this, there is also a need for agencies to be aware that not every alternative is viable and where, applicable and appropriate, the No Action

alternative must be chosen. According to Clark and Richards (1999), the USA requires the most thorough identification and analysis of alternatives; NEPA's central procedural requirement is the search for alternatives to meet the policy goals of the statute. This has to take into account the direct, indirect and cumulative impacts.

More importantly, the proponents of the project are required to consider the views of the interested and affected individuals or group and the surrounding community.

According to Clark and Richards (1999), effective public involvement requires an interactive approach, which is much more than information dissemination. The extent to which an agency takes into account the views of the surrounding community and other interested members of the public during its planning and decision-making process is also critical to effective and efficient implementation of NEPA (Clark & Richards 1999).

The record of decision is then taken, which is a modified form of the draft EIS. The reason for the final decision must be included in the report. Sometimes a 30-day period is allowed for agencies to see the report. There is a provision for mediation by the Council on Environmental Quality if EPA and other agencies do not agree on the acceptability of impacts.

2.3 Canada

Canada is a vast country, and shares a border with the US (Wood 1995). According to Vanderzwaag and Duncan (1992), Canadian politicians and bureaucrats have prided themselves on being international leaders in sustainable development and forging new

institutions and laws to protect the environment. When the then Minister Lucien Bouchard introduced the Green Plan Discussion Paper early in 1990, he proclaimed that the primary goal of the government's effort was to make Canada, by year 2000, the industrial world's most environmentally friendly country (Hoberg 1992). Several authors including Messing and Howlett (1997) have argued that the Canadian resource and environmental policy warrants investigation for a number of reasons. The size and wealth of this country alone are of global significance and it contains the largest landmasses and longest coastlines on this planet. The Canadians are the second wealthiest citizens on Earth when the value of the untapped resources and the relatively low population levels are taken into account (Messing & Howlett 1997).

2.3.1 EIA review and decision making process

EIA in Canada is a shared responsibility of the federal and provincial governments. Since its inception the legislative basis for EIA at the federal level in Canada has undergone some changes. According to Sheate (1996), in March 1992 the Federal House of Commons passed the Canadian Environmental Assessment Act (CEAA). The CEAA provided a more solid legal foundation for EIA in Canada. Prior to CEAA, Canada relied on the 1984 Environmental Assessment and Review Process Guidelines Order, which only became legally binding in 1989 when the Canadian Wildlife Federation took the Canadian government to court.

During that period, the Guideline Order made provision for the establishment of the Federal Environmental Assessment and Review Office (FEARO). The FEARO was

responsible for the administration of the Guideline Orders. It also produced procedural guidelines for initial screening, assisted during public review, provided information to the public and prepared reports to the Minister of Environment on the implementation of EIA. The Canadian Environmental Assessment Agency (CEAA, or the Agency) was created on 21 December 1994 to administer the federal EIA process, replacing FEARO.

During the period of the Guideline Order, EIA was a self-assessment process. The government departments were required to integrate environmental considerations into their own planning procedures. According to Sheate (1996) the department conducted an initial assessment to determine whether the proposal would have a significant effect on the environment. No further study would be necessary if the initial study concluded that the proposal would not have significant effect on the environment. This implies that the department could make final decisions.

A different procedure had to be followed if the initial study concluded that the proposal might have significant impacts on the environment or if public concern was great. This procedure required the proposal to be referred to an independent EIA panel for public review. The duty of the panel was to study the report in light of public comments and then publish recommendations, which were not binding.

The 1984 Guideline Order had a number of problems and limitations. One of them was the fact that, the FEARO did not have sufficient power for the EIA to be effective. Sheate (1996) argues that under the Guidelines Order, FEARO was not empowered to override a

departmental decision during the initial assessment or to enforce EIR content requirements. Furthermore, the system was inadequate because it lacked independence as it relied on unsupervised self-assessment, and decisions could not be overridden by an administering body (FEARO). Clearly, there was an inherent conflict of interest and left the proponents with the responsibility for determining the nature and significance of their own proposals (Sheate 1996). Apart from this, the public review was non-existent because the Guidelines Order was wholly internal.

The passing of the CEAA remedied some of these problems. One of the main reasons for the CEAA was to ensure that there was an opportunity for the public to participate in the EIA process (Clark & Richards, in Petts 1999). Public participation and involvement is a central feature of the Act. The responsible authority or the Minister of Environmental Affairs may decide to refer to the project mediator or public review panel after completion of the screening report or the comprehensive study. During the mediation process, the Act allows any interested party to participate in the process.

The mediation process is primarily to ensure that the parties involved reach consensus, failing which the matter is referred to the review panel to complete the EIA. The Minister sets the terms of reference for both the mediation and review processes and appoints the independent experts as members of the panel. The panel has the power to require witnesses to attend and where necessary, financial resources are made available from the participant-funding programme, which assists citizens that are affected by the project to participate in panel reviews and mediation. The Act also gives the Environment

Minister the power to initiate public review, and appoint mediators and interveners. Decisions taken by the panels have to be justifiable and therefore, an EA panel or mediator is also required to come to a conclusion on the project justifiability (Sheate 1996). If the EA panel determines that there is no justification for the project, only a Cabinet Order can overturn the decision. In Canada, the responsible authority and the agency review the comprehensive study report before the Minister makes a decision on the project. Occasionally, expert government agencies are called to participate in the review.

Wood (1995) argues that environmental assessment is a high profile process in Canada, partly because its application provides one of the most visible manifestations of the government's commitment to the environment, and partly because it often provides the best opportunity for public participation in environmental decision making.

2.4 European Community (EC)

The EIA process in the European Community (EC) dates back in 1985 when the European Community (EC) Directive 85/337/EEC was adopted by the European Union. The adoption of the directive required that consequences of environmentally sensitive projects had to be properly considered before authorization or execution. This means that projects likely to have significant effects on the environment by virtue of their nature, size or location had to be subjected to an assessment of their effects before consent was given (Sheate 1996). It required that a minimum level of information about the likely significant effects on the environment be provided to the competent authority making the

decision. According to Kramer (1992) the EC stressed that the best environmental policy is preventative rather than remedial, and it is necessary to identify at the earliest stage, the likely damage to the environment of a particular project or action. However, it must be noted that the EC Directive did not purport to govern the legitimacy or correctness of the final decision, but merely to guarantee that the decision was made after the competent authorities and the public were given the opportunity to assess adequate information. However, the Directive did specify that the information provided by the impact assessment must be taken into consideration in the development consent procedure.

2.4.1 EIA review and decision making process

In the EC, impact assessment is primarily a procedural tool and therefore has a very limited scope, only applying to projects for which the decision-making procedure requires consent or permission. According to Winter (1996) a great number of individual complaints have been received by the Commission, suggesting that developments likely to cause significant and irreversible damage to the environment were being authorized without any preliminary impact review. Winter (1996) also argues that the Directive leaves broad discretion to the Member States concerning the form and the content of the EIA, and the interpretation of the Directive is also problematic.

The Directive designates the developer as the person who has to supply the necessary information about the project but leaves the question of who is to sign the final document, open. This simply means that signing could be by the developer, or by the administration

in charge of the consent procedure, or by an independent body or expert. Further to this, the Directive leaves wide discretion with regard to consultation. It does not specifically say when it should take place.

Winter (1996) argues that the Directive may seem more explicit concerning consultation and public participation requirements, however, on closer scrutiny, many questions remain unanswered. The Directive emphasizes the need for administrative co-ordination and the consultation of the authorities likely to be concerned by the project, by reason of their specific environmental responsibility. These authorities must be given the opportunity to have a say, even though it is not clear at what stage of the process this should occur.

Article 5 of the Directive makes public participation an essential element. The public must be given an opportunity to express their views before the project is initiated. The problem is that it is not clear who the concerned public are and at which stage the project is regarded as initiated. Lambrechts (1996) argues in favour of public enquiries, as the standard device for giving a fair hearing to objectors before the final decision is made on some question of government policy affecting citizen's rights or interests (Lambrechts 1996). This is primarily aimed to ensure that the best possible decision is made in the public interest, and that the citizens have their objections fairly considered.

It is clear that the directive is flawed in many ways. First and foremost, the legal basis of the Directive is left to member states to implement the requirements of the EIA Directive

to whatever legislation they consider to be appropriate (Wood 1995). The Directive only provides a skeletal framework and leaves a great deal of discretion to member states. The coverage of the Directive is limited to projects, and the project list to which it applies is not comprehensive. The word environment only refers to physical environment and excludes other environments such as economic and social (Wood 1995). The Directive makes no provision for scoping and alternatives and there is also no requirement that liaison between the developer and the relevant authorities takes place while the assessment is being undertaken (Wood 1995), hence it makes no provision for a formal review to take place by a competent authority.

2.5 Chile

EIA in Chile dates back in 1994, with the enactment of the Environment Framework Law (EFL). According to the EFL, environmental management is a competence managed by various government departments. It is for this reason that the EFL makes provision for the establishment of the National Commission for the Environment (CONAMA) whose function is to coordinate environmental management activities throughout the government administration. According to Contreras (2000, cited in Lee and George 2000), CONAMA is formed by a decision-making Directive Board comprising thirteen Ministries, chaired by the Office of the Presidency, a Technical Advisor and Coordinating Executive Director, a consulting committee with two representatives from each sector comprising the scientific community, environmental NGOs, academic institutions, the private sector, labour movements and a representative from the Office of the President. The EFL also make provision for the Regional Commission for the Environment (COREMA). The

COREMA is the regional equivalent of the CONAMA, and deals with EIA related issues in the 13 administrative regions. Both private and government led projects are subjected to EIA procedure in Chile.

2.5.1 EIA review and decision making process

The developer or its consultants prepare the Environmental Impact Declaration (EID) and Environmental Impact Statement (EIS). Depending on the nature of environmental effects, the EIDs or the EISs are reviewed either by CONAMA or COREMA. For instance, if the impact of the project affects more than one administrative region, the EID or EIS is submitted to the CONAMA for review otherwise COREMA reviews all EIDs and EISs. Other than the CONAMA and the COREMA, all government agencies with competence over the affected environment are also required to review the EID and EIS (Contreras 2000).

The duration of the review for EID is 60 working days and 120 days for the EIS. During the review, the authority may request any information deemed necessary. The authority is also allowed to request clarification of issues to enable it to make an informed decision during the review process. The authority is required to respond to the developer within the specified review period. If the authority fails to respond during the specified review period, the developer may consider the permit to have been granted for the EIS (Contreras 2000).

Whilst it is the duty of the CONAMA and COREMA to undertake reviews, the government agencies also have a role to play. The duty of the government agencies during the review is to make sure that their concerns are adequately addressed. This is mainly applicable to those that have authority over the affected environment. In addition to this, the Regional Director's Office of the CONAMA undertakes an integrated review during which the expertise of consultants is sourced to assist with the review. According to Contreras (2000) a novel feature of the Chilean EIA system is the possibility to submit an EIS together with an insurance policy covering the risk of damage to the environment if construction is initiated during the reviewing period.

Once all the interested and affected parties (IAPs) have had their input during the review process, the Regional Director of the CONAMA, also acting as the Executive Secretary of the COREMA, compiles a synthesis report, from all the stakeholders including the interested public, known as the Technical Review Report. Based on this report, the COREMA makes a final decision on granting or denying the environmental authorization for the project (Contreras 2000). The CONAMA and the COREMA do not have the power to change the projects. For the projects to qualify for authorization, the developer would have to meet any conditions, which the authorities are allowed to set. If any IAP is aggrieved during any stage of the EIA process, an appeal may be lodged with the judiciary or the senior administrators for dispute resolution.

2.6 Zimbabwe

Even though EIA in Zimbabwe dates back in 1976, Zimbabwe does not have an Act relating to EIA, however, preparations for one are in place (Chaibva 2000, cited in Lee and George 2000). In 1994, the Zimbabwean government introduced an interim Environmental Impact Assessment Policy within which EIAs are currently undertaken.

2.6.1 EIA review and decision making process

The administration of EIA in Zimbabwe is centralized in the Ministry of Environment and Tourism (Chaibva 2000). According to Chaibva (2000) the permitting authorities such as Zimbabwe Investment Centre, Local authorities, the Department of Physical Planning, the National Planning Commission and the commercial banks are required to refer projects with a potential to adversely affect the environment to the Ministry of Environment and Tourism for EIA screening. Once received, the Ministry of Environment and Tourism in consultation with the developer draws up the terms of reference to be used by the consultant during the EIA. The department conducts the review process as well. According to Chaibva (2000) the EIA policy is to be applied on a goodwill basis for a trial period of up to ten years.

2.7 South Africa

Environmental concern in SA dates back many years. According to Rabie and Fuggle (1992), South Africa also experienced a growth in environmental awareness during the 1970s. South Africa declared 1970 the Water Year and this was followed by what became known as the Green Heritage in 1972. Serious national environmental concerns on the part of the government were first demonstrated in 1971, when a Cabinet

Committee was appointed to investigate environmental pollution (Rabie & Fuggle 1992). The establishment of a non-statutory committee on environmental conservation followed this, tasked to offer advice to cabinet committee on environmental issues. This committee was renamed in 1975 and became known as Council for the Environment. The Council functioned until the early 1980s and was given broad terms of reference in respect of environmental conservation generally (Rabie & Fuggle 1992).

Before 1973, the legislation regarding pollution control and conservation of natural resources was the responsibility of the Department of Planning. The 1980s saw a change of the responsibilities of the planning department and the establishment of the Department of Environmental Affairs and Water Affairs. This was a step towards trying to deal with the problem of disintegrated environmental management in the country.

In 1984, the Council for the Environment established a committee to recommend a national strategy to ensure the integration of environmental concerns into developmental actions. This subsequently led to the recommendations for an integrated environmental management process (IEM).

According to Rabie and Fuggle (1992), IEM is a procedure designed to ensure that the environmental consequences of developments are understood and adequately considered during the planning process. The work by Wood (1999) confirms this, and stresses that the term IEM was chosen to indicate an approach that integrates environmental considerations into all stages of the planning and development process, and requires post-

impact monitoring and management. It primarily aims at promoting proactive environmental management and development that is less environmentally damaging and compatible with the principles of sustainable development. Rabie and Fuggle (1992) warn that for this to be achieved a positive, interactive approach to gathering and analyzing useful data is needed, and the findings must be prepared in a manner that can easily be understood by a non-specialist. The interactive approach referred to implies that the IEM must be interdisciplinary. This means having contributions from different disciplines and giving due consideration to alternative options for the development. This process is also known as environmental impact assessment in other parts of the world.

2.7.1 Legislative framework and review of EIA in South Africa

In 1989, the Environment Conservation Act, Act 73 of 1989 (ECA) came into force and it gave the Minister the power to make regulations. In 1997, the Minister used his powers under section 21, 26 and 28 of the ECA to promulgate regulations R 1182 and R 1183 which identified activities which may have substantial detrimental effect on the environment and defined a process for considering these impacts. This made it a legal requirement to carry out EIA for the identified activities as opposed to the voluntary assessments that had been taking place since 1985. Subsequent to the EIA regulations, was the promulgation of the National Environment Management Act, Act 107 of 1998 (NEMA), which further strengthen environmental legislation in SA.

Section 2 of NEMA lists a series of national environmental management principles. In particular, Section 4 (a) refers to sustainable development and the need to consider all

relevant factors during the process. Chapter 5 of NEMA makes provisions for integrated environmental management. Section 23 stipulates the general objectives of IEM, one of which is to make sure that the principles set out in section 2 are considered when making decisions that may have significant effect on the environment. Section 50 of NEMA repeals most of the sections of the ECA except sections 21, 22, and 26. These sections provide the legal bases for EIA in SA, and will do so until such time as new regulations are promulgated under NEMA. A document based on the provisions of the Act has been produced to guide the process of EIA.

The EIA system in SA provides that an independent body or consultant must conduct the EIA. Section three makes provision for the allocation of responsibilities in terms of regulations. In terms of Section 3 (1) (a), an applicant must appoint an independent consultant, which must on behalf of the applicant comply with the EIA regulations. In order to do so, the Act requires in (Section 3 (1) (d)) that the consultant must be competent and have the necessary skills and expertise to comply with the requirements of the EIA regulations.

Apart from the independent consultants, the Act provides for the appointment of the relevant authority that oversees the EIA process and the general compliance with the EIA regulations. The relevant authority is defined by ECA as the Minister, provincial authority or local authority contemplated in regulation 4 (2), (3) and (4). This implies that before an activity is undertaken, permission must be sought to do so. This is in terms of Section 4, which also outlines the procedure that the relevant authority must follow when dealing with applications.

The relevant authority may request a plan of study for scoping which is then followed by a scoping report. The scoping report contains a brief description of the report, the preliminary predictions of impacts, presents alternatives and details of public consultation process that has been followed. If the scoping report shows that there is a need for an environmental impact assessment, then the applicant, through the appointed consultant, may be required to submit a plan of study for environmental impact assessment to the relevant authority. The plan of study details how the assessment is conducted. Once the EIA has been conducted, the environmental impact report is prepared and submitted to the relevant authority. The authority reviews the report after which a Record of Decision is issued. Central to the EIA process is a need to consult and ensure the participation of the IAPs, so that they can provide input and comments during various stages of the EIA process. It is recommended that the IAPs should at least provide their input and comments during the scoping stage, mitigation of impacts, review of the EIR and the implementation and monitoring stages.

In terms of Section 10 (1) the Record of Decision must state the conditions of authorization, the duration of the validity of the authorization, and the factors that led to the decision. If anyone is aggrieved or unhappy about the record of decision, Section 11 makes provision for the manner of appeal and the grounds of appeal. This is in line with Section 43 (1), which states that any affected person may appeal to the Minister against a decision taken by any person acting under a power delegated by the Minister under this Act. It is important to highlight that some of these rights are entrenched in the

Constitution, such as Section 24 that deals with fundamental environmental rights, as well as others addressing transparency and access to information.

Once the record of decision (RoD) is issued, both the Environmental Impact Report (EIR) and the RoD become public information, however subject to the rights of the owner (DEAT 1998). Section 31 (a) of NEMA makes explicit provision regarding access to information. It states that every person is entitled to have access to information held by the state or organs of state which relates to the implementation of NEMA and any other law affecting the environment, the state of the environment and actual and future threats to the environment. Other legal implications of the RoD relates to Section 32 of NEMA, which makes provision for legal standing to enforce environmental laws. This means that any person may seek appropriate relief in respect of any breach of any provision of NEMA including the violation of principles outlined in Chapter 1 of NEMA.

2.8 Synthesis

The Californian EIA system, having followed from NEPA, has a lot in common with American EIA system, and appears to be the most comprehensive system. They both make provision for lead agencies or authorities that perform initial studies to determine whether the EIA is necessary. They both have similar structures and institutions such as EPA in USA and State Clearing House in California, both of which are responsible for receiving, scrutinizing and distribution of documents prepared under NEPA and CEQA. Once the EIA documents are lodged with these institutions, they then see to it that the public and all the relevant IAP are notified.

The EIA systems of USA and California also emphasize the importance of sound and justifiable decision-making. In other words, decisions taken must address environmental concerns raised. In the USA, alternatives must include the no action option, while in California, proposals are not approved unless adverse effects are mitigated sufficiently and this being the responsibility of another agency. The USA system goes much further than this. Public involvement and participation are central to the NEPA process and there is a requirement that it must be interactive and effective. The EPA ensures that all defects identified in the draft EIR are corrected; failing which the CEQ intervenes in the resolution process.

By contrast, the Canadian EIA system evolved from a Guideline Order, which made provision for self-assessment and as such lacked independence and public participation. Authorities such as FEARO were powerless and ineffective because government departments could make final decisions. Independent EIA panels were also not effective because their recommendations were not legally binding. The EIA process was wholly internal and as such made no provision for public participation and review. Even though the current legislation makes provision for public participation and mediation, it is clear that it is not as advanced as NEPA or the Californian EIA system.

The Canadian EIA system is unique in the sense that it contains the participant-funding programme, and that the Minister sets the terms for the mediation and review process. Where there are disputes about the justifiability of a project, the matter is referred to Cabinet, which is empowered to overturn any decisions taken through a Cabinet Order.

The EIA system of the EC seems to be the least advanced with very short history. EIA is only a procedural tool with very limited scope. It leaves broad discretion to member states and no clear guidelines as to the interpretation of the directive. It is also not clear who signs the final document, but there are relatively clear and proper directions for public consultation.

In Chile, the EIA system dates back to 1994. Environmental management in Chile is a competence managed by various government departments, hence the need for a national body (CONAMA) to co-ordinate environmental management activities and review EIDs and EISs whose impact affect more than one administrative region. Chile has 13 administrative regions and each has a regional commission (COREMA) that reviews EIDs and EISs in the respective regions. The unique feature in Chile is that EISs may be submitted with an insurance policy covering damages to the environment. This feature is synonymous to the polluter pays principle in NEMA. Zimbabwe has an EIA policy which is applied on a good will basis. South Africa had a similar IEM policy prior to 1997 because there was no law which made it a legal requirement to carry out EIA. This changed with the promulgation of EIA regulations in 1997 and NEMA in 1998. The South African EIA system compares well with the American EIA system. Table 2.1 indicates the different role players in EIA review, decision-making and conflict resolution.

Table 2.1 Role-players in EIA review, decision-making and conflict resolution

Country	Who reviews	Who decides	Conflict resolution
USA	EPA	Federal (lead) Agency	CEQ
California	State Clearing House	Lead Agency	Judiciary
Canada	CEAA (Agency)	Minister and responsible Authority	Cabinet Order or Project Mediator
EC	Competent Authority and Public Review	Competent Authority	No provision
Chile	COREMA, CONAMA	COREMA	Judiciary or Senior Administrators
Zimbabwe	Permitting Authorities	Ministry of Environment and Tourism	Ministry of Environment and Tourism
South Africa	Relevant Authority assisted by other authorities involved, Specialists, Public Review (IAPs)	Relevant Authority	Minister of the national Department of Environmental Affairs and Tourism or provincial Minister charged with responsibility

Chapter 3. Research methodology

3.1 Introduction

This work is a product of a qualitative research process that was undertaken with selected informants to address the research questions. Holloway (1997) refers to qualitative research as a form of social enquiry that focuses on the way people interpret and make sense of their experiences. This means exploring and taking perspectives and experiences from individuals, in this case, purposefully chosen. May (1993) refers to this form of selection as a criterion of 'fit for the purpose', implying that only the respondents that are suitable for the research must be selected to participate in the study. According to Creswell (1994) a key requirement in qualitative research is to select respondents that fit the purpose of the study.

The study is about the role of EKZN-Wildlife in EIA. EIA is a subject that is not commonly understood by an average person. It needs specialist knowledge, training or some kind of involvement for someone to understand it. Hence it was appropriate to undertake a criterion-based selection of those individuals that had something to do with EIA in their profession. For example, the environmental consultants, the DAEA, academics, the local government and the selected NGOs, are all involved in one way or another in the EIA process (See Table 3.1).

Purposive sampling advocates that only those that have the characteristics and the attributes typical of the population to be investigated must be selected, that is, selecting those that are informed about the topic area under investigation. Taking this into account,

it is clear that random sampling would be less suitable and would most probably give worse or less representative information for the study. After all, Palys (1997) warns that sometimes, “kneeling before the gods of randomness” impedes rather than facilitates understanding.

In addition to purposive sampling, the chain-referral sampling was adopted. According to Holloway (1997) the informants recommend others who are able to give similar information because they have had similar experiences. For example, one respondent from the local government recommended five other respondents in the department that could be useful in the study. This simply means that the sampling could not be fixed in advance, but had to become an ongoing process guided by emerging ideas. Table 3.1 provides a breakdown of sectors that were represented in the study.

Table 3.1 Representation of respondents

Sector	Role	Questionnaires sent
EKZN-Wildlife	Biodiversity conservation in the province of KwaZulu-Natal.	11
Department of Agriculture and Environmental Affairs	Appointed relevant authority to oversee compliance with EIA regulations in the province of KwaZulu-Natal.	10
Academics	Training and academic input in environmental management and environmental law.	5
Environmental consultants	Carry out EIAs for developers.	10
Wildlife Society of Southern Africa	A non-government organization involved in wildlife conservation and training.	1
Environmental Network Justice Forum	A non-government organization involved in environmental justice.	2
EKZN-Wildlife Board	Oversees the operations of the KwaZulu-Natal Wildlife and policy formulation.	3
Local Government and Housing (Provincial)	Planning and development and the implementation of the local agenda 21.	5
Umgengi Water	Parastatal body in water and environmental management.	2
Msinsi Holdings	Private nature conservation body.	1
Total		50

It must be noted that although the sample size in qualitative research is relatively small, it usually consists of information-rich cases (Holloway 1997). Despite the sample size, it represents a heterogeneous group of people or sectors, and each group brings a different perspective to the study. Therefore, for the purpose of this study one would argue that the sectors were fairly represented. Among the people selected were outsiders, Holloway (1997) calls them the ‘outs’ informants. An outsider is someone who sees things from the

vantage point of another culture, social class or community. Other informants included those who were formerly employed by the EKZN-Wildlife, who are well informed and who have no fear of expressing themselves.

3.2 Data collection

A questionnaire method was used to collect data. Two questionnaires were designed. The first questionnaire (Appendix A) was mailed to all respondents, except the Department of Agriculture and Environmental Affairs (DAEA). A second questionnaire (Appendix B) was designed for the DAEA, which was a modified version of the first questionnaire with additional questions specific to this sector. Both questionnaires contained structured and semi-structured components and were self-administered.

The advantage of using a semi-structured questionnaire is that it makes provision for both open-ended and closed questions. Open-ended questions enable respondents to communicate their experiences and opinions without being restricted while closed questions are useful where definite and unambiguous answers are needed. According to Miles and Huberman (1994), open ended questions focus on naturally occurring, ordinary events in natural settings.

The closed questions were then used where specific and explicit responses were required. For example, the respondents were asked if they thought EKZN-Wildlife should be treated differently from other IAPs and if environmental consulting would be a viable option for income generation. The yes or no answer had to be chosen. The respondents were required to choose from the fixed list, making it easy to compare and standardize

responses during data analysis. In other cases, the respondents were asked if they would agree if EKZN-Wildlife was appointed as a relevant authority, ensuring compliance with EIA regulations. To answer the question the respondents were required to choose from two opposing extremes of strongly agree and strongly disagree. This restricted and standardized the responses, however, the follow up questions were open-ended and enabled the respondents to explain in their own words why they agreed or disagreed.

3.2.1 Interviews

The qualitative in-depth interview has become a favoured strategy of data collection in qualitative research and produces 'rich' data (Holloway 1997). Holloway maintains that it is a conversation with a purpose in which the interviewer aims to obtain the perspectives, feelings and perceptions from the participants in the research. It must be noted that arranging convenient times and venues for interviews to be conducted may be time consuming. This combined with the traveling expenses to various venues where interviews are to be held, makes it an expensive technique to use, especially given the time and budgetary constraints of this study. It is for these reasons that this technique was only used with those respondents that preferred it. This constituted only 2% of the respondents, and was undertaken telephonically. The interview guide (a questionnaire) was sent to respondents and interview dates were set. This gave the respondents time to prepare for the interview. The responses were recorded during the telephonic interview.

3.2.2 Likert scale

Scales are used to turn responses obtained in surveys into numerical indices for use in analysis (Anderson, Basilevsky & Hum (1983) cited in Rossi *et al.* (1983)). According to Phillips (1976) scaling procedures are designed to achieve precise measurements and can help the researcher improve research effectiveness. Therefore, apart from the open-ended questions, scaling measurements were built in the questionnaires to measure attitudes and perceptions. The Likert scales were used for this purpose. Likert scales are among the most commonly used scaling methods in social research (Phillips 1976, Anderson *et al* 1983).

They are mainly useful for sensitive questions. The benefit of using Likert scales is that they can indicate the degree to which a respondent agrees or disagrees with a statement (Anderson, Basilevsky & Hum (1983) cited in Rossi *et al.* (1983)). The study raised a number of issues that were to be opinion rated, and the use of the Likert scale was able to show how much the respondents approved or disapproved the positions formulated. For example, the respondents were asked to indicate whether EKZN-Wildlife should be allowed to consult professionally in IEM for income generation. The respondents were expected to indicate their opinion by choosing their answer in the following Likert scale.

- a) Strongly agree []
- b) Moderately agree []
- c) Slightly agree []
- d) Not sure []
- e) Slightly disagree []
- f) Moderately disagree []
- g) Strongly disagree []

3.2.3 Semantic differential technique

Where the Likert scale was considered to be less suitable and beneficial, the semantic differential and categorical responses technique was employed, whichever was most suitable for the situation. A semantic differential technique is a method used for probing the underlying meaning that a given concept has for an individual (Phillips 1976). The semantic technique basically allows respondents to express feelings by ratings with respect to opposing concepts. The main reason for using this technique was to monitor the consistency of the responses and validate them. For example, the respondents were required to rate the adequacy of expertise in the current authority. They were required to choose from up to seven odd numbers separating opposing concepts (adequate and inadequate) in the scale below.

Adequate [1] [2] [3] [4] [5] [6] [7] Inadequate

3.2.4 Categorical responses technique

In some cases, the categorical responses technique was utilized. This is another technique that is useful with questions deemed to be of sensitive nature. This technique allows the respondents to place themselves in categories rather than to give exact answers. The key to successful application of this technique is to cover all possible alternatives and guard against overlaps between categories (Creswell 1994). The respondents were allowed to place themselves in more than one category if they felt that they belonged to multiple categories. This is called the multiple response option. For example, the respondents were asked what role they thought the EKZN-Wildlife should play in the EIA process. The respondents were expected to choose from the predetermined list of different possible

roles that they thought would best answer the question. Any other roles that were not on the list could also be added if necessary.

3.3 Data analysis

The analysis of data was mainly through reduction and displays. This made it easy to code data, create themes and concepts. Basically, each response was analyzed and grouped based on the themes that emerged from the responses. These themes were then displayed in the form of tables. Comparisons from different sectors were made and this made it easy to determine if respondents from the same sector had similar views on the issues raised. Comparison also indicated which sectors agreed or disagreed and why. The data display was synthesized in the form of tables and graphs. Stem and leaf tabulation was used to determine trends and frequencies. The figures derived from the stem and leaf tabulation and frequencies were used to produce graphs. Microsoft Excel was used to produce graphs.

According to Miles and Huberman (1994), the benefit of data reduction is that it gives a clear indication of what data chunks to code and which to pull out. More importantly, it identifies evolving stories, themes, and patterns that best summarize a number of data chunks, whereas the advantage of using a visual format is that it presents the information systematically. This organizes and compresses the information and makes it easy and possible to draw valid conclusions.

3.4 Limitations

The purpose of the study was to find out the perceptions and attitudes regarding the role of EKZN-Wildlife in EIA. The criterion-based approach was used to select and sample the participants. This approach is not considered to be statistically representative. Furthermore only a few individuals were selected from each sector. Bearing this in mind, the representativeness of the sample cannot be guaranteed and therefore the perceptions and the views expressed may not necessarily be representative or represent the views of the majority.

Having said that, this by no means implies that the opinions and perceptions raised should be considered to be isolated. It simply means that caution should be taken when interpreting the findings, taking into account the scope of the study. In addition to this, it must also be recognized that the study was undertaken under serious time and financial constraints. This in turn limited the scope of the study, the number of participants and the extent to which the study would otherwise have been taken, had these limitations not existed. It may therefore be necessary to conduct a similar study on a bigger scale with sufficient financial resources to obtain representative results.

Chapter 4: Results

4.1 Introduction

The purpose of the study is to establish the role that EKZN-Wildlife should play in EIA, both inside and outside protected areas. The rationale behind this was discussed earlier in Section 1.2 (Problem statement). As indicated in Chapter 3 purposive sampling was used to identify potential respondents. The distribution of respondents according to various sectors is shown in Figure 4.1. The source data for all the graphs is on page 118.

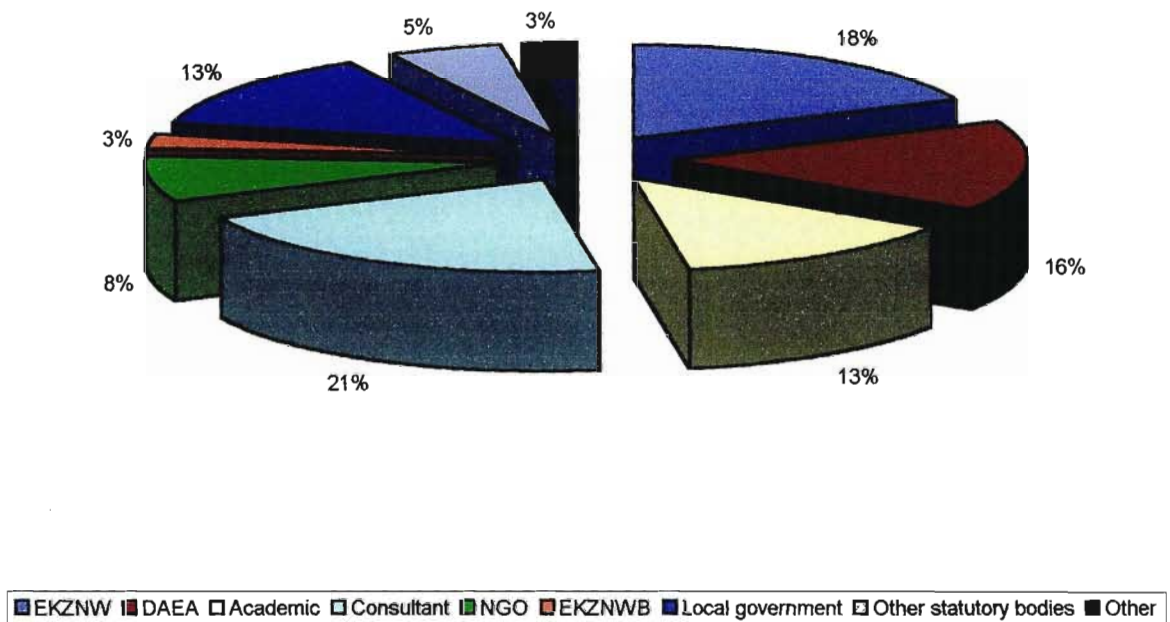


Figure 4.1 The representation of 39 respondents that participated in the study. Out of 50 questionnaires that were sent to respondents, 39 were returned (78%). Respondents were given 30 days to return the questionnaires. Numerous reminders and telephone calls were made to respondents that had not returned the questionnaires by the

due date (end of October 2001). Even though the due date was October, the questionnaires were still being received in December 2001. After December, no further questionnaires were received. As can be seen in the graph (Figure 4.1), the environmental consultants and EKZN-Wildlife were the most represented in the study relative to other participants such as the Board of EKZN-Wildlife and other statutory bodies.

The respondents were asked a number of questions pertaining to environmental assessment. One of the first questions that was asked was aimed at assessing how familiar the respondents were with the EIA regulations. The aim was to measure the level of understanding about the issues that the study intended raising. It was assumed that respondents that knew more about EIA would have more valuable and reliable input than those that knew less. Therefore, this assessment would be crucial in understanding and analyzing data.

The assessment indicated three notable observations. Firstly, the familiarity of majority of respondents with EIA regulations was unquestionable. The respondents overwhelmingly indicated that they were familiar with the relevant EIA regulations. Only 18% of respondents indicated that they were slightly unfamiliar to very unfamiliar with the EIA regulations.

Figure 4.2 shows that the respondents from DAEA and environmental consultants were the most familiar with the regulations. Secondly, the NGO respondents mainly indicated that they were neither familiar nor unfamiliar with the regulations. The third observation pertains to EKZN-Wildlife respondents. The EKZN-Wildlife respondents mainly

indicated that they were slightly familiar with the EIA regulations. However, what also stood out with EKZN-Wildlife respondents was that while some indicated that they were very familiar others indicated that they were very unfamiliar with the regulations.

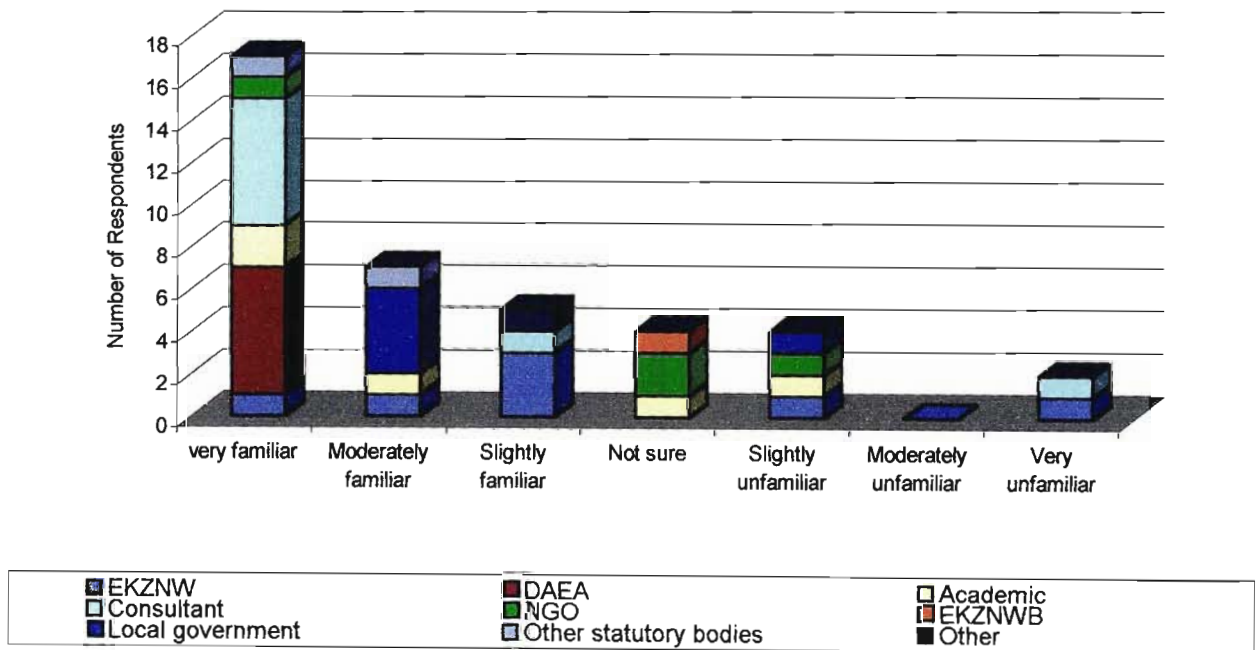


Figure 4.2 Responses regarding the familiarity of respondents with EIA regulations (N =39).

Considering the uncertainty regarding the familiarity with EIA regulations within EKZN-Wildlife, a question is asked whether EKZN-Wildlife should be appointed as a relevant authority to ensure compliance with ECA and NEMA at all.

4.2 EKNZ-Wildlife as a relevant authority

One of the provisions in the ECA of 1989 is that a competent authority must be appointed to oversee the EIA process and evaluate the general compliance with the regulations made by the Minister. The question asked here is whether EKZN-Wildlife should be appointed as an authority and if so, whether it would have the expertise and competence to carry the task as required in the Act. The expertise in this context refers to the ability to competently and expertly carry out the function of overseeing the EIA process, evaluating the products, and making the decision.

With regard to appointing EKZN-Wildlife as the relevant authority, various views were expressed. However, it was clear that the majority of respondents felt that appointing EKZN-Wildlife as an authority would be inappropriate and undesirable. Sixty-nine percent of all the respondents, disagreed strongly to moderately. A total of 49% disagreed very strongly with appointing EKZN-Wildlife as a relevant authority. Those most opposed included those interviewed at the DAEA, EKZN-Wildlife, the local government and the environmental consultants.

Looking at the responses per sector represented, in the DAEA 67% of those that took part in the study disagreed. Half of the respondents from EKZN-Wildlife also disagreed. In the local government sector, 60% of the respondents that were interviewed disagreed and 43% from the environmental consultants. Only 12% of all the respondents that were interviewed thought EKZN-Wildlife could be appointed as an authority and their responses ranged from moderate to strong. The majority of the respondents that agreed

were respondents from EKZN-Wildlife and one Board member of the EKZN-Wildlife Board. It is important to highlight that the Board of the EKZN-Wildlife was poorly represented (one respondent) and therefore, should not be seen as representative of the Board. What should also be noted here is that, once again, the responses from the EKZN-Wildlife respondents seemed to be scattered and divergent. There was uncertainty from some respondents whether it would be appropriate to appoint EKZN-Wildlife as a relevant authority. This only represented 14% of all the respondents questioned.

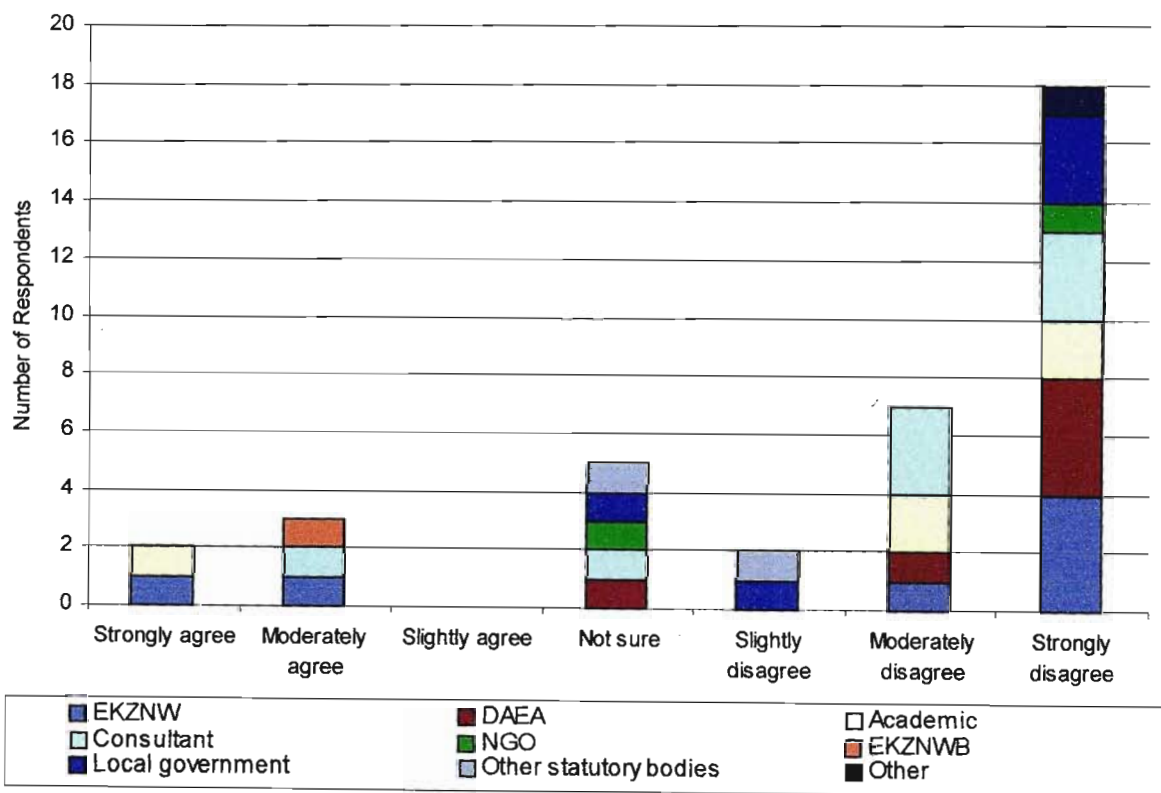


Figure 4.3 Responses to the statement that EKZN-Wildlife should be appointment as a relevant authority (N =37).

A number of reasons were cited especially for disagreeing with the appointment of EKZN-Wildlife as the authority. These reasons are presented in Table 4.1, summarized according to the thematic issues which emerged.

Table 4.1 Issues raised by respondents regarding the appointment of EKZN-Wildlife as a relevant authority.

Issue	Appointment of EKZN-Wildlife as a relevant authority.
Mandate	It is felt that the mandate of the EKZN-Wildlife is to undertake nature conservation and biodiversity conservation, and this does not include environmental management in its broader sense. Its terms of reference are totally different and it should focus on its core function, failing which, its mandate could be compromised and nature conservation could suffer in the long term.
Green ¹ issues	The public perceives EKZN-Wildlife as a 'green issues' organization, which has good expertise and insight, but that is largely restricted to ecological matters. Environmental management function and EIAs deal with far wider issues, not just biodiversity and EKZN-Wildlife may not always be capable. EKZN-Wildlife should therefore, champion the green cause to counter balance the socio-economic development strategies and allow sustainable development to take place.
Brown ² issues	To assess environmental impacts, it is essential that factors other than biodiversity or biophysical aspects be weighted against development. EKZN-Wildlife can neither deal with brown issues nor balance socio-economic factors in decision-making. EIAs need to equally cover both green issues and brown issues. The current structure of EKZN-Wildlife would not be able to do that. The RoD needs to be based on balancing social, economic and biophysical considerations.
Conflict of interest	EKZN-Wildlife has vested interests in certain developments and activities. It is a developer and cannot be seen as an applicant and a judge at the same time. There is a conflict of interest.
Staff issues	Two contrasting views were raised. The respondents that agreed with the appointment of EKZN-Wildlife as a authority were of the opinion that the EKZN-Wildlife already has personnel trained in this field, with good understanding of protected area business. This would encourage cooperation between managers and developers. By contrast, some respondents disagreed on the basis that EKZN-Wildlife is incapable, has very poor administrative capacity and expertise in a very limited (biophysical) sphere. More staff would have to be hired, because there is not sufficient human resource capability for this task. The ability of EKZN-Wildlife to make trade-offs and seek win-win solutions for the range of activities within the current EIA system is severely limited.

¹ Green issues in this report refer to natural, biological and ecological aspects of the EIA process.

² Brown issues in this report refer to socio-economic, physical, political and cultural aspects of the EIA.

Table 4.1 Continued: Issues raised by respondents regarding the appointment of EKZN-Wildlife as a relevant authority.

Issue	Appointment of EKZN-Wildlife as a relevant authority.
Bias	The EKZN-Wildlife has inherent bias towards the conservation and the protection of biodiversity. Their ability to consider social, political, economic and cultural aspects of the environment is not balanced.
Decision making	Provincial conservation bodies should have an input into all environmental decisions.
Equity	EKZN-Wildlife would not be fully appraised of the social aspects and the principles of sustainable development such as equity and public participation.
Independence	EKZN-Wildlife is a parastatal organization and would find it hard to be independent. EIAs need independent assessors that will not pledge loyalty to the government, but to the people affected by EIAs.
Sustainable development	EKZN-Wildlife was perceived as anti-development and cannot achieve the sustainable development goals. On the other hand, some felt that the available expertise in EKZN-Wildlife would encourage better cooperation between managers and developers.
Other issues	EKZN-Wildlife is perceived as an organization that is full of preservation-oriented ecologists, and sees people as a problem. EKZN-Wildlife needs to broaden the way it defines the environment and should include all other factors other than biophysical factors. There would not be a problem if EKZN-Wildlife became a relevant authority, as long as they have the expertise and the resources or if the resources are moved across from DAEMA to EKZN-Wildlife. Alternatively, EKZN-Wildlife could be appointed as an authority, in conjunction with others, not as a stand-alone assessor or alternatively be involved in EIA work within their own parks. Appointing EKZN-Wildlife would have legal implications. The South African Constitution would have to be changed to allow this to take place.

4.3 Capability of EKZN-Wildlife as a relevant authority

Among the issues raised in Table 4.1 was the perception by some respondents that the EKZN-Wildlife has low capability with very poor administrative capacity, and while there was recognition of its expertise, there was also a concern that the expertise is limited to green and biophysical issues. Bearing this in mind, the respondents were asked

whether they thought that EKZN-Wildlife would be capable if appointed as a relevant authority.

A number of views were raised, but of interest was the fact that the majority of respondents' disagreement with the appointment of EKZN-Wildlife as a relevant authority had nothing to do with the capability the EKZN-Wildlife would have to carry out the function. This is supported by the fact that 41% of all the respondents felt that EKZN-Wildlife would be moderately capable to very capable if appointed as an authority. Out of these, 6% of the 41% felt that it would be very capable.

Coincidentally, the respondents from the EKZN-Wildlife were among those that thought EKZN-Wildlife would be moderately capable. Other sectors that felt the same way as the EKZN-Wildlife were the environmental consultants and the academics. The break down is as follows: EKZN-Wildlife (67%), academics (40%) and environmental consultants (50%). Overall, 53% of the respondents felt that the capability of EKZN-Wildlife ranged from slightly capable to very capable.

None of the academics thought the EKZN-Wildlife would be incapable. The environmental consultants were most divided on the issue, with almost half of them not certain whether it would be capable. In total, 23% of all the respondents were not sure whether EKZN-Wildlife would be capable. Very few respondents from DAEEA thought EKZN-Wildlife would be capable. In fact, 33% were of the opinion that EKZN-Wildlife would be incapable. The respondents from the NGOs also thought EKZN-Wildlife would not be capable (67%). Further more, 33% of the respondents from EKZN-Wildlife also thought that EKZN-Wildlife would be incapable as an authority. It must be noted that the

majority of respondents from EKZN-Wildlife were senior staff. Overall, 30% of all respondents thought that EKZN-Wildlife would be between moderately incapable to very incapable.

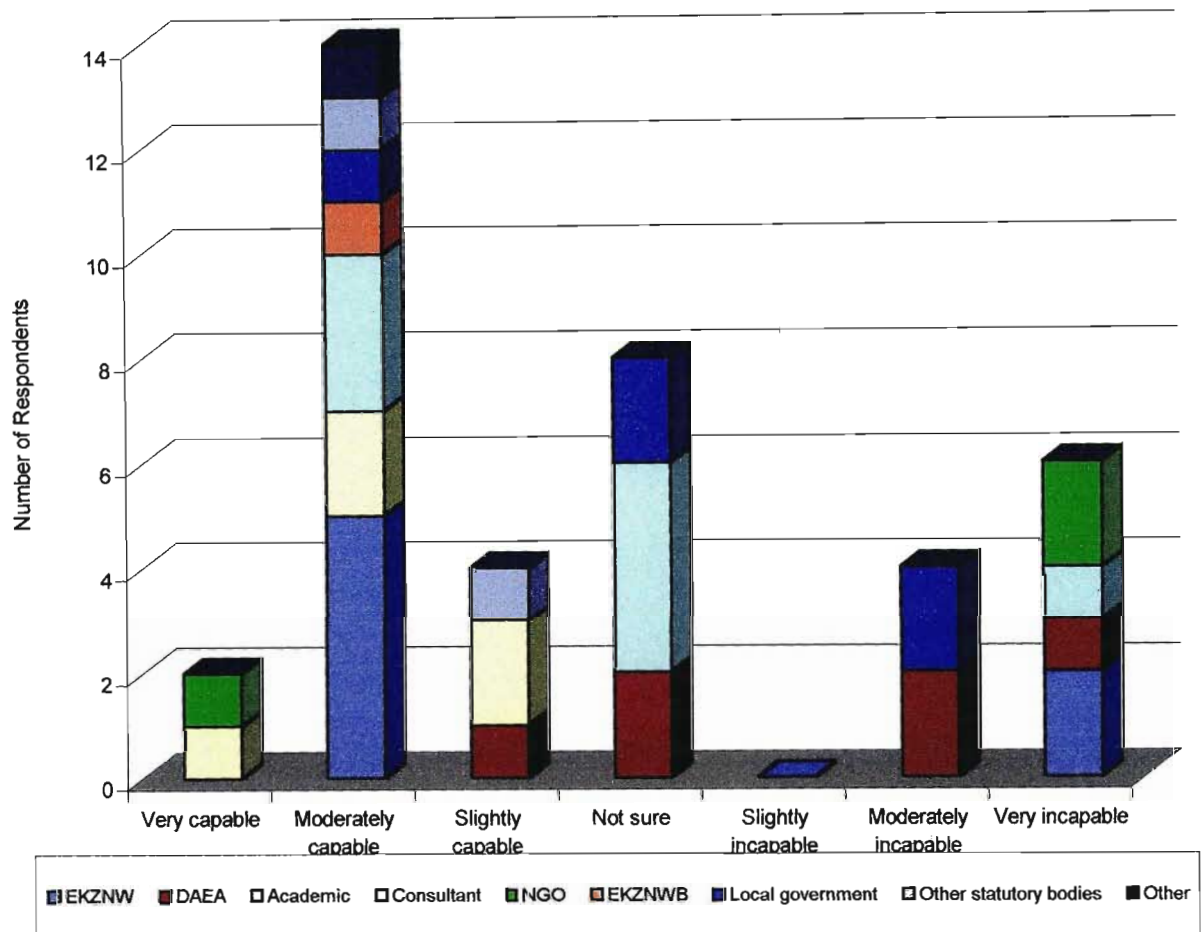


Figure 4.4 Responses to the statement regarding the capability of EKZN-Wildlife as a relevant authority (N = 38).

For any organization to be capable as an authority would require a sound knowledge and fair amount of expertise in IEM. The same principle would apply to EKZN-Wildlife if it was to become an authority. The respondents were asked if they thought EKZN-Wildlife had adequate expertise in IEM in order to become a relevant authority. This assessment

can not be taken lightly because it is the requirement in the ECA that an authority should be competent enough to be able to carry out this function.

Despite having said that the EKZN-Wildlife would be capable as an authority in the previous question, the majority of respondents were not really able to say whether EKZN-Wildlife had enough expertise to become the authority. While 31% indicated to be uncertain about the adequacy of expertise, a total of 39% of all respondents thought that the adequacy of IEM expertise in EKZN-Wildlife was between slightly adequate (17%) and very adequate (14%).

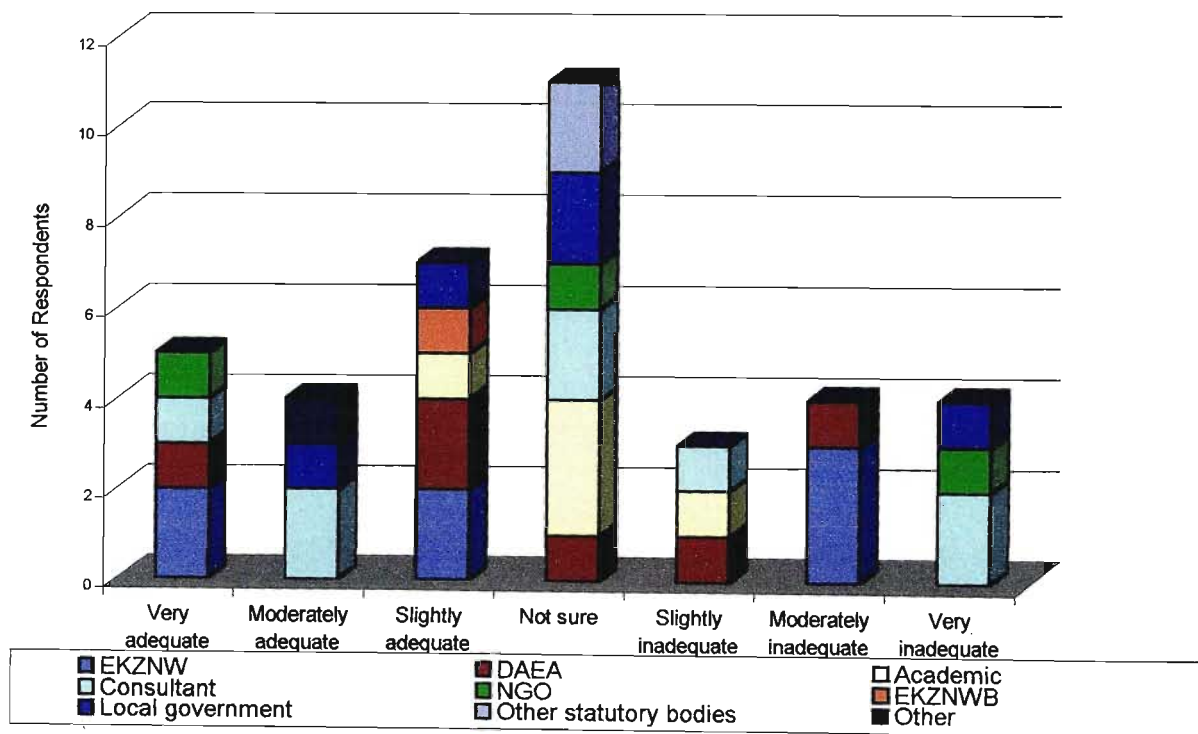


Figure 4.5 Responses to the statement that EKZN-Wildlife has adequate expertise in IEM in order to become a relevant authority (N =32).

By contrast, some respondents (30%) also thought that EKZN-Wildlife did not have adequate expertise to perform the functions of the relevant authority. In total, 30% of respondents that felt that inadequacy of expertise ranged between moderately inadequate (8%) and very inadequate (11%). This came mainly from the environmental consultants and the local government. However, some environmental consultants and the academics were also not sure about this. It seems that this was a difficult question to answer because almost all sectors were divided on the issue. However, this divergence of views was more pronounced in EKZN-Wildlife, DAEEA and the environmental consultants.

On the contrary, even though the academics did not agree, however, the majority were not sure whether the IEM expertise was adequate. Under normal circumstances, sufficient skills would contribute a great deal towards improved quality and competency level. However, it seems that most respondents thought there was no correlation between adequate skills and competency. Despite feeling that EKZN-Wildlife had the expertise, the majority still did not feel that those skills would necessarily make it a competent authority. Only 31% of all respondents thought EKZN-Wildlife would be competent as an authority, while 69% thought the opposite was true.

What was noteworthy was the way the environmental consultants and DAEEA perceived EKZN-Wildlife. Up to 86% of the environmental consultants interviewed and 83% of DAEEA respondents thought that EKZN-Wildlife would be incompetent as an authority if appointed. Fifty per cent of EKZN-Wildlife respondents thought EKZN-Wildlife would

be incompetent as an authority. The respondents were given the opportunity to express their views on the consequences of assigning the powers to EKZN-Wildlife (Figure 4.6).

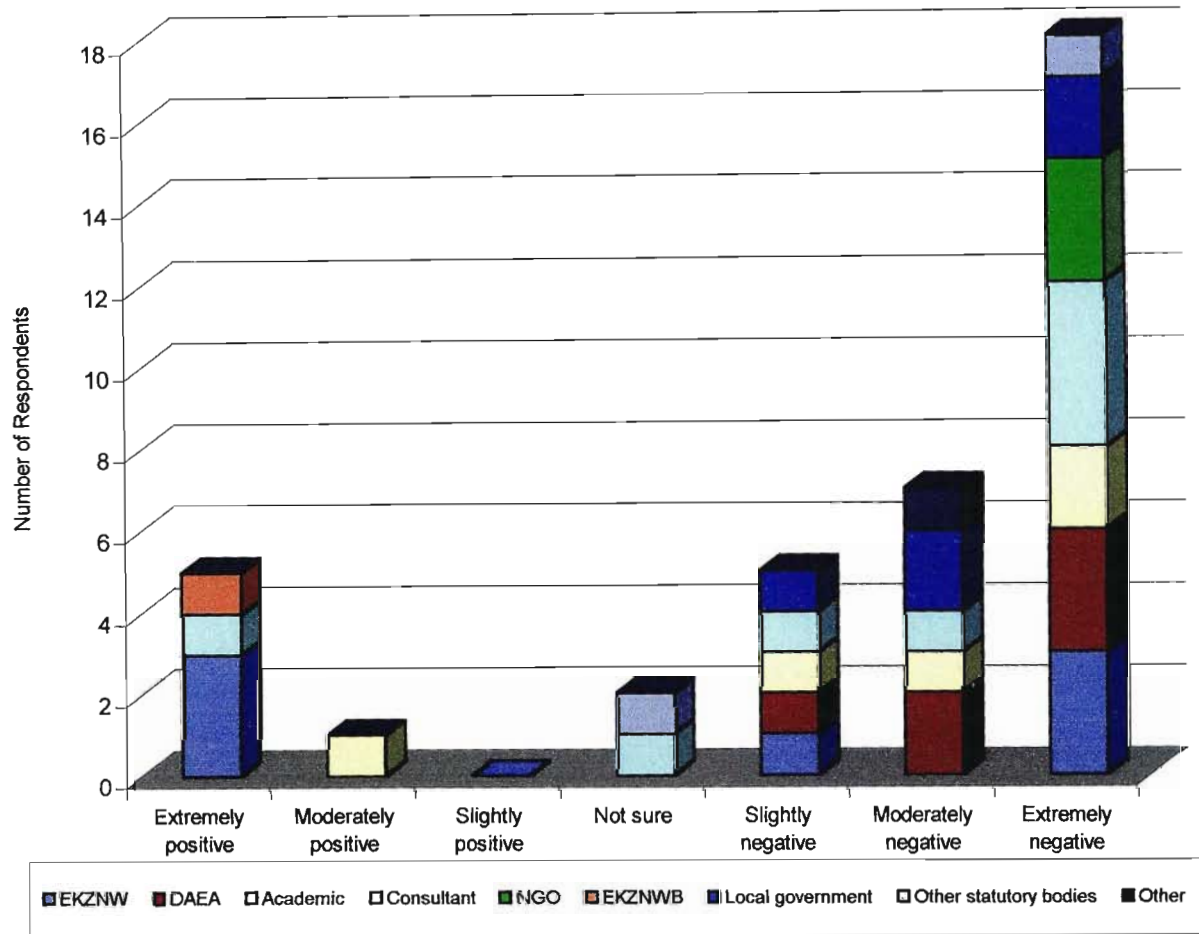


Figure 4.6 Responses to the statement regarding the perceived consequences of assigning powers of a relevant authority to EKZN-Wildlife (N =38).

In Section 4.2, the respondents indicated that they would be very uncomfortable with the appointment of EKZN-Wildlife as an authority. Once again this sentiment is raised, though indirectly, by the fact that the majority of respondents also felt that such a step

would have negative consequences. This sentiment was expressed by 84% of all the respondents, out of which 53% thought the consequences would be extremely negative and 17% moderately negative.

All respondents from the NGOs and the DAEA thought the consequences of assigning power to EKZN-Wildlife as a relevant authority would be negative. The minority of respondents from the environmental consultants and the academics thought there would be something positive if EKZN-Wildlife became a relevant authority. Once again, the respondents from EKZN-Wildlife were divided on the matter, with 50% thinking the results would be extremely positive and the other 50% thinking the results would be extremely negative. Over all, only 11% were of the opinion that the consequences would be positive. Table 4.2 presents the perceived consequences.

Table 4.2 Issues raised regarding the perceived consequences of assigning powers to EKZN-Wildlife as a relevant authority.

Issue	Consequences of assigning powers of a relevant authority to EKZN-Wildlife
Mandate	There was concern about the mandate of the EKZN-Wildlife. Appointing EKZN-Wildlife would be a duplication of the already mandated function to DAEA. This would entail shifting its focus and mandate to conserve biodiversity and compromise its core function. On the contrary, it was also felt that EKZN-Wildlife could provide a comprehensive approach because of its current function.
Skills and experience	EKZN-Wildlife has specialized skills in a limited sphere. It has no skills for assessing certain developments such as industrial, housing and sites that are not biologically sensitive. New organizational skills would be required and large workload would take its capacity from core function and direct it to another.
Development, economic growth and poverty	Development would be severely affected. There would either be no or delayed development and the economic development in the province would be severely compromised, resulting in low economic development and poverty. EKZN-Wildlife is perceived as anti-development and would override development with preservation. It would pay more focus on protecting biodiversity than balancing all factors. EKZN-Wildlife would not be able to accomplish the principles of sustainable development, equity and public participation.

Table 4.2 Continued. Issues raised regarding the perceived consequences of assigning powers to EKZN-Wildlife as a relevant authority.

Issue	Consequences of assigning powers of a relevant authority to EKZN-Wildlife
Green issues	EKZN-Wildlife is a green issues body that is protection and conservation oriented and would therefore be well qualified to consider the green issues. Its core function would possibly be at risk.
Brown issues	EKZN-Wildlife is involved in green issues and has excellent skills, but has no real expertise in the brown areas that are equally important in EIAs. This would have negative effects if they do not understand the brown issues. More importantly, people and poverty alleviation would be neglected.
Conflict of interest	Conflict of interest would result because of the lack of trust. You cannot have EKZN-Wildlife as a game keeper and a poacher. There is inherent bias in the expertise of EKZN-Wildlife and it would find it hard to be independent.
Staffing	It would require a total restructuring of the organization and the appointment of environmental and administrative officers.
Resources	Appointing EKZN-Wildlife as an authority would consolidate the regulatory powers within a single authority and result in better use of resources. Processes would be streamlined and it would be reasonably easy to deal and resolve problems if they are within the structures of one organization.
Other issues	EKZN-Wildlife would be consumed by information paralysis, always seeking for additional information. There would be differences in interpretation and developers would perceive them as green whereas the function should be brown. Further to this would result in abdication of government responsibility. The KwaZulu-Natal Nature Conservation Management Act, Act 9 of 1997 would have to be repealed. There would probably be no political support.

In addition to considering the consequences of assigning powers of a relevant authority to EKZN-Wildlife, respondents were also asked whether this would result in any significant difference in the administration of the EIA process (Table 4.3).

Table 4.3 The issues raised regarding the statement whether it would make any significant difference if EKZN-Wildlife was appointed as a relevant authority

Issues	Would it make any significant difference if appointed as a authority
Skills	They have not yet developed the skills to be able to administrate the regulations in a balanced way. Some skills would be lost and some gained. EKZN-Wildlife does not have all the skills involved in an EIA. EKZN-Wildlife has considerable experience in protected area management and because of its mandate and it can not afford to compromise biodiversity issues.
Green issues	Biophysical information would improve should they manage the EIA process. The positive thing is that EKZN-Wildlife is well qualified to consider the green issues, however, would be negative if it does not understand the brown issues. EKZN-Wildlife has the primary responsibility of conservation and therefore can provide an overall view, with knowledge on the various issues and concerns about conservation. EKZN-Wildlife as a relevant authority would more likely result in excessive requirements with regard to biodiversity concerns, with limited coverage of other equally important issues such as social impacts and the need to develop. Biodiversity would have more standing in the IEM process which does not enjoy presently. It is not their role. They should make an input to the process and not run the process themselves.
EIA process	EKZN-Wildlife would insist on the compliance of regulations as opposed to the spirit and intention. Greater effort would be put in ensuring that regulations are adhered to. EKZN-Wildlife would retard the EIA process unacceptably. It would be extremely negative and would take us back to preservation. It would have adverse results because they are incapable. The quality of the work and authorization procedures would be affected.
Authority	It does not matter who is in power, what matters is the availability of resources both human and financial. Technically, it would not, but administratively, it would be questioned. Business would see it as an unfair competitive advantage. Any authority with adequate resources would manage the process well.
Conflict of interest	There would be conflict of interest in development especially tourism development in sensitive zones. Large work load would take capacity from its main function to another. Issues not related to biodiversity would not be adequately covered. Would not make a positive difference. EKZN-Wildlife has specific environmental interests, which are probably not best served when considering EIAs.
Interpretation	EKZN-Wildlife would interpret the regulations from an environmental perspective.

4.4 The role of EKZN-Wildlife in the EIA process

The issues raised in Table 4.2 provide an indication of how others perceive the organization. Sections 4.1 to 4.2 have focused on the desirability of EKZN-Wildlife as a relevant authority. This section focuses on the role of EKZN-Wildlife, other than as a relevant authority.

The respondents were asked what they thought the role of EKZN-Wildlife should be, irrespective of whether it is inside a protected area or not. To answer this question, the respondents were given a categorical exclusion list from which they were required to choose the different roles they thought would be appropriate for EKZN-Wildlife to play.

The following graph displays the results (Figure 4.7).

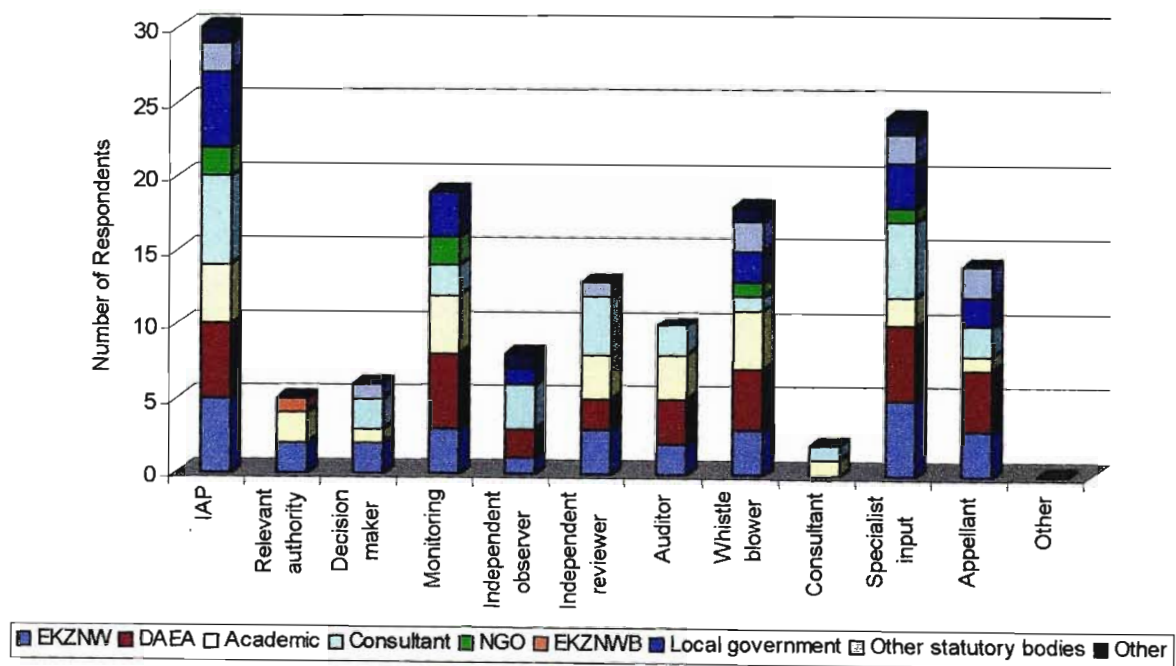


Figure 4.7 Responses to the statement regarding the role(s) that EKZN-Wildlife should play during the EIA process (N = 39).

As can be seen in the above graph (Figure 4.7), all the roles were selected by at least one respondent. Almost all respondents selected four main roles. These roles in order of preference are IAP, specialist input, monitoring and whistle blowing. A whistle blower in NEMA refers to giving information in good faith about something in which you honestly and reasonably believe is about environmental risk you can not be held responsible in court or be dismissed, disciplined, prejudiced or harassed.

There seems to be an overwhelming consensus that the EKZN-Wildlife should be an IAP and that it should assist in providing specialist input during the EIA process. This obviously indicates the confidence of the respondents in EKZN-Wildlife, and the expertise it commands that could be of great use so that informed decisions are taken. There seems to be close parallel between monitoring, and whistle blowing. This was also reflected in the role as an appellant also indicating interdependence of these three roles.

There were three main least preferred roles (excluding other), each getting less than 20% of respondents' scores. These roles are consultant, relevant authority and decision maker. This confirmed what was expressed earlier, that EKZN-Wildlife should be neither a relevant authority nor an environmental consultant. This also suggests that EKZN-Wildlife should be involved in EIA mainly as an IAP and provide specialist input. Figure 4.8 shows the different roles in descending order of preference by the respondents.

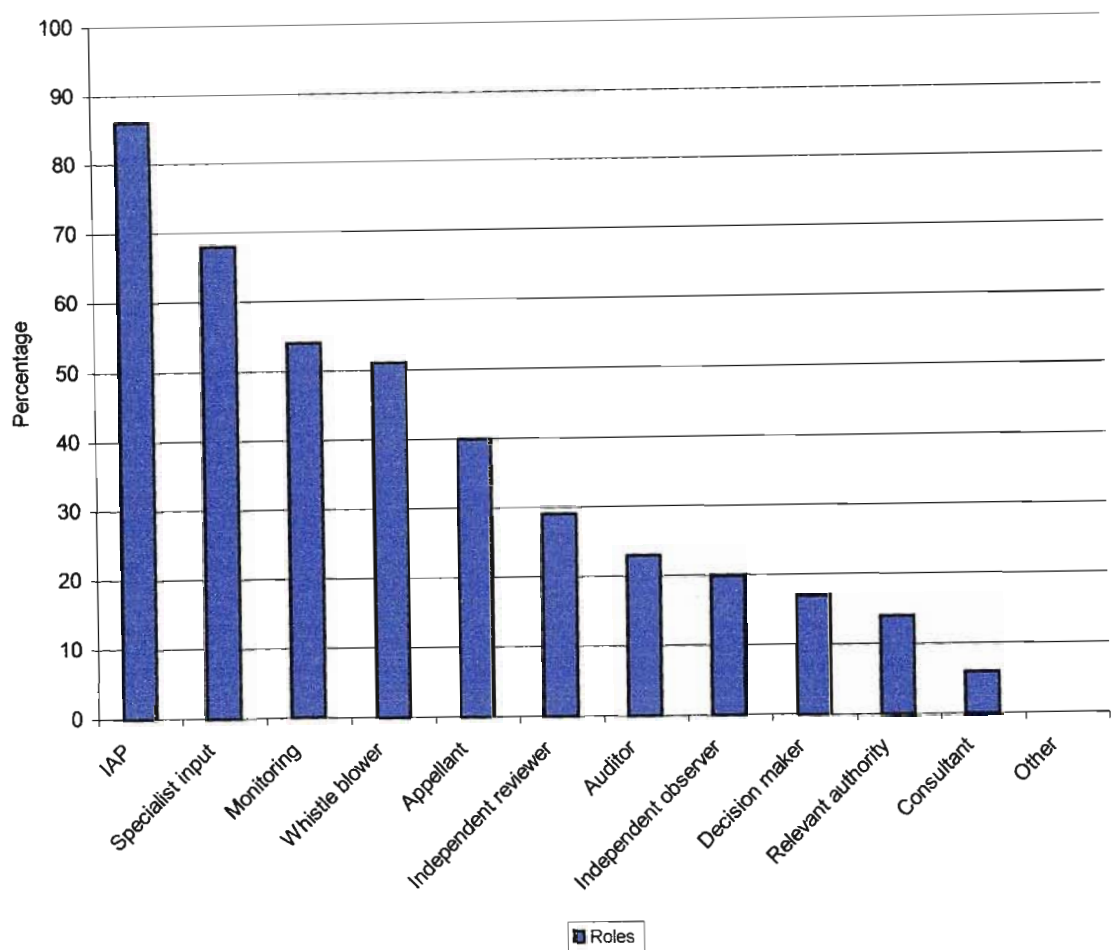


Figure 4.8 Roles that EKZN-Wildlife should play in descending order chosen by respondents (N = 39).

Although it is strongly suggested that the EKZN-Wildlife should mainly be an IAP, when asked whether it is playing any meaningful role in the EIA process, 84% of all the respondents felt that the EKZN-Wildlife is playing a very meaningful role in EIA, and as such should have a meaningful say in the record of decision. Sixty-eight percent of all the respondents believed that the EKZN-Wildlife must have a say in the Record of Decision.

Only 15% of respondents thought that the EKZN-Wildlife should not have a say in decisions taken during the EIA process. The 68% above is somewhat contradictory to the findings when respondents were asked about the different roles they thought EKZN-Wildlife should play, where a decision making role in the form of a relevant authority was not considered desirable.

Dealing with IAPs sometimes may be difficult and quite often disgruntled parties complain about bias, preferential treatment, unfair and flawed process. Bearing this in mind, the respondents were asked whether EKZN-Wildlife should be treated differently when undertaking the scheduled activities that require authorization in terms of the EIA regulations.

Eighty-four percent of all the respondents felt that EKZN-Wildlife should not be treated differently from other applicants. Only 14% felt EKZN-Wildlife should be treated differently when undertaking scheduled activities. A number of issues and concerns were raised. These issues are displayed in table 4.4.

Table 4.4 Issues raised regarding the statement whether EKZN-Wildlife should be treated differently to other IAPs during the EIA process.

Issue	Responses	Should EKZN-Wildlife be treated differently to other IAPs during EIA?
Mandate	Yes	<p>Their mandate implies a strong working relationship with the environmental authority to guide and support. Perhaps EKZN-Wildlife should always be given an opportunity to comment on a written document before submission to DAEA. It must be seen as a major conservation authority with a responsibility and mandate much broader than smaller NGOs and individuals. It should always be consulted because of its specialist knowledge. Their participation should be mandatory because of its mandate to conserve biodiversity. It is the recognized conservation authority in the province and should have the power to authorize or not developments in areas of high conservation significance.</p>
Authority	Yes	<p>EKZN-Wildlife should be regarded as an authority rather than an IAP. They have control of affected areas and determine limitations. They have delegated powers to enforce non-compliance and protection of biodiversity. EKZN-Wildlife should be treated as an important commenting authority. It is an authority and therefore has to present an official perspective. EKZN-Wildlife represents biodiversity in the province; therefore, any applications potentially impacting upon biodiversity should be reviewed by EKZN-Wildlife. They should be the relevant authority because they are the custodians of the environment in KwaZulu-Natal. In the area of biodiversity, they should be the lead IAP. EKZN-Wildlife should be treated at least the same as government departments and should be the voice for biodiversity conservation.</p>

Table 4.4 Continued. Issues raised regarding the statement whether EKZN-Wildlife should be treated differently to other IAPs during the EIA process.

Issue	Responses	Should EKZN-Wildlife be treated differently to other IAPs during EIA?
Equity	No	Their input in some areas on some projects is important just as other organizations are such as South Durban Community Environmental Alliance. EKZN-Wildlife is not different except that it contributes to wildlife conservation. DAEA should treat them the same way as other stakeholders. EKZN-Wildlife should not have a different role from anyone else. All interested and affected parties should have an equal say. There is no reason why EKZN-Wildlife should have a special status above that of other IAP. Equality is a constitutional principle. EKZN-Wildlife represents only one component of an EIA.
Biodiversity	No	They can only be treated differently if the proposed development will impact on protected areas, then their contribution is important.
Independence	No	The independence and the equality of the process needs to be maintained to ensure informed and fair decision making. EKZN-Wildlife is competent and biased in favour of wildlife conservation. What is needed is a community-based organization that will incorporate all aspects of sustainable development and environmental justice in a relevant authority not a parastatal agency. Should not show bias, however, their particular area of expertise and role in conservation should be given appropriate weight in decision making. As a land manager and parastatal, it has its role to play like any other parastatal or land manager. Treating EKZN-Wildlife differently would lead to biased decision making. Elevating their position would create bias towards the natural environment and that would flaw the EIA process.
Skills	Yes	They have more skills in environmental management than most IAPs.

The issues above highlight the need for the EIA process to be fair, unbiased and consistent. With this in mind, the respondents were asked if EKZN-Wildlife should be treated differently from other IAPs. Fifty three percent of all respondents felt that EKZN-Wildlife is not different to anyone else and is equally important and therefore should not be treated differently at all to IAPs. Some respondents (46%) felt EKZN-

Wildlife should be treated differently to other IAPs. Mainly the academic sector and EKZN-Wildlife respondents expressed this view. All the respondents from the academic sector and 86% of EKZN-Wildlife respondents were of the opinion that EKZN-Wildlife deserves to be treated differently to other IAPs.

The EKZN-Wildlife employees thought it should be treated differently to other IAP because of the perception that EKZN-Wildlife is a recognized authority in nature conservation in the province, and should have the powers to make decisions concerning developments in areas of high conservation significance. Its participation in EIA should be mandatory because it has a legal mandate to protect biodiversity. More importantly, bearing in mind the country's international obligation to conserve biodiversity, they expressed the view that EKZN-Wildlife should be given the international status for the voice of biodiversity and be allowed to provide specialist input on impacts on biodiversity.

The academic sector felt that in the area of biodiversity, the EKZN-Wildlife should be the lead IAP because they represent biodiversity interests in the province. Any application potentially impacting upon biodiversity should be reviewed by EKZN-Wildlife. Further to this, they are perceived as custodians of the environment in the province and must be seen as a major conservation authority with a responsibility and mandate much broader compared to NGOs and individuals, and have more skills in environmental issues than most IAPs. However, not every respondent agreed with these views.

Despite this, the majority of respondents referred to equity as a constitutional principle, acknowledged the fact that the input of EKZN-Wildlife is important, but no greater than any other IAP, and therefore all IAPs should have an equal say in the process and the independence of the process must be maintained, otherwise the whole process would be seen as biased, unjust and flawed. There was one isolated comment that EKZN-Wildlife should “get its house in order before scratching in other departments’ patches”, and also referred to their record of waste management as poor.

When asked whether EKZN-Wildlife should play the same role in EIA inside and outside protected areas, 71% of all respondents thought that it should not have the same role. Only 29% thought the role of EKZN-Wildlife in EIA should be the same irrespective whether it is inside or outside protected areas. Table 4.5 presents the issues raised.

Table 4.5 Issues raised to the statement whether the role of EKZN-Wildlife should be the same inside and outside of the protected areas.

Issues	The role of EKZN-Wildlife in EIA inside and outside protected areas
Own scoping or EIA	EKZN-Wildlife should continue to undertake EIAs for small or minor developments internally. EKZN-Wildlife should do its own scoping inside protected areas.
Independent review	All EIAs conducted internally should be subjected to independent review. Major developments must be referred to independent consultants. EKZN-Wildlife must be subjected to the regulated process even in their own areas.
Biodiversity	Any impact on biodiversity should be referred to EKZN-Wildlife. EKZN-Wildlife can only have a say in green issues and not in built environment. EKZN-Wildlife should always play a conservation role where development takes place. Any impact on biodiversity should be referred to EKZN-Wildlife.
IAP	EKZN-Wildlife should play the role of IAP inside and outside protected areas.
Conflict of interest	EKZN-Wildlife can not be referee and a player. Conflict of interest must be avoided.
Information provision	EKZN-Wildlife should provide information, guidance and technical evaluation.
Outside protected areas	EKZN-Wildlife should make recommendations outside protected areas.
Inside protected areas	EKZN-Wildlife are developers and managers inside protected areas. EKZN-Wildlife should have more say inside protected areas because of their expertise.

Two main points were raised by DAEA respondents. The first point relates to external and independent expertise. It was felt that the external expertise should be introduced to facilitate unbiased investigation and assessment. This, by implication, means that independent consultants must undertake the EIAs initiated by EKZN-Wildlife. Another point that was repeatedly raised was the distinction that was made between small and complex projects. It was reported that the small (in-house) developments must be carried out internally by EKZN-Wildlife staff (self-assessment) and large complex developments must be undertaken by independent consultants to ensure independence, adequate participation of IAPs and transparency during the process.

4.5 EKZN-Wildlife as a consultant in IEM

Bearing in mind the commitment that was taken by countries during the Earth Summit in 1992, to undertake EIA as a national instrument, it is clear that the need for EIA increases parallel to the increase in development needs. The Johannesburg Summit in 2002 further strengthened this commitment. Some people would argue that development creates tremendous opportunities for environmental consulting. EKZN-Wildlife is a conservation authority that is also involved in environmental management. The question raised here is whether environmental consulting could be an option for EKZN-Wildlife to pursue in order to generate income. The possibility of consulting professionally in EIA was therefore investigated.

The question of environmental consulting by the EKZN-Wildlife left the respondents divided on the issue. It was not quite clear whether environmental consulting would be an appropriate thing for EKZN-Wildlife to do. The division on the issue was reflected by the fact that 44% of all the respondents indicated that they would agree slightly to strongly if EKZN-Wildlife offered environmental consulting services, while another 44% also indicated that they would disagree slightly to strongly. Eleven percent of the respondents were not sure. However, (31%) indicated that they would strongly oppose environmental consulting. Only 22% would moderately support environmental consulting by the EKZN-Wildlife.

None of the DAEA respondents thought that environmental consulting would be appropriate for EKZN-Wildlife to pursue. Even though the environmental consultants were divided on the issue, the majority of them (71%) would disagree with EKZN-

Wildlife acting as an IEM consultant. The respondents from the local government took no clear position. The respondents from the EKZN-Wildlife (83%) mainly indicated that environmental consulting role by EKZN-Wildlife would be acceptable. The academics also expressed similar trend as the EKZN-Wildlife respondents. This is shown in figure 4.10.

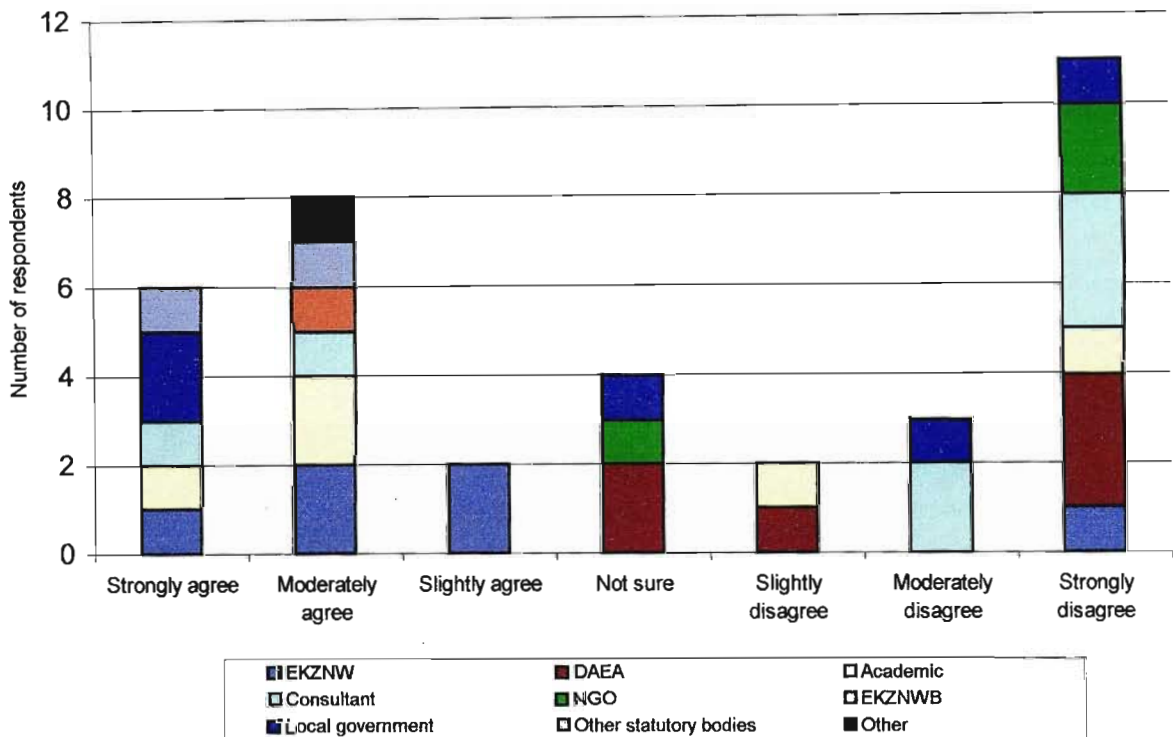


Figure 4.9 Responses to the statement that EKZN-Wildlife should be allowed to consult professionally in IEM to generate income (N = 39).

In addition to this, when asked whether it would be acceptable or not, 36% of all the respondents felt that it would not be an acceptable practice while 31% felt it would be acceptable. Concerning the viability, 54% of all the respondents thought that it would not be a viable option and only 37% thought environmental consulting would be a viable option.

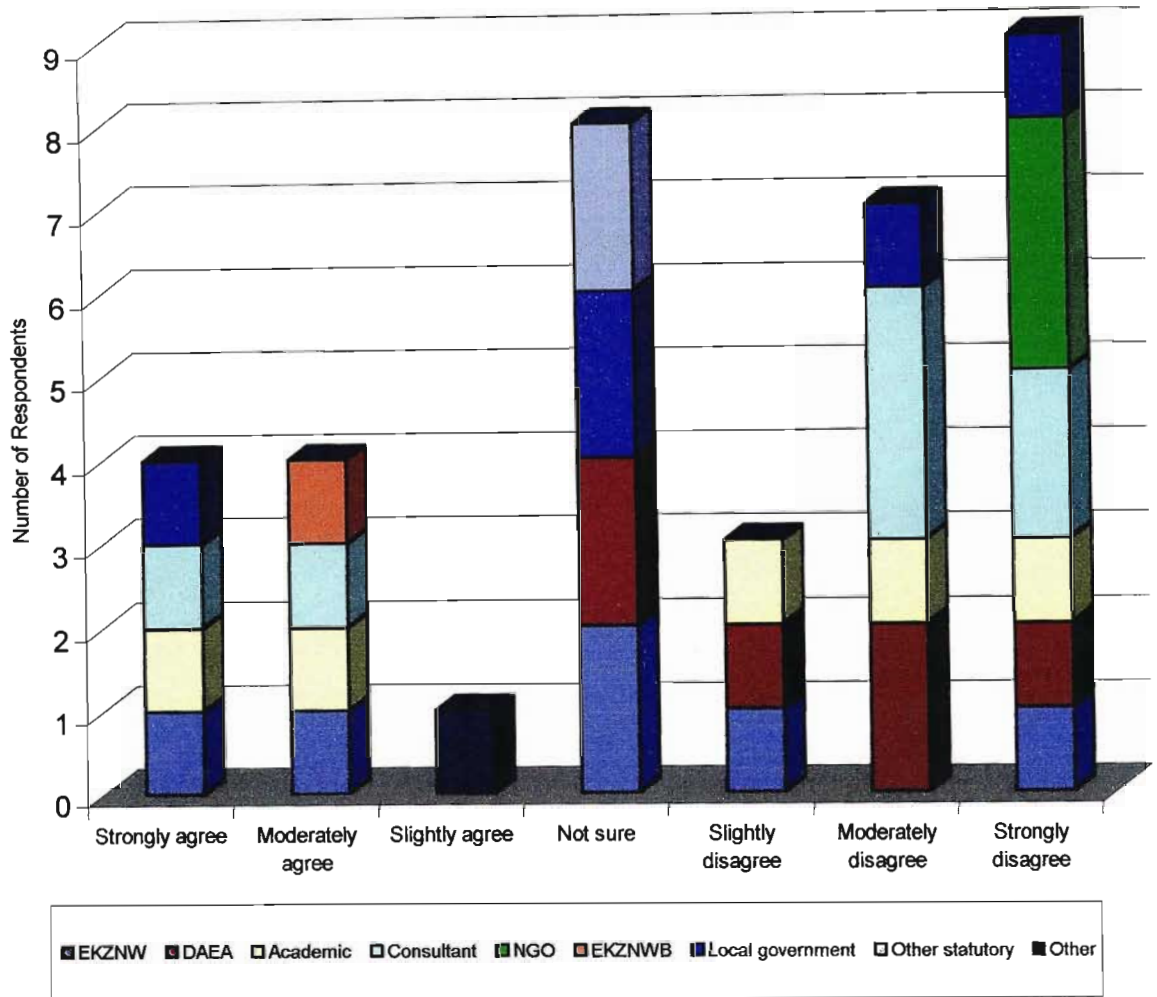


Figure 4.10 Responses to the statement that environmental consulting by EKZN-Wildlife would be acceptable (N = 39).

Figure 4.11 clearly shows two main points; one is that environmental consulting would be unacceptable. A high proportion of respondents were also not certain if environmental consulting would be acceptable. A number of issues were raised with regard to the perceived consequences of environmental consulting, which most thought would be negative. These issues are presented in Table 4.6 below.

Table 4.6 Perceived consequences of environmental consulting by EKZN-Wildlife in IEM.

Issues	Perceived consequences of environmental consulting by EKZN-Wildlife
Subsidization	The EKZN-Wildlife already enjoys the privilege of government subsidization, which excludes the black, small and medium consulting firms.
Unfairness	It would be unfair to have EKZN-Wildlife compete on consultant market with state funded resources. This would be tantamount to government competing with the private sector.
Mandate	Environmental consulting is not the business of EKZN-Wildlife. The mandate and role of EKZN-Wildlife would be compromised. Environmental consulting might confuse the role of EKZN-Wildlife. EKZN-Wildlife would have to consider its role carefully and take into account that it is a custodian of biodiversity in the province and an interested and affected party in environmental issues.
Conflict of interest	Environmental consulting could lead to conflict of interest.
Insufficient work	Environmental consulting work would not be sufficient for EKZN-Wildlife in the province, and the costs of going out of the province would be prohibitive and unviable.
Viability	Considering income generation alone, it would certainly be viable, but unethical. The generated income could pay salaries and ensure that a higher degree of conservation takes place. The generated income would by no means be comparable to other sources of income generation. More income could be generated from controlled sale of ivory.
Ethics and acceptability	It would be objectionable and unethical for EKZN-Wildlife to consult professionally in EIAs.
Resources	Environmental consulting would stretch the resources of EKZN-Wildlife beyond its ability. EKZN-Wildlife should restrict itself to the role of specialist input and get paid for it.
Staff	Consulting outside the province would lead to staff being away more frequently and not fulfilling their obligations. This would directly impact on the company's mandate. EKZN-Wildlife staff has the necessary expertise.

As can be seen on Figure 4.12, the views were divergent, making the nature of consequences of environmental consulting unclear.

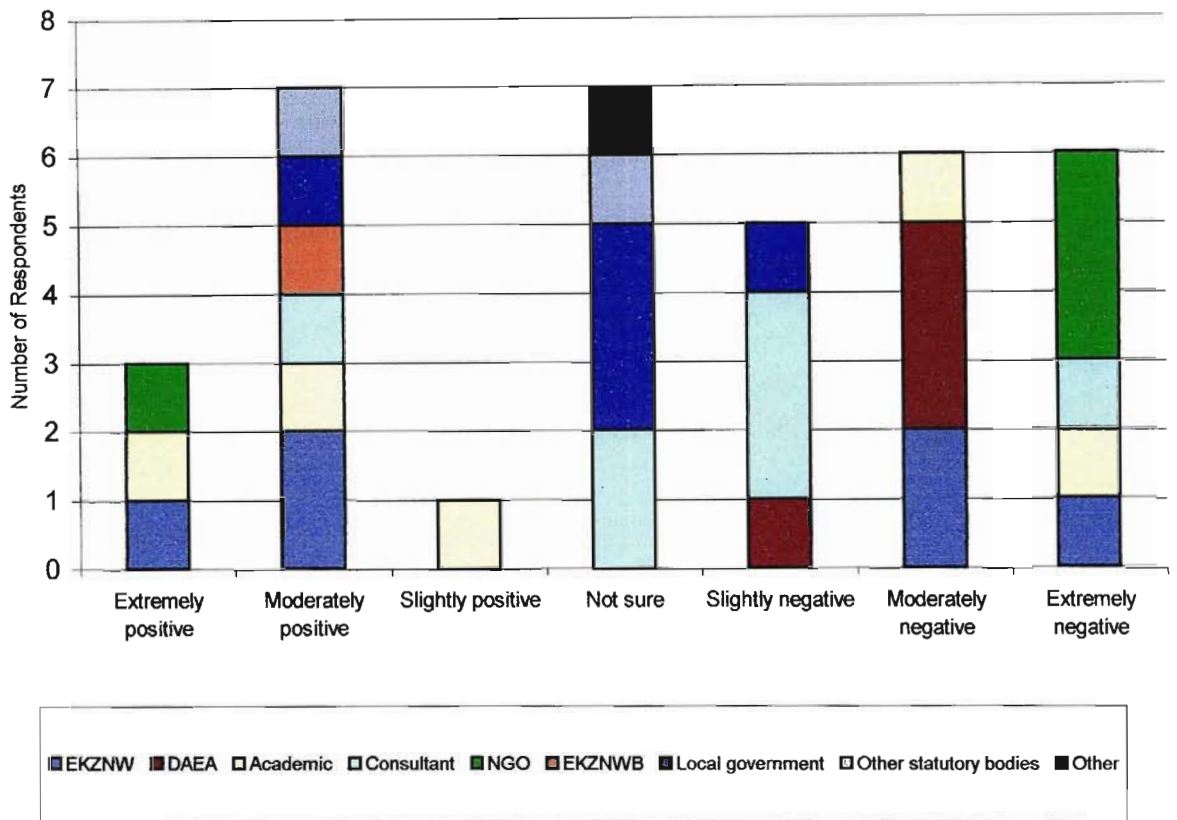


Figure 4.11 Responses to the statement regarding the perceived consequences of environmental consulting by EKZN-Wildlife in IEM (N = 34).

4.6 The current relevant authority

The respondents were also given an opportunity to voice their perceptions and level of satisfaction regarding the current relevant authority in the province. The DAEA is the current relevant authority in the KZN province entrusted with the duties of overseeing the compliance with IEM regulations.

With regard to the satisfaction of interviewed respondents with the DAEA, 66% of all the respondents were slightly to very satisfied with DAEA as a relevant authority. This percentage includes 40% of respondents that were moderately satisfied with the DAEA as

an authority. None of the respondents from the local government and the environmental consultants indicated dissatisfaction with the DAEEA. The academics, EKZN-Wildlife and NGO respondents' were divided on the issue. Half of the respondents from the EKZN-Wildlife were dissatisfied with DAEEA. Over all, 23% of all the respondents had some form of dissatisfaction with DAEEA. Only the NGOs indicated to be very dissatisfied. A number of reasons were cited.

Table 4.7 Issues raised regarding satisfaction with the current relevant authority in EIA.

Issues	Issues raised regarding satisfaction with the current authority
Delays	Protracted delays in processing applications and producing the RoD. Whilst the current system works, the turn around time is too long, up to three years. This is not acceptable for any development. Delays in processing applications are a problem. This is caused by insufficient capacity. The current authority is understaffed and is thus not able to deal with applications as quickly as required. This leads to negative stance from developers who then view this as just another time delay, as opposed to positive work they do to achieve sustainability. EKZN-Wildlife take too long to make decisions. They are not able to deal quickly enough and thoroughly enough with applications and queries. Delays due to lack of capacity. When they were new in 1998, the first hand experience was the huge delay and inexperience and lack of capacity. While DAEEA has the skills to assess EIAs, but they do not have the capacity to do them in time.
Independence and bias	The authority is not independent of other government institutions. There is corruption and lack of fairness.
Objectivity	Their objectivity regarding several applications is questionable. The authority authorizes projects that have major environmental impacts that could be avoided.

Table 4.7 Continued. Issues raised regarding satisfaction with the current authority in EIA

Issue	Issues raised regarding satisfaction with the current authority.
Development	There is a perception that development is being promoted at the expense of safeguarding the natural environment. Developments still take place without EIAs. People get away without proper EIAs.
Outcomes or ROD	The public is not informed of outcomes of applications to engage in activities that may have a detrimental effect on the environment. The results are poorly marketed.
Lack of skills	The current authority lacks skills and manpower. While there is no doubt about the commitment of the current staff, the current authority appears to be under-staffed and resourced. There is a lack of capacity. Due to capacity problems, they are unable to perform proactive work such as strategic environmental assessments, which is long over due in the KwaZulu-Natal midlands (Midlands Meander) and the Drakensburg to assess cumulative impacts. They lack capacity presently. Sometimes, lack of skills in staff reading and understanding documentation. The authority is not comprehensive in its approach. The level of skills has improved over the last year, but can not say how much. Some staff is not skilled.
Staff	Staff shortages result in backlogs. This has been remedied. New staff has just been appointed, before this, they were short of staff (adequate now). The staff is inexperienced and under qualified. Have neither heard of major complaints nor enthusiastic support. At present, they have insufficient staff to deal with all the applications in terms of NEMA. This is changing however. Depends who gets the application, generally, they are OK and satisfied. Improvements have been noticed over time.
Job well done	Considering understaffing problem, they are doing a relatively good job, which can definitely be improved. The EIA process is relatively new and the regulations are wide. With this in mind the job is quite well done. As an approving authority for development, we (local government) have established an excellent working relationship with the current authority and a joint approval system that serves the public well. Have had no delays when organizing meetings etc. They are a good team. They have engaged all extreme and difficult parties in a constructive manner.
Decisions	Have not been happy with particular decisions they have made. They lack the experience to make meaningful decisions. They say yes to every development and have little concern for the consequences.
Monitoring	There is a lack of follow-up to make sure that their recommendations are put into action. Too often, they fast track EIAs. They lack comprehensive approach. Currently, scoping and assessment are confused. The authority plays a very small active role in EIA process. The authority is under resourced. The administrative capacity is slow. They operate under very limited financial and manpower resources. The ability to consider green issues is questioned. There is no time for people. There is no proper consultation, people are told and what ever people say is not considered.

Despite the fact that some respondents were unhappy about the performance of DAEA as an authority, some respondents (28%) were of the opinion that the expertise was moderately adequate. One would argue that this is an indication that the majority of respondents would prefer the authority to continue its function, than allowing EKZN-Wildlife to take the function.

While the environmental consultants mainly indicated that the expertise was moderately adequate, there was also a divergence of opinion. There was a pronounced divergence of opinions in EKZN-Wildlife (very adequate and very inadequate) relative to the local government and the academics. Sixty percent of the academics thought the expertise was moderately inadequate. There was also a noticeably high percentage (21%) of respondents who were not sure about the adequacy of expertise in the DAEA.

When asked whether the available expertise makes DAEA a competent authority, 63% of all the respondents felt that the available expertise makes DAEA the competent authority. This came mainly from the environmental consultants and the local government respondents. Figure 4.12 shows the satisfaction of respondents with DAEA as a current relevant authority.

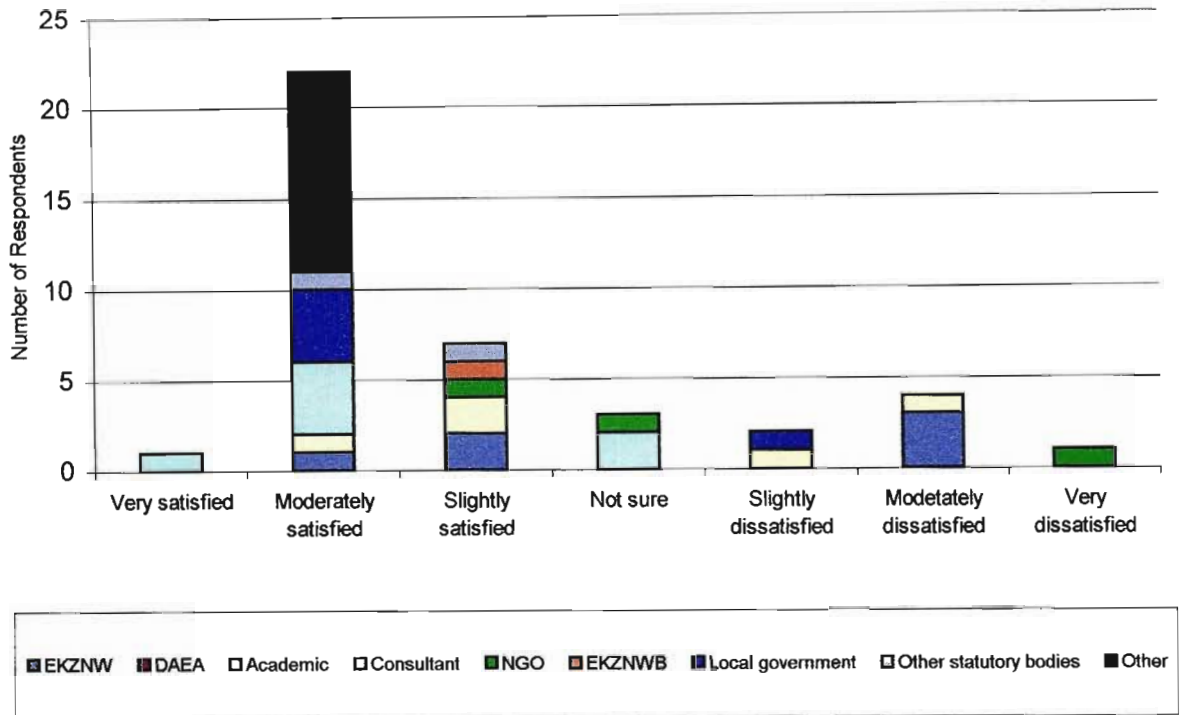


Figure 4.12 Responses to the statement regarding satisfaction with the current relevant authority in EIA process (N =39).

4.7 Identifying issues and trends

This chapter presented the findings of the study and several interesting issues and trends were revealed.

- The majority of the respondents that took part in the study were familiar with the EIA regulations
- The divergence of opinions on a number of issues within the EKZN-Wildlife respondents was pronounced, as the respondents did not agree on many issues in many instances

- The opinions of the academics tended to follow the same trend and pattern as the responses of the EKZN-Wildlife respondents
- It was clear from the majority of respondents (69%) that it would not be appropriate to appoint EKZN-Wildlife as an authority
- The respondents were not certain about the adequacy of IEM expertise in EKZN-Wildlife
- The competence and capability of EKZN-Wildlife as a relevant authority was problematic. While 69% of respondents thought that EKZN-Wildlife would not be a competent authority if appointed, 53% of respondents also thought that EKZN-Wildlife would be capable as an authority if appointed
- Consequences of assigning powers to EKZN-Wildlife would have slightly to extremely negative consequences
- The role of EKZN-Wildlife in EIA should predominantly be that of IAP, specialist input, monitoring and whistle blowing
- EKZN-Wildlife should neither be an authority nor an environmental consultant
- EKZN-Wildlife should not be treated differently when undertaking the scheduled activities (84%)
- EKZN-Wildlife should also not be treated differently from the other IAP
- Environmental consulting by EKZN-Wildlife would be neither viable nor acceptable
- Sixty-six percent of all the respondents were slightly to very satisfied with DAEEA as a current relevant authority. Sixty-three percent of all the respondents thought that the available expertise in DAEEA makes it a competent authority

Chapter 5: Discussion

5.1 Introduction

A number of issues were highlighted in the previous chapter. Most respondents expressed some of these issues repeatedly and with insistence, suggesting that further discussion around certain topics is required. This chapter will therefore focus on these issues, structured around the following themes, the mandate of the EKZN-Wildlife, sustainable development, socio-economic factors, concerns raised with regard to the appointment of EKZN-Wildlife as an authority, independence of the EIA process and the role of the EKZN-Wildlife in the EIA process.

5.2 Mandate of EKZN-Wildlife

A mandate is a legal directive, order or command. According to Oxford dictionary (1988), a mandate is an authority given to someone to perform a certain task or apply certain policies. This implies that the responsibility that comes with it cannot be abdicated or abandoned. Changing a mandate is a lengthy process that does not only involve policy changes, but also legislative changes upon which the mandate was based. It was suggested earlier that appointing the EKZN-Wildlife as a relevant authority would jeopardize its mandate. This would have far-reaching consequences for biodiversity conservation in the province. This is because it was clear that the respondents were of the opinion that EKZN-Wildlife needs to be commended for the manner in which they fulfill their mandate.

The mandate or core function of EKZN-Wildlife is nature conservation management and biodiversity conservation inside and outside protected areas in KwaZulu-Natal. The KwaZulu-Natal Nature Conservation Management Act, Act 9 of 1997, Section 20 (1) makes provision for the establishment of EKZN-Wildlife solely to direct the management of conservation within the province and in protected areas. Changing the current mandate or any further delegation of the different terms of reference would have far-reaching consequences, and these would most likely have legal and constitutional implications. Apart from the legal implications and the lengthy process mentioned above, the perception that EKZN-Wildlife would not be in a position to accomplish its mandate to conserve biodiversity, and at the same time oversee development which often impacts on biodiversity conservation, must be considered.

Reference has to be made to the South African Constitution, Act 108 of 1996 which stresses the need for cooperative governance. The main purpose of cooperative governance is to ensure that there is no duplication of functions and to hold institutions accountable for their delegated responsibilities, hence NEMA requires all government institutions to prepare implementation plans for their activities. Further to this, NEMA requires all spheres of government to cooperate, consult and support one another. This requirement facilitates cooperative governance. It is clear therefore that EKZN-Wildlife would have to assist the relevant authority during EIA process by providing input on biodiversity conservation. Likewise, the authority would have to consult and request the input from the EKZN-Wildlife to make sure that there is balance between development

and nature conservation. This would reduce ecological degradation and promote sustainable development.

5.3 Sustainable development

The most well known and often quoted definition of sustainable development refers to development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Connelly & Smith 1999). There is, however, concern that the concept has lost much of its radical cutting edge because it is often loosely interpreted (Connelly & Smith 1999).

Environmental assessment is acknowledged as an important tool for giving effect to sustainable development objectives in planning and decision-making (Jacobs & Sadler 1989). This is despite the current debate that sustainable development remains an unfinished concept (Sadler 1996). Connelly and Smith (1999) argue that apart from the fact that sustainable development has lost most of its radical cutting edge; people have even used it to defend existing practices such as continued patterns of economic growth and industrialization. Given this dilemma facing sustainable development, can we blame the EKZN-Wildlife for being biased in favour of biodiversity during EIA?

Any criticism that EKZN-Wildlife is biased in favour of biodiversity would have to take into account what many scientists believe. According to Becker and Jan (1999) many scientists believe that the loss of biological diversity is the most dire of the countless environmental threats we face. Depending on the magnitude of the impact, natural

ecosystems could take many years to recover, if they recover at all. According to Sadler (1996), there is typically a high degree of uncertainty about whether critical ecological thresholds are being breached or transgressed and if so, what will happen as a consequence. According to the White Paper on Biological Diversity (1996) unless we act fast and effectively, much biodiversity, including life support systems upon which we rely, will soon be lost. One would therefore argue that any criticism that EKZN-Wildlife is anti-development and preservation-oriented when it comes to development issues is unwarranted and without merit. EKZN-Wildlife is duty bound not only by its mandate to conserve biodiversity, but also by the provisions of the United Nations Convention on Biological Diversity that was opened for signature in 1992. Moreover, any criticism would have to take into account that many environmental decisions are sometimes taken under uncertain and unpredictable situations; hence the adoption of the precautionary principle was one of the achievements of the Earth Summit in 1992. Decision makers have to acknowledge the environmental and ecological uncertainties under which decisions are taken.

Given the challenges facing biodiversity and EKZN-Wildlife it would be equally unwise to ignore the current thinking about sustainable development. According to Sadler (1996), it stresses the importance of simultaneously considering economic, environmental and social goals in policy design. These are considered to be the three fundamentals and the bottom line of sustainable development. In his own words, Sadler (1996:2) has referred to the controversy around sustainable development as a “predicament of development that is difficult to nail down”. Reconciling and balancing these

fundamentals still remains a formidable challenge. Given these challenges, nothing would stop the EKZN-Wildlife from being perceived to have interest in sustainable development and the socio-economic factors that comes with it. After all, the eradication of poverty, the social development of South African people and the sustainable development of the economy are the three overriding priorities for the South African government and it is within this context that the objectives of the Convention on Biological Diversity of 1992 will be achieved.

5.4 Socio-economic considerations

Socio-economic factors are closely linked to the public participation and consultation during the EIA process. Ignoring the socio-economic factors during EIA compromises a fundamental principle of public participation and consultation of the affected parties during EIA. There can not be justice and fairness in the EIA process if these issues are overlooked, and this may have far reaching consequences for sustainable development.

Smith (1995:377) warns that:

“If one cares about the environment, one has to care about population growth, economic growth and the alleviation of poverty. No society can surely be flourishing and happy, of which the far greater part of the members are poor and unhealthy”.

Johnson (1993:146) suggests that:

“While managing resources sustainably, an environmental policy that focuses mainly on the conservation and protection of resources must take due account of those who depend on the resources for their livelihoods. Otherwise it could have an adverse impact both on poverty and on chances for long-term success in resource and environmental conservation”.

This is a fundamental need in environmental management and all sectors should recognize this as a key principle. It is known that it is easier said than done and it remains a complex issue to deal with, but with commitment and determination it can be done. The bottom line is that people and the environment cannot be separated any more. According to the principles outlined in NEMA, 'the environment is held in public trust for the people, the beneficial use of the environment must serve the public interest and the environment must be protected as the people's common heritage'. Further to this, NEMA states that environmental management must place people and their needs at the forefront of its concern and serve their interests equitably, be it social, cultural, physical or developmental.

5.5 The role of EKZN-Wildlife in EIA

Eighty-four percent of the respondents indicated that EKZN-Wildlife has a meaningful role to play during the EIA process. It was also clear that EKZN-Wildlife would not be able to play a meaningful role if appointed as a relevant authority. Four main roles were preferred. These roles in order of preference are IAP, specialist input, monitoring and whistle blowing. Of note amongst the four preferred roles, is that they complement each other and if executed, no conflict of interest would result. Neither would it conflict with its mandate. It is clear therefore that the EKZN-Wildlife would not be able to play a meaningful role in EIA as long as there is a conflict of interest.

Figure 4.8 (Page 57) highlighted that any role that would give EKZN-Wildlife decision-making powers and authority was less favorable compared to roles, which would require contribution or watchdog roles (IAP, specialist input, whistle blowing and monitoring). Perhaps, this suggests that EKZN-Wildlife should not be a decision-maker, but, should play a meaningful role in taking decisions. If the analysis and the interpretation are correct, this indicates that the respondents are undoubtedly of the opinion that EKZN-Wildlife indeed has a meaningful role to play in the EIA process.

This study has indicated that apart from being an IAP, the EKZN-Wildlife should provide specialist input in EIA reports. The specialist reports are significant inputs without which informed decisions can not be taken. Most EIA systems acknowledge the fact that EIAs must be informational and agencies are required to explain reasons for their decisions. This can not be done successfully without the necessary specialist information.

The preference by the majority of respondents for EKZN-Wildlife to provide specialist input in EIAs is testimony to the fact that it has an important role to play. According to Wood (1995) and Sheate (1996) an EIA may be considered effective if the information generated in the EIA contributed to decision making. What this means for EKZN-Wildlife is that it can contribute to the effectiveness of the EIA process by providing specialist information during the process which can help minimize and mitigate adverse impacts. What is not clear is whether it would be possible for EKZN-Wildlife to play multiple roles without causing conflict of interest and overlooking other roles. Deciding on the lead role and balancing them would be far too difficult. Perhaps EKZN-Wildlife

should stick to what it does best, conserving biodiversity and assisting with the specialist input during the EIA process because the EIA process automatically allows it to be an IAP.

If EKZN-Wildlife were to provide specialist input in EIAs, would it then be treated the same way as other IAPs during the EIA process? Certainly not, if it is expected to provide the specialist input which other IAPs would not be able to provide, and such an input would be used in taking an informed decision. This is common practice in advanced EIA systems. For example, in the USA, the EPA is required to forward draft EISs to relevant federal, state, and local organizations. EKZN-Wildlife is a parastatal organization and as such is one of the relevant local (provincial) organizations whose input and involvement should be taken seriously. Therefore, treating EKZN-Wildlife equally as other IAPs would be inappropriate.

However, 53% of the respondents did not agree with this because they thought that EKZN-Wildlife should not be treated differently from IAPs. The majority of the academics strongly believed that EKZN-Wildlife should be treated differently from IAPs and this did not mean or imply favoritism or preferential treatment. Considering the divergence of views, should the perception of the academics be considered to carry more weight than those of other participants considering what other EIA systems do with regard to other relevant authorities? It could be argued that it would be difficult and perhaps wrong to treat EKZN-Wildlife the same way as other IAPs if expected to provide valuable input that other parties would not provide, because it would have to play another

role other than being an IAP. The fact that it would provide that input simply means that it is different. The challenge would be balancing that role so that other parties would not feel left out in the process.

Concerning the roles that were least preferred, such as consultant, relevant authority and decision maker, it is clear that it would be improper for them to be considered because they would cause more problems such as conflict of interest and that would compromise the credibility of the EIA process. Even though the respondents did not prefer EKZN-Wildlife to act as an independent reviewer of EIAs, such a role is considered important because some decisions taken by the relevant authority would ultimately affect its mandate, which is to direct the management of nature conservation within the province, hence the need to have a say on decisions affecting its mandate. Regarding environmental consulting, there is no guarantee that considering that option would be financially viable. Apart from financial viability, it would result to unfair competition to private consultants which are not state funded. Providing specialist input seems to be the appropriate and feasible option. A decision would have to be taken with the relevant authority if such a service would have to be paid for.

According to the guideline document by DEAT (1998), harmonization of administrative and decision-making processes are essential if the environmental impacts of identified activities are to be assessed in an effective and consistent way. Bilateral agreements may be entered into with authorities, which in turn must commit themselves to establishing appropriate mechanisms for consultation and co-operation at various stages of evaluating

and authorizing the undertaking of listed activities (DEAT 1998). With such an agreement in place, each authority's jurisdictional responsibilities would be clearly defined. Perhaps a similar bilateral agreement must be entered into by EKZN-Wildlife and DAEA which would provide the EKZN-Wildlife with an opportunity to provide information and establish a joint review committee which would ensure that the information was being used appropriately.

5.6 Bias and independence during EIA

Issues relating to equity, bias and independence have been raised during the study and appear to be of some concern. Most EIA systems, NEPA in particular, places considerable emphasis on making sure that the process is fair and the independence of the authority is unquestionable. In Canada, if the public concern is great, EIAs are referred to independent EIA panels, which are appointed by the Minister. This implies that the highest office of the department guarantees the independence of the EIA process. The problem however, is that this may be time consuming considering the potential delays in the parliamentary processes.

The Californian system may provide a better mechanism in this regard because proposals may not be approved unless changes have been made by another authority, thus making sure that issues are duly considered. The emphasis on independent consultants and the relevant authority simply means that the EIA process has to be just and fair. This can only be achieved if the independence of the process is unquestionable. Among the issues raised by respondents regarding the appointment of EKZN-Wildlife as a relevant

authority and the consequences thereof were the conflict of interest, bias and independence. It was felt that EKZN-Wildlife has vested interest in certain developments and as such would not be able to objectively deal with them. The inherent bias towards the conservation and protection of biodiversity would compromise its ability to consider socio-economic and others aspects of EIA equitably. Such a situation would render the EIA process flawed.

A number of principles in NEMA touch on these issues. Principle 3 refers to the pursuit of environmental justice. Principle 3 (f) addresses the promotion of the equitable and effective participation of all IAPs in environmental management. The question of transparency during the EIA process is also highlighted and the resolution of the conflict of interest. These principles are there to make sure that there is independence, and decisions are taken in a transparent and unbiased manner.

Chapter 6 Conclusions and recommendations

6.1 Introduction

The overall purpose of EIA is to assist in shaping the development process, not to prevent development from taking place (Lee & George 2000). Chapter Five highlighted a number of issues that are crucial in the successful implementation of EIAs. Among the issues were concerns that, at times, the environment is not considered in its totality during the EIA process, while other aspects of the environment are given exclusive and preferential attention, resulting in bias and conflict. Lee and George (2000) stress that the role of EIA is to ensure that the environmental consequences of development proposals are systematically assessed and taken into account, in conjunction with their likely socio-economic and other consequences when approving development projects. Unless all stakeholders embrace this concept, it will be difficult to achieve sustainable development. In light of this, the purpose of this chapter is to conclude this report and present recommendations to try and address some of the issues.

6.2 Conclusions

This study has tried to establish the role of EKZN-Wildlife in EIAs in KwaZulu-Natal. It also investigated the possibility of the designation of the EKZN-Wildlife as a relevant authority, to oversee compliance with the EIA regulations. The conducting of EIAs initiated by EKZN-Wildlife was also investigated. Finally, it tried to establish if environmental consulting by EKZN-Wildlife for income generation would be a viable and acceptable option.

The participants in the study were purposefully selected to make sure that only those who had an understanding of the subject in question took part, thus making sure that every contribution received was valuable and from an informed source. Reference was made to other EIA systems in the developed and developing world such as USA, Canada, European Commission, Chile and Zimbabwe. Reference was also made to the legislative framework of EIA in South Africa. The purpose was to establish how decisions are taken during the EIA process in different parts of the world relative to South Africa.

With regard to the questions raised in the problem statement, this report wishes to note that despite the heterogeneous nature of the respondents, it was clear that the majority of respondents shared some common views on some of the important issues that were raised. In as far as the role that EKZN-Wildlife should play in EIA, apart from being an IAP, which was the most preferred, it was clear that EKZN-Wildlife should provide specialist input in particular to biodiversity related issues during the EIA process. Monitoring and whistle blowing were also high on the list of possible roles that EKZN-Wildlife could play. It was also clear that the majority of respondents also felt that EKZN-Wildlife was playing a very meaningful role in the EIA process, however, it was unclear whether it should have a say in the RoD due to the divergent opinion apparent amongst the majority of respondents when asked about its role in RoD.

With regard to the designation of EKZN-Wildlife as a relevant authority, such a move was seen by most as inappropriate and undesirable. Sixty-nine percent of all respondents

disagreed with the appointment of EKZN-Wildlife as a relevant authority. Amongst the reasons cited for this was the fear that such a move would not only jeopardize its mandate, but also would result in extremely negative consequences such as lack of equity and public participation during EIA process. The conflict of interest was repeatedly highlighted as an issue of concern. In addition to these, economic growth would be severely affected because sustainable development could be hindered. It was clear that the majority of respondents were satisfied with the current authority which was seen to be competent to carry out its mandate.

With regard to the scheduled activities that EKZN-Wildlife undertakes, this study found that EKZN-Wildlife should not be treated differently when undertaking such activities except that distinction was made between small and big projects. Eighty-four percent of all respondents felt that EKZN-Wildlife would have to utilize independent consultants when undertaking scheduled activities. Self-assessments were preferred for small projects while big projects would need independent expertise. This would require a definition of what constitute a small and big project.

With regard to the question of environmental consulting by EKZN-Wildlife to generate income, there were mixed feelings regarding that. What was clear though was that it would neither be acceptable ethically nor be a financially viable option.

In conclusion, if the role of the EKZN-Wildlife has to be relevant and meaningful during the EIA process, EKZN-Wildlife together with the relevant authorities should investigate

the implications of this report and take the necessary actions that will advance the ideals of sustainable development of KwaZulu-Natal.

6.3 Recommendations

Environmental Impact Assessment incorporates much more than the mere consideration of green issues. The perception that issues that are equally important in EIA are not being adequately considered by EKZN-Wildlife is cause for concern. According to Canter (1996) and O’Riordan (1996) adopting the interdisciplinary team approach is one of the best ways of ensuring that all aspects of EIA are considered and weighted equally. Canter (1996) advocates the working together of trained people in different fields of knowledge with different concepts, methods, data and terms, which have been organized to address a common problem with continuous communication among participants from different disciplines. This approach brings the benefit of multiple view perspective on the complex issues. Adopting this approach by EKZN-Wildlife to suit its specific prevailing circumstances could help a great deal.

Further to this, the divergence of ideas within the EKZN-Wildlife was considered to be a problem. This happened repeatedly in a number of important issues that were raised in a very profound way. Whilst it is acknowledged that it is not unusual for people to have different perspectives, the frequency with which this occurred raised concerns especially when taking into account the fact that this came from individuals who work for one organization that is supposed to function as a unit. Perhaps it would be expected of an organization to have common understanding on issues that affect its mandate. Perhaps a

robust debate and training is required to harmonize and bring about common understanding within the staff of EKZN-Wildlife in particular to issues relating to EIAs.

The study suggested what the role of the EKZN-Wildlife in EIA could be. However it does remain a problem as to what role EKZN-Wildlife should play in EIA. To deal with this question, the EKZN-Wildlife must not only engage the relevant authority, but other IAPs as well regarding this issue. The role of EKZN-Wildlife in EIA must be defined unambiguously. This can be achieved if there is a constructive dialogue between EKZN-Wildlife and the relevant authority together with other relevant stakeholders regarding the issue. A dialogue of this nature would have to define and stipulate the terms of reference of EKZN-Wildlife in EIA explicitly. NEMA allows for bilateral agreements to be entered into so that the harmonization of administrative and decision-making processes can take place. This streamlines the decision-making process, reduce uncertainties and delays.

By definition, EIA incorporates a systematic identification and evaluation of the potential impacts and should facilitate sound and integrative decision-making. This requires EIAs to be informational. The EKZN-Wildlife as a biodiversity specialist has access to data that could be useful in facilitating sound decision-making. The findings of the study also indicated that EKZN-Wildlife could play a meaningful role in EIA by providing specialist input. The EKZN-Wildlife should therefore investigate the nature, and the possibility of providing the necessary specialist input and review in the field of biodiversity.

EIAs should not be overly compartmentalized nor be separated to sub-fields. Interdisciplinary analysis requires that environment be understood in all its dimensions as much social and cultural, and as technological and biophysical. Smith (1993) argues that depoliticizing EIA has not been easy and is still viewed in a political context because there is a perception that EIAs are not purely technical. Most aspects of EIAs revolve around value choices that are inherently political in nature. These choices are political decisions influenced more by cultural attitudes, socio-economic conditions and institutional variables than they are by scientific information. The EKZN-Wildlife should view EIAs in that light, taking into account the political and socio-economic nature of EIAs.

Finally, it has to be noted that these issues, in the opinion of the writer were considered to be the findings of the study because the majority of respondents in the study responded to that effect. However, it is significant to also note that the responses were not unanimous as was seen in chapter 4 and therefore should be understood as generalized findings.

Chapter 7 References

Anderson, A., Basilevisky, A. & Hum, D. 1987. *Chapter 7. Measurement: Theory and Techniques*. In: Rossi et al. (1983). *Handbook of Survey Research: Quantitative Studies in Social Relations*. New York: Academic Press, Inc.

Barnard, D. 1999. *Environmental Law for All: A Practical Guide for the Business Community, the Planning Professions, Environmentalists and Lawyers*. Pretoria: Impact Books CC.

Bisset, R. 2000. *Chapter 9. Methods of Consultation and Public Participation*. In: Lee, N. & George, C. (eds.) 2000. *Environmental assessment in developing and Transitional Countries*. 2000. England: John Wiley & Sons LTD.

Boardman, R. (ed.) 1992. *Canadian Environmental Policy: Ecosystems, Politics, and Process*. Ontario: Oxford University Press.

Burke, R. 1999. *Project Management: Planning and Control Techniques*. Chichester: John Wiley and Sons LTD.

Canter, L. W. 1996. *Environmental Impact Assessment*. New York: McGraw-Hill, Inc.

Clark, R. & Richards, D. 1999. *Chapter 11. Environmental Impact Assessment in North America*: In: Petts, J. (ed.) 1999. *Handbook of Environmental Impact Assessment: Environmental Impact Assessment in Practice-Impact and Limitations*. Volume 2. Blackwell Science LTD: Oxford.

Clark, W. C. & Munn, R. E. (eds.) 1986. *Sustainable Development of the Biosphere*. Cambridge: Cambridge University Press.

Connelly, J. & Smith, G. 1999. *Politics and the Environment: From Theory to Practice*. London: Routledge

Contreras, L. C. 2000. *Chapter 12. Country Studies of EA in Chile, Indonesia and the Russian Federation: EIA in Chile*. In: Lee, N. & George, C. (eds.) 2000. *Environmental Assessment in Developing and Transitional Countries*. 2000. England: John Wiley & Sons LTD.

Chaibva, S. 2000. *Chapter 13. Country Studies of EA in Nepal, Jordan and Zimbabwe: EIA in Zimbabwe*. In: Lee, N. & George, C. (eds.) 2000. *Environmental Assessment in Developing and Transitional Countries*. 2000. England: John Wiley & Sons LTD.

Creswell, J. 1994. *Research Design: Qualitative and Quantitative Approaches*. London: Sage Publications Inc.

Fuggle, R. F. 1992. *Environmental Management: An Introduction*. In: Fuggle, R. F. & Rabie, M. A. (eds.) 1992. *Environmental Management in South Africa*. Juta and Company LTD: Cape Town

Glasson, J., Therivel, R. & Chadwick, A. 1994. *Introduction to Environmental Impact Assessment: Principles and Procedures, Process, Practice and Prospects*. London: UCL Press Limited.

Glasson et al. 1999. *Introduction to Environmental Impact Assessment*. London: UCL Press Limited.

Graham L. Smith. 1993. *Impact Assessments and Sustainable Resource Management*. England: Longman Group UK Limited.

Hansen, P. & Jorgensen, S. 1991. *Introduction to Environmental Management: Developments in Environmental Modeling 18*. Amsterdam: Elsevier Science Publishers.

Hawkins, J. M. 1988. *The Oxford paper pack dictionary. Third Edition*. New York: Oxford University Press

Hessing, M. & Howlett, M. 1997. *Canadian Natural Resource and Environmental Policy: Political Economy and Public Policy*. Toronto: UBC Press.

Holloway, I. 1997. *Basic Concepts for Qualitative Research*. London: Blackwell Science LTD.

Horbergg, G. 1992. *Comparing Canadian Performance in Environmental Policy*: In: Boardman, R. (ed.) 1992. *Canadian Environmental Policy: Ecosystems, Politics, and Process*. Ontario: Oxford University Press.

Jacobs, P. & Sadler, B. (Eds.) 1989. *Sustainable Development and Environmental Assessment: Perspectives on Planning for a Common Future*. Ottawa: Canadian Environmental Assessment Research Council.

Krämer, L. 1992. *Focus on European Environmental Law*. London: Sweet and Maxwell.

Johnson, S. P. 1993. *The Earth Summit: The United Nations Conference on Environment and Development (UNCED). International Environmental law and Policy Series*. London: Graham and Trotman Limited.

Judd et al. 1991. *Research Methods in Social Relations*. United States of America: Harcourt Brace Jovanovich, Inc.

Lambrechts, C. 1996. *Chapter five: Environmental Impact Assessment*. In: Winter G. (ed.) *European Environmental Law-A Comparative Perspective*. England: Dartmouth Publishing Company Limited.

Lambrechts, C. 1996. *Chapter Seven: Public Participation in Environmental Decisions*. In: Winter G. (ed.) *European Environmental Law-A Comparative Perspective*. England: Dartmouth Publishing Company Limited.

Lee, N. & George, C. (eds.) 2000. *Environmental Assessment in Developing and Transitional Countries*. England: John Wiley & Sons LTD.

Miles, M & Huberman, M. 1994. *Qualitative Data Analysis: An Expanded Sourcebook*. California: Sage Publications, Inc.

Miller, G.T. 1990. *Living in the Environment: An Introduction to Environmental Science*. Sixth Edition. California: Wadsworth Publishing Company.

Miller, G.T. 1999. *Environmental Science: Working with the Earth*. Sixth Edition. California: Wadsworth Publishing Company.

O'Riordan, T. 1995. *Environmental Science for Environmental Management*. England: Longman Scientific and Technical.

Palys, T. 1997. *Research Decisions: Quantitative and Qualitative Perspectives*. Canada: Harcourt Brace and Company.

Petts, J. 1999. *Handbook for Environmental Impact Assessment: Environmental Impact Assessment in Practice: Impact and limitations. Volume 2* London: Blackwell Science LTD.

Phillips, B. J. 1976. *Social Research: Strategy and Tactics*. Third Edition. New York: Mac Millan Publishing Co. Inc.

Preston, G Robins, N. & Fuggle, R. 1992. *Chapter thirty: Integrated Environmental Management*. In: Fuggle, R. and Rabie, M. (eds.) 1992. *Environmental Management in South Africa*. Cape Town: Juta and Co. LTD

Rabie, M. & Fuggle, R. 1992. *The Rise of Environmental Concern*. In: Fuggle, R. and Rabie, M. (eds.) 1992. *Environmental management in South Africa*. Cape Town: Juta and CO. LTD

Rossi, P., Wright, J. & Anderson, A. (eds.) 1983. *Handbook of Survey Research: Quantitative Studies in Social Relations*. New York: Academic Press Inc.

Sadler, B. 1996. *International Study of the Effectiveness of Environmental Assessment: Final Report-Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance*. On line:
<http://www.ea.gov.au/assessments/eianet/eastudy/final/chapter2.html>. 30 August 2001.

Sheate, W. 1996. *Environmental Impact Assessment: Law and Policy. Making an Impact II*. London: Cameron May LTD.

South Africa. 1996. *The Constitution of the Republic of South Africa 108 of 1996*. Pretoria: Government printers.

South Africa. 1997. *Environmental Conservation Act, 1989 (Act No. 73 of 1989), No. R 1182 and 1183*. Pretoria: Government Printers.

South Africa. 1998. *The National Environmental Management Act No. 107 of 1998*. Pretoria: Government Printers.

South Africa. 1997. *KwaZulu-Natal Nature Conservation Management Act, 1997 No. 9 of 1997*. Pietermaritzburg: The Natal Witness Printing and Publishing Company (PTY) LTD.

South Africa. Department of Environmental Affairs and Tourism. 1998.

Environmental Impact Management: Guideline document. EIA Regulations.

Implementation of section 21, 22 and 26 of the Environment Conservation Act. Cape

Town: Department of Environmental affairs and Tourism.

South Africa. Department of Environmental Affairs and Tourism. 1997. White

Paper on Biological Diversity. On line

http://www.environment.gov.za/white_paper/diversity1.htm. 24/4/01

Stanton, R. 2001. National Park Service. *Director's Order No. 12: Conservation Planning, Environmental Impact Analysis, and Decision-making.*

<http://www.nps.gov/refdesk/Dorders/Dorder12.html>

Stanton, R. 2001. National Park Service. *NPS Policies and Guidance: "Things to know" about National Park Service Policy and the New Directive System.* On line

<http://www.nps.gov/refdesk/Dorders/thingstoknow.html>

Stanton, R. 2001. National Park Service. *The DO-12 Handbook.* On line

<http://www.nps.gov/refdesk/Dorders/thingstoknow.html>

Smith, B.S. 1995. vol. 91 August 1995 P 377

Vanderzwaag, D. & Duncan, L. 1992. *Canada and Environmental Protection: Confident Political Faces, Uncertain Legal Hands*: In Boardman, R. (ed) *Canadian Environmental Policy: Ecosystems, Politics, and Process*. Ontario: Oxford University Press.

Winter, G. 1996. (Eds.) *European Environmental Law: A comparative Perspective*. England: Dartmouth Publishing Company.

Wood, C. 1995. *Environmental Impact assessment: A Comparative Review*. New York: Longman Group Limited and John Wiley and Sons.

Wood, C. 1999. Pastiche or Postiche? Environmental Impact Assessment in *South Africa*. *South African Geographical journal*, (81), 1:52-59.

World Bank. 1991, 1991a. *Environmental Impact Assessment Source Book*. Vol.1. Washington, D.C.: World Bank Technical Paper No. 139.

8. Appendices

8.1 Appendix A

Main Questionnaire

You are kindly requested to complete the questionnaire. Please tick the provided relevant boxes, fill in the dotted lines and explain where you are requested to give reasons for your answer.

1.0 Questions about participants

1.1 Name -----Company -----Position -----

1.1.1 Title: Mr. Mrs. Dr. Prof. Other, state-----

1.2 What sector do you represent?

- a) Academic
 - b) Consultant
 - c) Government Department
 - d) EKZN-Wildlife
 - e) NGO
 - f) EKZN-Wildlife Board
 - g) Other, please specify.
-

1.3 How familiar are you with the environmental impact assessment regulations?

Very familiar [1] [2] [3] [4] [5] [6] [7] Very unfamiliar

1.4 Do you know who the relevant authority is regarding the environmental impact assessment (EIA) process in the province (Kwa-Zulu-Natal)?

Yes No

1.5 If yes, how familiar are you with the responsibilities that a relevant authority is required to perform regarding EIA regulations?

Very familiar Moderately familiar Not familiar

2.0 Relevant authority

2.1 Regulations R 1182 and R 1183 of the Environmental Conservation Act 73 of 1989 make provision for the relevant authority regarding environmental impact assessment (EIA). Do you think the EKZN-Wildlife is capable to become a relevant provincial authority to deal with applications for authorization to undertake scheduled activities?

- a) Very capable
- b) Moderately capable
- c) Slightly capable
- d) Not sure
- e) Slightly incapable
- f) Moderately incapable
- g) Very incapable

2.2 Do you agree that EKZN-Wildlife should be appointed as a relevant authority?

- a) Strongly disagree
- b) Moderately disagree
- c) Slightly disagree
- d) Not sure
- e) Slightly agree
- f) Moderately agree
- g) Strongly agree

Please explain why.

2.3 How adequate do you think are the skills (expertise) that the relevant authority should have in the EKZN-Wildlife?

Adequate [1] [2] [3] [4] [5] [6] [7] inadequate

2.4 Would the available expertise make EKZN-Wildlife a competent relevant authority to ensure compliance with EIA regulations?

Yes [] No []

2.5 What do you think would be the consequence(s) of assigning the powers of a relevant authority to EKZN-Wildlife?

Negative [1] [2] [3] [4] [5] [6] [7] Positive

2.6 Please specify by naming the main consequences below in the space provided.

2.7 Do you think it would make any significant difference in effectively complying with the EIA regulations if EKZN-Wildlife became a relevant authority?

Significant difference [1] [2] [3] [4] [5] 6 [7] Insignificant difference

Please explain how or why.

2.8 How satisfied are you with the current relevant authority?

- a) Very satisfied
- b) Moderately satisfied
- c) Slightly satisfied
- d) Not sure
- e) Slightly dissatisfied
- f) Moderately dissatisfied
- g) Very dissatisfied

Please explain the reason for your answer -----

2.9 How much expertise (skills) do you think the current relevant authority have that a relevant authority should have in terms of EIA regulations?

Adequate [1] [2] [3] [4] [5] [6] [7] Inadequate

Please specify how the expertise is adequate or inadequate.

2.10 Do those skills make it a competent authority?

Yes No

2.11 If no, what are the main factors that make it incompetent?

3.0 Role of EKZN-Wildlife

3.1 How should the EKZN-Wildlife be involved in the EIA process outside protected areas? Please tick appropriate box (es).

- a) Interested and affected party
- b) Relevant authority

- c) Decision making
- d) Monitoring
- e) Independent observer
- f) Independent reviewer
- g) Auditor
- h) Whistle blower
- i) Consultant
- j) Specialist input
- k) Appellant
- l) Other (Please specify)

3.2 To what extent should EKZN-Wildlife have a say in the record of decision?

No say at all [1] [2] [3] [4] [5] [6] [7] Reasonable say

3.3 What authority should EKZN-Wildlife have regarding EIA outside protected areas?

Please explain.

3.4 Should EKZN-Wildlife be treated differently from interested and affected parties?

Yes No

Explain how and why?

3.5 Should the role of the EKZN-Wildlife be the same in EIA projects inside and outside protected areas?

Yes No

Please give reasons for your answer.

3.6 Should the scheduled activities that require authorization in terms of EIA regulations be handled differently if EKZN-Wildlife is an applicant?

Yes No

Please explain why.

3.7 How meaningful do you think is the role-played by EKZN-Wildlife in EIA process?

- a) Very meaningful
- b) Moderately meaningful
- c) Slightly Meaningful
- d) Not sure
- e) Slightly meaningless
- f) Moderately meaningless
- g) Very meaningless

Please explain how the role could be enhanced.

3.8 Please explain how you think EKZN-Wildlife should be involved in EIA inside the protected areas.

4.0 Professional consulting

4.1 EKZN-Wildlife should be allowed to consult professionally in integrated environmental management (IEM) to generate income.

- h) Strongly agree []
- i) Moderately agree []
- j) Slightly agree []
- k) Not sure []
- l) Slightly disagree []
- m) Moderately disagree []
- n) Strongly disagree []

Please give reasons for you answer.

4.2 EKZN-Wildlife has the adequate expertise to consult professionally in (IEM).

Strongly agree [1] [2] [3] [4] [5] [6] [7] Strongly disagree

4.3 Please explain how you think professional consulting would affect the role of the EKZN-Wildlife in EIA inside and outside protected areas.

4.4 What consequences would this have?

Extremely negative [1] [2] [3] [4] [5] [6] [7] extremely positive

4.5 Explain how you think this would affect environmental consulting industry or business.

4.6 Professional consulting by EKZN-Wildlife would be acceptable.

- a) Strongly agree
- b) Moderately agree
- c) Slightly agree
- d) Not sure
- e) Slightly disagree
- f) Moderately disagree
- g) Strongly disagree

4.7 Do you think professional consulting would be a viable option for income generation for EKZN-Wildlife?

Yes No

Please explain the reason (s) for your answer below.

4.8 Do you have any other comments regarding the issues raised in the questionnaire?

Yes No

Additional comments -----

Thank you very much for taking part in this research. If necessary, further comments can be sent to dumi2001us@yahoo.com.

Dumisani E. Mthembu.

8.2 Appendix B

DAEA Questionnaire

You are kindly requested to complete the questionnaire. Please tick the provided relevant boxes, fill in the dotted lines and explain where you are requested to give reasons for your answer.

1.0 Questions about participants

1.1 Name -----Company -----Position -----

1.1.1 Title: Mr. Mrs. Dr. Prof. Other, state-----

1.2 What sector do you represent?

- c) Academic
 - d) Consultant
 - c) Government Department
 - d) EKZN-Wildlife
 - e) NGO
 - f) EKZN-Wildlife Board
 - g) Other, please specify.
-

1.3 How familiar are you with the environmental impact assessment regulations?

Very familiar [1] [2] [3] [4] [5] [6] [7] Very unfamiliar

1.4 How familiar are you with the responsibilities that a relevant authority is required to perform regarding EIA regulations?

Very familiar Moderately familiar Not familiar

2.0 Relevant authority

2.1 Regulations R 1182 and R 1183 of the Environmental Conservation Act 73 of 1989 make provision for the relevant authority regarding environmental impact assessment (EIA). Do you think the EKZN-Wildlife is capable to become a relevant provincial authority to deal with applications for authorization to undertake scheduled activities?

- h) Very capable
- i) Moderately capable
- j) Slightly capable
- k) Not sure
- l) Slightly incapable
- m) Moderately incapable
- n) Very incapable

2.2 Do you agree that EKZN-Wildlife should be appointed as a relevant authority?

- h) Strongly disagree
- i) Moderately disagree
- j) Slightly disagree
- k) Not sure
- l) Slightly agree
- m) Moderately agree
- n) Strongly agree

Please explain why.

2.3 How adequate do you think are the skills (expertise) that the relevant authority should have in the EKZN-Wildlife?

Adequate [1] [2] [3] [4] [5] [6] [7] inadequate

2.4 Would the available expertise make EKZN-Wildlife a competent relevant authority to ensure compliance with EIA regulations?

Yes No

2.5 What do you think would be the consequence(s) of assigning the powers of a relevant authority to EKZN-Wildlife?

Negative [1] [2] [3] [4] [5] [6] [7] Positive

2.6 Please specify by naming the main consequences below in the space provided.

2.7 Do you think it would make any difference in effectively complying with the EIA regulations if EKZN-Wildlife became a relevant authority?

Significant difference [1] [2] [3] [4] [5] 6 [7] Insignificant difference

Please explain how or why.

3.0 Role of EKZN-Wildlife

3.1 How should the EKZN-Wildlife be involved in the EIA process outside protected areas? Please tick appropriate box (es).

- m) Interested and affected party []
- n) Relevant authority []
- o) Decision making []
- p) Monitoring []

- q) Independent observer
- r) Independent reviewer
- s) Auditor
- t) Whistle blower
- u) Consultant
- v) Specialist input
- w) Appellant
- x) Other (Please specify)

3.2 To what extent should EKZN-Wildlife have a say in the record of decision?

No say at all [1] [2] [3] [4] [5] [6] [7] Reasonable say

3.3 What authority should EKZN-Wildlife have regarding EIA outside protected areas?

Please explain.

3.4 Should EKZN-Wildlife be treated differently from interested and affected parties?

Yes No

Explain how and why?

3.5 Should the role of the EKZN-Wildlife be the same in EIA projects inside and outside protected areas?

Yes No

Please give reasons for your answer.

3.6 Should the scheduled activities that require authorization in terms of EIA regulations be handled differently if EKZN-Wildlife is an applicant?

Yes No

Please explain why.

3.7 Is it necessary for EKZN-Wildlife to appoint an independent consultant to comply with EIA regulations?

Yes No

Please give reasons for your answer.

3.8 How meaningful do you think is the role-played by EKZN-Wildlife in EIA process?

- h) Very meaningful
- i) Moderately meaningful
- j) Slightly Meaningful
- k) Not sure
- l) Slightly meaningless
- m) Moderately meaningless
- n) Very meaningless

Please explain how the role could be enhanced.

3.9 Please explain how you think EKZN-Wildlife should be involved in EIA inside the protected areas.

4.0 Professional consulting

4.1 EKZN-Wildlife should be allowed to consult professionally in integrated environmental management (IEM) to generate income.

- o) Strongly agree []
- p) Moderately agree []
- q) Slightly agree []
- r) Not sure []
- s) Slightly disagree []
- t) Moderately disagree []
- u) Strongly disagree []

Please give reasons for you answer.

4.2 EKZN-Wildlife has the adequate expertise to consult professionally in (IEM).

Strongly agree [1] [2] [3] [4] [5] [6] [7] Strongly disagree

4.3 Please explain how you think professional consulting would affect the role of the EKZN-Wildlife in EIA inside and outside protected areas.

4.4 What consequences would this have?

Extremely negative [1] [2] [3] [4] [5] [6] [7] extremely positive

4.5 Explain how you think this would affect environmental consulting industry or business.

4.6 Professional consulting by EKZN-Wildlife would be acceptable.

- h) Strongly agree
- i) Moderately agree
- j) Slightly agree
- k) Not sure
- l) Slightly disagree
- m) Moderately disagree
- n) Strongly disagree

4.7 Do you think professional consulting would be a viable option for income generation for EKZN-Wildlife?

Yes No

Please explain the reason (s) for your answer below.

4.8 Do you have any other comments regarding the issues raised in the questionnaire?

Yes No

Additional comments -----

*Thank you very much for taking part in this research. If necessary, further
comments can be sent to dumi2001us@yahoo.com.*

Dumisani E. Mthembu.

8.3 Appendix C: Data for the figures

1. Data for figure 4.1

Source data for figure 4.1	
EKZNW	7
DAEA	6
Academic	5
Consultant	8
NGO	3
EKZNWB	1
Local government	5
Other statutory bodies	2
Other	2
Total	39

2. Data for figure 4.2

Source data for figure 4.2							
	Very familiar	Moderately familiar	Slightly familiar	Not sure	Slightly unfamiliar	Moderately unfamiliar	Very unfamiliar
EKZNW	1	1	3	0	1	0	1
DAEA	6	0	0	0	0	0	0
Academic	2	1	0	1	1	0	0
Consultant	6	0	1	0	0	0	1
NGO	1	0	0	2	1	0	0
EKZNWB	0	0	0	1	0	0	0
Local government	0	4	0	0	1	0	0
Other statutory bodies	0	1	0	0	0	0	0
Other	1	0	1	0	0	0	0

3. Data for figure 4.3

	Source data for figure 4.3						
	Strongly agree	Moderately agree	Slightly agree	Not sure	Slightly disagree	Moderately disagree	Strongly disagree
EKZNW	1	1	0	0	0	1	4
DAEA	0	0	0	1	0	1	4
Academic	1	0	0	0	0	2	2
Consultant	0	1	0	1	0	3	3
NGO	0	0	0	1	0	0	1
EKZNWB	0	1	0	0	0	0	0
Local government	0	0	0	1	1	0	3
Other statutory bodies	0	0	0	1	1	0	0
Other	0	0	0	0	0	0	1

4. Data for figure 4.4

	Source data for figure 4.4						
	Very capable	Moderately capable	Slightly capable	Not sure	Slightly incapable	Moderately incapable	Very incapable
EKZNW	0	5	0	0	0	0	2
DAEA	0	0	1	2	0	2	1
Academic	1	2	2	0	0	0	0
Consultant	0	3	0	4	0	0	1
NGO	1	0	0	0	0	0	2
EKZNWB	0	1	0	0	0	0	0
Local government	0	1	0	2	0	2	0
Other statutory bodies	0	1	1	0	0	0	0
Other	0	1	0	0	0	0	0

5. Data for figure 4.5

	Source data for figure 4.5						
	Very adequate	Moderately adequate	Slightly adequate	Not sure	Slightly inadequate	Moderately inadequate	Very inadequate
EKZNW	2	0	2	0	0	3	0
DAEA	1	0	0	0	0	0	0
Academic	0	0	1	3	1	0	0
Consultant	1	2	0	2	1	0	2
NGO	1	0	0	1	0	0	1
EKZNWB	0	0	1	0	0	0	0
Local government	0	1	1	2	0	0	1
Other statutory bodies	0	0	0	2	0	0	0
Other	0	1	0	0	0	0	0

6. Data for figure 4.6

	Source data for figure 4.6						
	Extremely positive	Moderately positive	Slightly positive	Not sure	Slightly negative	Moderately negative	Extremely negative
EKZNW	3	0	0	0	1	0	3
DAEA	0	0	0	0	1	2	3
Academic	0	1	0	0	1	1	2
Consultant	1	0	0	1	1	1	4
NGO	0	0	0	0	0	0	3
EKZNWB	1	0	0	0	0	0	0
Local government	0	0	0	0	1	2	2
Other statutory bodies	0	0	0	1	0	0	1
Other	0	0	0	0	0	1	0

7. Data for figure 4.7

Source data for figure 4.7									
	EKZNW	DAEA	Academic	Consultant	NGO	EKZNWB	Local government	Other statutory bodies	Other
IAP	5	5	4	6	2	0	5	2	1
Relevant authority	2	0	2	0	0	1	0	0	0
Decision maker	2	0	1	2	2	0	0	1	0
Monitoring	3	5	4	2	0	0	3	0	0
Independent observer	1	2	0	3	0	0	1	0	1
Independent reviewer	3	2	3	4	0	0	0	1	0
Auditor	2	3	3	2	1	0	0	0	0
Whistle blower	3	4	4	1	0	0	2	2	1
Consultant	0	0	1	1	1	0	0	0	0
Specialist input	5	5	2	5	0	0	3	2	1
Appellant	3	4	1	2	0	0	2	2	0
Other	0	0	0	0	0	0	0	0	0

8. Data for figure 4.8

Source data for figure 4.8	Roles
IAP	86
Specialist input	68
Monitoring	54
Whistle blower	51
appellant	40
Independent reviewer	29
Auditor	23
Independent observer	20
Decision maker	17
Relevant authority	14
Consultant	6
Other	0

9. Data for figure 4.9

	Source data for figure 4.9						
	Strongly agree	Moderately agree	Slightly agree	Not sure	Slightly disagree	Moderately disagree	Strongly disagree
EKZNB	1	2	2	0	0	0	1
DAEA	0	0	0	2	1	0	3
Academic	1	2	0	0	1	0	1
Consultant	1	1	0	0	0	2	3
NGO	0	0	0	1	0	0	2
EKZNB	0	1	0	0	0	0	0
Local government	2	0	0	1	0	1	1
Other statutory bodies	1	1	0	0	0	0	0
Other	0	1	0	0	0	0	0

10. Data for figure 4.10

	Source data for figure 4.10						
	Strongly agree	Moderately agree	Slightly agree	Not sure	Slightly disagree	Moderately disagree	Strongly disagree
EKZNB	1	1	0	2	0	0	1
DAEA	0	0	0	2	2	2	1
Academic	1	1	0	0	1	1	1
Consultant	1	1	0	0	3	3	2
NGO	0	0	0	0	0	0	3
EKZNB	0	1	0	0	0	0	0
Local government	1	0	0	2	1	1	1
Other statutory bodies	0	0	0	2	0	0	0
Other	0	0	1	0	0	0	0