



**UNDERSTANDING THE CHALLENGES OF TEAMWORK FOR
COOPERATIVE GOVERNANCE IN THE IMPLEMENTATION OF THE
ENVIRONMENTAL IMPACT ASSESSMENT PROCESS ON GOVERNMENT
AGRICULTURAL PROJECTS IN KWAZULU-NATAL**

by

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DECLARATION

I Muziwandile Emmanuel Mdamba declare that:

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

Date

DEDICATION

This dissertation is dedicated to my late father
Mr. Albert Mdamba who always encouraged me
to finish this dissertation.

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Firstly, I would like to thank God Almighty for giving me life, wisdom, and strength for completing this research.

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ABSTRACT

Commonly in South Africa, government departments are structured so as to include more than one function under a single organizational goal, requiring teams to coordinate and integrate their functions by cooperating with each other in order to deliver on the prescribed organizational goal. However, experience has revealed that several government departments are struggling to deliver optimally on their functions. Central to this, is the lack of teamwork and proper organizational structure for decision-making. In KwaZulu-Natal province, the Department of Agriculture and Environmental Affairs (DAEA) is tasked with promoting agricultural activities, while on the other hand required to enforce environmental legislation in the province.

The aim of this study is to understand the challenges of teamwork for cooperative governance in the implementation of the EIA process on agricultural projects within KwaZulu-Natal. The study investigates the effectiveness of teamwork between agricultural and environmental units of the DAEA in the North region. It also investigates the barriers to effective teamwork between agriculture and environmental units in the North region of the DAEA. In achieving this, the study adopted a mixed-method (qualitative - quantitative) approach, entailing a survey administered face-to-face and in telephonic discussions, using questionnaires, with respondents in five district offices of DAEA in the North Region of KwaZulu-Natal; i.e. (uThungulu, Amajuba, uMkhanyakude, Zululand and uMzinyathi) so as to collect data.

The study found that there is lack of effective teamwork among the teams in the delivery of agricultural projects. The data analysed revealed that there is lack of communication amongst the units, which subsequently resulted in poor cooperation. The study also found that lack of communication and interaction among the teams and lack of effort in learning about other team's activities, are main barriers to effective teamwork in the organisation, including challenges of institutional arrangement. In order to enhance effective teamwork, the study found that team training in the form of workshops and seminars must be undertaken in order to bring

awareness of unit's activities. Team-building exercises should be part of the programme in which the department allows for intra-departmental interactions, in order to enhance teamwork. The study recommended that, in order to ensure effective teamwork, the agricultural unit should communicate and consult with the environmental unit at an early stage, when agricultural projects have been identified for implementation. As a barrier to effective teamwork, the findings of the study indicated that there is no sharing of information amongst the teams. So as to enhance effective teamwork, it is recommended that workshops or seminars be organized for team training.

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Chapter One

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

It is almost two decades since the inception of the democratic government in South Africa. It is also within the same period that the Constitution of the Republic of South Africa (Act 108 of 1996) was promulgated. Among other very fundamental objects proclaimed by the Constitution (See Chapter 3), is cooperative governance among the entities of government in the Republic for the delivery of services. It is argued that the introduction of cooperative governance as part of the new dispensation was designed to advance democracy and improve service delivery to all South Africans (Levy and Tapscott, 2001). One can thus argue that South Africa cannot adequately meet its goals unless the various role players function cohesively. It is for this reason, therefore, that the Constitution provides for certain basic rights underpinning the notion of service delivery.

Cooperative governance, as evidenced through teamwork, plays a critical role on matters of service delivery. This is because many of these service delivery issues ultimately become matters of life and death, particularly with regard to issues of housing, water, and sanitation, and quite simply the right to life (EscOn, 2012).

Commonly in South Africa, government departments are structured to include more than one function under a single organizational goal. This requires teams to coordinate and integrate their functions by cooperating with each other in order to deliver on the prescribed organizational goals. This statement is further outlined in the Constitution (1996) in which it is stated that the principle of cooperative governance prescribes the way in which the government departments and the institutions in all spheres of government should relate to one another. The above statement is critical in that it fully entrenches cooperation as a means of ensuring a seamless service delivery to all South Africans through structured teamwork.

The provincial department of Agriculture and Environment Affairs (DAEA) in KwaZulu-Natal is an example of one government department being structured such that it conducts two functions under a single organizational goal. The above statement highlights the inherently conflicting relations within the department undermining cooperation and teamwork between the sections in the concerned department with different constitutional mandates.

The DAEA is required to promote agricultural activities and also enforce environmental legislation. This has a direct effect on agricultural projects promoted by the department. The department has experienced challenges in administering EIAs on agricultural projects promoted by the department, more specifically, on projects requiring environmental authorization (personal observation). Cooperative governance therefore ensures that land-use activities do not negatively impact on the natural environment, or on existing developments, by negating the economic potential and value of the adjacent land. Du Plessis (2008) argues that the country is in need of development. The statement that environmental concerns hinder development should be considered only after tabling these concerns.

The Provincial Planning Commission (PPC) (2011) points out that land-use activities in the province are controlled, impacted on, and indeed influenced by a number of government role players, which include the national, provincial, and local spheres of government. Added to this list are agencies and parastatals which also initiate activities impacting negatively on the environment. There is thus a need for inter- and intra-coordination of all activities of all these role players, in order to avoid threatening the integrity of the environment (Draft Provincial Growth and Development Plan 2012-2030, 2011).

The observation by the PPC (2011) supports the view held by Bosman, Kotze and du Plessis (2004). This view reveals that some responsibilities of the spheres and departments may overlap. The researchers contend that the overlap comes as a result of the country's public administration system, including environmental governance arrangements, which are still based on the pre-1993 fragmented and silo-based system of government departments, each with its own competencies. It is

thus not surprising to hear the loud calls from various institutions advocating cooperative governance.

It is in this vein that the PPC (2011) argues that the use of cooperative governance as an approach is based on its aims at alignment of activities that will prevent conflicting initiatives in an area earmarked for development. This argument is further corroborated by Levy & Tapscott (2001) in their contention that the introduction of cooperative governance as part of the new dispensation was a means of advancing democracy, and improving service delivery to all South Africans.

Furthermore, the National Environmental Management Act, (Act No. 107 of 1998) (NEMA) requires that all government departments cooperate in considering development activities which may have a severely negative impact on the environment, ensuring that the minimum requirements of the Act are met, in assessing the impact of any activity requiring authorization under the law (Cox, 2004).

The implementation of NEMA in promoting cooperative governance will yield, among other things, agreements with individuals and organizations on improving the standards of environmental management. Furthermore, it is envisaged that consultation will draw various role players towards the common goal of environmental protection. It has also been argued that, should cooperative governance be appropriately harnessed, the agricultural sector will have the potential to create substantial opportunities in labour-absorbing activities, addressing food securities, and enabling sustainable livelihoods (Draft Provincial Growth and Development Plan 2012-2030, 2011).

The converse situation is so serious that, should the matter not be addressed, the degradation of the environment could result. The PPC (2011) further contends that this is likely to cause a significant decline in production, contributing towards job losses (Draft Provincial Growth and Development Plan 2012-2030, 2011).

The above statement reinforces the view that, if sustainable agriculture is to be regarded as a model of social and economic (transformation) organizations, based

on equitable and participatory vision of development, it should recognize the environment and natural resources as the foundation of economic development (Draft Provincial Growth and Development Plan 2012-2030, 2011). This argument therefore, goes far beyond the traditional teamwork approach, which merely draws people together for a common purpose. In this instance, agriculture, as part of the departmental mandate, must respect and enhance the mandate for the environmental component, which requires that agriculture should also adopt the ecologically sound, economically viable, and socially just approach, based on a holistic scientific approach.

In this regard, sustainable agriculture will aim to preserve biodiversity: to maintain soil fertility and water purity; to conserve and improve the chemical, physical, and biological qualities of the soil; to recycle natural resources, and to conserve energy. This does not come automatically. Furthermore, it does not happen by mere grouping of people from both the environment and agriculture units. Rather, it is based on a legal mandate for each component; hence the significance of the topic.

In contrast with the foregoing statement, it has been observed that several government departments are struggling to deliver optimally on their functions. Central to this is the lack of cooperative governance and proper organizational structure for decision-making (personal observation). In its workshop advertisement analysis, EscOn (2012) pointed out that the behaviour of individuals is critical in service delivery. They argue that the human factor contributes greatly to the non-delivery debacle. They concluded by highlighting that effective teamwork and collaboration is necessary for ensuring successful implementation of interdepartmental programmes. Their argument emanates from the view that, in the end, people are needed in effecting smooth implementation of service delivery programmes.

In response to the challenges of service delivery facing the province of KwaZulu-Natal, the provincial DAEA has embarked on an economic growth and development programme for emerging farmers who must fight the challenges of poverty, unemployment, and HIV/AIDS in the rural communities, through implementing agricultural projects under various programmes, such as Land Redistribution for

Agricultural Development (LRAD), Comprehensive Agricultural Support Programme (CASP) and massification programme and Agrarian Revolution, promoted by the department (KZN DAEA Agrarian Revolution Plan, 2006). On the other hand, the Directorate of Environmental Services has the responsibility of ensuring the sustainable utilization of natural resources in the province. In South Africa, Environmental Impact Assessment (EIA) processes are used when investigating and addressing impacts of proposed developments, which, according to Tarr (2003) are recognized as key support tools for sustainable development.

Creating a balance between agricultural demands and the goods and services sustained by natural resources remains a challenge for DAEA. According to the Department of Land Affairs (2001) rural livelihoods depend on natural resources for a wide range of inputs into either economic activities or maintenance of household welfare. Agricultural activities and rural settlements focus on the direct use of local natural resources, such as soil, water and vegetation, as elements of production and consumption. Therefore the DAEA is to ensure the sustainable utilization of natural resources through implementing EIAs for environmental sustainability in the province.

1.2 STATEMENT OF THE PROBLEM

This study examines and attempts to understand the challenges of teamwork for cooperative governance in the implementation of EIA processes on government agricultural projects in KwaZulu-Natal. In order to address the research questions of this study and in conducting an analysis of the concepts, it is essential initially to understand the challenges resulting from lack of cooperative governance in the DAEA.

It is important to reiterate the mandates of the DAEA. Furthermore, it is equally important to highlight that the statement of the problem derives from the DAEA having dual mandates relating to agriculture and environment. As already alluded to, the environmental component exists for the purposes of advancing environmental sustainability for socio-economic development, through the promotion of sustainable use of the environment, ensuring a safe and healthy environment.

It is therefore critical that agriculture, as part of the departmental mandate, must respect and enhance the mandate for the environmental component, which requires that agriculture should adopt the ecologically sound, economically viable, socially just principles, based on a holistic scientific approach. The preceding statement is best illustrated by the purpose of the department as outlined in the Annual Performance Plan for 2008/09, in which it is stated that we need to engage, empower, and transform our communities in participating in sustainable agriculture and environmental practices, in order to realize our economic development and food security.

Barnard (1999) argues that most government departments are structured so as to promote a particular function, while at the same time obliged to enforce legislation that has to create a balanced approach to promoting those functions. The DAEA is no exception, because it is required to promote agricultural activities and also to enforce environmental legislation. This has a direct effect on agricultural projects promoted by the department. The department has experienced challenges in administering EIAs on agricultural projects promoted by the department; more specifically, on projects requiring environmental authorization (personal observation). The National Environmental Management Act (Act No. 107 of 1998) (NEMA), requires that all government departments cooperate in considering development activities which may have a severely negative impact on the environment; also ensuring that the minimum requirements of the Act are met, in assessing the impact of any activity requiring authorization under the law (Cox, 2004). As a result, the study focuses on teamwork as one of the fundamental aspects of cooperative governance, in addressing the research questions of the study.

EscOn (2012) raised a particular concern about individuals' behaviour, as it is crucial in teamwork. EscOn (2012) argued that the human factor contributes to the non-delivery debacle. They contend that individuals are critical in ensuring effective teamwork and collaboration for successful implementation of interdepartmental programmes. They hold the view that, in the end, people are needed for effecting smooth implementation of programmes of service delivery. In their argument EscOn (2012) states that, of particular importance, is the fact that these individuals recognize and understand the complex nature of government in the post-apartheid

era. They concluded by citing communication as an important element in teamwork. Their argument is that communication underpins any teamwork or cooperative governance. They further argue that, where communication is poor or non-existent among teamwork members, cooperative governance will fail.

In support of the forgoing, Kinnaman (1999) cited in Kinnaman and Bleich (2004) argue that collaboration is a communication process fostering innovation and advanced problem-solving among people who:

- Are from different disciplines, various ranks or organizational settings;
- Work together to solve problems;
- Convey innovative solutions regardless of discipline, rank, or organizational affiliation; and
- Enact change based on a higher standard of care or organizational outcomes.

Therefore in order for DAEA to accomplish its legislative mandate, good communication processes must be entrenched within the operational processes of teams regardless of any other factors. This will contribute meaningfully to successful teamwork and ensure synergism between the units of the Department. This last statement is bolstered by the argument that that successful teamwork relies upon synergism which must exist between all team members. This synergism could not be achieved if team members in the Department have not rooted this in their operational processes.

Individual behavior in a team setting could influence the behavior of the organization. Wood, Chapman, Fromholtz Morrison, Wallace, Zeffane, Schermerhorn, Hunt and Osborn (2004) argue that all organizations regardless of their purposes, sizes and whether they are located in the public or private sector have one thing in common: they are created by a number of people organized to achieve specific goals for the organization they work for. The manner in which each individual behaves influences the organization's ultimate output.

Having stated that DAEA has dual mandates of promoting agriculture and the environment. The manner in which the members behave could influence the

behavior of the DAEA as an organization. In this study teamwork is examined to understand a key aspect of cooperative governance in DAEA.

Therefore, this study answers the following research question, as per the foregoing research statement.

1.3 RESEARCH QUESTION

This dissertation will be pursuing the following research questions:

- What is the effectiveness of teamwork between agricultural and environmental units in the implementation of the Environmental Impact Assessment process on agricultural projects in the North region of the Department of Agriculture and Environmental Affairs in KwaZulu-Natal?
- What are the barriers to effective teamwork between agricultural and environmental units in the implementation of the Environmental Impact Assessment process on agricultural projects in the North Region of the Department of Agriculture and Environmental Affairs in KwaZulu-Natal?

1.4 SIGNIFICANCE OF THE STUDY

The province of KwaZulu-Natal is characterized by areas in which are found high in levels of poverty and unemployment. This negative state of affairs has created a challenge to the government.

For expository convenience, we can identify various methods of addressing the inadequacies highlighted above. First and foremost, government wished to improve food security to its inhabitants. Furthermore, it wished to engage, empower, and transform the communities so that they might participate in sustainable agriculture, in order to realize economic development and food security. This is the sole mandate of the component of agriculture in the province.

The agricultural sector is viewed by the provincial executive as of key strategic importance, given the comparative advantages that KwaZulu-Natal has in respect of two key factors of production, i.e. land, and labour resources (Draft Provincial Growth and Development Plan 2012-2030, 2012).

The Provincial Executive is also of the opinion that, should this industry be appropriately harnessed, the agricultural sector in KwaZulu-Natal has the potential to be a winner in respect of food security, and to be a job creator. In addition to this, it was discovered that there has been a dramatic decline in the scientific base within the agricultural sector. This has contributed to the inability of the sector to identify the agricultural potential.

In addition, there is a critical role to be played by the environment component of the same department. The environment component focuses on the advancement of environmental sustainability for socio-economic development, through the promotion of a sustainable environment, thereby ensuring a safe and healthy environment.

It is in the same vein that agriculture as a component, and also as part of the departmental mandate, must respect and enhance the mandate for the environmental element. This requires that agriculture as a component in the department should embrace and adopt the principles as mentioned in the preceding paragraphs, i.e. the ecologically sound, economically viable, socially just approach, which is embedded in a holistic and scientific approach. This cannot be achieved unless communication is embraced as one of the critical elements that inform a team's operational processes. Katzenbach and Smith (1993) have outlined factors that negate team effectiveness and in so doing, they have identified poor communication system among the team members as one of the factors that impede team effectiveness. In furtherance of the above argument, this study seeks to promote the notion that teams are sufficiently flexible to adapt to cooperative working environments in which goals are achieved through collaboration and social interdependence, rather than individualized competitive goals.

According to the massification policy (undated) of the DAEA, the KwaZulu-Natal DAEA has embarked on a programme of empowering small subsistence farmers to become large-scale farmers, entailing the rolling-out of projects in unutilized lands

within traditional areas; transforming these regions into areas of high productivity. As such, thousands of hectares of land in various areas of the province have been targeted, which would implement various agricultural projects per year. Transformation of a larger scale of unutilized areas has the potential for impacting on the environment. Therefore, the EIA process helps to investigate the impacts; determining mitigation measures against the impacts before any projects are commenced (KZN DAEA Agrarian Revolution Plan, 2006).

Thring (2003) argues that under transformation, the state should act as a provider, a facilitator, or director within a strategic policy process, taking into consideration all the inequities of the past. In order for the state to avoid practical limitations which might be inherent should it allow one component alone to drive the process of transformation of agricultural lands, the state should strive for continual exchanges between and within the institutions of the state, and also within society. Thring (2003) argues that this can only be achieved through cooperative governance. This approach takes into account the differing capacities and roles which each unit can play, in order to contribute to the social and economic transformation of the province.

In light of the above, it is evident that the state has assumed the role of provider, facilitator, and/or director; and as such, it has taken on the responsibility of the guardian of public goods and services. This is further corroborated by the World Development Report (1997) in which it is stated that there are five fundamental tasks at the core of every government's missions. They further argue that, without these tasks, sustainable development and poverty-reducing development is impossible. These tasks are:

- Establishing a foundation of law;
- Maintaining a non-distortionary policy on environment, including macroeconomic stability;
- Investing in basic social services' infrastructure;
- Protecting the vulnerable; and
- Protecting the environment.

The importance of this exercise is that, through this process, citizens are made aware of how to manage resources wisely so as to achieve maximum benefits at minimum costs, not only to fulfill their needs, but in achieving those of their children for future and coming generations (Munro & Holgate, 1991; Kozlowski & Hill, 1993; Young 1993; Elliot, 1996). Furthermore, through the EIA process, sustainable development is enhanced. The process requires all participants to think the process through, in order to minimize the costs.

In line with cooperative governance, the purpose of this study is that of proposing recommendations to be used by the DAEA as guidelines, in order to promote teamwork within agricultural and environmental units when implementing agricultural projects promoted by the department. The study will also afford the department the opportunity of ascertaining whether the current intradepartmental interactions and the coordination of tasks for agricultural and environmental teams are compatible with the provisions of Chapter 3 of the Constitution; which provides for cooperative governance amongst the government entities, and apropos the department's strategic goals. Lastly, the lessons revealed by the study will not only be beneficial to the DAEA officials but will also broadly contribute and expand institutional capacity and knowledge on other sectors in the natural resources management by adopting the cooperative governance and teamwork approaches argued in this study. Furthermore, the study will assist government entities such as the municipalities, project planners, and environmental practitioners, when projects of an agricultural nature are planned.

1.5 RESEARCH DESIGN AND METHODOLOGY

1.5.1 Study Methodology

The methodology of the study sets out procedures for the way in which the research questions of the study will be answered. The procedures which follow in Chapter 3 explain the way in which the effectiveness of teamwork within the DAEA is investigated and also the barriers to effective teamwork, through a survey administered in face-to-face and telephonic discussions

1.5.1.1 Study Area and Hierarchical Formation of DAEA-North Region

This study is based on the KwaZulu-Natal province (Figure 1.1), a province with the second highest population size in the country, after Gauteng province (Statistics South Africa, 2012).



Figure 1.1: The province of KwaZulu-Natal, in the context of South Africa
(Source: Mngoma, 2007)

Furthermore, the study covers the district municipalities under the North Region of the DAEA (Figure 1.2).

Although the challenges are similar for both the North and South Regions with regard to agricultural projects and environmental issues (personal observation); for this study, the North Region was identified as the most suitable study area for answering the research questions. This is because of its accessibility and the work experience of the researcher in the study area; and because the North Region has

been targeted for the majority of agricultural projects in terms of the KZN agrarian revolution plan (Figure 1.3). The North Region includes five district municipalities under which DAEA offices operate. These are: uThungulu, Amajuba, uMkhanyakude, Zululand, and uMzinyathi, as shown in Figures 1.2 & 1.3. The study area identified is regarded as appropriate for investigating the research problem and in answering the research questions of the study.



Figure 1.2: The eleven district municipalities of KwaZulu-Natal divided into a North and a South Region (Source: Census 2011 GIS data, 2012)



Figure 1.3: The location of agricultural projects identified in the North Region of the province of KwaZulu–Natal (Source: KZNDAEA Agrarian Revolution Manual, 2006)

The two regions of the department (North and South) are responsible to the Head Office in Cedara. The North Region is based in Richards Bay, while the South Region is based in Hilton, Pietermaritzburg. According to Mngoma (2007), the Head Office in Cedara serves as the support centre for the regions; hence it is the base for

senior management of the department, including the Head of the Department and Chief of Operations. The regions, both North and South, are the support centres for the district offices (i.e. five districts in the North Region, and six districts in the South Region). The General Managers manage both regions. Under the General Managers there are Senior Managers for environment and agriculture reporting to the General Managers for the region. In the case of the North Region, there are five Deputy Managers for environment, and also another five for agriculture who are stationed at various District Offices, responsible to the Senior Managers for environment and agriculture in the North Region of Richards Bay. Below the level of the Deputy Managers, are Assistant Managers for various subsections in the case of environment; and local offices in the case of agriculture, responsible to the Deputy Managers of the district offices. Below the level of the Assistant Managers, there are Environmental Officers, and Senior Environmental Officers for the environmental unit. There are also Agricultural Scientists, Extension Officers, and Agricultural Technicians for the agricultural section, as indicated in the post-establishment structure for the North Region (Figure 1.4).

The South Region depicts a similar formation. However, for this study, the focus will be on managers for agriculture and environment in the North Regions, deputy managers from the five districts for agriculture and environment, assistant managers for EIA and agriculture, as well as the environmental officers, senior environmental officers from environment, and agricultural scientists from agriculture. A detailed explanation on the selection of the sample instrumental in answering the research questions is given in Chapter 3 of the study.

1.6 CLARIFICATION OF TERMINOLOGY

In order to ensure clarification of terminology used in this study, the relevant terms are explained.

1.6.1 DAEA Team

Schermerhorn, Hunt and Osborn (2004) denote that a team is comprised of a group of people with essential skills for achieving a common organizational purpose, a set of

**Department of Agriculture, Environmental Affairs & Rural Development –
Head Office & North Region organizational hierarchical focus (Post establishment)**



North Region District Offices				
		<i>Environment Services</i>		<i>Agricultural Services</i>
Umzinyathi Dundee	DC 24	1 Deputy Manager 5 Assistant Managers 11 Environment Officers		1 Deputy Manager 3 Local Managers 6 Supervisors: Development Officers 34 Senior Agricultural Development Officers 43 Extension Assistants
Amajuba Newcastle	DC 25	1 Deputy Manager 5 Assistant Managers 11 Environment Officers		1 Deputy Manager 3 Local Managers 3 Supervisors: Development Officers 14 Senior Agricultural Development Officers 11 Extension Assistants
Zululand Nongoma	DC 26	1 Deputy Manager 5 Assistant Managers 13 Environment Officers		1 Deputy Manager 5 Local Managers 10 Supervisors: Development Officers 75 Senior Agricultural Development Officers 86 Extension Assistants
Umkhanyakude Mtubatuba	DC 27	1 Deputy Manager 5 Assistant Managers 12 Environment Officers		1 Deputy Manager 3 Local Managers 6 Supervisors: Development Officers 48 Senior Agricultural Development Officers 46 Extension Assistants
Uthungulu Eshowe	DC 28	1 Deputy Manager 6 Assistant Managers 16 Environment Officers		1 Deputy Manager 4 Local Managers 8 Supervisors: Development Officers 57 Senior Agricultural Development Officers 77 Extension Assistants

Figure 1.4: The summarized hierarchical structure of DAEA, with focus on the North Region (Adapted from Mngoma, 2007)

strategic goals to which they hold themselves equally accountable. For this study, this refers to the Department of Agriculture and Environmental Affairs officials affiliated to the environmental unit and agricultural unit of the department (KZNDAEARD Annual Report, 2008).

1.6.2 North and South Regions

The DAEA is divided administratively by uThukela River. The North Region is located on the northern side of the uThukela River. It comprises five district municipalities. The South Region is located on the south side of uThukela River, comprising six district municipalities, including the Metro, where DAEA offices are located (Mngoma, 2007) (Figure 1.2).

1.6.3 Departmental Massification Projects

This refers to the departmental programme in which small-scale farmers are assisted by the department with relevant farming inputs, so as to engage in various agricultural activities for a fixed period of time, enabling them to farm on a commercial scale (KZN DAEARD Massification policy, undated).

1.6.4 Department

The dictionary definition of department refers to a part or component of government. In this study, the department refers to the KwaZulu-Natal Department of Agriculture and Environmental Affairs.

1.6.5 Environmental Impact Assessment Regulations

This refers to the set of rules promulgated under the National Environmental Management Act (Act 107 of 1998), which ensure that all proposed projects that may have a possible detrimental effect on the environment are assessed through a prescribed process, in order to ensure environmental sustainability (DEAT, 2006).

1.6.6 Cooperative Governance

According to Ramphele (2000) cited in Mulibana (2005), cooperative governance involves working with one another in partnership for the accomplishment of organizational goals; cooperating with one another in promoting teamwork. Cooperative governance is also about governing in partnership through exercising national unity, peace, cooperation, and coordination, effective communication, and in avoiding conflicts (Malan and Mathebula, 2002 cited in Mathebula, 2004).

1.6.7 Environmental Impact Assessment Process

According to Murombo (2008) the EIA process is an integrative and holistically integrated environmental management tool used in addressing social, economic and biophysical issues concurrently, ensuring that developmental activities are environmentally sustainable.

1.6.8 Teamwork

Correia (2005) defines teamwork as a group of two or more people who work together to accomplish a common goal through mutual interdependence. According to Luca and Tarricone (2001) teamwork implies that individuals work in a cooperative setting, in the interests of achieving a common goal, by sharing knowledge or skills, being flexible in serving multiple roles within the organization.

1.7 OUTLINE OF THE STUDY

This study examines the challenges of teamwork for cooperative governance in the implementation of EIA processes on agricultural projects in KwaZulu-Natal. It is presented in the following sequence of chapters:

Chapter 1: Introduction - This chapter provides the background of the study, which views the challenges of teamwork for cooperative governance within the DAEA in the implementation of the EIA process on agricultural projects. Furthermore, this chapter discusses the research problem resulting in the research questions which

are the foundation of the study. Lastly, this chapter summarizes the significance of the study, methodology, and concludes by giving an outline of the study sequence.

Chapter 2: Literature Review - This chapter discusses the effectiveness of teamwork and barriers to teamwork in the organization, in order to achieve organizational goals.

Chapter 3: Methodology - This chapter presents the research methods used in determining the effectiveness of teamwork in DAEA teams and investigating the barriers to effective teamwork within the organization. It further gives an outline of the way in which the data were collected and analysed, including the development and administration of the survey.

Chapter 4: Analysis and Interpretation of Results – This chapter presents the analysis of the data collected, using completed questionnaires and discussions with the respondents in addressing the main questions of the research.

Chapter 5: Discussion and Conclusion – This chapter summarizes and discusses the findings of the study relating to the effectiveness of teamwork and barriers to effective teamwork.

Chapter Two

LITERATURE REVIEW

2. 1 INTRODUCTION

The first chapter of this study provided the background, the research problem statement from which the research questions of this study are derived, and the significance of the study on challenges of teamwork for cooperative governance in DAEA. In this chapter the relevant literature is reviewed in order to obtain more information from previous authors, using it to put this study and its findings into the context of the literature. Literature on the effectiveness of teamwork in achieving organizational goals; and the barriers to effective teamwork in achieving organizational goals within organizations will be reviewed, in order to understand the challenges of teamwork for cooperative governance in DAEA.

Under Chapter 3, the Constitution of South Africa sets out provisions for cooperative governance in which it compels government to promote and support continuous cooperation among its three spheres, which are national, provincial, and local. It further defines the principles of cooperative governance under section 41 (1) in which it emphasizes coherence, assistance, support, coordination, and consultation between the various spheres of government (Constitution, 1996). The principles of cooperative governance are based on mutual respect for one another's status, powers, and functions; as well as the promoting of mutual trust and good faith by supporting, informing, and consulting one another on matters of common interest, coordinating actions and legislation (Anon, 2004 cited in Edwards, 2008).

In spite of modern environmental legislation, du Plessis (2008) contends that the administration of environmental matters in South Africa is still problematic. He points out that the reasons for this state of affairs are complex, resulting in many inconsistencies, particularly in environmental governance and decision-making. This is despite the South African Constitution explicitly making provision for cooperative governance (du Plessis, 2008). Furthermore, the concept of cooperative governance

was an attempt to democratize the South African Society, by bringing government closer to the people (Levy and Tapscott, 2001).

The Provincial Planning Commission (PPC) (2011) points out that land-use activities in the province is controlled, impacted on, and indeed influenced by a number of government role players, which include the national, provincial, and local spheres of government. Added to this list are agencies and parastatals which also initiate activities having a negative impact on the environment. There is thus the need for inter- and intra-coordination of all activities from every role player, in order to avoid threatening the integrity of the environment (Draft Provincial Growth and Development Plan 2012-2030, 2011).

The observation by the PPC (2011) supports the view held by Bosman, et al. (2004). This view reveals that some responsibilities of the spheres and departments may overlap. The researchers contend that the overlap is as a result of the country's public administration system, including environmental governance arrangements, which are still based on the pre-1993 fragmented and silo-based system of government departments, each with its own competencies. It is thus not surprising that one hears loud calls from various institutions advocating for cooperative governance.

It is in this vein that the PPC (2011) argues that the use of cooperative governance as an approach is that it aims at alignment of activities that will prevent conflicting initiatives in an area earmarked for development. This argument is further corroborated by Levy & Tapscott (2001) in contending that the introduction of cooperation governance as part of the new dispensation was to advance democracy, and to improve service delivery to all South Africans.

It is argued that, although the spheres have responsibilities that may overlap, or may have either a direct bearing or indirect influence on one another, it is still incumbent upon them to provide cooperative governance for effective, transparent, accountable, and coherent government, based on mutual trust and good faith (Edwards, 2008; Bosman, et al. (2004)).

It has long been observed that the implementation of certain agricultural activities can have a detrimental effect on environmental activities, i.e. ploughing on the edge of the wetland versus conservation of pristine natural condition. This statement is supported by Auerbach (2002) in arguing that the land must be used for activities to which it is suited. His example of encouraging biological diversity is critical, in that agriculturists normally pay lip-service to this principle. He argues that, unless biological diversity is encouraged in farming systems, mono-cropping will yield soils that cannot sustain the agricultural activities in the long run (Auerbach, 2002).

It is therefore critical that agriculture as part of the departmental mandate must respect and enhance the mandate for the environmental component. The environmental mandate requires that agriculture adopt ecologically sound, economically viable, socially just principles, based on a holistic scientific approach. The preceding statement is best illustrated in the purpose of the Department as outlined in the Annual Performance Plan for the period 2008/09, in which it is stated that we must engage, empower and transform our communities, enabling them to participate in sustainable agriculture and environmental practices, in order to realize our economic development and food security (Department of Agriculture and Environmental Affairs, 2008).

The exposition above supports the observation by Barnard (1999) who argues that most government departments are structured so as to promote a particular function, while at the same time they are obliged to enforce legislation that has to create a balanced approach to promoting those functions. The environmental affairs component of the department aims at protecting the environment for future generations.

The above statement highlights the inherently conflicting relationships in the Department which undermines cooperation and teamwork between the components in the Department and the various constitutional mandates. The DAEA is required to promote agricultural activities and also to enforce environmental legislation; this has a direct effect on agricultural projects promoted by the department. The department has experienced challenges in administering EIAs on agricultural projects promoted by the department, more specifically on projects requiring environmental

authorization (personal observation). Cooperative governance therefore ensures that land-use activities do not negatively impact on the natural environment; or on existing developments by negating the economic potential and value of the adjacent land. Du Plessis (2008) argues that the country is in need of development; and the statements that environmental concerns hinder development should be considered only after tabling the concerns.

Furthermore, the National Environmental Management Act, (Act No. 107 of 1998) (NEMA) requires that all government departments cooperate in considering development activities which may have a severe negative impact on the environment, ensuring that the minimum requirements of the Act are met, when assessing the impact of any activity that requires authorization under law (Cox, 2004).

The implementation of NEMA in promoting cooperative governance will yield among other things, agreements with individuals and organizations which would improve the standards of environmental management. Furthermore, it is envisaged that consultation would draw various role players towards a common goal, namely, environmental protection. It has been also argued that, should cooperative governance be appropriately harnessed, the agricultural sector has the potential for creating substantial opportunities in labour-absorbing activities, addressing food securities, and enabling sustainable livelihoods (Draft Provincial Growth and Development Plan 2012-2030, 2011).

The converse situation is extremely serious, in that, should it not be addressed, it could lead to the degradation of the environment. The PPC further contends that this is likely to result in a significant decline in production, contributing towards job losses (Draft Provincial Growth and Development Plan 2012-2030, 2011).

The literature review of this study focuses on teamwork, as outlined in the research questions of the study for investigation. According to Mulibana (2005), teamwork forms the basis for, therefore is an important aspect of cooperative governance. It has also been alluded to earlier that cooperative governance is a legislative mandate for all the spheres of government, including the DAEA, in order to advance

democracy and to improve service delivery, as proclaimed in the Constitution. EscOn (2012) argues that the human factor accounts for the non-service-delivery debacle. They contend that individuals are critical elements in ensuring effective teamwork and collaboration for successful implementation of interdepartmental programmes. They further argue that it is people who are needed to effect smooth implementation of programmes of service delivery through cooperative governance. EscOn (2012) concludes by citing communication as an important element in teamwork. They argue that communication underpins any teamwork or cooperative governance. They further argue that where communication is poor or non-existent, among teamwork members, cooperative governance will fail.

2.2 THE EFFECTIVENESS OF TEAMWORK IN ACHIEVING ORGANIZATIONAL GOALS

2.2.1 Team Characteristics

Wheeler and Stoller (2011) define a team as a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach, for which they hold themselves mutually accountable.

Forsyth (1999) cited in Correia (2005) defines a team as two or more individuals who influence one another through social interaction. Harris & Harris (1996) explain that a team has a common goal or purpose – that of members of the team developing mutual relationships in realizing team goals.

According to Goleman (1998) cited in Luca and Tarricone (2001) team members must stimulate cooperation, collaboration, and teamwork, through well-developed social skills.

Pullon (2006) reports that effective teams share consistent features regarding clear objectives, clear definition of the roles, and adequate time for teamwork. However, effective teams must also be characterized by:

- Understanding and respect for all team members and their roles;
- Dedicated time for meetings, feedback, and negotiation apropos clear role definition within the team; and
- Appropriate leadership with open communication.

Kirkwood (2010) notes that teams are the key component of improved productivity and quality of the organization, in that teams play a fundamental role in improving quality of work life, reducing absenteeism, increasing innovation, and improving organizational adaptability and flexibility, as described by Kirkwood (2010) below:

- ***Improved quality of work life***

Teams play an important role in improving the quality of the working environment in the organization, in which teams are empowered to take control over working processes. In addition, the sense of ownership and accountability is increased, which creates a satisfying and rewarding work environment, thus improving the quality of work life in the organization (Kirkwood, 2010).

- ***Lower absenteeism***

Members of the team are encouraged by a satisfying and rewarding environment, which plays an important role in decreasing absenteeism within the organization. Team members take pride in their work especially when other team members are available to provide input (Kirkwood, 2010).

- ***Increased innovation***

Teams can successfully develop new ideas, because every team member is allowed to experiment with new innovative ideas, thus increasing the organizational efficiency (Kirkwood, 2010).

- ***Organizational adaptation and flexibility***

Involving teams in the organization helps to improve productivity and to contribute in solving a variety of managerial problems. It also helps the organization to influence change when this is needed. Effective team coordination and integration culminates in high productivity, because the organization is able to eliminate process blockages, resulting in flexibility and speed in the finalization of tasks. While effective teams can

produce impressive results, these may, however, also end in failure, because teams are not appropriate for all types of business. Therefore, teams have to be adaptable in assessing the environment of the organization in order to achieve desired results (Kirkwood, 2010).

2.2.2 Teamwork Fundamentals

In their study which identified the extent to which managers are willing to implement teamwork through a number of indicators; and the relationship between the personal and functional characteristics of the managers, and their willingness to implement teamwork, Griffin et al. (2001), cited in Al-Madi, AlZawahreh and Al-Sawadha (2012) define teamwork as groups of interdependent employees who work cooperatively so as to achieve group outcomes. Scarnarti (2001) cited in Luca and Tarricone (2002) define teamwork as a cooperative process which allows people to achieve extraordinary results.

Pullon (2006) supports these views by asserting that teamwork implies cooperation rather than conflict; and involves solving problems as a group rather than as individuals.

This implies that the DAEA teams need to work cooperatively, adhering to the principles of cooperative governance, which are mutual respect for one another's status, powers, and functions, as well as promoting mutual trust and good faith by supporting, informing, and consulting one another on matters of common interest; coordinating actions and legislation (Anon, 2004 cited in Edwards, 2008).

As the foregoing implies, for teams to achieve teamwork, cooperation between the team members must be realized. This is regarded as one of the key aspects of cooperative governance. This is supported by Edwards (2008), who states that the Constitution obligates the government to support continuous cooperation and relations between the spheres of government. The system of cooperative governance is a philosophy governing all aspects and activities of government (Edwards 2008). In support of this perspective, Ramphele (2000) cited in Mulibana (2005) notes that cooperative governance is working together in partnership to

accomplish shared desired goals, cooperating with one another by means of teamwork. Teamwork is regarded as the interaction or the relationship between two or more teams who work interdependently in pursuit of a common purpose. Teamwork implies that members of the team are:

- Mutually dependent;
- Working collaboratively;
- Benefiting from working collaboratively; and
- Sharing information thus enabling joint decision-making (Pullon, 2006).

In emphasizing the significance of teamwork in the organization, Tom Peters 1987, p. 306, cited in Cameron & Whetten (2007, p. 449) stated that:

“Are there any limits to the use of teams? Can we find places or circumstances where a team structure doesn’t make sense? Answer: No, as far as I can determine. That’s unequivocal, and meant to be. Some situations may seem to lend themselves more to team-based management than others. Nonetheless, I observe that the power of the team is so great that it is often wise to violate apparent common sense and force a team structure on almost anything”.

In support of the discussions on teamwork, Finn and Wood (2004) argue that teamwork is a system of organizing work, which requires members to:

- Take collective responsibility for achieving shared aims and objectives;
- Interact and work interdependently in achieving team objectives; and
- Have well-defined and differentiated roles.

As required by the Constitutional mandate of the DAEA, the agricultural team is responsible for the delivery of agricultural services to the communities of KwaZulu-

Natal; such as rendering extension services, implementing agricultural projects, and promoting agricultural activities (KZNDAEARD Annual Report, 2008). On the other hand, the environmental team is tasked with the responsibility of delivering environmental services to the communities of KwaZulu-Natal, such as enforcing and promoting compliance with the environmental legislation, reviewing EIA applications, and promoting environmental awareness (KZNDAEARD Annual Report, 2008), requiring the teams to cooperate, share information, and be mutually dependent in order to achieve teamwork through mandatory cooperative governance.

2.3 BARRIERS TO EFFECTIVE TEAMWORK

There are various factors that result in poor team performance and development of the organization (Bagraim et al., 2007). Wood et al. (2004) identify:

- Lack of top management commitment;
- An ambiguous organizational alignment, as some of the most frequent barriers to effective team performance, and further;
- Pullon (2006) identifies lack of time for meetings and feedback;
- Lack of leadership;
- Poor communication between the team members; and
- Lack of shared goals and task definitions, as common barriers to effective teamwork.

The other important aspect preventing team effectiveness is the lack of cooperation among the team members or among the teams within the organization. Poor cooperation amongst the teams results in conflicts, competition amongst the teams manifesting, thus affecting the delivery of services (Schermerhorn et al., 2004). Gordon (2003) argues that conflicts exist when too many people attempt to occupy the same space at the same time. The space may include matters such as physical, psychological, intimate, political, or any arena in which there is room for only one view or outcome.

People at work may encounter conflict at various levels such as:

- 1) intrapersonal level (conflict within the individual);

- 2) the interpersonal level (individual to individual)
- 3) the intergroup level, or the
- 4) inter-organizational level.

Intrapersonal conflict involves pressures from incompatible goals or expectations, compelling a person to choose between two positive and equally attractive alternatives; while interpersonal conflicts occur between two individuals who are in opposition to one another. Intergroup conflict occurs among different teams or groups. This type of conflict is common in organizations. It can make the coordination and integration of task activities very difficult. Inter-organizational conflict commonly occurs among organizations operating within the same environment (Schermerhorn et al., 2004).

Katzenbach and Smith (1993) argue that structural barriers block team effectiveness; poorly designed or a poorly implemented management system, goal setting, and communication system can also impede team effectiveness. Further to this, organizations do not always communicate clear goals and objectives. For example, the DAEA goals must be clearly comprehended by the teams, including the necessary actions required to achieve them.

2.3.1 Institutional Arrangement

In a study by Mackay and Ashton (2004), exploring a possible model for initiating cooperative governance processes in cross-sectoral policy implementation, using water as an example, they found that separation of line functions between different government departments such as Water, Agriculture, Housing, etc. makes it difficult to attain proper levels of alignment and coherence between these different functions; each department operating independently to fulfill its mandates. As a result, the ultimate vision as promulgated by the Constitution becomes more confusing, the level of implementation being moved outwards from principles through policy, legislation, and regulation, to the lowest levels of governance, making cooperation and alignment across the sectors much more difficult at these levels.

They further report that government agencies may often unknowingly work in directly opposite ways to each other, owing to a lack of high-level coordination and agreement on shared priorities. They support this view by illustrating a scenario commonly experienced in government institutions, in which agricultural extension officers advise people to clear riparian vegetation for planting subsistence crops, thereby increasing their yields on fertile riparian soils, while the water management agency simultaneously requires that riparian zones be strictly protected, in order to prevent bank erosion and sedimentation of river channels, and increased suspended sediment loads in water, which degrade water source quality, and increase water treatment costs. Mackay and Ashton (2004) conclude that both agencies are acting according to their official mandates, however, they are in direct opposition to each other on specific issues. The end result is likely to be a lack of concerted action on the part of both bodies, thanks to confusion. The people who most need benefits from increased subsistence crop yields, and from protection of water resources, will probably experience no good results.

From the foregoing discussion, it is evident that the allocation of functions between the spheres of government with the sole intention of promoting service delivery, has the potential to affect cooperation negatively if there is a “silo-based” governance style between the departments, which ultimately results in failure of teamwork. According to Kinnaman and Bleich (2004) cooperation is appropriate when there is certainty and agreement on organizational outputs.

In an attempt to examine interfaces and linkages between formal and informal institutional frameworks for water management in Tanzania, Sokile, Mwaruvanda and Koppen (2005) found that a harmonious interface between formal and informal institutions for water management may not be simple. Institutional contradictions, power struggles, bypasses and duplication of activities are likely to be encountered, unless a specific effort is made to foster harmony between the institutions.

Du Plessis (2008) makes similar observations regarding the Department which supports and regulate mining, at the same time becoming the final decision-maker on the environmental implications of their activities, versus the department with a specific mandate to protect the environment. He notes that the tug of war between

these departments does not make the situation conducive for cooperative governance.

This negative state of affairs illustrates the direct conflict with what government is asserting in the Constitution, hence the mandatory cooperative governance between spheres of governance in enabling effective teamwork. Muller (2008) holds the view that contemporary challenges for natural resources management require not only a common focus, but also cooperation amongst relevant sectors.

His views are affirmed by those of Tarricone and Luca (2002) that a team and teamwork helps to promote interaction, cooperation and collaboration. Successful teamwork relies upon synergism which must exist between all team members. An environment must be created in which all team members are willing to contribute and participate, in order to promote and nurture a positive, effective team environment. Team members must be sufficiently flexible to adapt to cooperative working environments in which goals are achieved through collaboration and social interdependence, rather than individualized, competitive goals (Tarricone and Luca, 2002).

In a study by Pretorius and Schurink (2007) investigating the leadership model for enhancing service delivery within the local municipality, the research results found that within any local area a number of agencies contribute to development, including national and provincial departments, parastatals, trade unions, community groups, and private-sector institutions. Lack of coordination and integration between these players severely hampers development efforts. The researchers further outline recommendations based on the operating principles of the District Municipality in facilitating cooperation, coordination, and communication between political structures, political office bearers, and the administration. These recommendations are listed below:

- Good working relationships built on mutual trust and with a development-orientated focus;
- An operational environment shaped by a consultative process and policies;

- A culture of open and mutually respectful communication;
- Honesty, integrity, teamwork and commitment;
- Adherence to applicable legislation; and
- Commitment to transformation for all organizational processes and delivery.

Based on the foregoing, one may argue that, besides the challenges of the institutional arrangement, DAEA team members are to create information-sharing platforms for proper decision-making as a result of effective communication, cooperation, and coordination of activities within the Department.

2.4 TEAMWORK UNDERPINNINGS: MEASURES AND SUCCESSES

2.4.1 Collaboration

CHSRF (2006) reports that teams are one way of collaborating in which members share goals, and are mutually accountable in achieving the goals of the organization. They contend that collaboration involves interaction and relationships among the team members. Teamwork may be regarded as one form of collaboration, however, not all collaboration is accomplished by teams. For example, the DAEA team members may provide their services to the community of KwaZulu-Natal, yet they may not see themselves as a collective team working collaboratively for the community of KwaZulu-Natal. Therefore, teamwork is a product of collaboration; and collaboration is the process of interaction and relationships between the agricultural and environmental unit working together towards a common goal (CHSRF, 2006).

Kinnaman (1999) cited in Kinnaman and Bleich (2004) argue that collaboration is a communication process fostering innovation and advanced problem-solving among people who:

- Are from different disciplines, various ranks or organizational settings;
- Work together to solve problems;
- Convey innovative solutions regardless of discipline, rank, or organizational affiliation; and

- Enact change based on a higher standard of care or organizational outcomes.

In a study by Kotze, Breen and Kareko (2009) which looks at collaboration amongst organizations involved in wetland rehabilitation, the researchers found that management of the use of wetlands falls under the mandate of a number of government departments; drawing the interest of a number of stakeholders. They argue that this creates a complex institution in which intervention measures such as rehabilitation are implemented; and as a result there may often be disagreements, which creates uncertainty surrounding the intended outcomes of wetland rehabilitation interventions. These conditions of dynamic complexity with multiple interests in wetlands, planning for wetland rehabilitation, whether at a broad or localized level, usually requires various parties to work together in a collaborative approach so as to attain a sustainable solution (Kotze et al., 2009).

The researchers further argue that, although the collaborative approach is generally recognized in the management of Complex Natural Resources System (CNRS), however, it is inefficient and inappropriate for everybody to be involved in everything. Collaboration requires a high level of investment of resources (Kinnaman and Bleich, 2004 cited in Kotze et al. 2009). Where resources are limited, as is often the case, collaboration should be directed to those situations that yield the best or the most important returns. Kinnaman and Bleich (2004) further contend that, although many practitioners and leaders of various organizations conclude with certainty that collaboration is an important solution in improving problem-solving within the health-care sector, evidence to support such a view is lacking.

Backing this assertion, they present an illustration that chaotic events are not an propitious time for collaboration. Therefore, in investigating the challenges of teamwork for cooperative governance within the DAEA, it is important to consider whether collaboration is fostered at the most favourable moment, thus ensuring positive collaborative results for teamwork, and eventually cooperative governance. Kotze et al. (2009) hold the view that, when people are separated spatially, they commonly do not share the same understanding of the system, which results in complicated collaborative behaviour within the organization. However, they present

an assessment framework for monitoring the effectiveness of collaboration built on a view that effective collaboration must occur when a state of self-organization exists.

In support of the foregoing argument, Dzwauro, Otieno and Ochieng (2010), in their study investigating the systems-thinking approach (STA) in integrated water resources management (IWRM) found that sustainable management of water requires integration, recognizing the interconnections between upstream systems operating at different levels of scale. They view collaboration as promoting equity in handling upstream-downstream impacts, allowing individual ideas to collaborate on reviewing the burden of the entire system.

The above argument is collaborated by Kotze et al. (2009), in their conclusion that collaboration is a requirement for achieving the goal of sustainable use of wetland resources. They found that striving for collaboration must be deliberate, and progress in achieving collaboration must be measured and evaluated, so that corrective action may be implemented. Collaboration emerges from the way in which we do what we do; and it must be addressed strategically.

2.4.2 Communication

Katzenbach (1998) and Sagie and Koslowsky (2000), cited in Mulibana (2005) argue that teamwork encourages listening and responding constructively to views expressed by other team members for the benefit of the team and the entire organization.

Mickan and Rodger (2000) argue that communication involves interchange of information and interaction amongst the teams. Basically, teams within the DAEA are to ensure that there is information-sharing for proper decision-making.

For a team to succeed, it needs a reliable communication process with clearly defined roles and responsibilities. For example, agricultural and environmental units at DAEA must have clearly defined processes for communication, which will ensure that, as team members listen to each other frequently, collaborating in order to develop mutual knowledge this will enhance communication. Communication may

also be enhanced by joint decision-making, as well as informal and formal interchanges. One of the major forms of communication is the holding of meetings. In order for meetings to be efficient, they must have clear agendas, and be managed in such a manner as to ensure member participation (CHSRF, 2006).

Kinnaman and Bleich (2004) argue that communication between organizations involves informing each other through the formally established procedures that are documented, or verbally verifying schedule-step routine during communication routine.

Pretorius and Schurink (2007) argue that service delivery is viewed as a mechanism for activating the communication strategy between the District Municipality and the Local Government. They eventually recommend that communication strategy between the municipalities should operate on two levels: 1) conventional – using media such as newsletters, interactive websites, fliers, posters, and forums for regular meetings; and 2) strategic – using the economics of scale services, legislative innovations, development frameworks, and institutional interventions. They contend that these approaches would address various levels of operational capacity of the municipalities, optimizing communication, cooperation, and integration, in planning for the region.

The foregoing views by Pretorius and Schurink (2007) are corroborated by the argument raised by Ellingson (2002) in her study examining communication, collaboration and teamwork among health-care professionals. She contends that effective communication between all members is needed in the health-care sector, however this is lacking. She argues that team meetings are a critical aspect of health-care team functioning and effective communication. Effective communication amongst the team members is crucial to effective collaboration.

2.4.3 Effective Leadership

Tarricone and Luca (2002) state that effective leadership is important for team success, including shared decision-making and problem-solving responsibilities.

They argue that team members must be accountable for their contribution within the team.

Rees (2001) argues that leading the team calls for the effort of getting the team working in a productive and cooperative manner. Rees (2001) further explains that a good team leader must be guided by a four-point model known as the “L.E.A.D. model”, which must be borne in mind when working with a team. These points include: leading with a clear purpose, empowering, enabling participation, aiming for consensus, and directing the process.

Leading with a clear purpose ensures that a common goal is achieved. Goals may be used as motivators for teams. Goals must be realistic, challenging, and positive. Once goals have been set, a leader must empower members to participate, in order to achieve high level goals. In this regard, the team feels unmotivated if it cannot participate in decision-making processes towards achieving the set goals. Member participation also stimulates individual self-esteem, encouraging open communication for team effectiveness. Mutual trust among the members is achieved through participation and consensus, which enables the members to respect differences amongst each other, and to find a proper and constructive way of resolving conflicts. Subsequent to their having identified the clear purpose, leaders will have to redirect process and content, which involves the manner in which the team works together, i.e., the way in which they behave in meetings, how they resolve conflicts and the way in which they communicate (Rees, 2001).

Darlington (2007), cited in Al-Madi et al. (2012), reported that, in order to ensure successful teamwork every team needs a great leader. The leader’s role is that of a facilitator; and the attributes of a good team leader is to be able to listen to team members, create a climate of trust and openness, communicate the goals and mission of the organization, delegate, coach, encourage creativity, share information, empower people, and help the team become more and more self-directed.

2.4.4 Strong Organizational Support

Teams require strong organizational support in functioning effectively. A clear organizational philosophy valuing teamwork can motivate agriculture and environment teams to practice collaboration (CHSRF, 2006).

According to Robbins and De Cenzo (2001), a well-performing team must have the following qualities in order to enhance organizational structure:

- **It must be small in size**

In order to achieve effective results, the team must be small in size, constituting not more than ten people. Should the team be bigger, it becomes hard to achieve results, because there is normally poor interaction in developing a common purpose, goals, approach, and mutual accountability (Robbins and De Cenzo, 2001). Wood et al. (2004) argue that it is difficult to specify the ideal size of the team. However, group size can be looked at in relation to team effectiveness. Larger-sized teams mean that there are sufficient human resources to divide up work, finalizing tasks on time.

- **It must have complementary skills**

There are three types of skill required for the best team. Firstly, technical skills are needed. Secondly, problem-solving skills are required in people who can take charge, identifying problems, addressing them through creating alternatives to solving problems, assessing those alternatives. Thirdly, teams must have someone with good interpersonal skills. It is not a given that teams possess these skills from the outset. However, as the team evolves, the skills may be learned, as members slowly take their responsibilities within the team (Robbins and De Cenzo, 2001).

- **It must have a common purpose**

The best team must have a common purpose for which all team members aim. The common purpose must provide direction, momentum, and commitment of members. Any organizational team is driven by the passion to see its organization achieve results, in abiding by the team effort and commitment (Robbins and De Cenzo, 2001).

- **It must have a specific goal**

Larson and Lafasto (1989) maintain that an effectively functioning team must have a clear understanding of the goal to be achieved. It is therefore imperative that, for a team to be successful, it must be capable of translating its common purpose into a specific, measurable goal. A specific goal results in clear communication, assisting the team to maintain its focus in gaining the results (Robbins and De Cenzo, 2001).

- **It must have a common approach**

The team must have a common approach to the way in which they go about achieving the goal. They must be able to agree and define the approach that will propel the team towards its goal. A common approach involves equitable distribution of workload, deciding on the work schedule, skills needed, and the best way of resolving conflicts. The ability to integrate skills in promoting the team's performance results in an effective common approach (Robbins and De Cenzo, 2001).

- **It must have mutual accountability**

Members of a high-performance team must be jointly accountable to the team's purpose, approach and goal. All team members are to play a meaningful role in the team's success. The role of each team member must be identified so as to make every team member feel responsible for the success of the team. It has been reported that, should the individual efforts of the team not be recognized - only team effort being recognized, individuals within the team tend to reduce their efforts (Robbins and De Cenzo, 2001).

- **Building emotional intelligence**

Druskat and Wolff (2001) report that building the emotional intelligence of a group is vital in order for the team to work more effectively. They further articulate that group emotional conditions of participation and cooperation will not be easily achieved if three essentials for group effectiveness are absent. These include: trust among members, group identity, and group efficacy. The group needs to create emotional intelligent norms which will enable the team to function in behaviour and attitude that will eventually become habitual. Habits created will eventually result in building trust, group identity, and group efficacy. A model of team effectiveness as shown in

Figure 2.1 illustrating that group emotional intelligence occurs when there is mutual trust, identity, and a sense of group efficacy. These group emotional intelligence conditions will then simply result in common interactive behaviour such as participation, cooperation, and collaboration for the team's better decision-making, more creative solutions, and higher productivity.

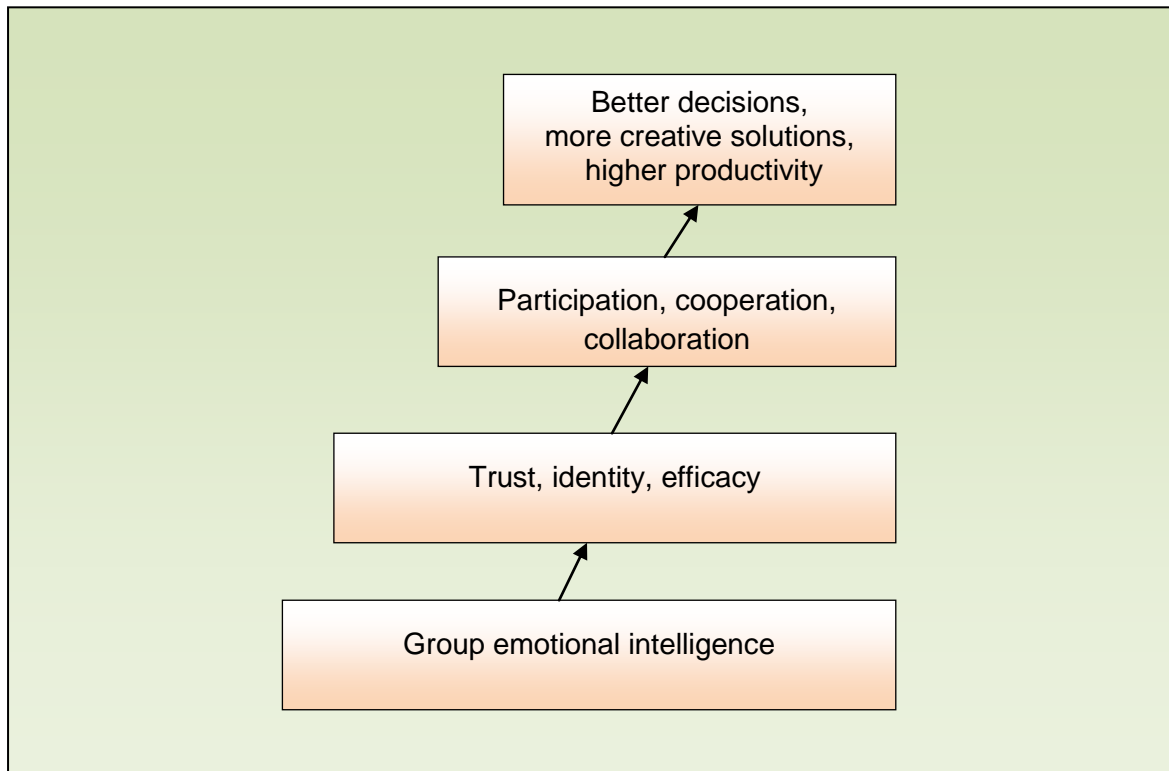


Figure 2.1: A model of team effectiveness (Source: Druskat and Wolff, 2001)

Dudiy (2005) reports that team-building techniques are essential for building an effective organizational team. There are too many problems that can inhibit a team's success if there are no team-building activities. For example, conflicts may arise owing to personality clashes, instead of complementing and balancing one another. Fighting for dominance may arise when there are similar personalities in the team. Regardless of the clear team goals accepted by everyone, team members may simply follow their own opinions and move in opposite directions from the rest of team members, resulting in lack of trust, openness, and communication. Therefore, a good team leader is required to implement team-building techniques for organizational success. Techniques may include some of the following factors:

- Ensuring that team goals are clear, understandable, and accepted by the team members;
- Ensuring that there are no overlapping authorities, whereby two members are responsible for a similar activity within a group, which may result in competition, and subsequently conflict. The team leader must divide the areas of control into two distinct parts according to strengths and personal characters of individuals;
- Cultivating loyalty to employees, building trust with members in order to create honesty and openness;
- Encouraging open communication amongst the team members by allowing them to engage in any team-building events, promoting the extra social atmosphere;
- On decision-making issues requiring consensus and commitment, the whole team must be involved. This will bring a sense of ownership of the team;
- Ensuring that there are always open lines for communication, so that people are fully informed;
- Dealing decisively with interpersonal issues before they are exacerbated; and
- Giving opportunities for self-advancement; showing appreciation for good performance, instead of frequently giving negative feedback (Dudiy, 2005).

2.4.5 Monitoring the effectiveness of teamwork

Pretorious and Schurnik (2007) found in their study that municipalities should be able to identify their shortcomings so that they can be able to address any identified problems and thus monitor their progress which is a reflection of their effectiveness as a team. To achieve the foregoing, their research found that there is a need for the development of an integrated model whereby a transformation plan for the municipality could be developed, implemented and monitored. The plan would address conditions for sustainable service delivery and economic development. This will ensure that there is clear-cut formal systems of interaction and well-articulated lines of accountability and reporting mechanisms, with timeous and

effective dispute resolution mechanisms, which will minimize tension but however improve relationships in the teams.

2.5 DESCRIPTION OF EIA PROCESS AND OUTCOMES

Around the globe, human populations are making increasingly heavy demands on the natural environment. This has resulted in drought, famine, soil and water pollution, climatic change, and the irreversible losses of plant and animal species (Nagarajan & W'O Okot-Uma 1999). Subsequently, such exploitation of natural resources has, according to Glasson, Therivel and Chadwick (1994) resulted in a remarkable growth of interest in environmental issues over recent years. Glasson et al. (1994) further report that the associated growth of interest has resulted in the introduction of environmental legislation seeking to balance the relationship between development and the environment. In KwaZulu-Natal, as with the rest of South Africa, EIAs are implemented in all activities that have the potential to cause a significant detrimental effect on the environment. This includes agricultural projects promoted by the department (Cox, 2004).

2.5.1 Overview of the EIA Process

Ghasemian, Poursafa, Aamin, Ziarati, Ghoddousi, Momeni and Rezaei (2012) argue that EIA is one of the main legislative tools used in reducing the human impact on the environment. They define EIA as a system by which information regarding the environmental effects of a project is collected, both by the developer, and from other sources. This information is considered later in the process by the relevant authority during the decision-making process, deciding whether the development may proceed.

SEERAD (2006) defines EIA as a procedure for considering the potential environmental effects of land-use change. It therefore helps to inform decision-making, so that decision-making on land-use changes is taken with adequate knowledge of the likely environmental consequences. The foregoing statement is best illustrated by the study conducted by Mekuriaw and Teffera (2013) to assess the environmental and social impacts of a proposed floriculture project. In their study

they found that as a positive outcome of the project, the proposed floriculture project would yield high income tax, job opportunities, introduction of modern technology, and other benefits. However, at the same time, there were potentially negative impacts identified, associated with the project. These included water-resource depletion, water pollution, soil degradation, human health problems, emergence of new pests, and improper waste disposal. Eventually, the EIA study suggested that an alternative site should be identified for implementation, or the size should be reduced so as to make the project sustainable.

2.5.2 EIA in South Africa

Kruger (2012) reports that EIAs have been conducted in South Africa since 1970, however, the first South African EIA Regulations were enacted in September 1997 under the regime of the Environment Conservation Act 73 of 1989 (ECA).

Recently, the National Environmental Management Act, No. 107 of 1998 (NEMA) has been amended to promulgate the new set of regulations known as GNR 543, 544, 545 and 546. These regulations are currently being used in South Africa to proactively assess both positive and negative impacts of the developmental activities (DEA, 2010).

According to Cox (2004) NEMA requires that all government departments cooperate in considering development activities which may have a severely negative impact on the environment, ensuring that the minimum requirements of the Act are met, when assessing the impact of any activity that requires authorization under the law.

With the promulgation of the NEMA EIA Regulations, agricultural activities have also been listed in the EIA listing notices (544, 545 and 546) as among the activities that may not commence without environmental authorization. For example, agricultural activities which are identified below may not commence without environmental authorization in terms of the NEMA EIA Regulations, 2010:

- A) **GNR 544: Activity 4** – *“the construction of facilities or infrastructure for the concentration of animals for the purposes of commercial production in densities that exceed-*

- ii) *20 square meters per large stock unit and more than 500 units per facility;*
- iii) *8 square metres small stock unit and;*
- iv) *More than 1000 units per facility excluding pigs where (b) will apply;*
- v) *More than 250 pigs per facility excluding piglets that are not yet weaned,*
- vi) *30 square metres per crocodile at any level of production, excluding crocodiles younger than 6 months;*
- vii) *3 square metres per rabbit and more than 500 rabbits per facility;*
or
- viii) *250 square metres per ostrich or emu per facility, or 2500 square meters per breeding facility”.*

B) **GNR 544: Activity 5** – *“the construction of facilities or infrastructure for the concentration of:*

- i) *More than 1000 poultry per facility situated within urban area, excluding chicks younger than 20 days*
- ii) *More than 5 000 poultry per facility situated outside an urban area, excluding chicks younger than 20 days”.*

C) **GNR 544: Activity 7** – *“the construction of facilities, infrastructure or structures for aquaculture of offshore cage culture for finfish, crustaceans, reptiles, amphibians, molluscs and aquatic plants where the facility, infrastructure or structures will have a production output exceeding 50 000 kg but not exceeding 1000 000kg per annum (wet weight)”.*

D) **GNR 544: Activity 8** – *“the construction of a hatchery or agri-industrial infrastructure outside industrial complexes where the development footprint covers an area of 2000 square metres or more”.*

Activities 31, 32, 33, 34, 35, and 36, as listed in GNR 544 are only relevant for the expansion of the development activities, as outlined in A, B, C, and D, above.

GNR 545: Activity 16 – *“the physical alteration of virgin soil to agriculture, or afforestation for the purposes of commercial tree, timber or wood production of 100 hectares or more”*.

GNR 546 includes activities proposed within specified geographical areas only, as identified by the province. Consequently, other agricultural activities may require the EIA authorization if they are located within those geographical areas.

2.5.2.1 EIA Application process

According to the DEA (2010) the EIA process is a process of examining the possible/potential environmental effects of a development. The EIA regulations in terms of NEMA have split the process into two types of assessment, which are 1) basic assessment and 2) scoping, and EIR process. The difference between the two processes relates to the development type and its potential impact on the environment. As a result, the activities as listed above may either follow a basic assessment or scoping and EIR, depending on their potential impact on the environment (DEA, 2010).

Upon the identification of the development activity by the project developer, the project developer must in terms of the regulations submit an application to the relevant authority (known as the competent authority), through the use of the Environmental Assessment Practitioner. The application follows an impact assessment process as outlined in an abbreviated process flow in Figure 2.2 below, which includes consideration of various environmental reports, engaging in public participation, after which it culminates in the issuing of the environmental authorization (granting or refusing authorization).

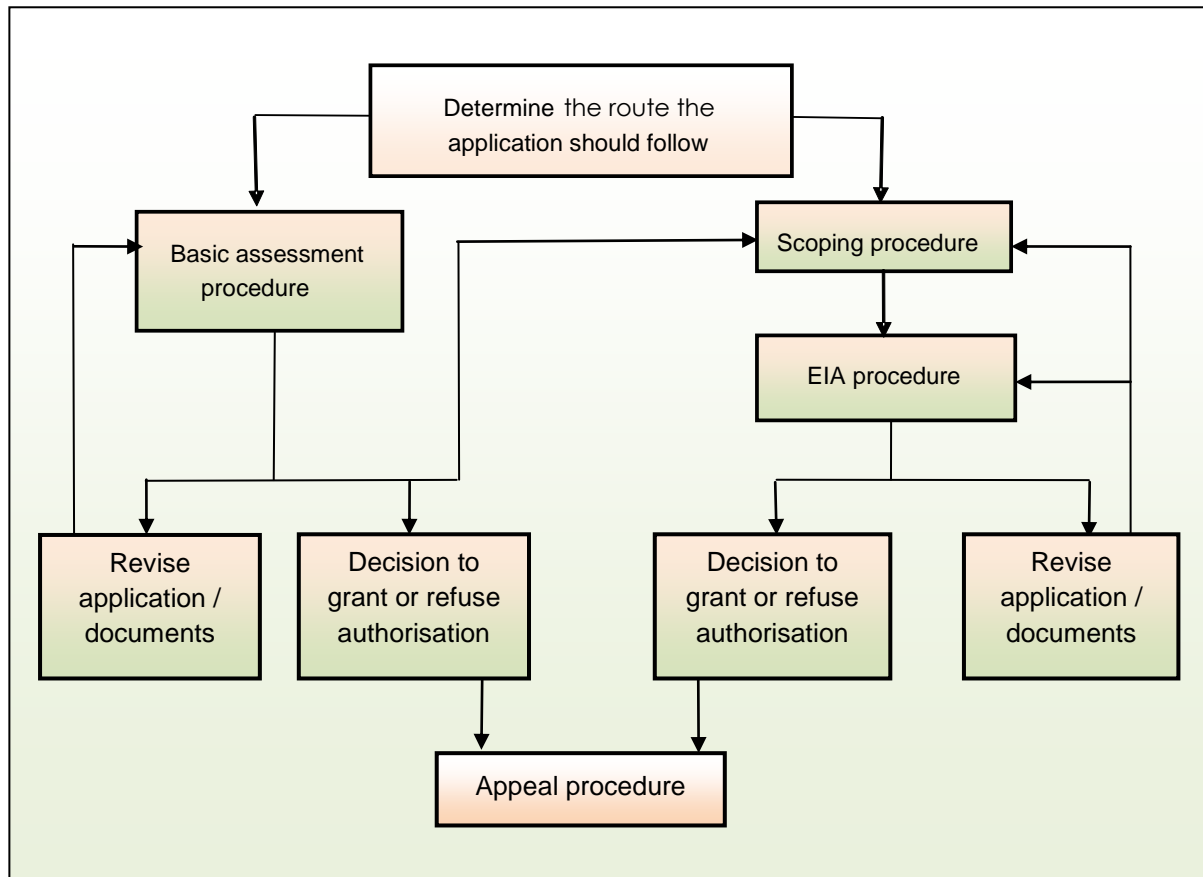


Figure 2.2: Abbreviated EIA Process Flow (Source: DEAT, 2006).

2.6 AGRICULTURAL PROJECTS IN KZN

According to the KZN DAEA Agrarian Revolution Plan (2006) the principle of Good Agricultural Practices (GAP) must be adopted on all projects handled by the department, requiring that all activities such as cultivation, construction of dams, and clearing of indigenous vegetation, be conducted in such a manner as to avoid environmental degradation. Therefore, the Environmental Impact Assessments (EIA) must be conducted before these activities commence (KZN DAEA Agrarian Revolution Plan, 2006). In achieving this responsibility, it is required that agricultural and environmental units of the department coordinate and integrate their tasks in order to implement the projects in an environmentally sustainable manner.

In response to the agricultural development needs of the province, the DAEA established a programme known as the Agrarian Revolution. The Agrarian

Revolution programme commissioned by DAEA was destined to move subsistence farmers from the second economy to the first economy through a “ladder of agricultural development” in a step-wise approach escalating small-scale farmers from subsistence economy to commercial and export economy (Figure 2.3). It also changes reliance on the importation of basic food stuffs, and also brings down food prices through a comprehensive support programme for emerging farmers (Agrarian Revolution Operational Manual 2006).

The Agrarian Revolution programme included a variety of sub-programmes administered by the DAEA, such as the massification programme, the Land Reform for Agricultural Development programme (LRAD), Land Care programme and Food Security programme (Shongwe, October 2010 *Pers Comm*). The programme is outlined in a five-year departmental strategic plan. According to the former MEC for DAEA, a total of R280 million was set aside in the 2006/2007 financial year for the Agrarian Revolution.

In addition to the departmental funding, the Comprehensive Agricultural Support Programme (CASP) which aims at assisting farmers who acquired land through a restitution programme has been fully effective. The CASP reduces farming input costs, provides mechanization, and gives the farmers access to research on better production processes (KZNDAEARD-Budget Policy Speech 2010/2011, 2010).

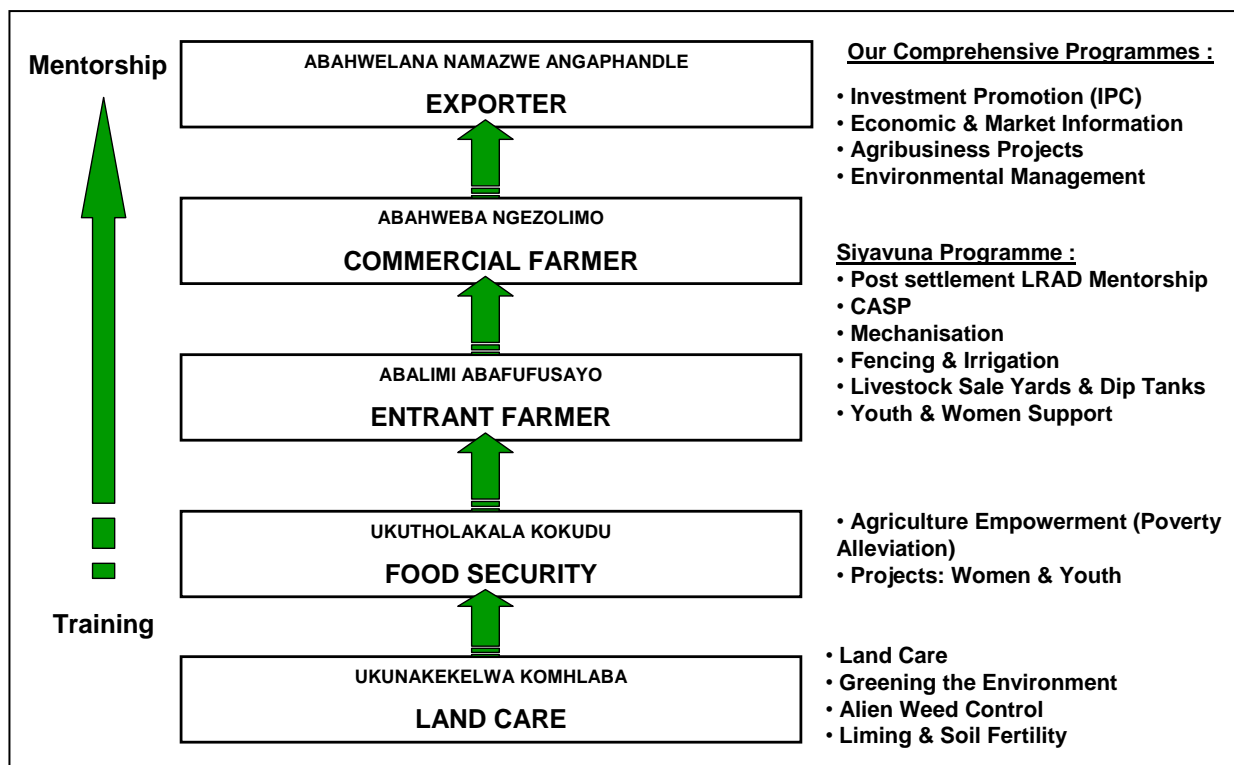


Figure 2.3: The Ladder of Agricultural Development (Integrating various programmes) (Source: Agrarian Revolution Operational Manual 2006).

The food security programmes under the Agrarian Revolution will be focusing on the entire province with an initial focus on poverty stricken areas such as the Ugu, Zululand, and the Umgungundlovu Districts. Agricultural projects under the Agrarian Revolution programme include agricultural activities such as livestock farming, cultivation of land, construction of dams, fencing, abattoirs, and dip-tanks in rural KwaZulu-Natal (Agrarian Revolution Operational Manual 2006). While this programme seems capable of transforming the image of poor rural KwaZulu-Natal, it is essential that proper planning processes are pursued before the implementation of the projects as contemplated in the Agrarian Revolution. One of such processes is the EIA process. A number of agricultural activities, including those contemplated in the Agrarian Revolution, are listed in the EIA regulations; therefore they must receive environmental authorization before their commencement.

2.7 CONCLUSION

In attempting to understand the challenges of cooperative governance, this chapter focused on teamwork, which is regarded as an important aspect of cooperative governance. It also forms the basis of cooperative governance. Teamwork has been identified as one of the key elements of cooperative governance necessary for DAEA teams to accomplish the set goal of the organization.

The literature reviewed will be instrumental in analysing and interpreting the data collected using the methodology discussed in the next chapter.

Chapter Three

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes the methodology used in this study. It gives details on the methods used in collecting the data, including the development and administration of the survey. The research methodology used to execute the study focuses on data collection through the use of a questionnaire (Appendix A). In the questionnaire, respondents were expected to answer questions verbally when interviewed by the researcher. This was done in order to elicit specific answers from the respondents. This type of interview is standardized. The use of a structured questionnaire means that each respondent will be asked the same questions in the same manner and order. The answers given accommodate a standard scoring system.

Chapter 1 introduced the main research problem and the research questions of this dissertation. In understanding the challenges of teamwork for cooperative governance, the study focuses particularly on teamwork thus answering the research questions. The study, and particularly this chapter, sets out procedures investigating the effectiveness of teamwork; and also barriers to effective teamwork within the agricultural and environmental units of DAEA in the North Region, KwaZulu-Natal.

3.2 RESEARCH DESIGN

Traynor (2005) indicates that research design involves defining the way in which the research investigation is conducted; also defining the data-collection methods with its analysis in fulfilling the purpose of the research.

Mouton (1996) cited in Mulibana (2005) defines research design as a set of guidelines and instructions to be followed in addressing the identified research problem. This includes the aim of the research, the selection of participants, and their reliability, also the selection of a relevant method for the study. The two basic

research designs based on the way in which data is collected and analysed, are quantitative and qualitative methods (Welman, Kruger and Mitchell, 2005).

3.3 QUALITATIVE AND QUANTITATIVE APPROACHES

Literature on research methodology reveals two main research approaches. These are qualitative and quantitative research approaches.

Qualitative research, as described by Dawson (2007) explores attitudes, behaviour, and experiences through various methods which include interviews or focus groups. This method attempts to elicit in-depth opinions from the respondents, on the issues investigated, through their attitudes, behaviour and experiences of the subject.

According to Moore (2006) qualitative research involves collecting data in a much less formal and structured way than for quantitative research. In this form of research, data is expressed in words rather than in a numerical format (Moore, 2006). This is supported by Corbin and Strauss (1990) cited in Mulibana (2005) who argues that in qualitative research, findings of the research are not achieved by way of statistical procedures or other means of quantification.

Cresswell (2003) highlights that qualitative research is interpretative, which means that the researcher interprets the data so as to describe an individual or a setting, as well as in analysing data or themes, eventually arriving at conclusions about its meaning, both personally and theoretically, through interpretation.

When qualitative research findings are reported, these often include raw data (e.g. quotations from the respondents) as well as analyses of the data based on the categories. In addition, they often indicate the way in which their hypotheses changed during the course of the investigation (Eysenck, 2004).

According to Eysenck (2004) the greatest limitation of the qualitative approach is that the findings that are reported tend to be unreliable and difficult to replicate because the qualitative approach is subjective and impressionistic, and therefore the ways in which the information is categorized and interpreted tend to differ from one

investigator to another. There are various ways in which quantitative researchers attempt to prove that their findings are reliable (Coolican, 1994 cited in Eysenck, 2004). The most satisfactory approach is seeing whether comparing the findings obtained from a qualitative analysis may be replicated. This can be achieved by comparing the findings from the interview study with those from the observational study. Alternatively, two different qualitative researchers can conduct independent analyses of the same qualitative data, and then compare the findings.

Schulze (2003) argues that quantitative research is suited to theory testing and developing of a universal statement, in such a way that it gives a general overview of a situation. Consequently, quantitative research produces results that are generalized across contexts, disregarding the reality of the situations.

According to Rudestam and Newton (1992) cited in Xulu (2007) quantitative methods of research have an epistemological foundation based on logical positivism, which maintains that all knowledge is derived from direct observation and logical inference. Statistical methods are used in viewing relationships and patterns, and expressing these patterns in numbers.

McDowell and MacLean (1998) note that quantitative methods tackle the data-reduction challenge by focusing on the common, and discarding the unique variance; the mean then becomes the principal descriptive statistic. They further argue that the advantages of quantitative methods are that they are cost-effective and succinct. They distil the characteristics of the group at the potential risk of missing insights from outliers.

Quantitative research imposes external standards: results are coded and analysed as numerical values, while qualitative research is analysed using the language or actions of the respondents. By compressing reality, quantitative methods may submerge the meaning of the data, allowing the form of the numbers encoding the meaning to take a steering role in analysis (McDowell and MacLean, 1998). Schulze (2003) holds the same view: that the qualitative research approach restricts views of human beings because it concentrates on repetitive and predictable aspects of

human behaviour. However, the qualitative research approach is able to overcome these shortcomings.

Sandelowski (2000) argues that researchers have increasingly used the mixed-method techniques for expanding the scope of, and deepening their insights into their studies. According to McDowell and MacLean (1998) the combining of qualitative and quantitative methods is intended to array the strengths of each approach against the limitations and biases of the other. They further argue that the more the two approaches differ, the less likely it is that they will share biases; as a result, their combination becomes more valuable. Schulze (2003) supports these views by stating that combining the two approaches builds on the strengths of both approaches.

Xulu (2007) argues that qualitative-quantitative linkages exist between distinct data types, where qualitative information gained from open-ended interviews is compared with the numerical data elicited from the questionnaire. Brannen (1992) cited in Xulu (2007) describes the mixed-research approach as a multiple research strategy in which different methods are used in relation to the same object of study. He recognizes that there is a need for using different research strategies; and he favours the use of various methods in relation to the same object of study.

Niglas (2004) makes the observation that authors have not reported any problems emerging from the combined design. However, a mismatch between qualitative and quantitative data has been recognized, which was, however, not regarded as a problem by researchers, but rather as an advantage for the studies.

In this study, both qualitative and quantitative approaches have been employed. In this regard, quantitative analyses of responses derived from the questionnaire are used to present data in tables and percentages, as are qualitative analyses of themes generated by the face - to - face interviews and telephone calls to present data through the use of direct quotations from the respondents.

3.4 METHODS OF DATA COLLECTION

A questionnaire (see Appendix A) was designed comprising open-ended questions and closed-questions in answering relevant research questions. According to Allison, O'Sullivan, Owen, Rothwell, Rice, and Saunders, (1996) the questionnaire is considered a convenient tool for collecting data because of its accuracy and its ability to cover a wide range of research topics. In order to facilitate data collection, the interview technique was adopted, guided by the questions outlined in the questionnaire. Moore (2006) argues that interview surveys offer more control over the response. The presence of the interviewer reduces the number of refusals, because it is difficult to turn down a person, whereas a piece of paper may more readily be ignored. It is for this reason that the researcher decided to adopt the interview technique, guided by the questions outlined in the questionnaire. The respondents were interviewed face - to - face or telephonically, in answering the questions in the questionnaire.

In designing the questionnaire, it was ensured that the following factors were taken into consideration so as to gain a deeper understanding of the problem.

- The questionnaire was written to suit the level of the group interviewed; and
- The content was relevant to the subject investigated by the research.

The questionnaire consisted of an introduction briefly outlining the topic, requesting the respondents to respond truthfully. It also stated the code of ethics which assured anonymity and confidentiality of the respondents in handling the data. The introduction was followed by a set of questions consisting of a mixture of both open-ended questions and closed questions. It consisted of two sections (i.e. Section A – B). Section A dealt with themes discussing the effectiveness of teamwork in DAEA, in which a series of questions were asked so as to discuss the way in which teams communicate and interact, as well as the way in which they assisted one another in achieving the organizational goal. Section B dealt with themes discussing barriers to effective teamwork. A series of questions was asked in determining factors that may be regarded as barriers to effective teamwork. The interviewer allowed the

respondents to give details on the questions asked, in order to obtain elaborative answers.

Before the interviews were conducted, letters were written to the Managers for Agriculture and Environment sections of the DAEA, requesting permission to conduct research in all five district offices. The letters were dated September 2009 and the survey was initially conducted in the period from November 2009 to March 2010 in order to complete the questionnaires. Further survey was conducted in October 2010, and March to April 2011 and lastly in October 2013 to complete the interviews and source data from literature. Additionally, informed consent letters (refer to copy in appendix B) for the respondents to sign, were compiled and given to the respondents, in order to comply with the code of ethics of the research.

3.4.1 Population and Sampling

According to Dawson (2007) sampling is about choosing a smaller, more manageable number of people to take part in the research. Allison et al. (1996) argue that sampling is undertaken from a group of subjects on whom the researcher intends to collect information. In this study, both simple random and purposive sampling procedures were employed for selecting the respondents from the district offices of DAEA. Welman et al. (2005) define simple random sampling as sampling in which each individual of the population has an equal chance of being included as a member of the sample. On the other hand, purposive sampling targets only those respondents who have the characteristics and attributes of the subject (Sarantakos, 1997).

For this study, forty-four respondents from the district offices of the North Region, consisting of respondents from environment and agriculture were sampled for participation in the study. In ensuring that the research would be finalized within a set time limit, the researcher interviewed forty-four respondents, although a sample size of fifty respondents had originally been intended for the study, so as to avoid a wide array of data which would take a lengthy time to analyse. As a result, 88 % of the respondents participated in the study - forty-four out of fifty. This included three Environmental Officers, and one Assistant Manager per district in EIA section.

Purposive sampling was advocated in selecting Deputy Managers of the districts and Managers for environment and agriculture to participate in the study. The same procedure was applied for the agricultural unit in selecting the sample, in which one Agricultural Scientist and one Assistant Manager were selected per district. Sarantakos (1997) argues that there are a number of methods one may use in selecting units under simple random sampling. In this study, the researcher targeted only those respondents responsible for handling the EIAs; and only those respondents who are responsible for agricultural projects in the districts. During sampling it was evident that the number of officials responsible for EIAs and agricultural projects varied per district office. Some districts offices have one or two officials, and some have any number between five and eight officials in the districts. Therefore, in selecting respondents from the district offices with larger population, simple random systems employing a lottery method was used in selecting the respondents. However, in the district offices, where there are only between one and three potential respondents who would participate in this research, purposive sampling was advocated. Therefore, this study finally comprised a total sample of forty-four participants.

3.5 DATA ANALYSIS

The data collected in this study through the discussed methods was both quantitatively and qualitatively analysed. The study utilized the primary data collected from the respondents through interviewing the respondents using the prepared questionnaire. The data collected constituted an important part of Chapter Four; helping to investigate the challenges of teamwork for cooperative governance in the implementation of the EIA process on agricultural projects in KwaZulu–Natal.

For the purposes of analysing the data gathered, tables are used to present data, where data is expressed in frequencies and percentages. Additionally, direct quotations from the respondents are used in presenting data, in order to obtain an in-depth meaning of the results. The percentages are subsequently used to describe and analyse quantitatively, the represented sample.

3.6 DATA PRESENTATION AND ANALYSIS

In this study tables have mainly been used in presenting data collected from the field. The main aim of illustrating data using charts, graphs, and tables is to have data expressed visually, in order to distinguish what has happened, making interpretations and being able easily to show data to others, in order to convey the gathered information (Scene, 2004). Additionally, the respondents are asked to give details on particular questions. Data is discussed and summarized as presented, and therefore it is not presented in the table. For the purpose of this study, data analysis will focus on the following two major themes:

Section A: Effectiveness of team work; and

Section B: Barriers to effective teamwork.

3.7 CONCLUSION

This chapter discussed the methods that were undertaken in collecting and analysing the data. It further described the population that was sampled, and the sampling technique employed in obtaining the final data. With the interviews that were conducted using the questionnaire, the researcher obtained in-depth information for analysis in Chapter 4. Overall, the methodology employed in this study was found to be sufficiently comprehensive in answering the research questions.

Chapter Four

PRESENTATION AND ANALYSIS OF DATA

4.1 INTRODUCTION

Chapter Three discussed the research design and methodology of this study. This chapter presents and analyses the data collected from the officials of the DAEA, using the questionnaires and interviews. In this study, the researcher explores the perceptions, attitudes, and feelings of the respondents on the effectiveness of teamwork, and barriers to effective teamwork within the DAEA (Agricultural and Environmental units).

4.2 DESCRIPTION OF A SAMPLE

The study analyses data collected in the North region districts of DAEA, the district offices of DAEA being the centre for implementation of departmental activities, such as the reviewing of EIA applications, and the implementation of agricultural projects. The five districts selected for the study report to the North region of the department, which is managed by the managers for agriculture and environment.

In selecting the sample, deputy managers responsible for managing the districts participated in the study, giving insight and knowledge on the research questions of the study owing to their extensive experience in their field, which ranges from 10 years upwards. The sample also included assistant managers for the EIA section and for Agricultural Services. The assistant managers were regarded as more appropriate for participating in this study because of their day-to-day practical knowledge in managing and supervising the activities of their sections. Their work experience ranges from 5 years upwards. Below the level of the assistant managers are the environmental officers and agricultural scientists with experience ranging from 2 to 5 years. They were regarded as most appropriate for participating in this study because their day-to-day occupation includes practical experience in reviewing EIA applications. It also includes implementation of agricultural projects. Therefore

the sample chosen was considered relevant in answering the research questions of the study.

For this study, the term “team” or “units” has been used to refer to the respondents from agriculture and environment within the Department who were sampled in this study.

4.3 DATA PRESENTATION AND ANALYSIS

Data in this study is presented in frequencies, and expressed in percentages. Percentages are given in the tables for the purpose of easy comparison; eventually, discussions may be held on the responses given by the respondents.

For the purpose of obtaining in-depth meanings of the results, direct quotations from the respondents are also used in presenting data. In this study, data analysis will focus on the following two major themes, from which major questions of the study are derived:

SECTION A: EFFECTIVENESS OF TEAMWORK

SECTION B: BARRIERS TO EFFECTIVE TEAMWORK

The results outlined below follow a series of questions structured in the questionnaire (**see Appendix A**). However, for the sake of clear data presentation, actual questions have been indicated below the sub-themes.

SECTION A: EFFECTIVENESS OF TEAMWORK

4.3.1 Interaction of team members

(How often do you interact with agricultural/environmental section on your job activities?)

In this investigation, it was revealed that the respondents from both agriculture and environment units do not interact frequently on departmental job activities. This is indicated in Table 4.1, in which fifty per cent of the respondents from agriculture

indicated that interaction occurs occasionally; fifty-nine percent from environment felt the same way.

Table 4.1: Indicates the frequency of interaction between agriculture and environmental units of the Department

Frequency of team interaction within the Department	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
Very often (i.e. more than 4 times a month)	0	0	0	0
Often (i.e. at least twice a month)	9	41	4	18
Sometimes (i.e. once in 4 months)	11	50	13	59
Not at all	2	9	5	23
Total	22	100	22	100

In probing the responses received, as per the outcome of the results in Table 4.1, the researcher examined the reasons for the infrequent interaction. This is what the respondents from agriculture had to say about interaction with the environment section, when agricultural projects are implemented:

“... There is just no time available to discuss the projects because there is always pressure to deliver projects within set timeframes because as soon as the budgets are approved the time required for the implementation of the projects is minimal”.

On the same note, another agricultural scientist said:

“... Honestly Mdamba we hardly interact regarding formal issues such as projects. We are aware that we need to talk to ensure that our processes do not clash but I think its poor planning that is causing this.”

From the responses given by agricultural officials, it became evident that the two sections rarely interact when the projects are implemented. Still on this question, one official from environment responded as follows:

“... I am aware that colleagues from agriculture fear that environmental processes may delay the projects ...”

From the above responses, and the reasons given by the respondents, it becomes evident that there is no frequent interaction between agriculture and environmental units in the department when agricultural projects are implemented.

4.3.1.1 Team members’ awareness of agriculture/environment job activities

(What is your level of basic awareness about what agriculture/environment does in the Department?) NB: addressed to the unit that the respondent is not affiliated under)

As a result of this investigation, the results in Table 4.2 below indicate that the respondents from both units (agriculture and environment) do not have basic awareness of the activities of the units to which they do not belong. The respondent representing agriculture recorded seventy-two per cent on the level of basic awareness, while the respondents from environment recorded sixty-three per cent on a moderate level of awareness.

Table 4.2: Illustrates the level of team members’ basic awareness of job activities of the unit to which they are not affiliated

Level of awareness	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
High	2	9	3	14
Moderate	13	72	14	63
Low	7	32	5	23
Total	22	100	22	100

4.3.1.2 Environmental unit’s involvement with agricultural projects

(How often have you been involved with agricultural projects over the years?)NB: directed specifically to environment team members

The outcome of this investigation as revealed in Table 4.3 below indicates that eighty-one per cent of the respondents from environment have never been involved with agricultural projects. Lack of involvement of the environmental team with agricultural projects indicates that there is less interaction with the agricultural team because environmental team's role is to administer the EIAs on agricultural projects that require EIA. Some agricultural projects might have required EIA process.

On probing, the respondents that answered "Yes" were asked how they were involved with agricultural projects. Various responses were given to this question; however, it was noted that the respondents were mostly involved during planning discussions of the projects, which has happened occasionally. The respondents mentioned that the reason for the minimal involvement is that they are often not made aware of new projects by their colleagues in the agricultural unit. In most cases they find out after the projects have been implemented that they have not complied with the EIA regulations.

Table 4.3: Indicates the degree to which the environment unit has been involved with agricultural projects

Degree of involvement	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
Very much involved	22	100	0	0
Occasionally	0	0	4	18
Never	0	0	18	81
Total	22	100	22	100

(Very much involved = on a daily basis - to more than 3 times a month. Occasionally = less than 3 times within 3 to 6 months)

4.3.2 Understanding teamwork

(What do you understand by teamwork?)

The responses received as supported by the quotations below revealed that the respondents do understand teamwork. The respondents gave a variety of answers. One respondent from agriculture stated that:

“... I think teamwork is about working as a team together, where there is no competition but do things together in order to succeed ...”

Still on the same question, another agricultural scientist mentioned that:

“... I know that teamwork involves working together and encouraging each other to accomplish something ...”

The deputy manager agriculture had the following to say about teamwork:

“... yah... you see as far as I know, teamwork involves cooperation because decisions are taken jointly to achieve something common, government promotes teamwork through cooperative governance.”

On the other hand, the respondent from environment had the following to say about teamwork:

“... teamwork involves working together as a team, so that it can promote good relationship and avoid conflicts with the people involved ...”

Another environmental officer concurred with the above, by stating that:

“... my understanding is that teamwork involves teams, whereby team members have to fulfil a particular purpose ...”

On the same question, one deputy manager from environment stated the following about teamwork:

“... I see it as support, communication and cooperation of people who are trying to achieve something common.”

In view of the above responses, it became evident that the respondents are aware of the nature of teamwork, and, importantly, what it involves.

4.3.2.1 Team members assisting each other

Do you think your unit plays a significant role in ensuring teamwork by assisting each other (on agricultural projects and EIAs) to achieve the departmental goal?

In this investigation, it was revealed in Table 4.4 below that fifty-nine per cent of the respondents from agriculture and ninety-one per cent of the respondents from environment do not assist one another in ensuring that teamwork is paramount in the Department. This serves as an indication that there is minimal teamwork between the units of the department.

Table 4.4: An indication of whether team members from agriculture and environment unit assist one another with departmental activities

Indication of whether team members assist one another	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
YES	9	41	2	9
NO	13	59	20	91
Total	22	100	22	100

In eliciting a deeper meaning of the responses to this question as depicted in Table 4.4 above, the respondents were asked to elaborate on their statements. In this regard the respondent from agriculture had the following to say:

“... agriculture and environment has always been operating as if they are two separate departments, the communication between the two sections is not enough, I think this has resulted in people not caring what the other people are doing but I think the situation in the department can improve if we try and work as a team ...”

Another respondent from agriculture agrees with the same statements, stating that:

“... I feel that the reason for this is that we tend to concentrate in our work targets too much and therefore ignore the fact that we need to assist each other for the benefit of the department because we are in one department ...”

Lastly, one deputy manager from agriculture said:

“...we do assist each other but to a certain degree, especially when there is an instruction from above that all the sections must contribute their input when there is a project, but that does not happen all the time ...”

On the same question, the respondent from environment had the following to say:

“... truly speaking, I think there is an element of being intolerant with each other when it comes to our operations, we feel that we do not need each other to complete our tasks yet if we assist each other, a lot of things can improve in the department ...”

On the same issue, another respondent from environment shared the same sentiment as the foregoing, stating that:

“... they feel that if they come to us we will delay their projects, at the same time there isn't much that we do to help improve the situation, work pressure also contributes to this because there is no time to consult once the deadline has been set ...”

Lastly in this regard, the assistant manager from environment said:

“... At times we do get notified about the projects, but not all the time. It makes me realise that our colleagues are aware that other projects may need an EIA to be done ...”

In view of the preceding responses, it is evident that the teams are aware of the problem, acknowledging that teamwork can improve the situation and the manner in which agricultural projects that require EIA are handled.

4.3.2.2 Communication

(Is there any communication between your units on agricultural projects and EIAs?)

As per the outcome of the investigation, the results expressed in Table 4.5 reveal that seventy-seven per cent of the respondents from agriculture feel that there is not enough communication between the team members of both units in the Department. On the other hand, one hundred per cent of the respondents from environment share the same view. From the responses given, it became evident that both the agriculture and the environment section of the Department are not communicating sufficiently so as to render assistance to one another.

Table 4.5: Indicates whether team members within the Department communicate with one another

Indication whether team members communicate with one another	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
YES	5	23	0	0
NO	17	77	22	100
Total	22	100	22	100

4.3.2.3 Cooperation

(Are you happy with cooperation between the two units in relation to agricultural projects and EIAs?)

As a result of this investigation, Table 4.6 indicates that ninety-one per cent of the respondents from agriculture are not happy with the level of cooperation, while one hundred per cent of the respondents from environment are also not happy with the level of cooperation within the department. From the responses given it is evident that the level of cooperation is lacking between the team members of DAEA in both the agriculture and the environment units.

Table 4.6: Indicates whether team members are happy with cooperation between the agricultural and environmental units within the Department

Level of cooperation between the two teams	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
YES - happy	2	9	0	0
NO - not happy	20	91	22	100
Total	22	100	22	100

4.3.2.4 Meetings and consultation

(During planning and identification of agricultural projects, do your units (agriculture and environment) always meet to discuss all the requirements?)

As a result of this investigation, data in Table 4.7 below reveals that eighty-six per cent of the respondents from agriculture indicate that units do not meet and consult with each other during planning and identification of the projects; and on the other hand, seventy-three per cent of the respondents from environment agree that there is no consultation between the units. From these results it is evident that units within the department do not meet and consult with each other during planning of the projects before they are implemented.

Following the responses in Table 4.7, the respondents were eventually asked why there was no consultation in discussing project requirements. The following responses were received from the respondents.

From agriculture, one respondent mentioned that:

“... there’s simply no cohesion between environment and agriculture that is why meetings to discuss projects do not happen ...”

Table 4.7: Indicates whether the units meet or consult with each other during planning and identification of projects

Indication of units' meeting or consulting with each other	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
YES	3	14	6	27
NO	19	86	16	73
Total	22	100	22	100

Still on the same question, another respondent from agriculture stated that:

“... when funds for projects have been approved, it is already too late or there is little time left for implementation, if therefore meetings occur it may sometimes delay projects because people are not always readily available for them, so we rather try to focus on the implementation of the projects within the timeframes ...”

From the above quotations, it becomes evident that there are no meetings or any consultation which would ensure that projects are discussed, so as to determine the environmental requirements before projects are implemented. It also becomes evident that lack of consultation and meetings by the units result in the commencement of projects without the EIAs.

4.3.3 Training

(Do you think training between the units is important in teamwork?)

Following this investigation, the results in Table 4.8 reveal that seventy-seven per cent of the respondents from agriculture view training between the units as important. On the other hand, fifty-nine per cent of the respondents from environment feel that training between the units is vital. In this regard, team members from both units recognise the importance of training which ensures teamwork in the department.

Table 4.8: Illustrates how team members feel about the importance of training between their units

Indicate how team members feel about the importance of training	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
YES	5	23	9	41
NO	17	77	13	59
Total	22	100	22	100

4.3.3.1 Understanding of the basic EIA process

(How well do you understand the basic EIA process?) NB: Directed specifically to agricultural respondents.

As a result of this investigation, Table 4.9 below reveals that seventy-three per cent of the respondents from agriculture lack a basic understanding of the EIA process.

Table 4.9: Illustrates level of basic understanding of the EIA process by respondents from the agriculture unit

Indicates level of of basic EIA process	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
Very well	0	0	14	64
Well	2	9	8	36
Moderate	4	18	0	0
Not well	16	73	0	0
Total	22	100	22	100

From the responses given in Table 4.9, the researcher asked the respondents from agriculture to elaborate on their responses. This was because some of the agricultural projects may potentially require the EIA process. In responding to this

question, a wide variety of answers was received from the respondents. One respondent from agriculture mentioned that:

“... I think it is because of ignorance on the part of officers, some officers do not recognise the need for EIAs and on top of that, in the past there were no EIA that were done on agricultural projects ...”

Another respondent mentioned that:

“... I think the main cause is communication breakdown between the two components, there is nothing that is done by environment to share knowledge on EIAs ...”

On the same note, another respondent from agriculture mentioned that:

“... although I’m aware that it is important for EIA to be done to ensure sustainability, however they are seen as a stumbling block because it takes a long time to give a go ahead on the projects ...”

From the responses given it becomes evident that the agricultural unit lacks knowledge on the importance of undertaking EIAs on projects.

4.3.3.2 Information-sharing sessions

(Does your component conduct workshops/seminars to share information about what you do?)

In this investigation, the results in Table 4.10 reveal that seventy-seven per cent of the respondents from agriculture indicate that there are no workshops/seminars conducted in which to share information; and at the same, time fifty-nine per cent of the respondents from environment indicated that there are no seminars/workshops conducted in which to share information between the units in the department.

From the results it became evident that information-sharing sessions which would transfer knowledge, thereby enhancing teamwork, does not take place.

One respondent from the environment unit indicated that workshops have seldom been used in conveying information to the agricultural unit in order to bring about awareness of environmental legislation. However, there has been little interest in workshops, looking at the past poor attendance of such workshops.

Table 4.10: Indicates whether information-sharing sessions are conducted by the various units

Indication of units conducting information-sharing sessions	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
YES	5	23	9	41
NO	17	77	13	59
Total	22	100	22	100

SECTION B: BARRIERS TO EFFECTIVE TEAMWORK

4.3.4 Institutional arrangement

(Do you think that agriculture and environment components should be combined in one department?)

In this investigation, the data in Table 4.11 below indicates that one hundred per cent of the respondents from environment felt that the two sections should not be combined in the same department. Seventy-three per cent of the respondents from agriculture share that view.

Following from the responses given in Table 4.11, the respondents were asked to elaborate, giving reasons for their answers. In that case, one of the respondents from agriculture had the following to say:

Table 4.11: Indicates team members' views on combining agricultural and environmental units into one department

Team members' views on agriculture and environment departments being combined in the same unit	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
YES	6	27	0	0
NO	16	73	22	100
Total	22	100	22	100

"... because I don't really see the connection between the two components ..."

Another respondent from agriculture stated the following in support of the foregoing:

" ... because of the conflict of interest. I don't think agriculture should be in one department because it is developmental orientated and it even fund the projects while environment seem to be on the opposite side when they enforce environmental legislation on us ..."

Still on the same question, the respondents from the environment section felt strongly that agriculture and environment should not be placed in one department. In giving the reasons for this, one respondent from environment had the following to say:

"... environment must be combined with development planning departments. There is a lot of communication breakdown since agriculture deals with development and environment with planning ..."

In support of the above statement, another respondent from the environment section stated that:

“... .these two components conflict because agriculture is a promoting department. Agriculture deals with projects to promote the department, however environment is considered as a hindrance to the promotion of agricultural projects because it enforces controls ...”

From the quotations above in support of the data presented in Table 4.11, it became evident that the respondents felt strongly against placing the environment and agriculture unit in one department.

4.3.4.1 Commencement of projects without EIA authorisation

(Are you aware of any agricultural projects that have commenced without environmental approval?)

As a result of this investigation, Table 4.12 below indicates that sixty-eight per cent of the respondents from agriculture are aware of agricultural projects which have commenced without environmental authorisation. On the same note, eighty-two per cent of the respondents from environment are aware of projects that have commenced without environmental authorisation.

From the results it becomes evident that there has been non-compliance of agricultural projects with the EIA process within the Department.

Table 4.12: Indicates awareness of team members of agricultural projects commencing without environmental approval

Projects commenced without environmental approval	Agriculture team		Environment team	
	Frequency	Percentage	Frequency	Percentage
YES	15	68	18	82
NO	7	32	4	18
Total	22	100	22	100

In investigating further and obtaining in-depth meaning of the response given by the respondents in Table 4.12, the respondents were asked to elaborate further on their responses. One of the respondents from agriculture had the following to say:

“... there is no real reason to justify it, but I think as soon as we receive projects that are planned for delivery we just focus on the implementation due to limited timeframes after funding has been approved ...”

Still on the same question, another respondent mentioned that:

“... sometimes it is pressure from above. The projects comes with very limited time frames, therefore we are often compelled to commence the projects to meet the timeframes ...”

On the same issue, the respondent from environment had the following to say:

“... sometimes they are not aware that they should have applied for environmental authorisation. In case where they knew, they do not have available funds planned for EIA ...”

In support of the above, another respondent from environment expressed that:

“... sometimes our agricultural colleagues are not aware whether EIAs are required or not required ...”

To this end, and still on the same issue, another respondent from environment stated that:

“... Historically these projects were done without EIAs, however it has become difficult for them to consider EIAs ...”

From the above quotations it is evident that the respondents are aware that agricultural projects have not been complying with the EIA process.

4.3.4.2 Agricultural projects that have been stopped

(Are you aware of any agricultural projects that have been halted by the environmental unit because they have commenced without environmental approval?)

In determining whether there are any actions that have been enforced on agricultural projects that have commenced without EIA, such as halting the projects, the results of this investigation, as shown in Table 4.13 below, reveals that one hundred per cent of the respondents from agriculture and eighty-six per cent of the respondents from environment are not aware of any agricultural projects which have been halted because of their commencement without EIA.

In further discussions with the respondents on this issue, it was revealed that in most cases no action has been imposed; however, on a few occasions Environmental Management Plans (EMP) have been imposed in order to mitigate against the environmental impacts. The respondents further explained that halting of the projects administered by the department impacts negatively on the departmental beneficiaries; this may also result in conflict between the components.

Table 4.13: Indicates team members' knowledge of agricultural projects halted by the environmental unit, because they commenced without EIA approval

Indication of team members' awareness of projects which have been halted	Agriculture unit		Environment unit	
	Frequency	Percentage	Frequency	Percentage
YES	0	0	3	14
NO	22	100	19	86
Total	22	100	22	100

4.3 CONCLUSION

This chapter presented the data collected from the respondents, analysing it using frequency tables and percentages. Data was obtained from the respondents within the Department of Agriculture and Environmental Affairs.

Chapter 5 concludes the study, discusses the results, and makes recommendations for the study.

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

In Chapter One, it was stated that government departments are structured so as to include more than one function under a single organizational goal and mission, requiring teams to coordinate and integrate their functions in order to deliver on the prescribed organizational goals. In understanding the challenges of teamwork for cooperative governance in the implementation of the EIA process on agricultural projects in KZN, research questions were formulated which would guide the study. The motivation for the study and the description of terms were outlined in Chapter One.

Chapter Two focused on relevant literature pertaining to teamwork within organizations, while Chapter Three discussed the research methodology used in the study, in which research design, methods of data collection, sampling, and data analysis were discussed. In Chapter Four, data analysis and interpretation of the results were discussed. This was achieved by means of frequency tables, presenting data in frequencies and percentages as well as by using direct quotations from the respondents in emphasising the reasoning behind the statements made by each respondent.

This final chapter concludes and summarizes the findings of the study and proposes recommendations to be implemented by the DAEA. The discussion of the results will be guided by the research questions of the study set out in Chapter One.

5.2 DISCUSSION OF THE FINDINGS

The findings are discussed according to the two research questions of the study, basing them on the literature review consulted for this study, and the data collected through the interviews, using the questionnaires.

SECTION A: EFFECTIVENESS OF TEAMWORK

5.2.1 Interaction

Among the fundamental issues revealed by this study is that teamwork involves the interaction or a relationship between two or more teams who work interdependently in achieving a common purpose (Ramphela, 2000 cited in Mulibana 2005). The study further revealed that teams and teamwork help to promote interaction, cooperation, and collaboration within the organisation (Tarricone and Luca 2002). However, from the data analysed, it was revealed that DAEA units do not interact on departmental job activities. In the literature consulted, Finn and Wood (2004) argued that teamwork is a system of organising work, which requires team members to interact and work interdependently in order to achieve team objectives. The lack of interaction between the units of DAEA was proven by the lack of awareness of the DAEA team members on basic job activities of the units to which they are not affiliated; and the general lack of involvement of the environment team with agricultural projects. If interactions exist between the units, it is possible that team members will have basic or at least a little knowledge of other units' activities within the organisation. This is supported by Robbins and De Conze (2001) in their view that the team must have a common approach on ways in which to achieve the goal.

The literature further found that lack of interaction may obstruct service delivery to the community served by DAEA. A view held by Pretorius and Schurink (2007) suggests that lack of coordination and integration between the role players severely hampers development efforts.

5.2.2 Teamwork

One of the most fundamental aspects of basic cooperative governance was found by Mulibana (2005) to be teamwork. In the literature consulted, Ramphela (2000) cited in Mulibana (2005) holds the views that cooperative governance is regarded as working together in partnership in accomplishing shared desired goals; and cooperating with one another for teamwork. From the data analysed, it was

revealed that DAEA team members understand the notion of teamwork and what is required to achieve it. The respondents highlighted cooperation, communication and working together, as important in teamwork. The respondents also revealed that the government supports teamwork through cooperative governance. In the literature Edwards (2008) indicated that the Constitution obligates government to support continuous cooperation and good relationships between spheres of government. The system of cooperative governance is a philosophy controlling all aspects and activities of government (Edwards, 2008).

Although the DAEA team members understand teamwork and what it entails, from the data analysed it was revealed that team members do not undertake their activities in line with the teamwork approach. This is because the units do not assist each other where this is called for, on departmental job activities. As a result, communication, cooperation, and collaboration were found to be lacking between the units of agriculture and environment. To make matters worse, it was found that meetings and consultations between the units are not undertaken, thus ensuring that agricultural projects requiring EIA are identified and eventually approved through the EIA process. Consequently, it became evident that DAEA units do not assist each other, thus ensuring teamwork which enhances cooperative governance, as part of the legislative mandate.

Amongst other things the literature revealed, as reported by Mickan and Rodger (2000), communication is known to involve the interchange of information and interaction amongst the teams. From the literature, Ellingson (2002) indicated that team meetings are a critical aspect for team functioning and effective communication within the health sector. The DAEA can also draw important lessons from these findings.

The literature review identified cooperation as one of the key factors that impacts effective teamwork. In this case, Gordon (2003) identifies conflicts as one of the undesirable results when too many people attempt to occupy the same space at the same time and do not cooperate. He elaborates that the space may include matters such as physical, psychological, intimate, political, or any arena in which there appears to be room for only one view or outcome. He further expands his argument

to show that people at work encounter conflict at various levels, hence as they work in teams just as in DAEA, these levels of conflicts include:

- 1) intrapersonal level (conflict within the individual);
- 2) the interpersonal level (individual to individual)
- 3) the intergroup level, or the
- 4) inter-organizational level.

Intrapersonal conflict involves pressures from incompatible goals or expectations, compelling a person to choose between two positive and equally attractive alternatives; while interpersonal conflicts occur between two individuals who are in opposition to one another. Intergroup conflict occurs among different teams or groups. This type of conflict is common in organizations. It can make the coordination and integration of task activities very difficult. Inter-organizational conflict commonly occurs among organizations operating within the same environment (Schermerhorn et al., 2004). It is therefore significant that for DAEA, organizational activities are to be set in line with teamwork approaches in order to manage conflicts at all levels, particularly at intergroup level, since the results have found that team members do not undertake their activities in line with the sound teamwork approach

5.2.3 Training

The study of the literature found that interchange and sharing of information is vital in the team setting. This allows for proper decision-making (Mickan and Rodger, 2000). The findings of the study reveal that team members recognise and value the importance of training between the units, enabling team members to share information about the departmental activities. However, the analysis of data found that there are no training activities between the units for information-sharing, such as workshops/ seminars. The lack of training activities was proven by the lack of basic understanding of the EIA process by the agricultural respondents, as found from the data analysed.

SECTION B: BARRIERS TO EFFECTIVE TEAMWORK

5.2.4 Challenges of Institutional Arrangement

The literature consulted revealed that government departments are structured so as to promote a particular function, while at the same time being obliged to enforce legislation which creates a balanced approach to the promoting of those functions (Barnard 1999).

From the literature consulted, Mackay and Ashton (2004) found that government agencies may often unknowingly work in direct opposition to each other, owing to a lack of high-level coordination and agreement on shared policies. This point was illustrated by a scenario in which the extension officer promotes planting of subsistence crops on the riparian zone (so as to increase the yields) while the water-management agency advocates that the riparian zone be strictly protected, and thus vegetation must not be cleared. Both agencies are acting according to their official mandates, as obligated by the Constitution, however, they are working in direct opposition to each other.

The analysis of data regarding combining agriculture and environment units under one department revealed that the two units should not be thus combined. The respondents mentioned that there is a strong possibility of inter unit conflict when it comes to operations. The agricultural unit is responsible for promoting agricultural development; while the environmental unit is responsible for promoting the legislation through enforcing the EIA process on the same projects promoted by the department. The respondents have admitted that some team members perceive the EIAs as a hindrance to the implementation of agricultural projects and cause time delays.

The analyses of the results yielded that the respondents are not aware of any agricultural projects which have been halted because they have commenced without EIA approval. However, the respondents are aware of agricultural projects that had commenced without EIA approval, even when they had required such approval.

In this regard the structural arrangement of the DAEA regarding combining the two units under one department could be recognised as causing direct tension and ineffectiveness within the DAEA units. This is because the agricultural unit pushes for the implementation of the planned projects so as to cover all its beneficiaries by a designated time and budget, while on the other hand, the environment unit regulating the EIA process must see to it that the projects requiring EIA do not commence; thus ensuring environmental sustainability, as required by its Constitutional mandate. In the literature consulted, Katzenbach and Smith (1993) reported that structural barriers and other factors such as a poorly implemented management system, and poor goal-setting can impede team effectiveness. The DAEA case would appear to be a case in point that supports the aforementioned finding by Katzenbach and Smith (1993).

5.3 SUMMARY OF THE FINDINGS

The main findings of the study were as follows:

- The study found that DAEA units of agriculture and environment do not interact on departmental mandates. The lack of interaction was demonstrated by the lack of awareness of the DAEA team members on basic job activities of the units to which they are not affiliated, and the lack of involvement of the environment team with agricultural projects. In the literature, the study found that team members should interact, and must work interdependently in achieving team objectives (Finn and Wood, 2004);
- It was found by the study that teamwork is fundamental to cooperative governance. The literature reviewed placed teamwork at the centre of cooperative governance. Ramphela (2000) cited in Mulibana (2005) argued that teamwork is required in accomplishing cooperative governance. The DAEA team members from Agriculture and Environment were found to understand the implications of teamwork. They regard teamwork as important in ensuring cooperative governance, so as to enable service delivery;

- Although team members understand teamwork, the study found that organisational activities reflecting effective teamwork were lacking in the department. In this regard the study found that the departmental units are not assisting each other on their mandates. As a result, cooperation was failing when it comes to the implementation of agricultural projects. This was exacerbated by lack of communication and collaboration, as found by the study. Pullon (2006) found that teamwork implies that members of the team should work collaboratively; and that they should benefit from working collaboratively;
- It was found that meetings and consultations between the units are not undertaken which would enable information-sharing between the units, in order for agricultural projects requiring EIA to be identified, and eventually approved through the EIA process. In the literature review, the study found that one of the major forms of communication is holding meetings (CHSRF, 2006);
- As part of information-sharing, it was found that there are no training activities such as workshops and seminars undertaken, ensuring that team members have at least a basic knowledge or understanding of the departmental mandates for which they are responsible; and.
- The study investigated the barriers to effective teamwork. It identified challenges of institutional arrangements as one of the possible barriers to effective teamwork. Opposing mandates of DAEA have been found by the study to be contributing to the lack of teamwork and eventually cooperative governance. This has been evidenced by the commencement of agricultural projects (those triggering the EIA process) without environmental authorisation. A study by du Plessis (2008) gives the illustration of two government departments that promote mining, also becoming final decision-makers on environmental issues and the other which promotes environmental protection. The study notes that there is a tug of war between these two departments, not making the situation conducive to cooperative governance.

5.4 RECOMMENDATIONS

In view of the research findings and results gathered, the following recommendations are made:

Recommendation 1

Analysis of data indicated that there is lack of interaction between the units of DAEA, which is evidenced through lack of awareness of basic knowledge of job activities of the units to which the team members are not affiliated.

It is therefore recommended that district quarterly forums be established for discussing operational activities of the units. These forums could be targeted or handled at the level of assistant managers and officers responsible for the implementation of agricultural projects and the coordination of the EIA process at a district level. Through these forums team members will be able to share information and experiences, giving project updates and importantly, learning from one another what is entailed by their job activities and mandates, thus bringing awareness of work activities to all members of DAEA team. Site visits could be undertaken jointly in addressing project-specific issues. In this way information-sharing of project activities could be transferred between the team members. As a result, commencement of agricultural projects requiring EIAs without authorisation will be minimized, and eventually cease, because team members would have had the formal interactions in which they openly communicate with one other.

As another form of interaction, list of projects planned per district could be distributed via emails for comments as soon as the projects lists are ready. The environmental team could give advice on the EIA within two days' receipt of the list from agriculture, so as to avoid delays.

Recommendation 2

Information-sharing and communication were found by the study to be lacking. It is recommended that clear information sources such as brochures, charts and copies of EIA regulations be prepared and distributed to agricultural officials, so that they are easily able to access information relating to EIAs, as a form of empowering one

another for effective teamwork. The brochures and charts should indicate the list of agricultural projects requiring EIAs and the process to be followed. It is further recommended that contact details for relevant officials dealing with EIAs be included in the brochure or chart for easy reference and communication. Agricultural unit should also provide the contact details of staff members dealing with the projects, these being updated regularly for communication purposes. Team members from both units must make themselves accessible when required.

Recommendation 3

From the literature review, Dudi (2005) reported that a good team leader is required in implementing team-building techniques in order to enhance teamwork.

It is recommended that team-building activities be implemented in order to enhance effective teamwork amongst the teams. The following team building techniques should be considered when undertaking team-building exercises:

- Ensuring that team goals are clear, understandable, and accepted by the team members;
- Cultivating loyalty to employees, and building trust with members in order to create honesty and openness;
- Encouraging open communication amongst the team members, by allowing team members to engage in any team-building events, thus promoting the extra social atmosphere;
- On decision-making issues requiring consensus and commitment, the whole team must be involved. This will bring about a sense of ownership within the team;
- Ensuring that there are always open lines for communication, so that people are fully informed;
- Dealing decisively with interpersonal issues before they are exacerbated; and
- Giving the opportunity for self-advancement and showing appreciation of good performance, instead of frequently giving negative feedback (Dudi, 2005).

Recommendation 4

As part of teams empowering one another in enhancing effective teamwork, it is recommended that workshops or seminars be organised for training purposes in order to enhance teamwork. The workshops/seminars could be organised annually per district, ensuring that both agriculture and environment team members participate, covering all relevant aspects pertaining to EIAs and agricultural projects. The goal of the department regarding agricultural projects and the EIAs and the future plans of the department must be emphasised. Joint team roadshows educating the beneficiaries on services provided by the department must be undertaken in enhancing teamwork, through collective effort and improved team collaboration.

Recommendation 5

Tarricone and Luca (2002) found that effective leadership is important for team success, including shared decision-making and problem-solving responsibilities. They argued that team members must be accountable for their contribution to the team. In the end, it is individuals who could cause organisational conflicts. In the study of the literature, EscOn 2012 reported that the human factor accounts for the non-service delivery debacle. They contend that individuals are critical in ensuring teamwork and collaboration for the successful implementation of interdepartmental programmes.

It is therefore recommended that managers undertake a proactive role in ensuring that units cooperate with one another, in order to adhere to the legislative mandate of cooperative governance advanced through teamwork. In this regard unit managers must develop on-going monitoring and reviewing systems that will examine both compliance and non-compliance. Penalties must be imposed for non-compliance and rewards be awarded for good performance, thus motivating good teamwork.

5.5 FURTHER RESEARCH

The following recommendations are suggested for further research:

- Further research has to be undertaken to determine whether the current institutional arrangements are well placed for improved co-ordination and teamwork. If not, what needs to change?
- It is recommended that further research be done to investigate monitoring of staff performance on adherence to arranged quarterly forums and what will the real incentives for the staff be to attend these forums. How will the effectiveness of these forums be monitored and will their decisions flow into real co-planning and co-delivery?

5.6 CONCLUSION

This study has addressed the research questions as outlined. The study focused on the aspects of teamwork in which relevant literature was consulted, bringing insights into the challenges of teamwork, thus advancing cooperative governance in the DAEA, by focusing on teamwork within the DAEA, in which two research questions were formulated.

Through the findings from this chapter, it was revealed that there is a lack of effective teamwork among the teams in the delivery of agricultural projects. The study also found that lack of communication and interaction among the teams had resulted through lack of leadership strategies which would propel teams towards a common organisational goal. There was also a lack of effort in learning about other unit's activities. These were the main barriers to effective teamwork within the organisation. Therefore, measures which would enhance effective teamwork so that units interact and communicate amongst each other have been recommended by the study, thus ensuring that units realise the importance of teamwork for sustainable cooperative governance within the DAEA.

REFERENCES

- Allison, B., O'Sullivan, T., Owen, A., Rothwell, A., Rice, J. and Saunders, C. 1996. Research Skills for Students. London: Allstar Services Ltd.
- Al-Madi, F., Al-Zawahreh, A., Al-Sawadha, S. 2012. The Implementation of Teamwork in Jordaan: European Journal of Economics, Finance and Administrative Sciences: ISSN 1450-2275 Issue 45.
- Auerbach, R. 2002. Affirmative action for sustainable land use in South Africa: Hallows, D. Hidden faces. Environment, Development, Justice. South Africa and the global context. Scottsville: Earthlife
- Bagraim, J., Cunningham, P., Potgieter, T. and Viedge, C. 2007. Organisational Behaviour: A Contemporary South African Perspective: Second Edition. Pretoria: Van Schaik Publishers.
- Barnard, D. 1999. Environmental Law for All: A Practical Guide for the Business Community, the Planning Professions, Environmentalists and Lawyers. Cape Town: CTP Book Printers.
- Bosman, C.; Kotze, L.; & du Plessis, W. 2004. The failure of the Constitution to ensure integrated environmental management from a co-operative governance perspective: SAPR/PL. Vol. 19. 411-421.
- Canadian Health Services Research Foundation (CHSRF). 2006. Teamwork in Health Care: Promoting effective teamwork in healthcare in Canada. Policy synthesis and recommendations. Ottawa: Canadian Health Services Research Foundation.
- Cox, D, 2004. Review of the agricultural application procedure: Towards alignment. Pietermaritzburg. Government Printer.
- Correia, A.P. 2005. Understanding Conflict in Teamwork: Contributions of Technology - Rich Environment to Conflict Management. D. Phil. thesis. Indiana: University of Indiana.

Cresswell, J.W. 2003. Research Design: Qualitative, quantitative and mixed method approaches. Thousand Oaks, Calif. Sage publications.

Dawson, C. 2007. A practical guide to research methods: A user friendly manual for mastering research techniques and projects. Begbroke Oxford: How to books.

Druskat, V.U and Wolff, S.B. 2001. Building the Emotional Intelligence of Groups. Massachusetts: Harvard Business School Publishing Corporation.

Dzwairo, B., Otieno, F.A.O. and Ochieng, G.M. 2010. Making a Case for Systems Thinking Approach to Integrated Water Resources Management (IWRM): International Journal of Water Resources and Environmental Engineering: Vol. 1 (5) pp 107-113.

Dudiy, S. 2005. Top nine tips for better teamwork and team building. On line at <http://ezinearticles.com/?Top-Nine-Tips-for-Better-Teamwork-and-Team-Building&id=79993>. (Accessed on 26 March 2010).

Du Plessis, W. 2008. Legal mechanisms for cooperative governance in South Africa: Successes and Failures. Berlin Conference proceedings: Greening of Policies – Interlinkages and Policy integration, December 2004.

Edwards, T. 2008. Cooperative governance in South Africa, with specific reference to the challenges of intergovernmental relations: Politeia: Vol. 27 (No: 1) 65-85.

Ellingson, L.L. 2002. Communication, Collaboration, and Teamwork among Health Care Professionals: Communication Research Trends-Centre for the Study of Communication and Culture: Vol. 21 No.3.

Elliot, J. 1996. An Introduction to Sustainable Living: The Developing World. London: Routledge

Eysenck, M.W. 2004. Psychology: an international perspective. New York: Psychology Press Ltd.

Finn, R.L. and Wood S.J. 2004. What is Teamwork: Institute of Work Psychology: GIRF/SW.

- Ghasemian, M., Poursafa, P. Amin, M.M. Ziarati, M., Ghoddousi, H., Momeni, S.A. and Rezaaei, A.H. 2012. Environmental Impact Assessment of the Industrial Estate Development Plan with Geographical Information System and Matrix Methods: Journal of Environmental and Public Health: Vol. Article ID 407162, 8 pages.
- Glasson, J. Therivel, R. and Chardwick, A. 1994. Introduction to Environmental Impact Assessment: Principles, and procedures, process, practice and prospects. London: UCL Press Limited.
- Gordon, J. 2003. Managing Conflict at Work: Pfeiffer's Classic Activities. San Fransisco: John Wiley & Sons, Inc.
- Harris, P.R., and Harris, K.G. 1996. Managing Effectively Through Teams. Team Performance Management: An international Journal, 2 (3) 23-36.
- Katzenbach, J.R. and Smith, D.K. 1993. Creating the high performance organisation. London: McKinsey & Company.
- Kinnaman, M.L. and Bleich, M.R. 2004. Collaboration: Aligning Resources to Create and Sustain Partnerships: Journal of Professional Nursing: Vol. 20, No 5.
- Kirkwood, H.P. Jr. 2010. Teams and Teamwork: Reference for Business: Encyclopaedia of Business, Second Edition. Online at <http://www.referenceforbusiness.com/management/Str-Ti/Teams-and-Teamwork.html> (Accessed on 26 March 2010).
- Kotze, D.C., Breen, C.M., Nxele, I.Z. and Kareko, J. 2009. *Wet-Management Review: The Impact of Natural Resources Management Programmes on Wetlands in South Africa*: WRC Report No TT 335/09, Water Research Commission, Pretoria.
- Kozlowski, J. and Hill, G (Eds). 1983. Towards Planning for Sustainable Development: An Ultimate Threshold Method. Aldershot: Avebury.
- Kruger, R. 2012. A Critical Analysis of the Quality of EIA Reports for Filling Stations in South Africa. Masters in Environmental Management Dissertation: Potchefstroom: North-West University.
- Larson, C.E. and Lafasto, F.M.J. 1989. Teamwork: What must Go Right / What Can Go Wrong. Newbury Park: SAGE Publications, Inc.

Levy, N. and Tapscott, C. 2001. Intergovernmental Relations in South Africa: The challenges of co-operative government. In: Levy, N. and Tapscott C, (Eds). Intergovernmental relations in South Africa: The challenges of co-operative government: 1-22. Bellville: IDASA.

Luca, J. and Tarricone, P. 2001. Does Emotional Intelligence Affect Successful Teamwork?: School of Communication and Multimedia: Edith Cowan University: Australia.

MacKay, H.M. and Ashton, P.J. 2004. Towards co-operative governance in the development and implementation of cross-sectoral policy: water policy as an example: Water SA. Vol. 30 (No. 1). 1-8.

Mathebula, F.M. 2004. Intergovernmental relations reform in a newly emerging South African policy. D Admin. thesis. Pretoria. University of Pretoria.

McDowell, I. and MacLean, L. 1998. Blending qualitative and quantitative study methods in health services research: Health informatics Journal 4, 15 – 22.

Mekuriaw, A. and Teffera, B. 2013. The Role of Environmental Impact Assessment for Sustainable Development. IAIA13 Conference Proceedings: Impact Management - the next generation 13-16 May 2013.

Mickan, S. and Rodger, S. 2000. Characteristics of effective teams: a literature review: Australian Health Review [Vol 23-No3].

Mngoma, L.W. 2007. Environmental Management and Development: A case study of KwaZulu-Natal. D. Admin. thesis. Durban: University of KwaZulu-Natal.

Moore, N. 2006. How to do Research: A Practical Guide to Designing and Managing Research Projects: Third Revised Edition. London: Facet Publishing.

Mulibana, N.L. 2005. Cooperative Governance in schools in Gauteng District 11. M.Ed. dissertation. Johannesburg: University of Johannesburg.

Muller, K. 2008. Assessing cooperative environmental governance systems: the cases of Kogelberg Biosphere Reserve and the Olifants-Doorn Catchment Management Agency. Politeia: Vol. 27 (No:1) 86-104.

Munro, D.A. and Holgate, M.W. 1991. *Caring for the Earth: Strategy for Sustainable Living*: Switzerland: Gland.

Murombo, T., 2008. *Beyond Public Participation: The Disjuncture between South Africa's Environmental Impact Assessment Law and Sustainable Development*: SAFLII PER 18.

Nagarajan, V. and W'O Okot-Uma, R. 1999. *Environmental Assessment of Development Projects: A guide for Planners & Managers*. London: The Commonwealth Secretariat and SFI Publishing.

Niglas, K. 2004. *The combined use of Qualitative and Quantitative Methods in Educational Research*. Dissertation on Social Sciences: Tallin Pedagogical University.

Pretorius, D. and Schurink, W. 2007. Enhancing Service Delivery in Local Government: The Case of A District Municipality: *SA Journal of Human Resources Management*, 5 (3) 19-29.

Province of KwaZulu Natal. 2011. *Draft Provincial Growth and Development Plan: 2012-2030*. Province of KwaZulu Natal: Provincial Planning Commission.

Pullon, S. *Teamwork: A fundamental principle of primary health care and essential prerequisite for effective management of chronic conditions*. Paper presented at the WIPA Long Term Conditions Symposium, Perera, March 2006.

Rees, F. 2001. *How to Lead Work Teams: Facilitation Skills*. San Fransisco: John Wiley & Sons, Inc.

Robbins, S.P. and De Cenzo, D.A. 2001. *Supervision Today: Third Edition: The Ultimate Guide to Front-line Management*. New Jersey: Prentice Hall, Inc.

Sandelowski, M. 2000. Focus on Research Methods-Combining Qualitative and Quantitative Sampling, Data Collection, and Analysis Techniques in Mixed Method Studies: *Research Nursing and Health*, 23, 246-255.

Sarantakos, S. 1997. *Social Research*. New York: Palgrave Publishers Ltd.

- Schermerhorn, J.R., Hunt, J.G. and Osborn, R.N. 2004. Core Concepts of Organisational Behaviour. Hoboken, N.J: John Wiley & Sons, Inc.
- Schulze, S. 2003. Views on the Combination of Qualitative and Quantitative Research approaches: Progression, 25 (2): 8-20.
- Scottish Executive Environment & Rural Affairs Department (SEERAD). 2006. The Environmental Impact Assessment (Agriculture) (Scotland) Regulations as Amended.
- Shongwe, S. Acting Manager – Agricultural Development Support Services. 2010. Interviewed by the author, 8 October 2010.
- Sokile, S.S., Mwaruvanda, W., van Koppen, B. 2005. Integrated Water Resource Management in Tanzania: interface between formal and informal institutions: International Workshop on “African Laws: Plural Legislative Frameworks for Rural Water Management in Africa: Johannesburg, South Africa
- South Africa. Constitution of the Republic of South Africa 108, 1996.
- South Africa. Department of Agriculture and Environmental Affairs. 2006. Agrarian revolution plan. Pietermaritzburg: Government Printer.
- South Africa. Department of Agriculture and Environmental Affairs. 2008. Annual report. Pietermaritzburg: Government Printer.
- South Africa. Department of Agriculture, Environmental Affairs and Rural Development. Undated. Departmental Massification Policy. Pietermaritzburg. Government Printer.
- South Africa. Department of Agriculture, Environmental Affairs and Rural Development. 2010. Budget Policy Speech 2010/2011. Pietermaritzburg: CPW Printers.
- South Africa. Department of Environmental Affairs. 2010. Companion to the EIA Regulations 2010, Integrated Environmental Management Guideline series 5. Pretoria.

South Africa. Department of Environmental Affairs and Tourism. 1998. National Environmental Management Act (Act 107 of 1998). Pretoria: Government Printers.

South Africa. Department of Environmental Affairs and Tourism. 1999. Environmental Management Policy: White Paper. Pretoria: DEAT.

South Africa. Department of Environmental Affairs and Tourism. 2006. General Guide to the Environmental Impact Assessment Regulations: Guideline 3: Pretoria: DEAT.

South Africa. Department of Environmental Affairs and Tourism. 2006. EIA Regulations Training Course for Officials . Pretoria. Government Printer.

South Africa. Department of Land Affairs. 2001. Guideline for the Integration of Environmental Planning into the Land Reform and Development. Pretoria. Government Printer

Southwest Centre for Education and the Natural Environment. 2004. On line at http://scene.asu.edu/habitat/data_present.html (accessed on 10 March 2010)

Statistics South Africa. 2012. Census 2011 Provinces at a glance. Report No. 03-01-43, p 2. Pretoria: Statistics South Africa (www.statssa.gov.za).

Tarr, P. 2003. Environmental Impact Assessment in Southern Africa. Windhoek: John Minert Printing.

Tarricone, P. and Luca, J. 2002. Successful Teamwork: A case study: HERDSA, Edith Cowan University, Perth: Australia.

Thring, P. 2003. Distinguishing between Policy and Delivery. Paper delivered at Indaba Hotel Johannesburg on Transforming Public Sector Summit 11– 12 September 2003.

Traynor, C.H. 2005. The SLUSE model of natural resource management: From theory to practice through field – based training-experience from Southern Africa. Pietermaritzburg: Pinetown printers.

Welman, Kruger and Mitchell, 2005. Research Methodology: Third Edition. Cape Town: Oxford University Press.

Wheeler, D. and Stoller, J.K. 2011. Teamwork, Teambuilding and Leadership in Respiratory and Health Care: Canadian Journal of Respiratory Therapy: Vol. 47.1.

Whetten, D.A. and Cameron, K.S. 2007. Developing Management Skills: Seventh Edition. Houston. Pearson Education.

Wood, J.M., Chapman, S., Fromholtz, M., Morrison, V., Wallace, J., Zeffane, R.M., Schermerhorn, J.R., Hunt, J.G. and Osborn, R.N. 2004. Organisational Behaviour: A Global Perspective 3rd edition. Singapore: Kyodo Printing Co.

World Bank. 1997. World Development Report: The State in a Changing World. New York: Oxford University Press.

<http://lnweb18.worldbank.org/ESSD/essdext.nsf/41BDoCName/Environment>

Accessed 26/10/2010

Xulu, P.J.S.T. 2007. The Implementation of Active Learning Within Fieldwork in Environmental Education in Primary Schools. M. Ed. Dissertation. Johannesburg: University of Johannesburg.

Young, K. 1993. Planning Development with Women: Making a World of Difference. London: Macmillan.

APPENDIX A: RESEARCH QUESTIONNAIRE

INSTRUCTION

You are kindly requested to answer the following questions honestly and truthfully. This information is required to complete the research dissertation on the challenges of teamwork for cooperative governance in the implementation of the environmental impact assessment process on government agricultural projects in Kwazulu-Natal. As part of the research investigation, follow up questions will follow in order to obtain in-depth meaning of the responses given.

Anonymity will be adhered to, and all information forwarded will be treated with confidentiality.

Please indicate by using a cross X and use N/A where not applicable

A. EFFECTIVENESS OF TEAMWORK

1. How often do you interact with agricultural/environmental section on your job activities?

Not at all	Sometimes	Often	Very often
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2. What is your level of basic awareness about what agriculture/environment do in the Department? NB: unit that the respondent is not affiliated under

Low	Moderate	High
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3. How often have you been involved with agricultural projects over the years? NB: directed specifically to environment team members.

Not at all	Sometimes	Often	Very often
------------	-----------	-------	------------

4. What do you understand about teamwork?

5. Do you think your unit plays a significant role in ensuring teamwork by assisting each other on agricultural projects and EIAs to achieve the departmental goal?

Yes No

Please elaborate your answer

6. Is there any communication between your units on agricultural projects and EIAs

Yes No

7. Are you happy with cooperation between the two units in relation to agricultural projects and EIAs?

Yes No

8. During planning and identification of agricultural projects, do your units agriculture and environment always meet to discuss all the requirements?

Yes No

9. Do you think capacity building between the units is important in teamwork?

Yes No

10. How well do you understand EIA process?) NB: Directed specifically to agricultural respondents.

Not well	moderately	well	very well
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11. Does your component conduct workshops/seminars to share information about what you do?

Yes

No

B. BARRIERS TO EFFECTIVE TEAMWORK

12. Do you think agriculture and environment units should be combined under one department?

Yes

No

13. Give reasons for your answer above

14. Are you aware of any agricultural projects that have commenced without environmental approval?

Yes

No

15. Are you aware of any agricultural projects that have been stopped by the environmental unit because they have commenced without environmental approval?

Yes

No

Thank you very much for your cooperation.

APPENDIX B: REQUEST TO CONDUCT RESEARCH

P O Box 4872
Empangeni
3880
10 September 2009

Manager: Agriculture North Region
Department of Agriculture Environmental Affairs and Rural Development
Private Bag x 1048
Richards Bay
3900

Dear Sir

Re: Request to Conduct Research in Five District Offices of the Department under Agricultural Services in the North Region

I hereby request to conduct research on the undermentioned topic on five district offices. The request is made to enable the researcher in fulfilling requirements for Master of Environment and Development dissertation at the University of KwaZulu-Natal. The required respondents are Deputy Managers, Assistant Managers, Project coordinators/managers, Agricultural Scientists, Extension Officers and Agricultural Technicians. These will be guided by the chosen sample.

Below is the topic for research and aims:

Understanding the challenges of teamwork for co-operative governance in the implementation of Environmental Impact Assessment process on government agricultural projects in Kwazulu-Natal.

- ◆ To investigate the effectiveness of teamwork between agricultural and environmental units in the implementation of EIA process on agricultural projects in the North region of the Department of Agriculture and Environmental Affairs in KZN.
- ◆ To investigate the barriers to effective teamwork between agricultural and environmental units in the implementation of the EIA process on agricultural projects in the North Region of the Department of Agriculture and Environmental Affairs.

Your permission to undertake this research under your region will be greatly appreciated.

Yours Faithfully

.....
ME. Mdamba (Researcher)

.....
Dr. M. Dent
Supervisor
University of KwaZulu-Natal

APPENDIX C: LETTER TO PARTICIPANTS

Muziwandile Emmanuel Mdamba
University of KwaZulu-Natal
Center for Environment, Agriculture
and Development (CEAD)
Private Bag x 01
Scottsville
3209

Dear Mr.....

Re: Request for signed consent to participate as a respondent in the academic research project.

My name is Muzi Mdamba. I am currently studying at the University of KwaZulu Natal towards a Masters Degree in Environment and Development (MEnvDev). As part of this course, I am undertaking a research that seeks to examine the challenges of teamwork for co-operative governance to enhance the delivery of Environmental and Agricultural services in the developing areas of KZN.

Based on the position you occupy in the Department of Agriculture and Environmental Affairs, I have identified you as one of the potential informant for the study. Accordingly, I would like to request your consent to participate in a semi-structured interview as one of my subjects.

Should you agree to participate in the study, please fill in the attached consent form (Annexure 1) which also contains more details about the study.

Thank you.

Mr. ME. Mdamba
Post Graduate Student

Annexure 1: Information and consent form

Project Title:

Understanding the challenges of teamwork for co-operative governance in the implementation of the EIA process on government agricultural projects in KwaZulu-Natal.

Aims of the Project

In South Africa, most government departments are structured to include more than one function under a single organizational vision and mission whereby teams are expected to coordinate and integrate their functions by cooperating to deliver on the prescribed organisational goals. The Department of Agriculture and Environmental Affairs (DAEA) exemplify the same model of institutional arrangement, whereby agricultural unit is expected to harness the massive potential for agricultural growth and development within the province and on the other hand the environmental unit is responsible for the advancement of environmental sustainability for socio-economic development, through the promotion of sustainable use of the environment and ensuring a safe and healthy environment. Accordingly, the two components are supposed to work in an integrated manner to ensure that the organisational goals are achieved. This dissertation aims to investigate the challenges of teamwork for cooperative governance within the Department for the delivery of agricultural and environmental services in KwaZulu-Natal.

Details of the Investigator

Name : Muziwandile Emmanuel Mdamba
Physical Address : 15 Waterberry Wood Road
Arbouretum ext. 7
Richards Bay
3900

Postal Address : P.O. Box 4872
Empangeni
3880

Work telephone : 035 780 6844

Fax : 035 789 8211

Cell : 083 728 0177

Email : muzi.mdamba@kzndae.gov.za

Details of Supervisor

Name : Mark Dent (PhD)

Physical Address : Centre for Environment, Agriculture and Development (CEAD)
: University of KwaZulu-Natal (Pietermaritzburg Campus)

Work telephone : 033 260 5775

Email : Dent@ukzn.ac.za

Reason for choosing you to participate in the study:

The study aims to investigate the challenges of teamwork for cooperative governance for the delivery of agricultural and environmental services in the developing areas of KZN. Therefore, your area of responsibility and your experience in your position as.....that you currently occupy makes you a potential participant to assist with my research investigation.

Details of what is expected of you:

The study involves a semi-structured interview whereby I will be asking you questions that will help fulfill the objectives of the research investigation. It is estimated that the whole interview process will take about 45 to 60 minutes.

Benefits for participating in the study:

This is an academic study with no direct financial benefits to you. However there may be indirect benefits in the sense that you will have access to the research findings once finalized and you may therefore use my findings and recommendations in your work situations.

Information handling:

The proceedings for the interview will be handwritten. No video or audio recordings will be done. You have a choice whether to have your name revealed or to remain anonymous.

The written recordings on the interview will be kept for 5 years, after which they will be destroyed by shredding.

Voluntary participation:

Participation in this study is voluntary and you are free to withdraw from participation at any stage of the process for any reason.

Declaration by subject

I (full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT

DATE