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**FROM POLICY TO IMPLEMENTATION:
A CASE STUDY OF SUSTAINABLE RESOURCE
USE POLICY IN ENKUMANE, MKOMAZI
VALLEY, KWAZULU-NATAL**

By

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ABSTRACT

Land degradation is a national concern that needs to be redressed and prevented by the government and its agencies as it has a significant impact on agricultural productivity and food security. The National Department of Agriculture is in the process of reforming the sustainable resource use policy to deal with the causes of land degradation and to promote the sustainable use of natural resources, particularly in poverty-stricken areas. Prior to 1994, this policy was only applied in areas where commercial agriculture was practised.

The researcher has explored the struggles encountered during the implementation of the sustainable resource use policy through a case study approach within the Enkumane region of KwaZulu-Natal. The research followed a cross-sectional approach drawing from methods such as typology techniques, semi-structured interviews and questionnaires, which were employed at various stages in the policy process, from the levels of policy-makers to the intended beneficiaries. A literature review emphasized the importance of applying integrated and participatory approaches in implementing a public policy.


The results highlighted significant differences of opinion concerning the implementation of the sustainable resource use policy within and between the different stages of the process from policy to implementation. This was partly attributed to the inadequacy in terms of clear roles, direction and guidelines, and also in terms of the institutionalisation of experience, knowledge and skills. It was recommended that a more co-ordinated and

integrated effort is required to reform the policy. This calls for the establishment of mechanisms to ensure that people at all stages in the policy process are involved in a participatory manner, towards the continual improvement of the sustainable resource use policy.

The significance of this study is twofold, firstly the financial burden of ineffective policies is unacceptable to our society. Secondly, the research has a potential to enhance the policy to implementation process, which may provide a platform for improving the sustainable resource use policy.

DISCLAIMER

This dissertation is submitted to the University of KwaZulu-Natal for the Masters degree in Environment and Development. I hereby declare that the dissertation and associated research represents my original work and has not otherwise been submitted in any form for another degree or diploma to any University or other tertiary educational institution.

Signed: 

David Lourens Jacobs

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ACRONYMS AND ABEVIATIONS

ACAT	Association for Christian Agricultural Training
BRG	Bioresource Group
CARA	Conservation of Agricultural Resources Act (Act 43 of 1983)
CBNRM	Community-Based Natural Resource Management
DLUSM	Directorate of Land Use and Soil Management
ERM	The Enkumane Reformed Mission
IUCN	International Union for the Conservation of Nature
NDA	National Department of Agriculture
NLP	National LandCare Programme
PRA	Participatory Rural Appraisal
SRU	Sustainable Resource Use

*Chapter 1***INTRODUCTION****1.1 BACKGROUND**

On 27 April 1994, South Africa switched instantly from a profile of oppression, human rights abuses, and social injustice to a more democratic, liberated and people-centred country. Whilst the transformation of South Africa has focused on, amongst others, integrated service delivery, the administration of state institutions, resource and asset management, realisation of national unity, and the promotion of a development-friendly climate; the legacy of apartheid left behind a socio-economic environment that continues to be lopsided and multifarious. Nonetheless, since the emergence of the democratic dispensation in 1994, the government has progressively moved towards social repair, poverty alleviation, redress, and social transformation. It has also been the government's priority to focus on those people who did not adequately benefit from public services in the past and/or those people who were disadvantaged. Many of these disadvantaged people are situated in underdeveloped rural areas. An ANC report (1994) states that approximately 17 million people in South Africa are living below the minimum standard of living (breadline), among which 11 million people are from underdeveloped rural areas.

Much of former homeland territory can be classified as underdeveloped and rural, to which people were forcefully translocated under the apartheid system. This system ensured that land distribution and resource allocation was lopsided and skewed along racial lines and class boundaries. Associated legislation, such as the

Natives Lands Act of 1913 and the Natives Trust and Land Act of 1936 resulted in the forced removal of approximately five million African people. Although this process of forced removal took several years, people were frequently evicted from highly productive and sustainably utilised land, to smaller areas with reduced productivity and fewer natural resources (Harley and Fotheringham 1999). It is well documented that poverty linked with population growth frequently results in land degradation, particularly on arable land (Jordaan and Jordaan 1998). The issues percolating from the case study could be partly attributed to such policies.

It therefore makes sense to accept the reality that people should have reasonable access to land and its natural resource assets. On the other hand, land degradation and soil erosion appear to be significant threats to the future welfare of South Africans. The value of land can deteriorate to such an extent that it would take great efforts to restore and increase its productivity. Other threats include local, regional and global impacts, such as deforestation, global warming, the competition for scarce water resources, human population growth, excessive consumption, and the movement of refugees from environmentally degraded areas (Yeld 1992). The invasion of alien plants, formation of soil erosion dongas, the occurrence of denuded landscapes, and deteriorating water sources are examples of the symptoms of land degradation. South Africa is prone to the risk of land degradation because of the prevailing erratic rainfall, shallow and unfertile soils and restricted irrigation potentials.

Land degradation is therefore a national concern that needs to be addressed and guarded against by the government and its agencies. The reason being that it has a negative impact on agricultural productivity, food supply and security, even at household levels. On a national scale, the potential for water induced soil erosion appears to be linked to the former homeland areas, where the potential for

damage is greater. Water induced soil erosion not only affects agriculture and community water supply but also has catastrophic and disastrous implications for communities, specifically in the form of droughts and flooding. Refer to **Figure 1** below for a spatial presentation of the potential for water induced soil erosion in South Africa.

Soil Erosion Hazard - 2000

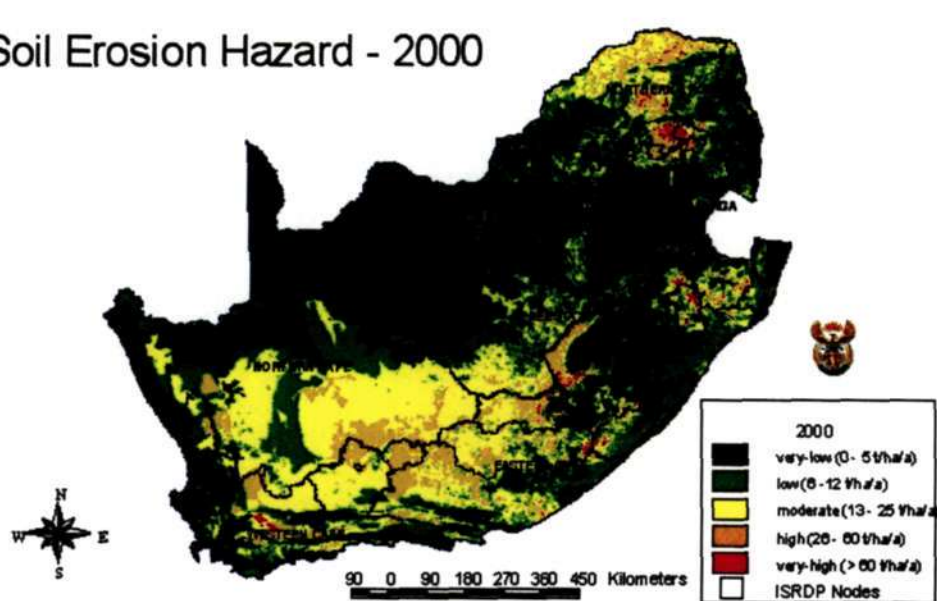


Figure 1: The Predicted Water Erosion Map for South Africa¹.

The spatial presentation depicts the potential for water induced soil erosion. Erosion is notably rated high to very high in areas such as the former homelands in the Limpopo, Eastern Cape, and KwaZulu-Natal Provinces. The former homeland areas also coincide with the ISRDP (Integrated Sustainable Rural Development Programme) Nodes, which have been demarcated as such by the President to channel government interventions, programmes and projects to these poverty-stricken communities.

¹ The Predicted Water Erosion Map for South Africa has been compiled from several databases (Pretorius, 2000).

The government holds two guiding policy instruments relating to land degradation and the sustainable use of natural resources in South Africa, namely the New Constitution of South Africa, and the institutions of the National Departments of Agriculture and Environmental Affairs and Tourism.

Firstly, the New Constitution of South Africa (1996: 11): Bill of Rights Article 24 (1), affirms that:

“Everyone has a right [section (b)] to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures to [section (iii)] secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”

The New Constitution of South Africa (1996: 13): Bill of Rights Article 24 (1) further affirms that:

“Everyone has the right to have access to [section (b)] sufficient food and water, and [section (2)] the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.”

Secondly, the public institutions tasked with redressing land degradation and sustainable utilization of natural resources on a national scale, are the Departments of Agriculture and Environmental Affairs and Tourism, both comprising of a National institution with Provincial spheres. The Department of Environmental Affairs and Tourism is involved in the development and implementation of policies that promote the concept of community-based natural resource management. The policies driven by this department are more applicable for communities surrounding protected areas or living adjacent to a rich natural resource base.

In contrast, this study deals more with the policies promoting sustainable agricultural practices, thereby highlighting and emphasizing the role of the National Department of Agriculture. The task for the National Department of Agriculture (NDA), in terms of national agricultural policy is to establish an environment where opportunities for higher incomes and employment are created for resource-poor farmers alongside a thriving commercial farming sector (Hanekom 2000). This is recapitulated in the three major goals for policy reform, firstly to build an efficient and internationally competitive agricultural sector, secondly to support the emergence of a more diverse structure of production with a large increase in the numbers of smallholder farming enterprises, and lastly to conserve our agricultural natural resources and put in place policies and institutions for sustainable resource use.

Within the third major goal for policy reform, the NDA is making a concerted effort to redress the problems and issues that arise from sustainable land use, through policy development and incentive schemes, soil conservation measures, law enforcement and the monitoring of natural agricultural resources. The KwaZulu-Natal Department of Agriculture is responsible for the implementation of agricultural development, extension programmes and natural resources management programmes. Monitoring and law enforcement of natural resources management is strongly advocated and implemented by the NDA, through its Regional Offices, one of which is based in Pietermaritzburg, KwaZulu-Natal.

Environmental problems have been among the most pressing national public policy issues during the past several decades (Bonsor *et al.* 1996). On a more local scale there is evidently a need for the restoration and efficient management of our natural resources. Moreover, the NDA has recently attempted to align its policies and strategies with government's priorities, i.e. poverty alleviation, social

transformation and economic sustainability. The NDA's primary policy pertaining to land degradation and sustainable use of natural resources, is the sustainable resource use (SRU) policy.

1.2 FROM THE BEGINNING

This study is connected with the application and/or implementation of the SRU policy. How did it come about that the SRU policy is identified as a policy? A simple definition of a policy is expressed as being "strategies designed to bring about certain desired goals" (Orkin *et al.* 1995: 470). The SRU policy was derived primarily from the overarching national agricultural policy and to a lesser extent from the leadership of the NDA. The Assistant Director-General of Sustainable Resource Use and Management is hence responsible for the task of developing strategies as well as managing and monitoring the achievement of desired SRU policy goals. It is suggested that the step towards the direction of sustainable land management is made only if all targets of the strategy are satisfactorily met (Herweg *et al.* 1998).

Prior to 1994, the SRU policy was applied only in areas where commercial agriculture was practiced, i.e. on white-owned farms. The democratic government experienced pressure from the citizens to deliver much needed basic services to poor rural areas, including services such as healthcare, electricity, housing and water supply. Transformation was therefore directed at the strategic alignment of government to the immediate and basic needs of citizens. Government's mandate from the New Constitution and the above-mentioned factors has contributed to the NDA's recent advancement of the process to reform the SRU policy. The SRU policy was hereby under review during the period of research.

The tools for implementing the SRU policy are two-fold, namely law enforcement and its promotion through incentives. The Conservation of

Agricultural Resources Act, 1983 (Act 43 of 1983) or CARA is the law enforcement arm of the SRU policy. The NDA has, since 1998, initiated a National LandCare Programme (NLP) based on a successful Australian model, to provide financial assistance/incentives in the form of grants to resource poor land users for land restoration activities and community-based natural resource management (CBNRM). The rationale behind this study was the fact that the implementation of the SRU policy was no simple task, and there were many obstacles to overcome and challenges, particularly in the area between the policy and its implementation. It is for this reason that the intention was to explore the struggles and challenges experienced during the implementation of the SRU policy. The study thus investigates the relationship between the SRU policy and its implementation. The SRU policy is attached in **Appendix A** for reference.

1.3 A CASE STUDY

A study site (Enkumane) was selected in a rural part of the Mkomazi valley in KwaZulu-Natal. The researcher is a Resource Conservation Inspector/Officer in the Directorate of Land Use and Soil Management, with a duty to implement the SRU policy in the rural communities of KwaZulu-Natal. The researcher was implementing the SRU policy in Enkumane at the time, on request from the Masibambaneni Youth Club for assistance and advice on the development of CBNRM and related issues.

The need expressed by the Masibambaneni Youth Club was based on their concerns of increasing land degradation in the Mkomazi valley which hampers crop production and grazing, entangled with a host of socio-economic issues such as poverty, emigration, unemployment, disease and illiteracy.

The motive behind selecting Enkumane as a study site was the incidence of all five clusters of disadvantage, associated with deprivation, namely vulnerability,

isolation, powerlessness, poverty, and physical weakness (Chambers 1983). This study also continues from a previous exploration of rural development issues in Enkumane by a group of students from the Centre for Environment and Development, University of KwaZulu-Natal in 2000. For these reasons, Enkumane presents a challenging situation of priority and need for the provision of government services.

1.4 FROM CASE STUDY TO RESEARCH PROJECT

The intention of the study was to explore the struggles experienced during the implementation of the SRU policy in Enkumane. The struggles in implementing the SRU policy in Enkumane led to the conceptualisation of a research problem. From this background, coupled with an initial literature review, the following research questions emerged:

- ❧ How does the implementer identify and prioritise which areas should be addressed by the SRU policy?
- ❧ Why, and how is the SRU Policy implemented in Enkumane?
- ❧ How does the implementing agent decide upon the approach to be adopted for implementing the SRU policy in Enkumane?
- ❧ What criteria and indicators are used to judge, evaluate or measure the successful implementation of the SRU policy in Enkumane?
- ❧ How are struggles with the implementation of the SRU policy in Enkumane managed?

The research questions were identified as the objectives for this study, and the purpose was to explore the above-mentioned research questions within the context of the case study.

1.5 SUMMARY

Chapter 1 introduced the early stages and preparation for the research process. The need for such a study was two-fold, firstly the financial burden of ineffective policies are unacceptable to our society. Secondly, applied research has the potential to enhance the policy process, which may contribute to solving the real problem in practice.

This study is somewhat unusual, in the sense that it attempts to explore an emerging problem in policy science, which is the area between theory and practice, or between policy (theory guiding actions) and implementation (actions). The links between theory and practice abstractly represents the connections between the government and its citizens. It is not only the connections between government and its citizens that are important, but also the strength of the relationships between the connections. Moreover, the combination of disciplines involved appears to add much value to the research, such that the total is more interesting than the sum of the individual contributions or parts.

Chapter 2 deals more specifically with the theoretical aspects of the research and provides relevant links to the case study from the literature on policy theory and on sustainable resource use.

*Chapter 2***THEORETICAL BACKGROUND****2.1 THEORETICAL PERSPECTIVES**

There are few studies, which have explored the domains between policy and implementation. The literature review revealed that there has been a general gap in the broad understanding of the policy process as a whole, with an overemphasis on the components in the policy process. Perhaps the reason is that the appeal to make published judgments about the effectiveness or success of policies has largely been resisted. Levitt (1980: 9) reasons that policy research has rather been applied to “observe, clarify and draw attention to relevant detail, to set ideas and evidence in context and to make the most of propositions and linkages that may shed light on what is happening”. In light of the above, the SRU policy appears to regard the components as important but lacks the broad framework and understanding of the process of policy to implementation, i.e. the linkages between the various components as contributing collectively to the achievement of sustainable resource use in South Africa.

Literature on sustainable resource use is comprehensive and often linked to case studies, where rural communities are beneficiaries or to scientific research that is relevant to the agriculture and environmental management. The methods also compare respectively, i.e. stretching from participatory approaches, interviews, and appraisals to trials, experiments, demonstrations and assessments. The research topics in the field of sustainable resource use are consequently somewhat diverse. Literature more relevant to the study was investigated, i.e. CBNRM.

CBNRM was found to be an open or broad concept encompassing protected areas management, participation by communities and sustainable agricultural practices. The distinctions between CBNRM application in protected areas management and sustainable agriculture are not clear, but the approach and principles are mutual. Literature on sustainable agricultural practices provided valuable knowledge for the study.

While science moves closer to applications (practice), problems occur in the real world that cannot be confined to disciplines (Karlqvist 1999). This study therefore follows an interdisciplinary approach, attempting an understanding of the process from policy to implementation and of sustainable resource use, rather than specializing in a particular subject. It merely integrates and explores the end results with the individual components of a policy process.

Which paradigm would such a study then resemble? It is argued that rather than taking a particular perspective, the study is constructed from the nuts and bolts of the different perspectives. For example, structural perspectives examine society as a whole (Haralambos and Holborn 1995). This study explored a policy process. It is for this reason necessary to examine the process in its entirety, so that problems, even minuscule as poor communication can be identified.

As a branch of structural perspective, functionalism would appreciate a study of this nature to be a system that is as a set of interconnected parts, which together form a whole (Haralambos and Holborn 1995). The SRU policy is indeed a whole system, consisting of actors, components and procedures. It is also necessary to explore the different parts, which make up the system. The relevance of roles and relationships between the different government spheres and the purpose of

intergovernmental relations became evident during this study. A functionalist perspective hence promotes cooperation and stability unlike the conflict perspective that stresses divisions. While this study does examine individual actions and the subject of study is a small social group, the conflict perspective is rather limiting.

2.2 POLICY PERSPECTIVES

2.2.1 Policy

“Before the emergence of modern nation-states in Southern Africa, a strict code of conduct determined how much, and when, people could draw from their natural environment” (Chenje and Johnson 1994: 39).¹ More recent policies are clearly dictated by government priorities, and have as their purpose, influencing decision-making. A policy can be thought of as a set of instructions from policy makers to policy implementers that spell out certain goals and the means for achieving these goals. The SRU policy is typical of this definition see Appendix A, page 98. The SRU policy presents a summary of brief instructions forming a framework for implementation or guideline for implementers. The goals and objectives of the SRU policy do not link adequately, and are unclear, the motivations for the instructions are missing, and the language is loosely formulated.

Policies are also defined as strategies designed to bring about certain desired goals (Orkin *et al.* 1995). A policy is usually incomplete without a vision, principles, strategic goals, objectives and regulatory mechanisms. A policy is hence goal orientated, towards achieving a set of objectives. The SRU policy is not well formulated on facts, research and supporting evidence. It is expected that such a

¹ The system of policy making was defined, for example by the *kgotla* among the Batswana, the *legiko* in Sukumaland and the *epitso* of the Basotho.

policy should be comprehensive and contain other environmental dimensions, i.e. social, economic, technological, cultural, political and biophysical. Winter (2000) argues that a policy remains strong if measured by its core principles. Policy goals should therefore be explicit and clear so that all participants in the policy process are able to understand it. Typically, the key participants in a policy system are linked through institutions, groups, networks and other continuing relationships. These are based on shared understandings, values, disagreement and patterned interactions, which can best be described as policy systems (Considing 1994). The importance of institutions in supporting a policy cannot be underestimated. The SRU policy is clearly not well supported by institutions and civil society. There is a need for community and civil society ownership and buy-in to the SRU policy.

A second definition of a policy is “a rational and sequential system in which inputs are converted into outputs that have an impact” (Levitt 1980: 18). This implies that a policy is actually a process, which follows a specific sequence of events, designed to achieve measurable impacts. Every policy process is also unique in the sense that a range of factors influences it. The SRU policy is a product of a government in transition to a more satisfactory situation, and indeed it is a change.

In terms of the SRU policy, the unique factors influencing the specific policy process can be identified as (a) natural and human resources, (b) management systems and practice, and (c) components and their effects. The factors are part of the policy system and which should enable the process to convert inputs into outputs, with an intended impact on the environment. These factors will be discussed later in this chapter and relate to sustainable resource use.

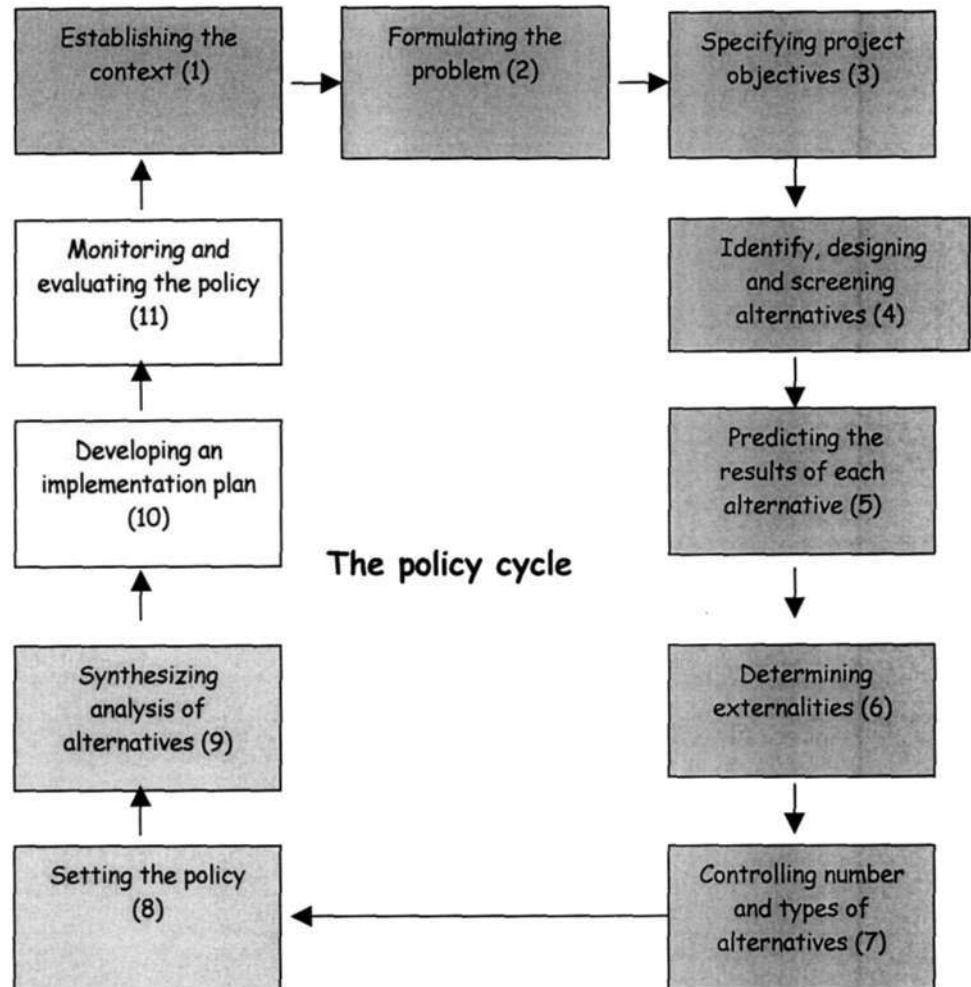


Figure 2: An illustration of the policy cycle (Bonsor *et al.* 1996).

In **Figure 1**, the blue-shaded boxes represent the early stages of policy development. The orange-shaded boxes are the actual policy, whilst the green-shaded boxes represent the implementation stage.

Note that there are more stages relating to policy development than policy implementation (the first 7 stages out of 11 stages in a policy cycle).

2.2.2 Policy instruments

An “instrument” is a term frequently used in policy science. Policy instruments are defined as the people, organizations and devices through which policies are expressed. Essentially a policy instrument is the supporting mechanisms that ensure successful delivery and implementation of the policy. To expand further, an instrument is a mechanism that enables the policy to be expressed, “so that its form and nature take into account that individuals and organizations will be involved in operating it” (Levitt 1980: 161). Policy instruments should therefore be carefully selected according to the specific needs of the prevailing situation.

There are several different instruments available in policy science. In the case study of the SRU policy, there are two clear policy instruments. Economic and written instruments are used more frequently. Economic instruments are “based on the notion that the costs and benefits of policies can be distributed differentially between interested parties” (Levitt 1980: 172). Examples can be an incentive such as a grant (as in the NLP), market-based instruments such as a partnership, or clear-cut, i.e. the ‘polluter pays principle’. Examples of written instruments include the Acts of Parliament (as in CARA), directives and Regulations. Enforcement of a policy is described as the ways in which the instruments are applied and their effects are monitored. These are the two instruments directly implemented by DLUSM, the economic instrument being applied post 1994, and the written instrument being applied since 1983. The time difference is significant as it indicates a change in government policy.

Each of these instruments provides a different way of expressing the policy. It would be fitting to use a combination of instruments in synergy so as to achieve the goal. The choice of an instrument is important where a “special degree of expertise or authority is required to give weight to the expression of policy, and a certain degree of opposition to the policy from interested parties is anticipated” (Levitt 1980: 172).

2.2.3 Public policy

The SRU policy is a public policy, which means it is concerned with government activities, responsibilities and related elements in the ‘public sector’.

Levitt (1980: 13) describes public policies as follows:

“Public policies occur in connection with government’s responsibilities in a democratic society such that members of a society (individuals and groups) explicitly delegate certain powers and duties to government institutions and expect to be affected by some of the outcomes of government action”

The objectives of public policy are not easily definable and are often submitted to revision, “uncertainty is the rule and not the exception” (Kooiman 1993: 255). Government Gazette (1998) lists two objectives of public policy: Firstly, to inform the public on what government’s objectives are and how it intends to achieve its objectives, and secondly, to inform government agencies and state organs what their objectives are and to guide them in developing strategies to achieving those objectives. Obviously a change in government style could mean minor changes to policies or total policy reform.

The International Institute for Sustainable Development (2000) states that a public policy affects decisions made at all levels including those made by individuals, companies, communities and other governments. The electorate in

South Africa has consequently invested and delegated their responsibility to government in anticipation of the delivery of appropriate services that respond to the needs of the community. However, Levitt (1980) affirms that not all public sector bodies are involved in public policies. The public sector may also encompass organizations, parastatals and individuals whose actions are supported and controlled by government resources, such as parastatals. There was apparently a lack of consultation with the public during the development of the SRU policy.

Bonsor *et al.* (1996) argues that there are different perceptions of what government is and what the public sector does, and describes government as a 'big business'. The public sector is a powerful social institution, which is empowered to make authoritative decisions for a community. All governments are based on a set of relationships between citizens who are members of the community, and officials who are authorized to act on behalf of the community through a system of rules and policies. This denotes that there are people in government who are responsible and accountable for implementing policies and achieving policy goals. The influence, support and ownership by the public are key elements of a democratic society.

Tapscott (2000) refers to there being considerable uncertainty over the responsibilities in the different levels of the administrative echelon (in areas of concurrent responsibility) and this is affecting the capacity of the new government to deliver social services and to redress the inequalities of the past. The South African public service is experiencing a paradigm shift in its attempt to govern efficiently and effectively (Ncholo 2000). This emerging paradigm is marked by, *inter alia*: the desire to provide high quality services valued by citizens, increased autonomy from centralized control, a shift to performance

measurement of both individuals and institutions with corresponding reward structures, the provision of human and technological resources needed to meet performance targets, open-mindedness to exploring changes in traditional public service functions and responsibilities. Public servants within the agricultural sector are experiencing this policy shift, with consequential impacts on expectations, performance and uncertainty.

The South African government has embarked on several transitional and transformation phases since 1994. According to Cameron and Tapscott (2000) the advent of multi-party democracy in April 1994 was followed by a process of transformation, which set the reform of the public sector as one of its goals. It is further argued that the reforms pursued have been aimed at restructuring the new state in such a way so as to make it more legitimate and accountable to the majority of South Africans. This has involved people and public participation devices.

Bardill (2000) argues that the public service inherited by the new South African government in 1994 was designed to promote and defend the social and economic system of apartheid, and was geared to serving the material needs of minority groups. Policies were structured along mechanical lines, with closed models of public and development administration. The principle features of the apartheid bureaucracy included rigid racial and ethnic segregation, a serious lack of representivity, fragmentation and duplication, corruption and mismanagement of resources, poor and outdated management practices, a regulatory bureaucratic culture, lack of accountability and transparency, poorly paid and demotivated staff and conflictual labour relations. The SRU policy is not well documented and publicized, and is further hampered by the above-mentioned features. The SRU policy is subject to a process of regular changes and review, with few people

being informed, such that the incidence of poor performance becomes inevitable at some stage.

Van Dyk (1999) explains that a dramatic policy overhaul has marked South African political and social history in the last decade and substantial financial and human resources have been deployed in the process of revising apartheid policies. Hooper-Box (1999) states that the extremely fluid policy terrain in South Africa in the early 1990's saw many policy research initiatives springing up, and many organizations taking on research commissioned by government. Van Dyk (1999) emphasizes that policy-making has been shifting, from generating options, to implementation, monitoring and evaluation. Resources need to be better aligned with national policy objectives and there needs to be collaboration between different disciplines, sectors and organizations. The first steps towards efficiency in terms of policy implementation are cooperation and the sharing of skills and resources.

The relationship between the national and provincial sphere of government is applicable to the SRU policy. The SRU policy is implemented by the NDA from Regional Offices situated within the provinces, whilst the provinces have their own Provincial Departments of Agriculture. This raises questions on the possible waste of resources, conflict of interest, top-down approaches and the duplication of functions. There is scope for the implementation of the inter-governmental relations framework policy in this instance.

The South African Government consists of three spheres, namely national, provincial and local government. Prof R. Lawrence² (pers. comm. 2000) listed three dimensions of cooperation and partnership in governance between the different spheres, as within each sphere, across the three spheres, and between spheres and citizens. Intergovernmental cooperation generally means greater integration of functions and establishment of links between public entities so as to achieve a common goal of sustainable development. The three dimensions draw attention to a potential diversity in the development of partnerships. Both national and provincial spheres of government are implementing the SRU policy concurrently, so that there is a potential for effective cooperation on the one hand, and competition, conflict or overlap on the other. The role of civil society in supporting government efforts is imperative.

According to Pelletier *et al.* (1999) cooperation and deliberation among different stakeholders is considered essential for clarifying individual and collective goals and potential impacts of alternative policies. Hampton (1999) states that the principles and practice of participation can serve to promote environmental equity for disadvantaged social groups. Such methods must provide appropriate forms of information, suitable venues for participation, and access to expertise and education, which enable the public to understand the policy issues and formulate preferences. There is also growing recognition of the importance of community participation in decision-making at local levels. This will contribute towards ensuring ownership and responsibility of land users towards the conservation of natural resources.

² Prof R. Lawrence is a senior lecturer at the University of Natal, Centre for Government and Policy (CENGOPO).

Terms such as partnership, capacity and institutional building are frequently used in policy literature. Jones and Little (2000) state that partnership processes are of vital importance because of the central role they play in the emergent culture of governance, which is now receiving a great deal of theoretical attention. According to Gannon in Herbert-Cheshire (2000) capacity building is essential for empowering people by encouraging them to be open to new attitudes, to change and to be motivated.

2.2.4 Policy problems

With this background, the researcher feels that it is necessary to criticize a policy and make judgments on its effectiveness and success, because one can pose the question as to why policies are designed in the first place? Obviously policies are designed for action and implementation. It is logical then to measure the performance of a policy in terms of its effectiveness. Within the context of the public service, this is rather difficult to accomplish due to the pre-determined line functions and communication channels. The solution to environmental problems is largely a collective one, and involves the process of communication (Connelly and Smith 1999). There are a few cases of such policy problems, which occur in practice. Government departments frequently implement poverty reduction programmes in isolation, and in an uncoordinated and fragmented way (Rapholo 1999). In the example of the Reconstruction and Development Programme, it is recorded that each agency seemed to have its own vision of poverty-related issues. It was therefore difficult to integrate the different sets of priorities into a cohesive programme.

In contrast, the National Forestry Action Plan (1997) is probably one of the most successful policies. This may be attributed to the existence of mechanisms for effective policy delivery, clear communication, and relating policy to what is

happening on the ground. Other policy implementation problems are associated with a lack of skills, management and capacity. Anim (1997) identified three key policy implementation challenges facing land reform policy measures: firstly, limited skills, including the lack of delivery capacity due to insufficient personnel and inappropriate skills, secondly the lack of co-ordination across sectors and at different levels, and finally, the weak organization existing capacity at rural local government level. Mokgoro (2000) informs us that the absence of policy analysis skills and practice are major impediments to the implementation of policies. An improvement in policy analysis skills is essential if the NDA is to improve its performance. However, the problems of implementation cannot be ascribed to poor management by provincial governments because national policies, issued as directives are often imposed upon provinces, without regard to their specific circumstances.

2.2.5 Planning

In the previous section, it was stated that measuring the performance of a policy in the public sector is difficult due to line-functions and communication channels. In order to implement a policy there should be a certain degree of planning involved. It is suggested that planning tends to follow a rational decision-making approach in the public service. According to Gonzalez (1997) rational decision-making can be applied in the public service.

Rational decision-making can encompass decision steps for a bureaucrat: Firstly a decision maker is confronted with a given problem that can be separated from other problems or at least be considered meaningful in comparison with them. The goals, values, or objectives that guide the decision-maker are clarified and ranked according to their importance. The various choices for dealing with the problem are then examined. Finally the decision maker chooses the method for

dealing with the problem and the consequences that maximize the attainment of his or her goals, values or objectives.

The purpose of thorough planning in the policy-making process cannot be overemphasized, together with the resultant implications, which are only experienced during the implementation of the policy. Details of policies relating to the substance of the SRU policy, is discussed in the following section.

2.2.6 Policies related to sustainable resource use

The New Constitution of South Africa (1996), states that Agriculture is considered a functional area of concurrent national and provincial legislative competence. The New Constitution of South Africa (Act 108 of 1996) is not clear and specific as to whose responsibility (which department) it is to formulate the policy on sustainable resource use and implement it (IUCN, 1999). Schedule 4 and 5 of this Act stipulate which functions are deemed the responsibility of national, provincial and local levels of government, and which are concurrent functions.

Since 1994, the practice and norm has been that the national government establishes the norms, policies, standards, and frameworks between government departments and across all levels of government. CARA is concerned with the conservation of natural agricultural resources, and is therefore a concurrent responsibility of the National and Provincial Departments of Agriculture.

De Haan (2000) states that natural resources inevitably occupy an important place in the sustainable livelihood debate. In communities there is fear of environmental degradation and attention is drawn to the need for sustainable prosperity; in other words it has become an article of faith to try to prevent the

depletion of natural resources while striving to decrease poverty. Large populations concentrating mainly in rural areas, face food insecurity and poverty, which is intensified by adverse weather conditions and drought, impacting negatively on farm-level food production. It is worth noting that, in the realm of development policies and practices, many views are expressed about poverty but the views of the poor themselves are rarely heard (Rapholo 1999). Cameron and Tapscott (2000) argue that since poverty is widespread in rural communities, government departments must develop the capacity to respond to this challenge. Poverty is not restricted to South Africa and Africa as Korten (1991) states, that in 1990 the world population experiencing poverty reached 1000 to 1200 million people.

Poverty eradication, natural resources management, achieving food security, and sustainable development are often pursued on separate parallel tracks at a time when the world requires their fullest integration. The best way in which progress could be made here would be to merge the Rio Conference and the Social Summit agendas and plans of actions (Wijkman 1999). Gannon in Herbert-Cheshire (2000) states that efficiency, effectiveness and competitiveness are imperatives for agricultural development, and this involves the adoption of improved production practices, up-to-date management and marketing technology, entrepreneurial practices that provide for flexibility and creativity in the diversification of the economic base.

van Rooyen (2000) motivates for food security policies that give more attention to the availability of food at macro-level, access to income, improved production capacity to acquire food at a household level, and the utilization of nutritious food by individuals. When formulating an agricultural policy for poverty stricken rural areas it is critical that policy makers include incentives. Furthermore, there

appears to be increasing recognition that major environmental impacts result from agricultural activities, and more importantly the design of agricultural policy can affect the environment. The SRU policy could be better formulated and aligned to achieving food security. The SRU policy deals with agricultural natural resources, thus natural resource management within protected areas for the purposes of conserving biodiversity and/or harvesting natural resources, would require a separate intervention.

Much is known already about policy and programme design for food security and even about policy frameworks for environmental protection, however, little is known about the appropriate mix of policies, institutions and technologies that can help to achieve water security (Barker *et al.* 2000). The growing scarcity of water is a major threat to food production. An increasing number of the rural poor are coming to see entitlement and access to water for food production and for domestic purposes as a more critical problem than access to primary health care and education. In this environment, a comprehensive strategy is needed to improve the productivity of water in both irrigated and rain-fed agriculture, and to ensure access to water by vulnerable groups in society. The typical urban household uses water for drinking and sanitation, whilst the rural households use water for a wider range of purposes. The quantity of water is sometimes more important than the quality in terms of its impact on human health. Declining water quality could promote the occurrence of diseases, for example cholera, diarrhoea and bilharzias.

The geographical and cultural contexts of rural areas are extremely diverse and therefore specific approaches are needed (ADE 2000). Rural populations live in extremely unstable environments. Rural policies therefore have to be flexible and constantly armed with recent and accurate information. The rural sector is facing new challenges and increasing threats, such as AIDs, natural resource depletion

and degradation, water scarcity and breakdown of social organizations. Thus, reaching the rural poor requires more sharply focused and regularly updated policies. Schnurr and Holtz (1998: 4) states “whether integration is used as a tool for analysis or as a way of guiding a process, one way of confronting the problem of complexity is to define the different levels at which integration should take place, local regional, national”. Policy integration requires coordination and collaboration in designing, planning, and implementing, to establish clear objectives and divisions of responsibility – more advanced degrees of integration require more sophisticated forms of communication, decision-making, and organizational behaviour. Carley (1996) refers to the term ‘policy management system’ which implies considerably more than a government bureaucracy acting in isolation. It is a strategic and participative process in which a core management group develops an institutional framework linking national, regional and local incentives, as well as government departments, private and research sectors and community-level organizations.

Rural people and rural women in particular, bear the largest burden of poverty in South Africa and if we can change the inequalities and inefficiencies of the past, rural areas can become productive and sustainable (Crwys-Williams 1997). Everatt (2000: 1) states “the prosaic insistence that only people within certain age limits can manage national and provincial youth policy and programme design and implementation, has failed to deliver substantive improvements.” Foley (2000) argues that any youth development programme should be aware of and respond to the economic, educational, psychological and social needs of young people; to focus on only one aspect of young people’s lives and ignore others, may be fatal to the programme. Jennings (2000) rightly claims that the scale of the need among youth is too great for the government to meet. In addition a youth

policy must find new resources and interventions for the really needy groups and individuals likely to slip through the existing policy net.

According to Koppen (2000), rural sociology stimulated an interest in construction of rurality. Further exploration of the entanglement of nature and culture and the social construction of environmental problems is seen as a promising agenda for environmental sociology. In this view, nature is perceived as a means of production, one of the goods for consumption, and a pre-condition for human health. Herweg *et al.* (1998) argues that the wealth of indigenous resource conservation practices available indicates that land degradation is not always caused by lack of knowledge. Often the reasons could be that political, social and economic factors limit the choice of options to manage land resources in a sustainable manner.

2.2.7 Community-Based Natural Resource Management and LandCare

Community-Based Natural Resource Management (CBNRM) is a common approach to natural resource management, particularly for communal areas. In explaining a CBNRM policy, Sims and Thomas (1998) list three incentives for communities to conserve land: firstly, security of land tenure, secondly, productive land conservation techniques and people's participation and lastly, charges and sanctions.

CBNRM is an approach, not a programme or project. It consists of a set of principles forming a policy framework. The principles have indicators and can be assessed according to respective criteria of good practice (Wijkman 1999). CBNRM is therefore larger than the concept of protected areas management. CBNRM calls for co-management arrangements that require clear definitions of the roles and responsibilities of local institutions. The establishment of effective

local forums, committees, and teams is considered a milestone in achieving CBNRM. The approach is essentially community-driven, with the institutions promoting improved decision-making, and platforms for advanced communication, and information sharing. The uniqueness of each situation and context is accommodated within the scope of CBNRM. This framework empowers communities to develop their own monitoring and evaluation mechanisms and encourages them to generate local practical solutions for everyday issues,

The common feature in CBNRM is that the implementation is geared towards improving the sustainability of participatory management. They also adhere to the five principles elaborated by Murphree (1993), which are generally acknowledged as outlining the 'optimum conditions' for resource management under communal property.

The principles of CBNRM are summarized from the literature as:

- ξ Land ownership/legally binding land rights,
- ξ Local rights to accessing natural resources and benefits,
- ξ Local empowerment and decision-making,
- ξ Partnerships between local people and role-players,
- ξ Equity, sharing and resource allocation considerations, and
- ξ Sustainable management of natural resources.

An analysis of CBNRM in the literature relate to one/more of the following:

- ξ Community institutions/structures (informal, formal, traditional leadership and legal formations)
- ξ Partnerships (private sector, NGO, government and community involvement) and conflicts management
- ξ Benefits and the sharing of benefits

ξ Sustainable livelihoods (realized benefits, time factor, SMMEs and dependency on grants, and monitoring)

The review of sustainable resource use and CBNRM literature reveals that there are policy gaps in South Africa, and progress in implementing CBNRM programmes and projects is a slow process. Land tenure issues and rights, as well as the allocation and sharing of resources remain contemporary challenges in practice. Most of the literature consulted indicated the context of social complexities and dynamics in rural areas. However, CBNRM is perceived as being flexible, realistic, and adaptable to the unique context and needs of the community. The role of external agencies such as NGOs and government has tended to be facilitative in style and approach. Furthermore, the literature describes best practices of CBNRM in other underdeveloped African countries, such as Zambia, Tanzania, and Zimbabwe – which did not exist to the same extent in South Africa. Several programmes coordinated by government and/or NGOs include and endorse the principles of CBNRM. The NLP is one such programme, drawing from the CBNRM principles. There is evidence of CBNRM principles in the NLP.

The unique factors influencing the SRU policy process were identified in CBNRM as (a) natural and human resources, (b) management systems and practice, and (c) components and effects. These are derived from the NLP and the CARA, i.e. policy instruments. The soil, climate, water, air, plant, and animal resources are available in varying degrees of quality and quantity at the local level. Information on human cultural and economic issues is also documented. It contains resource descriptions and interpretations that can be used to make decisions about use and management of the land. Resource characteristics that limit or affect land use and management are identified, and the natural resources are rated according to limitations, capability and their potential.

Management systems are applied to prevent or treat problems associated with soil, water, air, plant and animal resources. Management systems have some bearing on agricultural and environmentally focused activities. Economic, social, or cultural constraints limit and influence the development of resources. Management systems are integrated with practices and their components. Quality criteria represent the level of resource protection that must be achieved in order to meet the requirements for systems aiming at sustainable resource use. Planning assistance provided to resource users will be directed towards achieving the quality criteria established for each of the resources and their considerations.

There are practices, followed by practice standards and specifications. The practice standards establish the minimum level of acceptable quality for planning, designing, installing, operating and maintaining good practices. The quality of the resources soil, water, air, plants and animals are determined by natural events. Human activities influence the quality and nature of these resources. The systems imposed by human activity can have a positive or negative effect on the quality of the natural resources. Management systems should be designed and managed to

promote those effects that, within our present state of knowledge, will contribute to the sustainability of the resources. The implementation of the SRU policy will be influenced by human cultural values and is integrally related to a variety of scientific disciplines such as soil, biology, forestry, engineering, economic and social science. These SRU policy factors are part of the policy system and should enable the policy process to convert inputs into outputs, with an intended impact on the environment.

It can be argued that these are instruments of the CBNRM policy, which is aligned to the NLP in the SRU policy. Rights to, and ownership of, natural resources are of central importance to communities and their ability to derive sustainable livelihoods from natural resources (IUCN 1999). Land tenure security also strengthens participation and commitment to the management of natural resources. Key elements of CBNRM policies should therefore include legal institutional frameworks, access to resources, benefit sharing, conflict resolution, partnerships, capacity building and enterprise development. Community-based Sustainable development involves approaches, which integrate the above-mentioned key elements (Wijkman 1999). Useful literature on managing sustainable development for communities is available (Fitzgerald *et al.* 1995). CBNRM is one of many approaches to natural resource management in communal areas. According to Venema and van den Breemer (1999) top down, participatory comparative contributions and contractual approaches have emerged during the previous decade.

The NLP was developed in Australia using the CBNRM approach and adopted by the South African government (NDA) in 1998. The NLP is guided by key CBNRM elements. The objectives of the Australian LandCare Programme are to assist in enhancing the long-term productivity of natural resources, to promote a

community, industry and governmental partnership in the management of natural resources, to assist in establishing institutional arrangements that support policies, programmes and practices that will encourage the sustainable use of natural resources, to assist in developing approaches to help solve conflicts over access to natural resources, and lastly to assist in raising the natural resource and business management skills of land users (Department of Agriculture, Fisheries and Forestry 2000).

LandCare is a government-supported programme that advocates the CBNRM approach and promotes sustainable land management. This approach taken by LandCare involves a process of community participation, focusing on agricultural resources conservation through encouragement and support of sustainable land use practices and awareness of conservation ethics. South Africa's NLP is being built through a range of educational opportunities and community based monitoring of local resources. This programme is essentially a grass-roots programme, which is supported by both the public and the private sector in a series of partnerships.

The NLP offers practical assistance for land conservation and restoration activities, which have been identified, implemented and monitored primarily by the farming sector. The mission of LandCare is to bring about sustainable land use and encourage the adoption of agricultural and livestock production systems that are economically viable, and serve as protection for the biophysical environment.

The NLP was established in South Africa because communities, individuals and the government accepted the need for changing the way land and water resources are managed and utilised, in such a way that the long-term potentials

are sustained and optimised. Since the origins of modern Agriculture, poor farming practices have led to land degradation, for example: Soil erosion, overgrazing, wetland and watercourse destruction and bush encroachment. These land degradation problems have been, to some extent, a cost to achieving a highly productive agricultural sector. They are also due to inadequate information being available to land-users, especially the consequences of their land management decisions and also the off-site effects of some land-users' actions on others.

Continued deterioration of our land resource base is likely to result in further costs to South Africa, in the loss of economic production, loss of ecological processes, loss of biological diversity, declining economic opportunities in rural communities, and the degradation of other related resources such as freshwater. These costs may impose a burden on future generations and restrict their capacity to choose how their land and related resources are utilised.

The need to adopt more improved land management practices is now widely recognized. Sustainable land management practices, which can reduce the rate of land degradation in South Africa, already exist. The challenge is to increase the adoption of these practices by land-users, while exploring more effective, efficient, and equitable ways for ensuring an economically and ecologically sustainable future for our agricultural sector.

South Africa's NLP plans to build on previous experiences locally and in Australia, and set up a national approach that will increase public awareness and assist those people involved in LandCare to work towards sustainable land use. LandCare in South Africa consists of the national government, provincial/local governments, NGOs, private sector and the communities.

LandCare in South Africa seeks to establish a climate that will favour the development of realistic, trans-disciplinary solutions by those who face particular problems. This will require policies and programmes that encourage desirable actions and discourage undesirable actions, through the balanced use of incentives, standards and penalties.

In summary, the CBNRM principles included in the NLP are:

- ③ Integrating economic and environmental goals in policies and activities;
- ③ Emphasis on transdisciplinary approaches and socio-economic development;
- ③ Sustaining agricultural production over the long term;
- ③ Providing for equity within and between generations;
- ③ Dealing cautiously with risk and irreversibility; and
- ③ Recognizing the global dimension of action.

These principles are best applied to practical land management situations, where the management objective is to meet the needs of society over the longer term, rather than simply to reap maximum short-term benefits. Sustainable land use is most likely to be achieved through profitable operations that enable individual land-users to capture the benefits and bear the costs of their decisions.

Individuals and local communities have been managing their natural resources for decades. The success of future LandCare plans will depend on continuing this active people-land relationship. The community's ability to take environmental action, participate in decision making about local problems and to put them in a regional, provincial, or national context is a cornerstone for governments changing social and economic systems. This approach will bring us closer to achieving sustainable land use. Didiza (2000) maintains that the LandCare

programme thus remains a flagship programme for the Ministry for Agriculture and Land Affairs. The aim for this programme is to have communities and individuals adopt an ecologically sustainable approach to the management of South Africa's environment and natural resources, while improving their livelihoods.

However, the NLP has recently been criticized in a published article (IUCN 1999). Unless LandCare can build on resources at local levels it will experience failure in the long-term. Any approach to poverty and its eradication must address the causes of poverty. Poverty relief funds intended to facilitate the creation of employment opportunities funds the NLP. This poverty alleviation focus of LandCare appears to be leading the programme into a direction, which may work against the goals of the SRU policy. However, the success of the NLP is the fact that it is politically driven.

There are success stories of CBNRM in practice. Murphre in IUCN (1999) outlines a few principles, which are widely acknowledged as capturing the 'optimum conditions' for resource management under communal property regimes. Effective management of natural resources is achieved by giving the natural resource a focused value. There must be a positive correlation between the quality of management and the magnitude of benefit.

The unit of proprietorship (i.e. who decides) should be the unit of production, management, and benefit. Furthermore, the units of proprietorship should be as small as practicable, within ecological and socio-political constraints. These principles were also supported in the Canadian natural resource policy (Hessing and Howlett 1997).

According to Grimes (2000) there is an increasing awareness on the need to focus on the social dimension in CBNRM, as scepticism grows about wasted resources, poorly thought out projects and false expectations. However, contemporary strategies for rural development in Australia are based on notions of self-help and bottom-up, community-based initiatives, which are said to 'empower' the individual in contrast to the imposing structures of government intervention (Herbert-Cheshire 2000). While the empowering effects of self-help are frequently cited as its greatest virtue, it is not so much control as the added burden of responsibility that is being devolved to local people. CBNRM is a common approach to natural resource management in communal areas. The incentives for communities to conserve land, namely, security of land tenure, productive land conservation techniques, and people's participation are hence valid.

72.3 SUMMARY

Chapter 2 has explored the advancement from theoretical perspectives of policy science, to its practical application in communal natural resource management. This theoretical background was limited to the application in the case study. It was therefore unnecessary to explore further application to commercial farmers, as a different approach would be followed here. The links between policy science and CBNRM emerged within this chapter. However in practice, collaboration between policy scientists and natural scientists is seldom observed. The significance of this study is twofold. Firstly, the financial burdens of ineffective policies are unacceptable to our society. Secondly, policies are designed to provide a framework for solving real problems. Levitt (1980: 14) states: "it is widely held that the value and effectiveness of public policies should be more thoroughly assessed, with a view to identifying successes and

failures, areas meriting more or less attention, and setting priorities for future concern.”

It is necessary to criticize a policy and make judgments on its effectiveness and success. It is logical then to measure the performance of a policy. Within the context of the public service, this is rather difficult to accomplish due to pre-determined line functions and communication channels. Self (1972) explicitly explains that the research problem of implementation is due to shortages of resources and skills, pressures for measures, and also the unwillingness to comply with legislation. There is tension between the demands for more participation and more rational decision-making, on the one hand, and a greater effectiveness on the other. The pressures tend to pull strongly in opposite ways.

Chapter 3

STUDY SITE

3.1 LOCATION

The study site is located on the 2000ha property described in legal documents as Groot Hoek 1000, and commonly known by local citizens as Enkumane. The study site surrounds the Enkumane Mission, which is approximately 33km from Richmond by road in KwaZulu-Natal, South Africa. The exact location of the centre of Enkumane is $30^{\circ}03'30''$ South, and $30^{\circ}23'00''$ East (3030AB Nhlavini). A map showing the location of the study site is shown below.

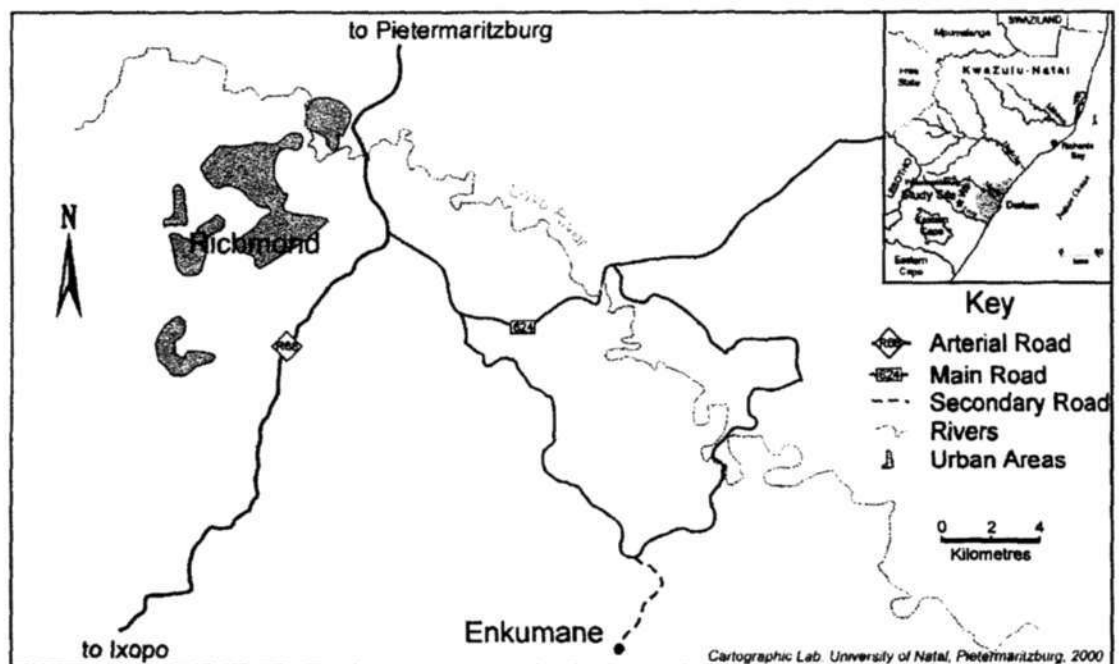


Figure 3: The location of Enkumane in relation to KwaZulu-Natal.

3.2 BIOPHYSICAL ENVIRONMENT

The Mkomazi Valley receives a mean annual rainfall of 800mm to 1160mm, and occasional droughts are a climatic hazard (Camp 1997). Mean annual temperatures are approximately 17.9 °c and light frost is recorded during winter. The Mkomazi River dissects Enkumane from North to South across a valley. The topography resembles a valley with undulating to steep slopes on sides, foot slopes, crest and ridges, ranging from 251 to 813 m above-sea-level. Table Mountain sandstone is dominant rock type, and soils are sandy, acid and leached.

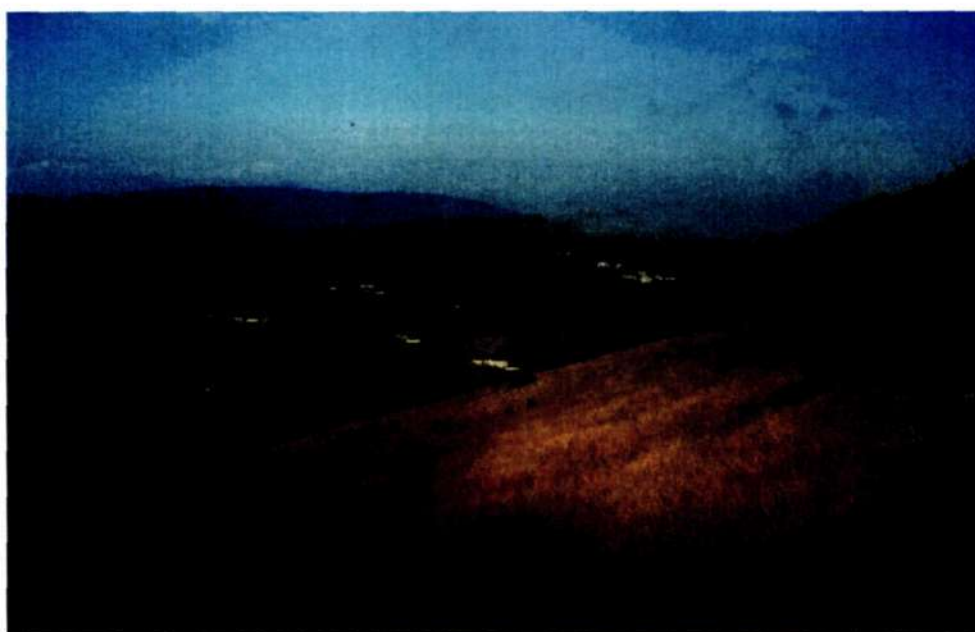


Plate 1: First impressions of the Enkumane community.

Several non-perennial streams and the Ka-Nompofana Stream snake into the Mkomazi River. The water supply for human consumption is inadequate because where it is easily accessible the water dries up during winter. There is occasional flooding from the Mkomazi River, which splits and isolates a portion of the community. In addition, due to the topography, households are largely located on

crest areas where there is a shortage of water. A borehole situated below the Enkumane Reformed Mission (ERM), is not operational. Streams supply water for drinking and domestic purposes. Moist indigenous forest of high biodiversity significance is characteristic of south facing slopes in the Mkomazi valley.

The crest zone is dominated by grassland where bedrock is dominant in places. In terms of vegetation physiognomy, south-facing slopes can be clearly defined as consisting of a closed forest canopy, varying in height from 4 to 20m. Ground cover is dominated by shade tolerant species such as herbs, ferns and shrubs. Between pockets of forest, and on northern slopes, lie areas of bush and open woodland. Grassland occurs in patches or dominating on crest areas, scattered with the occasional tree (see **Plate 2 below**).



Plate 2: A small segment of the Enkumane community.

Plate 2 shows an isolated area of the Mkomazi Valley on the opposite side of the Mkomazi River, surrounded by pockets of indigenous forest and cliffs. It was useful to classify the dominant biophysical environment according to the relevant Bioresource unit. Vegetation is classified under the Bioresource group 3 (BRG 3): Moist Coast Hinterland (Camp 1997). According to Acocks (1975) BRG 3 is referred to as veld type 5: Ngongoni veld. 40% of BRG 3 constitutes arable land, whilst 25% is of high potential (Camp 1997). According to Camp (1997), BRG 3 incorporates 475 698 hectares of KwaZulu-Natal, of which 9.54% consists of grassland. The average veld condition is 62% of the benchmark.

BRG 3 is dominated by secondary grassland of unpalatable Ngongoni grass (*Aristida junciformes*). Other grasses identified included: *Eragrostis racemosa* (Narrow Heart Love Grass), *Heteropogon contortus* (Spear Grass), *Themeda triandra* (Rooigrass), *Alloperis semialata* (Black-seed Grass), *Cymbopogon excavatus* (Broad-leaved Turpentine Grass), *Microchloa caffra* (Pincushion Grass), *Monocymbium cerasiiforme* (Boat Grass), and *Setaria spp.* (Bristle Grass). The following common indigenous trees were identified in the study site: *Acacia sieberana* (Paperbark Thorn), *Halleria lucida* (Tree Fuchsia), *Harpephyllum caffrum* (Wild Plum), *Rapanea melanophloeos* (Cape Beech), *Syzygium cordatum* (Umdoni), *Xymalos monospora* (Lemonwood), *Heteropyxis natalensis* (Lavender Tree), *Cussonia spicata* (Common Cabbage Tree), *Combretum kraussii* (Forest Bushwillow), and *Apodytes dimidiata* (White Pear). Alien plants include: *Lantana camara* (Tick Berry), *Chromolaena odorata* (Triffid Weed) and *Rubus cuneifolia* (Bramble). *Lantana camara* (Tick Berry) is planted as hedges outside many households.

Agriculture, within Enkumane is mostly subsistence and communal, except for a commercial farmland adjacent to the study site. Households cultivate maize and vegetables on a small-scale. The importation of organic material or composting

was not observed neither were the basic soil conservation principles of contouring/water runoff control, water-harvesting techniques, soil stabilization, and crop rotation. Several unproductive food gardens provide for the communal establishment. There have been attempts to plant cotton in past years. Surrounding land is planted with sugarcane (individual owners) and timber (company owned). The number of livestock (Nguni cattle) is not as high as one would expect of a rural area, possibly due to the limited grazing capacity of the land. Fires occur frequently during the dry winter months. In the nine months of working at Enkumane, the researcher noted two extensive fires on the open slopes. From the above, it is clear that an abundance of natural resources occur in Enkumane. Rural people value the natural resources, and readily make use of plants as a source of firewood, timber, natural medicine, food, shade, and fodder for domestic animals (see plate 3). Camp (1997) states that the great variation in natural resources in turn leads to variations in the types of farming that can occur with corresponding levels of production.



Plate 3: The beauty of the natural environment at Enkumane.

Traditional homesteads are dotted between pockets of indigenous forest. Mr. T. Shange (Leader of Masibambaneni Youth Club) is standing at the centre of the photograph in Plate 3, next to one of his father's Nguni bulls. The precipitous terrain limits natural resource use and farming practices. On the other hand, alien plants such as *Lantana camara* and *Chromolaena odorata* (Triffid Weed) are invading the land, soil erosion and trampling are evident in frequently travelled paths, communal gardens are deteriorating, there is a lack of water, as well as a shortage of firewood and construction material, while watercourses and wetlands are degrading.

3.3 SOCIO-ECONOMIC ENVIRONMENT

Based on the number of active homesteads, it was estimated that approximately 1200 people are residing in Enkumane. The residential population consists mainly of women and children. Most of the men live and work outside the rural area and return home on occasions. Men are traditionally involved in household decision-making. Women remain at home with their children and are relatively powerless, especially when their husbands are away. According to Mr. T. Shange³ (pers. comm. 2000a), young people are migrating at an alarming rate from Enkumane to urban areas to find employment. Enkumane represents an area that has been excluded and forgotten in terms of public services. This does not mean the area alone, but also the vulnerable groups in the community, the women and youth, who suffer the most.

A topographical perspective of Enkumane indicates the terrain and land use patterns of surrounding land. Village infrastructure is limited by the means of the community. The government has not played an active role in terms of intervention and service delivery. Traditional homesteads, which dot the

³ Mr. T. Shange is the leader of the Masibambaneni Youth Club in Enkumane.

Enkumane community, are widely spaced. Two Spaza shops are available, but most people tend to travel to Richmond for trading. A tertiary road links Enkumane with the outside world. The Department of Transport has occasionally assisted the community with road repair and construction. However, the material used on the road surfaces was of poor quality, and comprised of easily erodible material. This has undoubtedly increased maintenance costs, which is uneconomical and unsustainable. Transport is restricted to community-arranged agreements with a private bus company, which runs two trips to Enkumane each day. In addition, individuals from the community operate taxi services. The transport system is inadequate.

There is no electricity, telecommunication or tap water (with the exception of Enkumane Reformed Mission). The Enkumane Reformed Mission (ERM) is an important resource to the community. Mostly women attend church services on a regular basis within and outside the Mission. A Catholic Mission is situated about 2 km from the ERM. At times, the ERM remains the only contact with the outside world, in emergency situations. A semi-private clinic is situated at the ERM. There are no recreational facilities.

A primary (Mqolombeni) and secondary (Inkumane) school are centrally situated within the Enkumane community. The condition of school buildings and grounds is poor and inadequate. Windows are absent or broken and the Secondary school is without a fence and roof over one of its buildings. Students learn under candlelight as schools and homes are without electricity. Many students walk long distances to schools.

There is a shortage of educational resources, such as books and teaching material. No library facilities are available. Some teachers are under-qualified and the number of teachers inadequate. Teachers intoxicated with alcohol have been

Unemployment is high in Enkumane due to its isolation, distance from local markets, poor infrastructure, few roads, and difficult access. There are no roads in the study site. The provision of farm labour and taxi driving has been identified as the most important local employment opportunities. Industries in Durban and Pietermaritzburg provide most of the permanent employment opportunities outside the area. Most families rely on a monthly pension grant, child grant, and other social welfare grants, which at the time of research was a little more than R500. Trading is the most important activity for local earnings. Sewing adds value to the trading business. The top two expenditure categories are food and education. Clothing, health, transport and burial societies follow the above. Burglaries and theft have been reported. During the study an old woman was robbed of her pension and struck with a panga. Faction fights have occurred in the area. People liaise firstly, with the Nkosi or Induna and then with the police on security issues.

3.4 POLITICAL ENVIRONMENT

The South African government purchased Groot Hoek in the early 1970s for the purposes of relocating people from the surrounding fertile land to make way for commercial farming, and to provide farm labour (Harley and Fotheringham 1999). At least 20 homesteads have been abandoned and burnt down, due to faction fights in recent times, between the Inkatha Freedom Part, the African National Congress, and the United Democratic Movement. However, it appears that the situation has returned to calm and most of the families had moved back into Enkumane (see Plate 4 overleaf).



Plate 4: The spectacular landscape of the Mkomazi valley

The view shown in plate 4 is from a strategic point below the Enkumane Reformed Mission. Residents are determined to develop this rural area. Despite the violence in recent years, community members expressed interest in the potential and opportunity for the development of eco-tourism initiatives. In the past, communities have experienced mostly reactive government involvement in the provision of services to Enkumane. During the study, the following government agencies were most actively involved: the Department of Labour, the National and Provincial Departments of Agriculture, the Department of Health and the Department of Water Affairs and Forestry.

Enkumane falls within the Vumakwenza Tribal Authority together with adjacent communities. The Inkosi or Chief (Mr. M. Mkhize) represents the Tribal Authority. An Induna (Mr. F. Mkhize) is resident in the Enkumane community.

Councils, namely the Ugu, Ndlovu and Illembe Regional Councils. The community supports traditional leaders, although there remains tension between democratic structures and the traditional system of inherited powers. The key issue here is appears to be struggles with participation and formal representation in a rural local government. However the significant factor is that vulnerable groups such as women, youth, and the disabled are not well represented in leadership structures. The traditionally authorities control the allocation of land in communal areas and play an important role in the handling of conflicts and maintaining discipline. Land tenure security for individuals is thus uncertain. **Table 1** summarizes the land use and land tenure arrangements in Enkumane.

Table 1: Land use and land tenure arrangements in Enkumane

Land use	% Area	Average area per household	Ownership			Land use rights				Legend
			State	Communal	Individual	Open	Communal	Leased	Individual	
Cropland	5%	0.3ha		***			***			
Grazing land	35%	Communal		**			**			***Focus
Indigenous	50%	Communal		*			*			** Most important
Other	10%	Communal		*			*			* Less important
Total	100%	2000ha								

ACAT, the Association for Christian Agricultural Training is a non-governmental organization, which has supported community-based projects in Enkumane. These projects range from toilet construction, candle making and sewing clubs, and it appeared that these projects are not sustainable. Clubs and associations occur, for example the Masibambaneni Youth Club, the Isciathamiya (peaceful) young men's singing group, the Powerline gospel group and the Ijax football

club. The Department of Education, the Department of Health, the Department of Agriculture (provincial), the Vumakwenza Tribal Authority, the General dealer, the Department of Transport, and the Illembe Regional Council (Crafts) were organizations frequently mentioned by respondents.

3.5 SUMMARY

Chapter 3 highlighted the significant features of the Mkomazi Valley. Small-scale farming practices associated with the use and management of natural resources indicates a certain status. The outcome of the sustainable resource use policy is an enhanced status, better agricultural practices, promoting greater productivity, food security, and a better quality of life for all. Natural resources should be used optimally to benefit the community. This may take into account the exploitation of natural resources, reasonable imposed limits and appropriate management to ensure continuity. Examples of such agricultural practices may include the establishment of resource management institutions such as forums and cooperatives, a controlled grazing plan, the use of water harvesting techniques, soil reclamation, and re-vegetation of exposed land. Tenure security is a significant issue if local people are to be held responsible for sustainable natural resource management in accordance with the CARA. Chapter 4 concentrates on the methods employed in this study.

Chapter 4

METHODS

4.1 INTRODUCTION

A review of the relevant theories and models establishes the building blocks for the choice of methods. Theory provides a means for the identification of emerging facts, as well as for understanding and exploring associated concepts. The theory-laden facts derive from the impossibility of divorcing the research process from the theoretical perspectives within which it occurs. In addition, “being sensitive to theory-laden facts, keeps us open to, and dependant on a continuing dialogue between data and its assumptions” (Britt 1997: 13). The formulation of a hypothesis should be focused on the gaps in contemporary research and the different perspectives that exist.

A single perspective of a complex problem, such as those frequently encountered in the policy context, is insufficient. According to Fernandes and Fisher-Vanden (1999) policy issues have most of the characteristics of complex and poorly structured problems. This is illustrated in **Figure 4**. A challenge to this wisdom and conventional thinking is to bring together people and their knowledge, from different angles surrounding the complex problems.

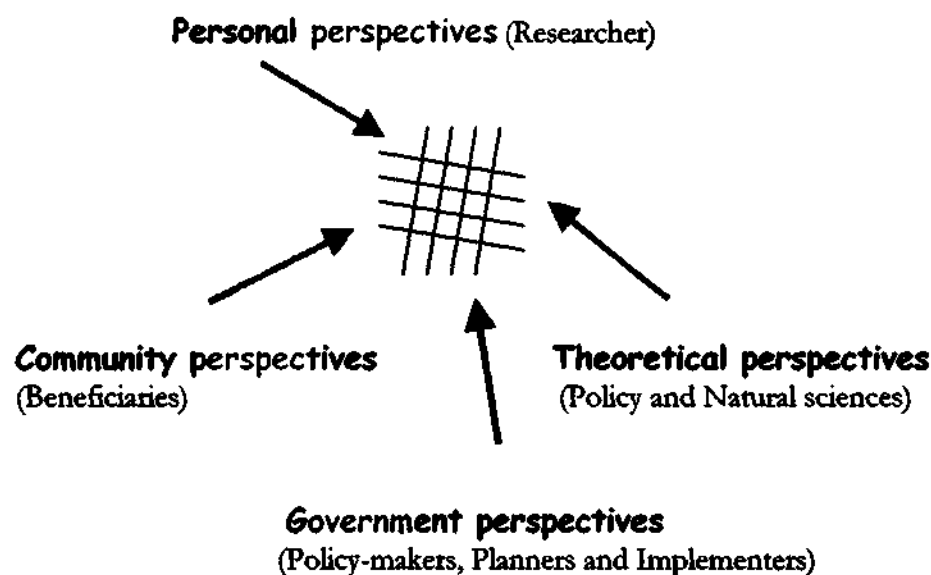


Figure 4: Multiple perspectives of a common issue.

4.2 ENVIRONMENTAL SOCIOLOGY

It appears from Chapter 3 that this study contributes towards the discipline of Environmental Sociology. This means that it is a study of how society attempts to deal with the environment. It is assumed that policy is a mechanism, which may be used by politicians or policy-makers to control the way in which society deals with the environment, relating to its management and use. A policy in itself is one of these mechanisms by which society deals with the environment. Developing sound environmental policies requires a careful blending of science and policy skills (Bonsor *et al.* 1996).

The study is thus interdisciplinary. For a broad understanding of societal, policy and environmental dimensions, it would therefore be appropriate that we integrate both the scientific and social method, as well as the different disciplines culminating in this study. Beck in Van Koppen (2000) emphasizes the tension between an increasing need for scientific explanation of environmental problems

and an increasing awareness of the limitations of Science in fulfilling this role. Karlqvist (1999) provides evidence for this that the scientific method is characterized by an approach to understand the whole of something by examining its parts, however, there is a price to be paid for fragmentation and specialization; the parts can no longer be put together easily. By utilizing interdisciplinary methods the conventional split between the scientific and social method is avoided. Table 2 below clarifies what the author perceives to be the difference between a scientific and social method.

Table 2: Clarification of the scientific and social method.

<i>Scientific Method</i>	<ul style="list-style-type: none"> ξ Systematic and logical ξ Replicable and reductive ξ Transmittable 	<i>Combination method</i>
<i>Social Method</i>	<ul style="list-style-type: none"> ξ Building on perceptual knowledge ξ Constructivist ξ Human element 	

A mode of interdisciplinary research, is the unification of knowledge, the critical step is to find the 'mapping' which demonstrates that two things are different manifestations of the same underlying structure (Karlqvist 1999). If such a relation can be established, the original theories can then be subsumed under a new theory and new methods may be developed. A combination of both the scientific and social method was selected for this study or combination method. This means that knowledge generation builds up from both community perceptions, and from breaking down the policy into its components.

Brewer and Lövgren (1999) explain the significance of interdisciplinary research as generally referring to the appropriate combination of knowledge from many different specialities, especially as a means to shed light of the actual problem. The combination of disciplines adds greater value such that the total is more interesting than the sum of the individual contributions or parts. According to Brewer and Lövgren (1999), interdisciplinary work has attained much prominence in recent years, especially as many realistic problems have proven unyielding to ordinary discipline-based approaches; this situation occurs routinely in efforts to define, analyse, and come to terms with the many complex challenges presented by environmental problems.

4.3 KEY APPROACHES

According to Pelletier, *et al.* (1999) policy analysis has gained increasing attention in recent years because of its potential to improve the knowledge base for policy design (substantive benefits), increase the likelihood of stakeholder compliance and support (instrumental benefits), and strengthen the democratic legitimacy of public policies (normative benefits). The 'problem' focus of the policy approach meant that, until the 1970s policy analysis was primarily concerned with the 'front end' of the policy process (Parsons 1995). To explore the variety of approaches applicable to the policy analysis, and with regard to implementation is beyond the scope of this research. A literature survey was carried out using a wide range of documented research and other relevant and recent sources.

Parsons (1995) dissects the analysis of policy delivery into four categories. Implementation analysis refers to the approaches of how a policy is put into action. A delivery system approach looks at how we can analyse implementation in terms of the mix of instruments, institutions and values used in providing public policy. Evaluation analysis examines how a public policy and the people who deliver it may be appraised, audited, valued and controlled. There are

approaches to study continuity, which considers various means to study the way in which policy change takes place. Lastly, the performance analysis focuses on the evaluation of policy impacts. Clearly, this study fits into the implementation category of delivery analysis. Nevertheless, there are choices of frameworks that can be developed such as, a top-down rational system approach, policy-action frameworks (implementation being seen as an evolutionary process), and implementation as a managerialistic framework, inter-organizational analysis, and implementation frameworks.

A framework within the implementation category was adapted and designed for this case study. There are three divisions in the framework, namely, technical, administrative, and inter-organizational. According to Levitt (1980) the terms are described as follows: the technical division refers to the nature of problem, and application of technical knowledge, while the administrative division includes statutory mechanisms for implementing the policy. Finally, the inter-organizational division refers to the relationships between those parties with an interest in the policy.

In reality, solving complex problems requires more than just technical knowledge. It involves people, their experiences and skills. Intervention refers to the application of knowledge, experience, and skills. Moreover, the term 'inter-organizational' overarches on the broader society, consisting of individuals, groups, communities and populations, and the extent to which there is integration. This framework has thus been adapted for the study.

Participatory methods for data collection and analysis are advocated for a study of this kind. Participatory Rural Appraisal (PRA) was proposed as an appropriate technique for policy analysis (Holland and Blackburn 1998). It is suggested that a

researcher should carefully assess whether the type of participatory methodology to be employed is appropriate for the sector of the public being consulted. Further, there are several methods providing such an assessment of the 'level of appropriateness' and for assessing a policy for 'innovation' (Hampton 1999). Other ways of assessing policy implementation exists within consultative systems in organizations (between employers/managers and their staff), and can serve this purpose, and may advance to special commissions and associations. Levitt (1980: 42) states "the end results of a policy can be subject to searching and authoritative analysis by the news media, and thus made evident to the widest audience". News articles are therefore also useful analysis tools. The potential for policy assessment exists within the practical sphere where policies are relevant.

4.4 RESEARCH DESIGN

A research design includes the overall approach to be taken and detailed information requirements on how the study will be carried out, with whom and where (Maykut and Morehouse 1994). This section therefore outlines the process of data collection, analysis and interpretation. It is argued that whichever type of design is used, the research process follows a similar pattern. The planning of research from the first to the last stage tends to follow a process. One used by the researcher was adapted from Burton (2000). A research process was designed for answering the specific research questions. This process is outlined as follows: (1) Research framework, (2) research instruments, (3) developing appropriate research variables, (4) conceptual and operational definitions, (5) hypothesis formulation, (6) selection of key informants, (7) methods of data collection, (8) data analysis, (9) reporting of findings, and (10) contribution to theory.

4.4.1 Research framework

Several conceptual perspectives of the research problem were visualized and sketched on paper. In this manner the associated variables, issues, components

and factors were linked. This approach was useful in facilitating insight and understanding into the research problem. However, the resultant understanding represented only a particular perception of the research problem. Other methods, such as a typology technique and questionnaire were used to gain insight into other perceptions. These methods are explained later.

As the initial perception of the research problem was of a personal nature it could be described as a window. In this case, the researcher stands behind the window looking at a specific environment. The window provides an idea of limitations and incorporates the context of the specific environment. A rapid assessment through the window builds first impressions (see **Plate 1 in Chapter 3**).

The environment is classified as a typical rural area. There are different perceptions of the same view. The perceptions may be in contrast with the views of the community, but may also contrast within the community. At this stage, there is overemphasis on the physical environment. A conceptual understanding of the research problem has influenced the way in which the study was designed. Cognitive mapping is the organised yet collective way in which one mentally pictures one's impressions of the physical environment. It enables people to glean information about their environment and to organise, store and recall information when they need to.

As previously stated, the research problem was identified as being the struggles in implementing the SRU policy in Enkumane. The following research questions were developed during the initial stages of this study:

- ❧ How does the implementer identify and prioritise which areas should be addressed by the SRU policy?

- ❧ Why, and how is the SRU Policy implemented in Enkumane?
- ❧ How does the implementing agent decide upon the approach to be adopted for implementing the SRU policy in Enkumane?
- ❧ What criteria and indicators are used to judge, evaluate or measure the successful implementation of the SRU policy in Enkumane?
- ❧ How are struggles with the implementation of the SRU policy in Enkumane managed?
- ❧ What lessons can be learned from this case study?

From a conceptual understanding of the research problem (see **Figure 6**) a hypothesis was formulated.

4.4.2 Research instruments

The choice of an instrument is important where a special degree of expertise or authority is required to lend weight to the expression of policy, and where a certain degree of opposition to the policy from interested parties is anticipated (Levitt 1980). Available research instruments of the NDA were unclear and poorly developed.

There was also a lack of choice in terms of written instruments as only one official finalized version was applicable, namely the Conservation of Agricultural Resources Act (Act 43 of 1983). In terms of economic instruments, the National LandCare Programme (NLP) was relevant, but had limitations in that the programme was in its infancy. Instruments involving people included the government officials and the Masibambaneni Youth club. The study was cross-sectional in approach so that subjects were selected from different levels within the hierarchy of the NDA institution. It was logical to select the NDA as a key research instrument, as it is the medium through which policy implementation

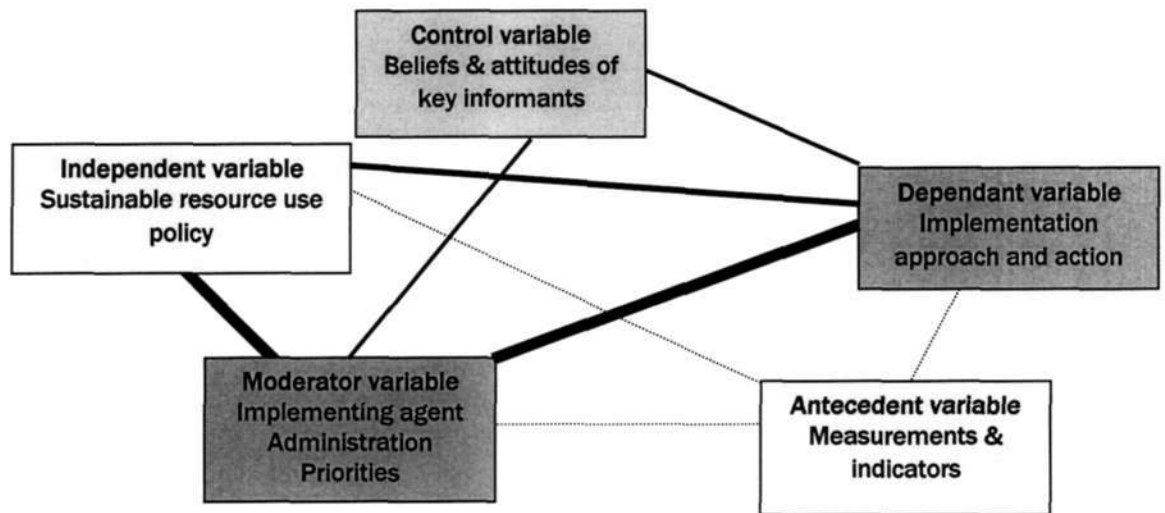
takes place. The Masibambaneni Youth Club was selected because it represents a group with similar characteristics to the youth in the community as well as being potential beneficiaries of the SRU policy.

4.4.3 Developing research variables

In developing essential research variables, standard definitions were taken from Bless and Higson-Smith (1997). Variables identified in the research problem, was arranged according to these standard definitions. The independent variable represented the characteristics of the sustainable resource use policy and its purpose (refer to Appendix A). The dependant variable included the characteristics of policy implementation (sustainable resource use policy), in the case study, i.e. the approach taken and action.

Moderator variables were described as the characteristics of the implementing agent, variations in administrative processes, and identification of priority areas addressed by the sustainable resource use policy. Moreover, control variables referred to the beliefs and attitudes of key informants during the data collection. Finally, the antecedent variable was defined as the characteristics of the policy implementation process, performance measurements and associated success indicators.

There are linkages and relationships between the different variables, which were explored in this research. Figure 5 overleaf provides a diagram, which illustrates some of these linkages and relationships.



Line: Thickness denotes strength of the relationships

Figure 5: A diagram illustrating the relationship between variables.

4.4.4 Conceptual and operational definitions

Conceptual and operational definitions were used in the study. A policy-maker was defined as a person responsible for designing and developing the policy (i.e. Directors and Assistant Directors). A planner was described as a person responsible for planning the implementation of the policy, i.e. designing strategies for implementation (i.e. Control and Chief Inspectors/Officers). An implementer was a person responsible for implementing the policy, i.e. carrying out strategies and action plans (i.e. Officers and Inspectors). Lastly, beneficiaries are people, who are believed to directly and indirectly benefit from the policy, i.e. for whom the policy was designed (i.e. incorporating the Masibambaneni Youth Club Members).

4.4.5 Hypothesis formulation

In formulating a preliminary hypothesis, as seen from Figure 5, the independent variable is influenced to a large extent by the moderator variable. Also, the dependant variable depends on the control variable, and the antecedent variable depends on the independent variable. A hypothesis emerged in that the implementing agent influences the sustainable resource use policy, to a large extent. Furthermore the implementation approach and action depends on the beliefs and attitudes of key informants, while measurements and indicators are determined by the sustainable resource use policy itself.

4.4.6 Selection of key informants

“Policy-making does not come to an end once a policy is set out or approved” (Parsons 1995: 462). Implementation therefore is a process of interaction between the settings of goals and actions geared to achieve them (Pressman and Wildavsky in Parsons 1995). An analysis of implementation then focuses on how the sustainable resource use policy is put into action or practice. The study of its implementation is thus a study of the changes that occur. Key informants were selected from the different stages³ in the changes that occur between policy and implementation. An important feature of this study was the fact that it was undertaken whilst the researcher was working as a Resource Conservation Inspector/Officer for the NDA in the DLUSM. In other words, the researcher was an implementer, and thus also a key informant.

4.4.7 Methods of data collection

Both qualitative and quantitative methods were employed in the study. These

³ Please note that the term ‘stage’ is used and not ‘level’. The use of the word ‘level’ has been purposely avoided, as it tends to imply a hierarchy or top-down approach, which is not necessarily the case.

included: personal observations during official work within the case study; typology techniques, semi-structured interviews with key informants at different stages in the policy process; and multifaceted questionnaires to a sample of key informants. The procedures are explained below.

Typology study: Typological techniques aim at drawing up representations of reality (Perret 1999). This representation is a sort of model, giving a simplified idea of the complexity, and it is not reality itself. Jordaan and Jordaan (1998) informs us that cognitive structuring may be described as a process through which one forms selective, structured impressions (interpretations) of the physical and social environment. These impressions are selective in as much as they are strongly influenced by personal frames of reference, and structured in as much as one categorises environmental features conceptually. Interpretative walks were conducted with the Masibambaneni Youth Club through abandoned as well as active homesteads, view sites, and indigenous habitats using the PRA method. Interviews were carried out with individuals during the walks, and with the Masibambaneni Youth Club as a unit, which consisted of 20 members. Other participatory-type methods included strategic planning, swot analysis, matrix analysis of issues, aerial map interpretation, and a group map drawing exercise.

It is required that a sample size should cover at least 10-20% of the overall population or area (Perret 1999). 50 households were interviewed in Enkumane. A total of 16 days was therefore spent in the field as follows: July (2000) 17, 26 and 31; August (2000) 2, 6-8, 15 and 31; September (2000) 1, 3 and 16; and October (2000) 3-6.

Questionnaires: There were two questionnaires used in this study, namely a preliminary and research questionnaire (see Appendices B and C). The preliminary questionnaire was used both as a control and for a pilot study during

the initial stages of the research. The results from the preliminary questionnaire were generated from a workshop titled: "Ownership: National policy workshop on irrigation management transfer and rehabilitation of smallholder irrigation schemes." The workshop formed part of the policy making process for one of the components of the SRU policy, incorporated into funding/incentives. The purpose of this workshop was two-fold: to identify and describe a set of important policy decisions faced by the South African Government relating to the development and management of sustainable smallholder irrigated agriculture, and to develop and refine strategy options for revitalizing and transferring to user management, existing smallholder irrigation schemes.

The research questionnaire was targeted at each of the levels in the policy to implementation process, and corresponded to the objectives of the study. Both questionnaires were multifaceted in nature, and were given to all the key informants, as mentioned in the previous sections. According to Perret (1999), a questionnaire is a written instrument used in a formal survey to obtain information that is susceptible to analysis. It has to be standardised so that the answers from different interviewees are comparable. This means that the questions have to be formatted precisely and put in the same way to all the respondents in the sample. A questionnaire was designed to flow logically with easy questions first, for ease of reading.

Semi-structured interviews: Semi-structured interviews were a follow-up to the questionnaires. They involved the main questions (from the questionnaires) for the purposes of verification, which were fixed, but the interviewer was able to improvise and link them to follow-up questions and explore meanings and areas of interest that emerged (Arksey and Knight 1999). All interviews were informal and interpersonal.

Focus group discussions: The Masibambaneni Youth Club was used as a focus group, which involved three discussions/workshops on the main issues (from the interpretative walks and interviews) in an informal manner.

4.4.8 Data analysis

The units of analysis were multidimensional, comprising individuals (key informants), groups (to which the key informants belonged) and organizational levels (the organizational structure from policy to implementation). The research design is cross-sectional, which uses data collected from at least two groups at one point in time and compares the extent to which they differ (Burton 2000: 296). Collected data was verified by triangulation from personal observations, typology techniques, semi-structured interviews and questionnaires. Triangulation served two main purposes, namely confirmation (Denzin in Arksey and Knight 1999) and completeness (Jick in Arksey and Knight 1999). Multiple triangulations were used in the verification process by drawing on the different research methods (methodological triangulation), using diverse data sources to explore the same phenomenon (data triangulation), and holding different perspectives in mind (theoretical triangulation).

4.5 SUMMARY

At this stage, it is important to reflect on the methods. Chapter 4 described the assortment of methods chosen for the assessment of the SRU policy, and such detail is required for policy research. Emphasis was placed on the need to utilize appropriate scientific tools that will achieve the objectives of the research (Hanson 1999). The complexity of the study could add to the research problem, together with a potential lack of understanding of the detailed workings of fundamental parts. The objective of this chapter was to develop a hypothesis that could be tested in the case study.

The developed hypothesis explains that the implementing agent largely influences the sustainable resource use policy. Furthermore, the implementation approaches and action depend on the beliefs and attitudes of key informants, while measurements and indicators are determined by the sustainable resource use policy. There was necessity to understand the research problem and have the necessary resources and methods to explore solutions within the given period. A probable chief source of bias in this study is the fact that the implementing agent is the researcher. However, it can be seen as having the advantage of providing experience in the field of study, which can enhance the application of theory to practice. Chapter 5 presents a discussion of the results where theory is accurately integrated with application and practice.

*Chapter 5***RESULTS AND DISCUSSION****5.1 EVALUATION**

The research problem was identified as the struggles experienced during the implementation of the SRU policy in Enkumane. The following research questions emerged:

- ❧ How does the implementer identify and prioritise which areas should be addressed by the SRU policy?
- ❧ Why, and how is the SRU Policy implemented in Enkumane?
- ❧ How does the implementing agent decide upon the approach to be adopted for implementing the SRU policy in Enkumane?
- ❧ What criteria and indicators are used to judge, evaluate or measure the successful implementation of the SRU policy in Enkumane?
- ❧ How are struggles with the implementation of the SRU policy in Enkumane managed?

The objectives were subsequently to explore the research questions within the context of the case study. The research questions were clear and valid while supporting the conclusions from the case study.

The researcher is satisfied that the methods yielded logical results substantiated by the theory, and it indeed contributed towards understanding and achieving the research objectives. The methods employed were cross-sectional in approach and included questionnaires, semi-structured interviews with key informants and typology techniques. Furthermore, the methods were found to be appropriate to

the situation, with strong similarities in the findings, especially between the results from the different methods used. In many instances, the findings confirmed and supported each other. For example, the findings from the questionnaires, interviews and focus group discussion supported each other. This made it possible and easier for data validation through triangulation.

At this stage, four concealed dimensions were identified in the research problem. Firstly, there are numerous obstacles between policy and implementation. Secondly, there is skewed emphasis on the different phases between policy and implementation, often overlooking the purpose and process of a policy. The implementation of policies is usually a slow process. Lastly, many policies are developed, transformed and adapted to suit contemporary issues, so that policy-makers and planners are blinded by policy development, overlooking the implementation of a policy. A hypothesis transpired in that the implementing agent largely influenced the SRU policy. In addition, the implementation approach and action depended on the beliefs and attitudes of key informants, while measurements and indicators are determined by the SRU policy. It is conceived that the SRU policy could be better-formulated and aligned to achieving food security.

An evaluation of the data is not complete without an analysis of the respondents, in terms of their attributes. The attitudes and beliefs of respondents may influence the hypothesis and moderator variable. In the hypothesis (from Figure 5) the independent variable is influenced to a large extent by the moderator variable. The implementing agent has a profound influence on the sustainable resource use policy, taking his/her views into consideration. Furthermore the implementation approach and action depends on the beliefs and attitudes of key informants, while measurements and indicators are determined by the sustainable resource use policy itself. The number of respondents influences the extent to

which the findings can be generalized. Presentations of the respondent's gender and age distribution are given in **Figures 6, 7 and 8**. The presentations are categorized according to the preliminary questionnaire, research questionnaire and semi-structured interviews.

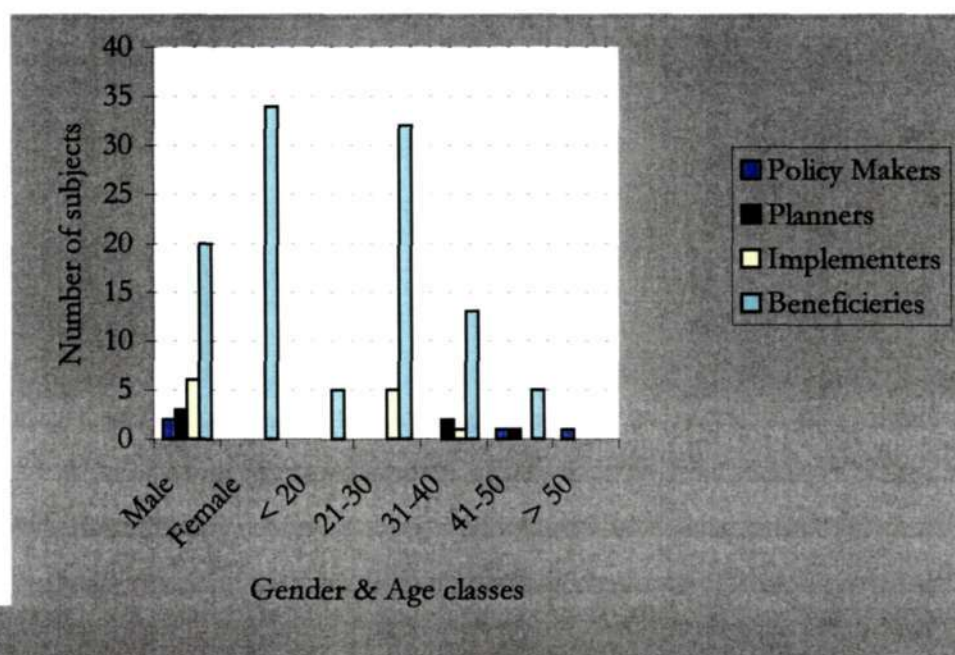


Figure 6: Gender and age distribution of respondents (semi-structured interviews).

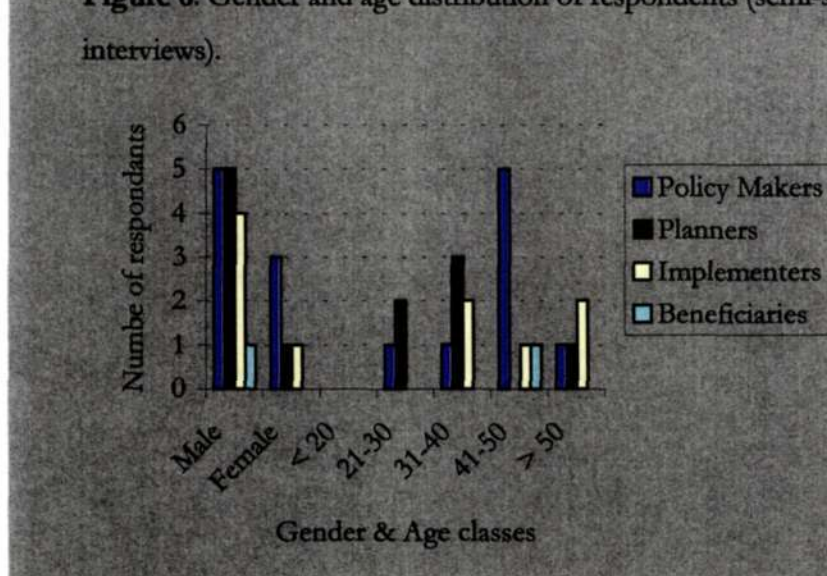


Figure 7: Gender and age distribution of respondents (preliminary questionnaire).

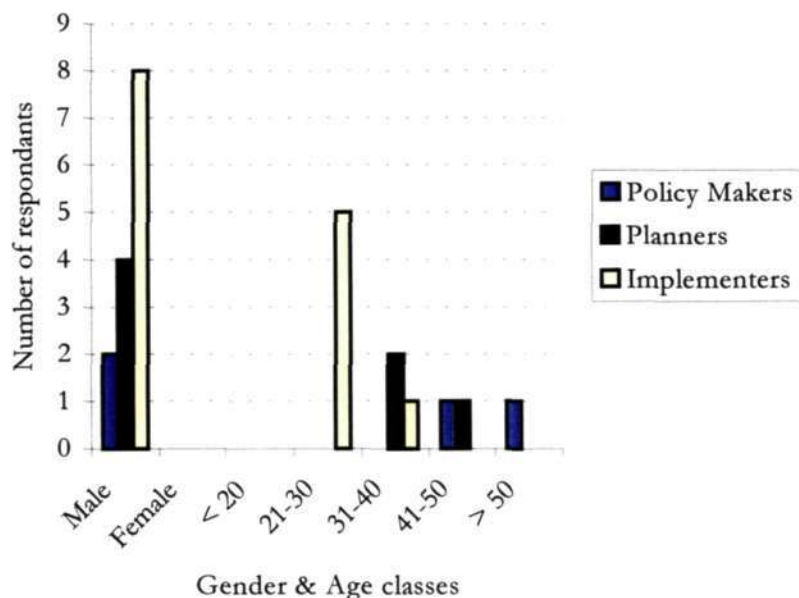


Figure 8: Gender and age distribution of respondents (research questionnaire).

The graphs in **Figures 6, 7 and 8** prompt two casual observations, firstly a lack of females in terms of the questionnaires, but dominating in the interviews. Secondly, policy makers occurred in an older age bracket than implementers. It is assumed that this would have little effect on the results because it is simply a reflection of reality. The respondents are not well represented in terms of sex and age in the various roles. It is a logical trend that in many institutions one finds people in an older age bracket in higher posts. An employee is promoted up the management echelon, as his or her work tasks and performance advances from operational management (implementation) to functional management (planning) and finally to strategic management (policy-making).

Out of 50 questionnaires, responses were received from 20 questionnaires, indicating a success rate of 40%. In contrast, the research questionnaire achieved a success rate of only 28% (14 responses out of 50 questionnaires). Although this is a poor result, it nonetheless reflects the situation in reality. Poor

communication, fragmented coordination and morale amongst staff may have contributed to these results.

Interestingly, it was discovered that more men in America are involved in volunteerism than women (Mattis 2000). This generic result is somewhat different to observations made in Enkumane, where most volunteers were female. Out of 26 members of the Masibambaneni Youth Club, only three are male. Mr. M. Mhlongo⁵ (pers. comm. 2000) confirmed that many youth were leaving Enkumane upon completing school to search for work or to study. He further stated that it was predominantly the males who left Enkumane. Many of the younger women marry or remain at home to assist their families. Mr. T. Shange⁶ (pers. comm. 2000b) was asked what the reasons were for the predominance of young female volunteers. He replied that there were fewer young males than females in Enkumane, and also confirmed the previous comments. These could be some of the reasons that could be attributed to the lack of young male volunteers.

A clear contrast is the dominance of policy makers in Figure 7 and implementers in Figure 8. Figure 7 describes the respondents from a policy-making workshop, where a preliminary questionnaire was used. Figure 8 describes the respondents from the actual research questionnaire used. While there are limits to comparing the results of the two questionnaires, it is rather important to note that policy-making workshops have the potential to exclude participation by implementers and beneficiaries. The case study was limited by the timeframes, size of the study area and implementation occurring within the timeframe. The policy was measured by its impact on Masibambaneni Youth Club, who represents a range

⁵ Mr. M. Mhlongo is a member of the Masibambaneni Youth Club

⁶ Mr. T. Shange is the leader of the Masibambaneni Youth Club

of temporal and spatial interests in the study area.

It is important to note that the research did not focus on the sustainable resource use policy neither did it focus on the implementation of the sustainable resource use policy. Instead it places emphasis on the processes from the sustainable resource use policy to its implementation. The study was also essentially exploratory in approach, creating a broad understanding of the process from policy to implementation. The research is interdisciplinary, and it does not specialise in any particular discipline. Nevertheless, it is agreed that the research should present a sound knowledge/understanding of the individual fields such that it can be substantive.

The research proved difficult and was not a trivial exercise and there were very few comparisons in the literature. As indicated, comparative research concentrated either on a policy or the implementation of a policy, but few on the process of a particular policy to its implementation. The few comparisons that existed - did not correspond with the context and the public nature of the policy being explored. The main challenge in the research was gauging the direction of the study midst the literature, complex environment, and practical context. There were few guidelines or approaches to adapt from, customise or follow in terms of the research formulation.

The research tended to focus more on the process from policy, as a consequence of the many challenges and struggles. The term “struggle” is used because the research problem was exactly that, “struggles” – the implementation seemed impossible, hence the need for the research. At the outset it was not determined whether there would be one struggle or many struggles. Therefore the sustainable natural resource use elements did not receive the necessary attention in the thesis, as one would expect. Intensive natural resource audits in the study site were carried out. Some of the results of the audits are captured in the thesis,

but not all of them. It was felt that this was unnecessary due to the intentions of the research, and that the surveys were already well captured in the every-day work as a Resource Conservation Inspector/Officer. In addition, there were no problems experienced with the specific methods. It is the overall approach and understanding that was considered more significant and problematic than the narrow methods, which are well documented together with their advantages, disadvantages and applications in scientific research.

5.2 RESEARCH ANSWERS

The emerging answers to each of the research questions are herewith discussed.

5.2.1 Priority

How does the implementer identify and prioritise which areas should be addressed?

There was no clear policy guideline or rule as to what is recognized as priority, and which areas should be addressed by the SRU policy. This was explained in Chapter 2. The theoretical background motivated the need for concise clear policy guidelines, goals and objectives. The SRU policy is not well formulated on sound facts and supporting evidence. In addition there was no clear policy on the relationship and division of functions between the National and Provincial Departments of Agriculture. The results from the questionnaire indicated that there are two schools of thought. Firstly, there are implementers who believe that conserving high potential arable land should be a priority. This is based on the assumption that conservation of arable land for commercial use may contribute toward protecting the economy of the country. Secondly, there are implementers who argue that areas where the poorest of the poor live, should receive priority. This is based on the assumption that poor people depend directly on their natural resources for food security and ensuring sustainable livelihoods.

Interestingly, the results from the questionnaires demonstrated that the first group of people have a higher age distribution than the second group. There were more people supporting the first school of thought (56% as opposed to 46%). It is noted that people living in comparative comfort and security, would have much difficulty, relating to the problems plaguing disadvantaged people living in rural areas. However, besides grappling with poverty alleviation, there is the need for technical and physical measures to prevent and manage land degradation in South Africa. Follow-up interviews confirmed an assumption that there are conflicting views on this fundamental issue. Conflicting approaches may contribute towards the poor implementation of the SRU policy. It was mentioned in Chapter 2 that successful policies are co-ordinated effectively within an integrated system. This means that implementers should have a common vision. The approach used in implementing the SRU policy was therefore largely determined by the implementing agent, and was again confirmed by the variety of responses from results of the research questionnaire. The policy process can never be oversimplified due to the number of factors and possibilities that were exposed. From the above, it is imperative that the SRU policy should contain clear guidelines that determine areas of priority. Due to the political influence, as mentioned in Chapter 1, priority should rather focus on government priorities, i.e. the poorest of the poor. However, there should be a clear direction as to which school of thought to follow. This would be useful for both the implementing agent and the beneficiaries. Priority can also be determined within the scope of intended beneficiaries. This again highlights the need for clear policy guidelines based on fact and supporting evidence.

In Enkumane, priority was not a significant factor in selecting the beneficiaries. The Clinic Sister at the ERM, Ms P. Zuma, was interviewed during an earlier visit to Enkumane. The Clinic Sister informed the Masibambaneni Youth Club of research that was to be conducted in Enkumane. Masibambaneni Youth Club

workshop with the youth club was then organized on 17 July 2000 to ascertain the priority and significance of environmental issues (see **Plate 5** overleaf). In total, three focus group discussions were held with the Masibambaneni Youth Club. The results from a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) are presented in **Table 3**. The SWOT analysis was part of an issue analysis from which a proposal for the way forward was designed.

Environmental issues, poor government support and lack of electricity were significant issues, bearing in mind the gender and age group of the respondents (interviews). Biophysical issues featured low in the matrix. This was the view from the Masibambaneni Youth Club members, who are representatives of the community.



Plate 5: One of the focus group discussions, held with Masibambaneni Youth Club.

The researcher's view was somewhat different, with there being comparatively more emphasis on the biophysical issues. It is useful not to have any preconceived ideas in such rural development programmes, but rather to build knowledge from the situation as it unfolds. The strong focus on two specific issues highlights the sense of 'community'. According to McMillan and Chavis (1986) the term 'community' has a broad meaning, and includes elements of membership, influence, integration, need fulfilment, and shared emotional connectedness. An analysis of significant issues generated from the focus group discussions is illustrated as a matrix in **Figure 9**.

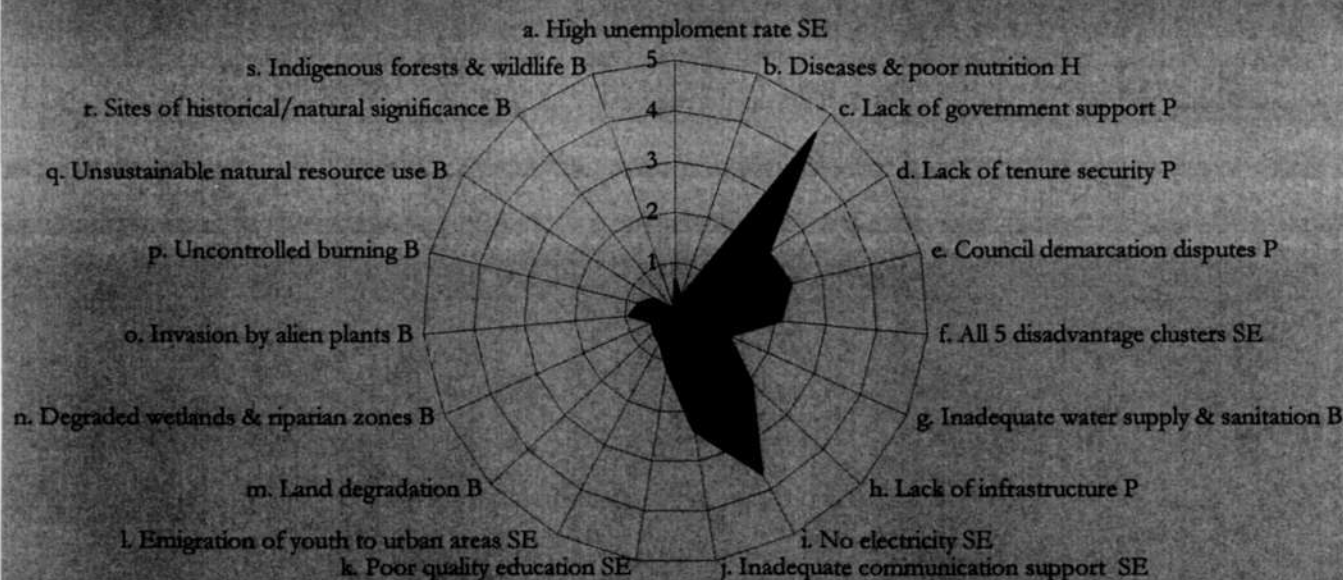


Figure 9: A matrix analysis of significant environmental issues.

Youth representatives of the Enkumane community attach differing degrees of importance to different issues. Issues impact on each other in different ways. For example, Scrimshaw (1991) shows how famine and starvation can lead to the uprooting of people, mass migration, violence, and the deterioration of

communities' moral, social and economic structures. These 'societal-based' patterns probably result from the interaction among individuals, groups and communities, and regularly give rise to problems or societal issues (Jordaan and Jordaan 1998). The Masibambaneni Youth Club constructed a rich picture. It described Enkumane in the eyes of Masibambaneni Youth Club. Significant features were illustrated, such as faction fights, abundance of natural resources, surrounding land use, distribution of families and available infrastructure.

Table 3: Results from a SWOT analysis.

Strengths	Weaknesses	Opportunities	Threats	Proposals
Abundance of natural resources, firewood, medicinal plants, indigenous forests, waterfalls, scenic beauty & biodiversity	Lack of ownership & pride due to violence & apartheid, degradation evident	Community Based Natural Resource Management	Uncontrolled & unsustainable use, land degradation	Community Based Natural Resource Management with support from the National Land Care Programme; land ownership & establishment of pride; sustainable ecotourism
Abundance of talents and skills within Enkumane community	Limited opportunities for development of skills	Job creation & sustainable income generation	Lack of accessible markets	Training and skills development with access to markets using the partnership approach
Enthusiastic Masibambaneni youth club members	Lack of empowerment & access to opportunities	First youth council in a rural area	Regional Council & Richmond Local Authority	Capacity building with consent and approval by Tribal Authority, Democratization
Youth have committed themselves to crime prevention	No support from Police, Council or Richmond local authority	Temporary police caravan to report incidents	Poverty trap	Improve community policing with temporary police caravan to report incidents; partnership; destroy poverty trap
Enkumane & St Bernard's Missions	No cooperation between the two missions	Cooperation in the form of a partnership between the two missions	Poor relationships & poor ownership of missions by community	Ownership by community & partnership between the two missions
Young people willing to live in Enkumane & improve their livelihoods	Lack of support & empowerment	Improve capacity of the Masibambaneni youth club	Selfishness & jealousy	Land Care to support the Masibambaneni Youth Club & Partnership

5.2.2 Policy

Why, and how is the SRU Policy implemented in Enkumane?

In the past, there was mostly reactive rather than proactive development and/or government support to the community of Enkumane. As mentioned in the first Chapter, Enkumane is disadvantaged particularly in terms of its isolation and poverty context. In this context, poverty suggests a limited supply of the basic services, which are essential for survival such as water, nutrition, health, shelter, energy and income. To a certain extent, people from the Enkumane community depend on their immediate natural resources for survival, as highlighted in Chapter 3. It was therefore hoped that the SRU policy would initiate a change in the community working from a sustainable and productive natural resource base. Policies are designed to achieve goals as discussed in Chapter 2.

One of the most dramatic consequences of not having clean water, sanitation and preventative health services is diarrhoea, which continues to kill people in rural areas. It is not acceptable for people to suffer in such poverty. Rural areas are often excluded and forgotten, not intentionally. The women cultivate the fields, feed their families, nurse the elderly and sick and maintain the homestead. The men either work far from home, in places where employment is available, or are at home, elderly, sick or drunk. The outcome of the SRU policy is a positive impact experienced at household level. The outcome would have been achieved through participatory means, incorporating rehabilitation, re-vegetation of denuded land, wise use and management of natural resources, and soil conservation measures leading to greater productivity and food security. In the process, maize yields would increase and families would benefit from acquiring knowledge. Strengths of the SRU policy lie in the principles of partnership. The partners or stakeholders would each contribute towards the betterment of the community. The Masibambaneni Youth Club is a key partner and potential driver of this process.

Value was added to the SRU policy as it stimulated the following immediate benefits to Enkumane through the community-based partnership approach:

- ☞ The Department of Labour organized training in business skills, craft-making, brick-making, permaculture and home economics;
- ☞ The Post Office have erected post boxes;
- ☞ The Department of Water Affairs is in the process of providing water and sanitation to Enkumane;
- ☞ The KwaZulu-Natal Department of Agriculture is supporting the Enkumane community with technical expertise;
- ☞ The Department of Land Affairs is processing a land claim to improve land tenure security;
- ☞ The Masibambaneni Youth Club is establishing a local community market;
- ☞ The Richmond Tourism Authority is working to promote tourism initiatives in Enkumane;
- ☞ The First National Bank is educating people in the Enkumane community on financial matters and encouraging them to open savings accounts; and
- ☞ The Department of Health stated their appreciation with the initiatives of the National and Provincial Departments of Agriculture, because it ultimately impacted on health and nutrition.

The results of the questionnaires indicated a general consensus (87%) regarding the lack of skills and capacity in implementing the SRU policy, especially regarding communal areas. Capacity building is one of the guiding principles of a CBNRM policy, as explained in Chapter 2. There were also different perspectives and contrasting views on what the term 'implementation' meant to respondents. These two findings were supported by similar case studies in published literature (Harbin et al. 1992, Mokgoro 2000).

5.2.3 Implementation

How does the implementing agent decide upon the approach to take for implementation?

From Chapter 2, the CBNRM principles were considered in implementation:

- ③ Integrating economic and environmental goals in policies and activities;
- ③ Emphasis on transdisciplinary approaches and socio-economic development;
- ③ Sustaining agricultural production over the long term;
- ③ Providing for equity within and between generations;
- ③ Dealing cautiously with risk and irreversibility; and
- ③ Recognizing the global dimension of action.

The approach taken was largely supported by the research questionnaires, focus group discussions, interviews and was guided by a successful initiative in Avon Catchment Network (2000: 2) Australia stating the following:

“In 1990, a partnership formed in the Avon Region, Western Australia, brought together by commitment and knowledge of farmers, the technical skills of Agriculture Western Australia, and the financial support of the major mining company Alcoa World Alumina Australia and the National Land Care Programme. With this partnership, more than a hundred farming families working co-operatively in six catchment groups have implemented new land management systems to repair degraded land, conserve bushland areas and wildlife, and protect waterways. Together they have developed successful but still evolving Land Care management systems. They have learned how to plan as a group and how to implement management challenges across the whole landscape.”

The rationale for using the above-mentioned approach was the fact that the SRU policy contained no clear guidelines and steps to follow, on how to go about implementing it. The approach followed, is outlined briefly as phases: Phase 1: Communication, establishment of relationships and partnerships; Phase 2: Awareness raising and learning about partnerships; Phase 3: Development of

goals and objectives from needs assessment; Phase 4: Community-based issue analysis; Phase 5: Development of action plans and proposals for Land Care funding; Phase 6: Submission for funding; Phase 7: Implementation and monitoring; Phase 8: Evaluation and feedback; and Phase 9: Support for established structures.

Table 4 highlights the essential aspects in the objectives of the SRU policy, specifically as applied to Enkumane. It was adapted from a framework as described in Chapter 4. The author agrees with Levitt (1980) who states that the framework assists in the process of describing and identifying important features in the policy process. An example of a framework is shown below.

Table 4: A framework adapted for assessment of proposals (Levitt 1980).

Category	Areas of Exploration
Intervention	1. Nature of the problem 2. Severity of the problem 3. State of knowledge-base 4. Application of knowledge, experience and skills
Administrative	5. Statutory expression of policy 6. Instruments for policy 7. Framework within which policy belongs 8. Timetable for introducing policy 9. Financial and resource costs 10. Enforcement
Integration	11. Interested parties 12. Roles 13. Relationships between parties

The proposals generated from the partnerships will now be outlined. The policy instruments should be considered here. As stated in Chapter 2, they are defined as the people, organizations and devices through which policies are expressed. An application for project funding through the National Department of Agriculture's Land Care Programme was developed. The mission for the project was to build the capacity of Masibambaneni Youth Club so as to promote sustainable livelihoods in the Enkumane community using incentives. The primary incentive was the grant, which was applied for. This was especially investigated as development is more a process by which members of a society increase their personal and institutional capacities to mobilize resources, in order to produce sustainable and justly distributed improvements in their quality of life consistent with their own aspirations (Korten 1991). This included the development of the Masibambaneni Youth Club as an important institution.

Institutions are enduring systems of structures, rules, customs and values that shape the behaviors and relationships of people within a society. The overall goal of the Land Care approach was to optimize productivity and sustainability of local resources, to bring about greater productivity, food security, job creation and a better quality of life. The potential benefits of the implementation of the SRU policy were high because of the deteriorating agricultural land, soil erosion, overgrazing, bush encroachment, invasion of alien plants, and inappropriate land use practices. Training was provided by the Department of Labour in catering, Permaculture, business skills, block making and craft making. The KwaZulu-Natal Department of Agriculture provided agricultural extension services. It was logical that the economic instrument mentioned in Chapter 2, provided more value to the case study.

The full involvement of the local community promoted the partnership approach where all stakeholders benefited. The major strengths of the programme were

that the Masibambaneni Youth Club members are determined to improve their livelihoods. The major weakness was the impact of disadvantage clusters, and negative perceptions on development because of previous unsatisfactory experience and violence. Alien plant invasion, flooding, lack of proper waste disposal, no sanitation, overgrazing, uncontrolled firewood collection and poor developmental planning are threats to implementing the SRU policy in Enkumane. The main objectives were employment creation and sustainable income generation, improving household food security, CBNRM, sustainable development, and improving the quality of life of the youth. Table 5 lists the proposed techniques for implementing the SRU policy at Enkumane.

The implementing agencies were the Masibambaneni Youth Club, National and the Provincial Departments of Agriculture, the Department of Labour, the Post Office, the Department of Water Affairs and Forestry, Eskom, Telkom and the Richmond Community Tourism Organization.

Table 5: A compilation of proposed techniques for implementing the SRU policy at Enkumane.

Techniques	Land Use Type	Area Size
Rehabilitation	Communal gardens & terraces	200ha
Propagation of Vetiver & other plants	Degraded sites	10ha
Installation of water tanks with pumps & pipe	Communal gardens & key points	1ha
Building of swales	Communal gardens	10ha
Stone packing in dongas	Mixed, grazing, natural veld, crops	1ha

Initiation of an integrated alien plant control programme ¹	Community gardens	200ha
Establishment of a grazing management Programme	Mixed, grazing, natural veld, crops	2000ha
Initiation of a community skills building programme	N/A	N/A
Crop introductions for food security	Community gardens	100ha
Disease control	Grazing lands	2000ha

5.2.4 Performance measurement

What criteria and indicators are used to judge, evaluate or measure successful implementation of the SRU policy in Enkumane?

There is a need for policies, which are not directives from above. The National Department of Agriculture should also provide a service that is community orientated and co-ordinated with the KwaZulu-Natal Department of Agriculture. Policies fail when there is poor involvement, or where a top-down approach is taken (Falloux and Talbot 1993). The SRU implementation approaches are usually top-down, from politicians to the public. There is a potential for other approaches. More emphasis is also placed on horizontal rather than vertical working. Deliverables, outputs and products are not yet refined in the SRU policy. Policies should convert inputs into outputs to achieve an impact, according to Chapter 2. Furthermore, the implementing agents are far from the public and community.

There is an evident bias towards the commercial agricultural sector. While food security is an essential ingredient of any successful Government

¹ Integrated alien plant control is aimed at optimising and economizing long-term mechanical and chemical

initiative, the beneficiaries are infrequently the disadvantaged people. A concern raised by respondents is that many government employees are farmers, which means their families benefit from services. This promotes bias, as referred to by Chambers (1983).

Monitoring takes the form of reporting, which does not allow for the process of evaluation for continual improvement. According to Yeld (1992) without monitoring and evaluation, we cannot learn from our experience, we need feedback to see which actions have been implemented successfully, which failed and why, whether targets and policies were realistic, overly ambitious or too modest. Unfortunately, this is a grey area of the SRU policy, especially for rural areas. Monitoring is unco-ordinated and there are no guidelines for integration, all of which is a major short fall for the SRU policy. These statements were echoed in 80% of the respondents' questionnaires. Whilst there are two instruments, namely economic and written, it is recommended that they should complement each other - rather than being applied on different grounds.

There is a need for monitoring and evaluation. Nonetheless, when the people see positive results accruing to them from being engaged in the planning and execution of a project, they will develop a new sense of ownership through the realisation that they can influence policy decisions (Agbamu 2000). The community or land users should observe changes in the condition of their environment. For example, such changes could be social (i.e. an increase in employment or income), agricultural (i.e. an increase in crop yields). DLUSM is in the process of developing satellite imagery for monitoring changes in

natural resource use. However, these methods do not accommodate social impacts.

5.2.5 Problem solving

How are struggles with the implementation of the SRU policy managed in Enkumane?

The primary weakness of the SRU policy is that it cannot be successfully applied in Enkumane, without further additions and modification to the policy itself. The youth are mostly at school, but many of them leave school early due to the poor education service. School leavers are at home helping their mothers, being unmotivated, unemployed and isolated from opportunity and any career prospects. They have developed a strength, endurance and courage, which is unequalled in the researchers experience. The young people can change their livelihoods, only if they are given the opportunity and access to basic resources and government support. These young people have a right to at least a reasonable quality of life, for all the hardships they have faced.

The implementation of the SRU policy is determined by the planners who decide when, how, to and by whom, and where it should be implemented. The SRU policy has thus tended to be compartmental and not process driven. The results indicated that planners were hesitant in implementing the SRU policy, perhaps because of personal agendas or lack of interest. Individuals in management positions appear to re-interpret the policy as it moves down to one implementation phase, thereby infiltrating their own ideology and bias. CBNRM, as described in Chapter 2 is relevant in such a situation, building on participatory approaches to rural development.

What actually happens, compared to the results the policy envisages, is completely different. Feedback and communication mechanisms are ineffective and inadequate. Within the formal structure of the SRU policy, there is often a need for communication in ways that are not neatly accounted for by

organizational charts, which allow for mainly one-on-one communication up, or down the ladder (Frost *et al.* 1993). Furthermore, there is overlapping and blurring of roles within the organizational structure of the DLUSM. Transformation of the Public Service should allow for innovative approaches. Solutions to complex problems are far from the ordinary.

Role-players in the SRU policy followed an extreme case of rigid management hierarchy structures. According to Bonsor *et al.* (1996) inefficiencies in the delivery of public services result from many factors, such as poorly conceived government programmes, insufficient or excessive programme funding, poor management practices, unqualified personnel or turf competition among agencies leading to waste and duplication. In addition, all these factors have a direct influence on the conflicts that exist in our society about the policy agenda and scope of government activities. Given South Africa's political history, transformation through all the different levels is slow, and staff morale is poor. Many governments in developing countries lack the analytical capacities to present, defend and persist with a new policy framework for stimulating growth (Bathrick 1998).

At some stages, the researcher felt that the SRU policy consists of fragmented statements, each leading in different directions, but trying to promote the same goals. Essentially the approach used imitated that of Local Agenda 21, with the exception that Enkumane is rural area. Sustainable land use management is a broad concept. Berrisford (2000) states that urban and rural areas have different land use management needs and so require the application of different approaches and instruments. There are other programmes similar to the NLP. According to Olkers (1999), the Working for Water Programme employs large numbers of people to physically remove alien plants from most vulnerable areas, thereby increasing water yields in impoverished areas, creating employment

opportunities for unskilled labourers and benefiting agricultural and conservation efforts.

As noted in Chapter 2, the principles of CAMPFIRE (Communal Areas Management Programme for Indigenous Resources)² applies, where natural resources are used to generate income for supporting rural development programmes. Local Agenda 21 from the United Nations Conference on Environment and Development was adopted as a global plan of action for integrating environmental, economic and social issues into development. It is founded on global consensus and political commitment, remains a fundamental programme for action to achieve sustainable development (Department of Environmental Affairs 1997). According to Brooks (1998) Agenda 21 focuses on partnerships involving the public and all relevant stakeholders in order to resolve developmental problems and plan strategically for the future. CBNRM was found to be an open or broad concept encompassing protected areas management, participation by communities and sustainable agricultural practices. What the research illustrated is that policies are also defined as strategies designed to bring about certain desired goals, and the principles required for the achievement of these goals are drawn from the basket of CBNRM principles – in this case study.

5.3 SUMMARY

The effect of a policy is evident in the social, political, economic and biophysical landscape in Enkumane. There has been much emphasis on the components of the policy process. In many cases, policies have been developed or adapted to suit emerging contemporary issues, so that academics have been blinded by policy development as such. However, in practical terms, what is delivered or achieved

² The researcher was employed for two years at Msinsi Holdings, a private conservation management company practising CAMPFIRE.

is probably the most crucial element of a policy, for why do we have policies in the first place?

In managing the “struggles” in implementing the SRU policy, one may generate some suggestions, which are supported by theoretical perspectives in Chapter 2. The SRU policy should contain clear guidelines for implementation, including stating which are priority areas and what approaches should be followed. Role-players in all stages should understand and be committed to one policy. More emphasis is needed on the process of the SRU policy, rather than on the stages in the policy process. The procedure of ‘reporting’ should be revisited and modified to emphasize ‘evaluation’. Stronger links should be formed between the different stages in the policy process, i.e. between roles. Here, a climate for integration and team approaches should be investigated. In addition, there were too many stages between the SRU policy and its implementation. As indicated in Chapter 2, the efficiency of policy management and administration always has potential for improvement. The public should participate fully and drive the development of the SRU policy. A marketing strategy is needed to promote the SRU policy in poor rural areas and Government Departments should start working together more often. A more integrated approach in SRU policy research is necessary, focusing laterally in an interdisciplinary fashion.

*Chapter 6***CONCLUSION****6.1 REVISITING THE STUDY OBJECTIVES**

This thesis followed from the theoretical to more practical aspects of the study. When solving problems one often fails to see the connection between the problem and personal relevant knowledge, complicating the solving of the research problem (Jordaan and Jordaan 1998). In bringing the problem and knowledge together, we need to evaluate whether or not the objectives were achieved. The objectives of the study were to explore the research questions within the context of the case study. The researcher is satisfied that this was achieved. A discussion of the results, related to the research questions was given in Chapter 5, linked to theory in Chapter 2, with lessons that were generated during the exploration of the research questions.

Follow-up interviews confirmed an assumption that there are conflicting views on fundamental issues pertaining to the SRU policy. The approach used in implementing the SRU policy was therefore largely determined by the implementing agent, and was confirmed by the variety of responses from results of the research questionnaire.

6.2 LIMITATIONS

The case study was limited by the timeframes, size of the study area and implementation occurring within the timeframe. The policy was measured by its impact on the Masibambaneni Youth Club, which represents a range of temporal and spatial interests in the study area.

6.3 LESSONS FROM THIS STUDY

The SRU policy should contain clear guidelines for implementation, including answers to questions of which are priority areas and what approaches to follow. Role-players in all stages should understand and be committed to one policy. More emphasis is needed on the process of the SRU policy, than stages in the policy process. Mary Kleinenberg (Director of Association for Rural Advancement) in Harley and Fotheringham (1999) stated that there is a demand for integration of government services.

The procedure of 'reporting' should be revisited and the emphasis changed to 'evaluation'. Stronger links should be formed between the different stages in the policy process, i.e. between roles. Here, a climate for integration and team approaches should be investigated. In addition, there were too many stages between the SRU policy and its implementation. The efficiency of policy management and administration has potential for improvement. The public should participate fully and drive the development of the SRU policy. A marketing strategy is needed to promote the SRU policy in poor rural areas and Government Departments should start working together more often. A more integrated approach in SRU policy research is necessary, focusing laterally in an interdisciplinary fashion. A step towards more sustainable land management is made - only if all targets are satisfactorily met (Herweg *et al.* 1998).

6.4 SUGGESTIONS FOR THE WAY FORWARD

Interdisciplinary research was applied to explore an actual work-related complex problem. It was evident that the problems with the SRU policy and the situation in Enkumane area are acute. It is also vital to note that the socio-political problems have had a telling effect on the pace and direction of development in the area. There is a danger in trying to do more than can be realistically accomplished, by the NDA or any other agency for that matter. This is a direct result of the overwhelming desire to assist the community in meeting its equally overwhelming problems. At the same time, expectations from the community are high. Hence, there is dire need for focussed attention in order to permit adequate monitoring and evaluation of initiatives. Attempting to solve a host of problems at once (or even at different times) may not be helpful, and from a management point of view, this may not be advisable. It is against this backdrop that the report has sought to draw the above lessons.

A strategic development intervention is necessary, incorporating all the role-players to reform the SRU policy. Such a development intervention may be referred to as a sequence of activities, actions and events, which is intended to help an organization improve its performance and effectiveness (Cummings and Worley 1997). All role-players in the SRU policy should participate and contribute in such an intervention. CBNRM particularly calls for co-management arrangements that require clear definitions of the roles and responsibilities of local institutions and their people instruments.

The researcher therefore suggests that the NDA and DLUSM conduct a self-assessment for performance in terms of the SRU policy, which can include peer review between the role-players. Organizations usually conduct self-assessments to better understand their own performance and to address their strategic issues and thus, ultimately improve their performance (Lusthaus *et al.* 1999). There was

also a strong need expressed for marketing and awareness activities, especially as the SRU policy possesses benefits with elements of societal responsibility as motivated in the Public sector by Mersham *et al.* (1995).

The researcher recommends that the NDA consider this thesis as a contribution to understanding the process from policy to implementation, and in this regard, a useful guide to making improvements in the SRU policy. Further research is recommended for enhancing the delivery and implementation of the SRU policy in South Africa, in particular the alignment and clarification of the NLP instrument to the CBNRM principles to form a more comprehensive policy framework. Further research should focus on the SRU policy itself and not the process. It is believed that this thesis has covered the process adequately. It is not necessary to research the methods of implementation at this stage, as the department has decades of experience in the application of surveys, audits, trials and demonstrations, and such methods – and the Agricultural Research Council is already carrying out such research for improvement.

The review of the SRU policy revealed that there are policy gaps in South Africa and that the assortment of factors influencing the SRU policy process are not integrated into the SRU policy. The further research on the policy itself would undoubtedly encompass the development of indicators and assessment criteria of good practice that accommodates the uniqueness of each situation and context, in the policy.

REFERENCES

- Acocks, J. P. H.** 1975. Veld Types of South Africa. 2nd ed. *Memoirs Botanical Survey South Africa*. No. 40. Department of Agriculture: Technical Services, Pretoria.
- ADE.** 2000. *Agriculture and rural development policy in developing countries*. On-line: <http://www.rurpol.org> 9/12/00.
- Agbamu, J. U.** 2000. Development Communication in Rural Development programmes: The African perspective. *The Journal of Developmental Communication* unknown volume.
- ANC.** 1994. *A Basic Guide to the Reconstruction & Development Programme*. Aloe Communications, Johannesburg.
- Anim, F. D. K.** 1997. Land Reform Issues: Lessons and Options for a New South Africa. *Journal of Rural Development* 16 (1), pp. 51-65.
- Arksey, H. & P. Knight.** 1999. *Interviewing for Social Scientists: An Introductory Resource with Examples*. Sage, London.
- Ascher, W.** 1999. Resolving the hidden differences among perspectives on sustainable development. *Policy Sciences* 32 (4), 351-377.
- Avon Catchment Network.** 2000. *Land Care Vision*. ALCOA, Northam.
- Aziz, A. & P. V. Shenoy.** 1997. District Planning: Principles and their Operationalisation. *Journal of Rural Development* 16 (4), pp. 575-587.
- Bardill, J. E.** 2000. Towards a culture of good governance: The Presidential Review Commission and public service reform in South Africa. *Public Administration and Development* 20 (2), 103-118.
- Barker, R., B. van Koppen & T. Shah.** 2000. *A Global Perspective on Water Scarcity/Poverty: Achievements and Challenges for Water Resource Management*. International Water Management Institute, Sri Lanka.
- Bathrick, D. D.** 1998. *Fostering Global Well-being: A new paradigm to revitalize agricultural and rural development*. International food and policy research institute, Washington.

- Berrisford, S.** 2000. *A report on integrated development plans and land-use management linkages*. Department of Provincial and Local Government, Pretoria.
- Bless, C. & C. Higson-Smith.** 1997. *Fundamentals of Social Research Methods: An African Perspective*. Juta, Cape Town.
- Bless, C. & R. Kathuria.** 2000. *Fundamentals of Social Statistics: An African Perspective*. Juta, Kenwyn.
- Bonsor, C. F., E. B. McGregor & C. V. Oster.** 1996. *Public Choices and Public Opinion*. Prentice Hall, New Jersey.
- Brewer, G. D. & W. Lövgren.** 1999. The theory and practice of interdisciplinary work. *Policy Sciences* 32 (4), 315-317.
- Brewer, G. D.** 1999. The challenges of interdisciplinarity. *Policy Sciences* 32 (4), 327-337.
- Bridger, J. C. & A. E. Luloff.** 1999. Toward an Interactional Approach to Sustainable Community Development. *Journal of Rural Studies* 15 (3), pp. 377-387.
- Britt, D. W.** 1997. *A Conceptual Introduction to Modeling*. Lawrence Erlbaum Associates, New Jersey.
- Brooks, F.** 1998. What is Local Agenda 21. *South Africa's National Local Agenda 21 News* (1).
- Burton, D.** 2000. *Research training for social scientists*. Sage, London.
- Cameron, R. & C. Tapscott.** 2000. The challenges of state transformation in South Africa. *Public Administration and Development* 20 (2), 81-86.
- Camp, K. G.** 1997. *The Bioresource Groups of KwaZulu-Natal*. Natural Resource Section, Cedara.
- Carley, M.** 1996. *Policy management for sustainable agricultural and rural development*. Online:
<http://www.fao.org/WAICENT/FAOINFO/SUSTDEV/Epdirect/Epan0003.htm>
 9/12/00.
- Chambers, R.** 1983. *Rural Development: Putting the Last First*. Longman, England.

- Chambers, R.** 1997. *Whose Reality Counts? Putting the First Last*. Intermediate Technology, London.
- Chenje, M. & P. Johnson.** 1994. *State of the Environment in Southern Africa*. South African Research & Documentation Centre, Harare.
- Clark, T. W.** 1999. Interdisciplinary problem solving: Next steps in the Greater Yellowstone Ecosystem. *Policy Sciences* 32 (4), 393-414.
- Critchley, W. & C. Reij.** 1995. *Recent trends in natural resource management in sub-Saharan Africa: illustrated by experiences from the West African Sahel: Successful natural resource management in Southern Africa*, Centre for development cooperation services, Amsterdam.
- Connelly, J. & G. Smith.** 1999. *Politics and the environment: From Theory to Practice*. Routledge, London.
- Considing, M.** 1994. *Public Policy: A Critical Approach*. Macmillan Educational, Melbourne.
- Crwys-Williams, J.** 1997. *In the words of Nelson Mandela*. Penguin Group, London.
- Cummings, T. G. & C. G. Worley.** 1997. *Organization Development & Change*. South-Western College, Ohio.
- De Beer, A., D. Rossouw, B. Moolman, E. Le Roux & M. Labuschagne.** 1998. *A Focus on Supervision in General Management*. Juta, Kenwyn.
- De Haan, L. J.** 2000. Globalisation, Localization and Sustainable Livelihood. *Sociologia Ruralis* 40 (3), pp. 339-365.
- Department of Agriculture, Fisheries & Forestry.** 2000. *General Description of the National Land Care Programme*. Online: <http://www.LandCare.gov.au/LandCare/description.html> 9/12/00.
- Department of Environment Affairs.** 1997. *Programme for the further implementation of Agenda 21*. Government Printer, Pretoria.
- Didiza, T.** 2000. *Speech by the Minister of Agriculture and Land Affairs on the occasion of delivery of the agriculture and budget vote*. On-line: <http://www.polity.org.za/govdocs/speeches/2000/sp0411.html> 9/12/00.

- Dunn, W. & R. M. Kelly.** 1992. Advances in Policy Studies since 1950. *Policy Review Annual Volume 10*.
- Editorial Committee.** 2000. *Land & Rural Digest*, September/October Issue.
- Everatt, D.** 2000. Keynote article: From urban warrior to market segment? Youth in South Africa 1990-2000. *Development Update* 3 (2), 1-39.
- Falloux, F. & L. M. Talbot.** 1993. *Crisis & Opportunity: Environment & Development in Africa*. Earthscan, London.
- Fernandes, R. & K. Fisher-Vanden.** 1999. A study of how individuals solve complex and ill-structured problems. *Policy Sciences* 32 (3), 225-245.
- Fitzgerald, P., A. McLennan & B. Munslow, B.** 1995. *Managing Sustainable Development in South Africa*. Oxford University Press, Cape Town.
- Foley, P.** 2000. Exploring the opaque: Working with young people: The Joint Enrichment Project 1986-2000. *Development Update* 3 (2), 116-130.
- Frost, R., H. Vos & M. Dreyer.** 1993. *Communication Dynamics*. Lexicon, Johannesburg.
- Grimes, S.** 2000. Rural areas in the information society: Diminishing distance or increasing learning capacity? *Journal of Rural Studies* 16 (1), 13-22.
- Gonzalez, J. L.** 1997. The Influence of Organization and Management Theory on Rural Development Studies. *Journal of Rural Development* 16 (2), pp. 341-358.
- Government Gazette.** 1995. *Rural development strategy of the government of National Unity*. Government Printer, Pretoria.
- Government Gazette.** 1998. *White Paper on Environmental Management Policy for South Africa*. Government Printer, Pretoria.
- Hampton, G.** 1999. Environmental equity and public participation. *Policy Sciences* 32 (2), 163-174.
- Hanekom, D.** 2000. *Agricultural Policy in South Africa*. On-line: <http://www.nda.agric.za/docs/policy98.htm> 8/9/00.

- Hanson, B.** 1999. Interdisciplinarity: For what purpose? *Policy Sciences* 32 (4), 339-343.
- Haralambos, M. & M. Holborn.** 1995. *Sociology: Themes and Perspectives*. Collins Educational, London.
- Harbin, G., J. J. Gallagher, T. Lillie & J. Eckland.** 1992. Factors influencing state progress in the implementation of public law. *Policy Sciences* 25, 103-115.
- Harley, A. & R. Fotheringham.** 1999. *AFRA: 20 years in the land rights struggle*. Association for Rural Advancement, Pietermaritzburg.
- Hempel, L.** 1996. *Environmental Governance: The Global Challenge*. Island Press, Washington.
- Herbert-Cheshire, L.** 2000. Contemporary strategies for rural community development in Australia: A governmentality perspective. *Journal of Rural Studies* 16 (2), 203-216.
- Herweg, K., K. Steiner & J. Slaats.** 1998. *Guidelines for Impact Monitoring*. Centre for Development & Environment, Bern.
- Hessing, M. & M. Howlett.** 1997. *Canadian Natural Resource and Environmental Policy: Political Economy and Public policy*. UBC Press, Vancouver.
- Holland, J. & J. Blackburn.** 1998. *Whose Voice? Participatory Research and Policy Change*. Intermediate Technology, London.
- Hooper-box, C.** 1999. Editorial: Community, Research & Public Policy in South Africa. *Development Update* 2 (4), pp. iii-vi.
- International Institute for Sustainable Development.** 2000. *Public Policy*. Online: <http://iisd1.iisd.ca/policy.htm> 9/12/00.
- IUCN.** 1999. *Promoting Sustainable Livelihoods for Communities through the Use & Management of Natural Resources*. Workshop Proceedings and Papers. 12-13th May. IUCN South Africa Country Office, Pretoria
- Jennings, R.** 2000. Hamstrings of the Past: Youth Policy in the Gauteng Legislature. *Development Update* 3 (2), 101-115.

Jenkins, W. I. 1978. *Policy Analysis: A Political and Organizational Perspective*. Martin Robertson, London.

Jones, O. & J. Little. 2000. Rural challenge(s): Partnership and new rural governance. *Journal of Rural Studies* 16 (2), 171-184.

Jordaan, W. J. & J. J. Jordaan. 1998. *People in Context*. Heinemann, Sandton.

Karlqvist, A. 1999. Going beyond Disciplines. *Policy Sciences* 32 (4), 379-383.

Kooiman, J. 1993. *Modern Governance: New Government- Society Interactions*. Sage, London.

Korten, D. C. 1991. Three Fold Global Crisis. *People Centered Development Forum* Feb 21.

Lafferty, W. M. & K. Eckerberg. 1998. *From the Earth Summit to Local Agenda 21*. Earthscan, London.

Levitt, R. 1980. *Implementing Public Policy*. Croom Helm, London.

Liepins, R. 2000. New energies for an old idea: Reworking approaches to 'community' in contemporary rural studies. *Journal of Rural Studies* 16 (1), 23-36.

Lusthaus, C., M. H. Adrien, G. Anderson & F. Carden. 1999. *Enhancing Organizational Performance: A Toolbox for Self-assessment*. International Development Research Centre, Canada.

Mattis, J. S. 2000. Religiosity, volunteerism, and community involvement among African American men: An exploratory analysis. *Journal of community psychology* 28 (4) pp 391-406.

Maykut, P. & R. Morehouse. 1994. *Beginning Qualitative Research: A Philosophic and Practical Guide*. Falmer, London.

McMullin, D. W. & D. M. Chavis. 1986. Sense of Community: A definition and theory. *Journal of Community Psychology* 14, pp. 6-23.

Mersham, G. M., R. S. Rensburg & J. C. Skinner. 1995. *Public Relations, Development and Social investment: A Southern African Perspective*. J. L van Schaik, Pretoria.

- Mokgoro, J.** 2000. Provincial experiences in managing national policies on the transformation of the public service. *Public Administration and Development* 20 (2), 141-154.
- Mthintso, V.** 1999. The War on Poverty Forum. *Development Update* 2 (4), pp. 99-106.
- Murphree, M. W.** 1993. Communities as Resource Management Institution. *Gate-keeper Series no. 36*. London: International Institute for Environment and Development.
- Narayanasamy, S.** 1997. Eradication of Poverty: The Gandhian Way. *Journal of Rural Development* 16 (1), pp. 67-83.
- National Forestry Action Programme.** 1997. Department of Water Affairs & Forestry, Pretoria.
- New Constitution of South Africa.** 1996. *Act 108 of 1996*. Government Printer, Pretoria.
- Ncholo, P.** 2000. Reforming the public service in South Africa: A policy framework. *Public Administration and Development* 20 (2), 87-102.
- Norberg-Bohm, V.** 1999. Stimulating 'green' technological innovation: An analysis of alternative policy mechanisms. *Policy Sciences* 32 (1), 13-38.
- Olckers, T.** 1999. Introduction. *African Entomology Memoir No. 1*.
- Orkin, M., Z. Tshandu. & J. Dugard.** 1995. Policy research and formulation: Two case studies in P. Fitzgerald, A. McLennan & B. Munslow (eds.). *Managing sustainable development in South Africa*. HSRC Publishers, Pretoria.
- Parsons, W.** 1995. *Public policy: An Introduction to the Theory and Practice of Policy Analysis*. Edward Elgar, Hants.
- Pelletier, D., V. Kraak, C. McCullum, U. Uusitalo, & R. Rich.** 1999. The shaping of collective values through deliberative democracy: An empirical study from New York's North Country. *Policy Sciences* 32 (2), 103-131.
- Perret, S.** 1999. *Typological Techniques: Applied to rural households and farming systems*. University of Pretoria, Pretoria.

- Pretorius, D.** 2000. *A map of South Africa depicting the potential for water induced soil erosion*. National Department of Agriculture, Pretoria.
- Rapholo, G.** 1999. An Emerging Research Network. *Development Update* 2 (4), pp. 96-106.
- Rist, R. C.** 1995. *Policy Evaluation*. Edward Elgar, England.
- Scrimshaw, N.** 1991. The Consequences of Hidden Hunger. *Commonwealth* 58 (5), pp. 138-144.
- Self, P.** 1972. *Administrative Theories and Politics*. Allen & Unwin, London.
- Sims, D. & G. Thomas.** 1998. *Our Land Our Future: A new approach to land use planning*. On line:
<http://www.fao.org/WAICENT/FAOINFO/AGRICULT/agl/agll/ourland.htm>
 9/12/00.
- Tapscott, C.** 2000. Intergovernmental relations in South Africa: The challenges of co-operative government. *Public Administration and Development* 20 pp 119-128.
- Van Dyk, H.** 1999. The Policy Conversation: Connections between Policy Research and Policy Making. *Development Update* 2 (4), pp. 14-24.
- Van Koppen, C. S. A.** 2000. Resource, Arcadia, Lifeworld. Nature Concepts in Environmental Sociology. *Sociologia Ruralis* 40 (3), pp. 300-318.
- Van Rooyen, J.** 2000. Regional food security and agricultural policy in Southern Africa: A challenge of policy conversion in diverse settings. *Development Southern Africa* 17 (1), 7-22.
- Venema, B. & H. van den Breemer.** 1999. *Towards Negotiated Co- management of Natural Resources in Africa*. Transaction, Piscataway.
- Wijkman, A.** 1999. Sustainable development requires integrated approaches. *Policy Sciences* 32 (4), 345-350.
- Winter, M.** 2000. Strong or weak policy? The environmental impact of the 1992 reforms to the CAP arable regime in Great Britain. *Journal of Rural Studies* 16 (1), 47-60.

Yeld, J. 1992. *Caring for the Earth, South Africa: A Strategy for Sustainable Living*. South African Nature Foundation, Stellenbosch.

Zimmermann, H. G. & S. Neser. 1999. Trends and prospects for biological control of weeds in South Africa. *African Entomology Memoir No. 1*.

COMMUNICATION

Lawrence, R. (2000). Lecture to students. 13 April. Pietermaritzburg.

Mhlongo, M. (2000). Statement to author. 16 September. Enkumane.

Shange, T. (2000a). Statement to author. 8 August. Enkumane.

Shange, T. (2000b). Statement to author. 16 September. Enkumane.

Shange, T. (2000c). Statement to author. 8 August. Enkumane.

Zuma, P. (2000). Statement to author. 16 September. Enkumane.

APPENDIX A: SUSTAINABLE RESOURCE USE POLICY

The role of the National Department of Agriculture

The National Department of Agriculture (NDA) has initiated programmes that:

- ☞ Ensure a broad appreciation of the conservation and sustainable use of natural resources which will, in its turn, lead to increased soil protection, soil fertility and water-use efficiency, and reversals in degradation.
- ☞ Ensure a coordination and collaboration, in the support of conservation, between relevant role players at government, NGO, local, provincial or national level.
- ☞ Ensure that incentive structures for agriculture do not undermine, but instead support sustainable resource use.
- ☞ Integrate production and conservation in farmer support services.

Three broad principles govern the agricultural use of natural resources

Firstly, it is the government's responsibility to promote the sustainable use of natural resources in agriculture, ensuring that resources are used within their capacity for renewal, maintaining and enhancing the ecological integrity of natural systems, and minimizing or avoiding risks that will lead to irreversible damage.

Secondly, the primary custodian of the land is the resource user whose actions have an impact upon the environment. Thus the government will design policies and enact legislation that will strengthen the rights of users and facilitate their assumption of responsibility for the conservation, sustainability

for the conservation, sustainability and maintenance of biodiversity. This is an important part of government policy in the National Land Care Programme.

Thirdly, those responsible for all forms of environmental damage should pay the costs of remedial measures in respect of the impact of such damage on the environment and human health. It will be required of land users whose activities may have an impact on the environment to institute measures to prevent pollution and environmental damage.

Policy and Legislation

The NDA and Provincial Departments of Agriculture, in cooperation with other role players, are actively promoting the formation and growth of a community-based Land Care programme, creating a conservation ethic by means of education and monitoring of sustainable land management. The core element of the National Land Care Programme is that it encourages people to take responsibility for their own environments with the support of the government at national and provincial level.

The NDA will also take the lead in a programme of legislative reform that will lead to the amendment to or the replacement of the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983) to ensure accordance with new policies on sustainable resource use. The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947) and related legislation will be reviewed to protect the health of humans and prevent pollution of the natural environment.

The Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970) was recently repealed so that there is no unnecessary impediment to the development of a more diverse farming structure in the country and so that agricultural land is more productively utilized. One of the purposes of the Act was to prevent the use of high potential agricultural land for other purposes. The government believes that neither an environmental nor economic case can be made for such protection. In some circumstances the use of agricultural land for eco-tourism, for example, leads to improved resource management both in terms of biodiversity and sustainable economic benefits such as employment.

It remains important, however, that proper attention should be paid to land-use planning and that short-term commercial interests should not compromise the future of efficient and sustainable agriculture. The provisions of the Development Facilitation Act, and provincial ordinances dealing with agricultural land use, will be reviewed and, if necessary, strengthened to ensure appropriate levels of protection of agricultural land. The NDA will continue to implement appropriate measures to control migratory pests while ensuring that ecosystems are not endangered and the pollution of water resources prevented.

Under the National Land Care Programme, the government will promote and support farmers' efforts to rehabilitate degraded land following economic assessment. The government's priority will be to maintain the productivity of arable land and rangeland, which still provide yields that accord with its natural potential, and only invest in the restoration of degraded areas where this is economically justifiable.

The use of incentives to promote sustainable resource use will be balanced against the basic principle that farmers must take primary responsibility for conservation. Current tax incentives to promote soil conservation, which are in conflict with this principle, will be withdrawn. The government will undertake a more detailed analysis of incentives to promote sustainable resource use by small-scale resource users at or near subsistence level, who are often forced to use marginal land and, in the process, damage their resources. Taking into account all these measures, and incorporating activities, which are in accordance with international conventions, the NDA will prepare environmental implementation and management plans as required under draft legislation on national environmental management. Such plans will also indicate the contribution to environmental sustainability of extension services reform, changes in agricultural research policy and management, and support for various forms of local resource management groups.

The National Land Care Programme

The Land Care programme is directed towards the conservation of agricultural natural resources and the avoidance of activities, which put in jeopardy the sustainability of agriculture or which, as a result of agricultural action, cause wider environmental damage. The programme is also directed towards providing employment for the rural poor as conservation objectives are being pursued. In a water scarce country like South Africa, it is obvious that the water resources must be used with great care. Not enough attention has been paid by the government to the promotion of farming methods that enhance soil and water conservation, whether in dry land crop production, irrigation farming or in the use of natural vegetation for animal production. Such methods will receive special attention in publicly financed research.

Challenges for sustainable resource use

The main factors threatening the sustainable use of natural resources in agricultural production are the following:

- ❧ Degradation of the natural resources occurs in varying degrees on arable and grazing land irrespective of the sector or form of land tenure. Degradation processes expose the soil surface, depleting fertility, causing soil erosion and resulting in the inefficient use of water.
- ❧ Rapid population growth, widespread poverty in rural areas, unequal access to and control over resources, and overcrowding in the communal farming sector have a negative effect on the sustainable use of the natural resources.
- ❧ Technologically related problems that contribute to resource degradation are chemical pollution, on-farm and off-farm, caused by high external input farming systems and waste products generated by industrial, mining and intensive farming operations. Inadequate adaptation of farming practices to prevailing environmental conditions is also a cause for concern.
- ❧ Farmers and extension workers are currently poorly serviced by conservation advisory services. In addition there is fragmentation of environmental responsibilities caused by programmes being scattered among several Government agencies.

In most of the rural areas of South Africa there is no effective zoning of land use. Overall, large areas of agricultural land are being lost to other users every year. Land with high agricultural potential needs to be retained for agricultural purposes, when it is economically rational to do so, because of its scarcity and value as a national asset. Rural policies have, in the past, supported high external input and technically advanced commercial farming operations, but neglected the advancement of small-scale farming. Care will be taken that these imbalances do not lead to further unsustainable land use.

APPENDIX B: PRELIMINARY QUESTIONNAIRE

A pilot study for a research project titled: *From policy to implementation: A case study of sustainable resource use policy in Enkumane, Mkomazi Valley, KwaZulu-Natal*

Please take time to fill in this questionnaire as comprehensively as possible.

Thank you

David Jacobs

University of Natal

SECTION A: Personal Details (statistics only)

Name: _____

Position: _____

Sex: Male/Female (please circle)

Age group: < 20; 21-30; 31-40; 41-50; >51 (please circle)

Contact details: (address, tel. or e-mail): _____

SECTION B: Questionnaire

PLEASE NOTE: The National Policy Workshop in Irrigation Management Transfer and Rehabilitation of Smallholder Irrigation Schemes has reference.

1. What are your perceptions regarding the outcome of this policy?

2. What role do you play in formulating this policy?

3. Please rate the importance of this policy in the agricultural sector of South Africa, on a scale from 1 to 5: *(please circle one)*

↓ 1 - Low Importance
 2
 3
 4
 ↓ 5 - High Importance

4. Do you envisage that this policy process will be effective? Or not?
Please give your reasons.

5. What are the alternative ways of developing a policy?

6. What key problems do you foresee in implementing this policy?

7. Any further comments regarding the implementation of this policy?

APPENDIX C: RESEARCH QUESTIONNAIRE

I would appreciate it if you would assist me by completing the attached questionnaire, as a component of my research project.

Project Title: From policy to implementation: A case study of sustainable resource use policy in Enkumane, Mkomazi Valley, KwaZulu-Natal

Please read these notes before starting the questionnaire:

1. The policy referred to, is the National Department of Agriculture's Sustainable Resource Use Policy (attached to the questionnaire)
2. The ultimate goal of this questionnaire is to find out how the above-mentioned policy can be implemented within a rural situation
3. Please fill in this questionnaire carefully and legibly
4. I declare that the information you furnish is for the purposes of research only - your confidentiality is therefore guaranteed
5. Kindly send the completed questionnaire by fax to David Jacobs at: Fax. (012) 329-5938 before 30 November 2000.

Case Study

The case study refers to an area known as Enkumane, which is located in the rural Mkomazi Valley, approximately 33km from Richmond in KwaZulu-Natal. It is only important to know that Enkumane is an example of a poverty-stricken rural area.

SECTION A: Please fill in the following particulars (for feedback purposes):

Your name: _____ **Age:** _____

Postal address: _____

Contact telephone no: _____

E-mail: _____

Position: _____

Thank you in advance

Questionnaire

The questions are divided into two parts, those that deal with **POLICY**, and then with **IMPLEMENTATION**

SECTION A: Questions that deal with POLICY

Development of the SUSTAINABLE RESOURCE USE policy (summary attached)

Have you been involved in the development of this policy? ☐ **Y** ☐ **N** (Please tick one)

If **yes**, how have you been involved and what have you contributed? _____

If **no**, then why do you think not? _____

Unpacking the sustainable resource use policy

What **DO YOU THINK** this policy addresses (in your own words)? _____

What is **your** actual role in this policy? (Please tick one)

Policy maker	Implementer	Not sure
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How far have **you been told to** take this policy (to whom)? _____

How far **do you** take this policy? (To whom/which levels)? Please tick & add below:

Administration	Policy maker	Planners	Implementers
Community			

Or others (please list):

--	--

Strengths & weaknesses

What are the **strengths** of this policy? _____

What are the **weaknesses** in this policy? _____

Measuring successful implementation

How would you measure successful implementation of this policy? _____

EXPECTED outputs

What are your expectations in terms of this policy?

1. _____
2. _____
3. _____
4. _____
5. _____

How would you implement this policy in a poverty-stricken rural area? _____

SECTION B: Questions that deal with IMPLEMENTATION

Identifying priority/key areas

How would you **identify** and **prioritize** what key areas should be addressed by this policy?
(Describe) _____

What do you feel are the **key areas** that should be addressed by this policy?

1. _____
2. _____
3. _____
4. _____
5. _____

Approach

Which **different approaches** can you think of for implementing this policy?

1. _____
2. _____
3. _____
4. _____
5. _____

Choose the most appropriate approach you would you **select** for a poverty-stricken rural area (reasons)? _____

What do you understand by the concept of **implementation**, and why do you think our policies are not being implemented effectively? _____

Opportunities & Threats

What are key **opportunities** for implementing this policy?

1. _____
2. _____
3. _____
4. _____
5. _____

What are key **threats** to implementing this policy?

1. _____
2. _____
3. _____
4. _____
5. _____

ACTUAL Outputs

Do you know some examples of **actual** outputs generated from implementing this policy (please give details)? _____

Feedback (from policy to implementation and back)

Do you get any feedback, from any level? (Please state what kind of feedback you receive or provide) _____

Your perceived problems regarding the implementation of this policy

List any problems with implementing this policy (from your experience)?

1. _____
2. _____
3. _____
4. _____
5. _____

I would like to thank you for completing this questionnaire. Please make sure that your contact details are correct, so that I can provide you with feedback in the near future.

Don't forget to fax your questionnaire before 30 November 2000 (Fax. 012-329 5938)

THANK YOU

David Jacobs