

**GOVERNMENT POLICY IMPLEMENTATION AND RURAL  
LIVELIHOODS: EXPERIENCE WITH CLASSICAL SWINE FEVER  
CONTROL IN THE EASTERN CAPE**

**By**

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## DEDICATION

This work is dedicated to my late father whose desire for education knew no bounds.

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## CHAPTER 1

### 1.1 INTRODUCTION

The current study was undertaken in view of the unprecedented situation in the Eastern Cape Province in which mass culling of pigs was carried out as a result of an outbreak of a deadly virus disease affecting only pigs. Because of the apparent contagious nature of the disease to other pigs and its possible negative impact on international trade, the government embarked on a policy of getting rid of the disease by destroying all affected and contact unaffected pigs. This resulted in an almost total elimination of pigs from all the communal areas of the Eastern Cape Province. The people living in the rural communal areas that bore the brunt of this disease were predominantly peasant farmers, surviving primarily on subsistence food production. The effect of destroying pigs on the livelihoods of these people, while suspected to be negative was otherwise unknown. This study was thus aimed at investigating the consequences of the application of the government policy of eliminating pigs on the livelihoods of the people in areas of the Eastern Cape affected by the swine fever epidemic. The study will also examine the legislative justification for government actions and whether an effective community participatory approach was applied in the policy implementation process.

#### 1.1.1 The South African Socio-Economic Overview

In order to gauge the impact of the pig culling policy on people's livelihoods; it was necessary to gain an understanding of the background economic status of the study area. There is a general understanding that South Africa emerged from a recent past characterized by severe inequalities in resource distribution. There is the impoverished black majority who occupy only 13 percent of the least agriculturally productive land from which they eke out a subsistence existence (Mayende, unpublished). The poorest households in South Africa are found here

and most appear not to even be able to produce sufficient food to feed themselves. This section of the population is constantly exposed to food insecurity and any threat to their source of livelihood brings them to the precipice of hunger, despite the surplus of agricultural production by the commercial sector in the country.

The current socio-economic environment in South Africa still reveals this legacy of skewed impact of poverty and inequality which seems to bear a direct correlation with apartheid policies. The income disparity between the poor and the rich is well articulated in the Executive Summary of the *Poverty and Inequality Report* (Republic of South Africa 1998b;2). The report describes the overall human development index (HDI) for South Africa as medium. However, a closer look reveals marked disparities between provinces and between population groups. An in-depth analysis of the disparities showed quite clearly that the HDI for most provinces, the Coloured and African population groups fell within the medium to low human development category (Republic of South Africa, 1998a)

Income differentials between the rich and the poor in South Africa has been shown to be very wide and the gap was so extreme that the country was classified as having one of the highest income disparities in the world (Republic of South Africa 1998b, 2). The poorest 40 percent of households which received only 11 percent of total income were found in the rural areas (Republic of South Africa, 1998a). Demographically, the rural dwellers comprise mainly of the African people. Rural livelihoods in South Africa appear to depend on a number of sources and livelihood resources one of which happens to be livestock keeping (Shackleton, *et. al.*, 2000). The balance of survival among the poor rural people can best be described as marginal and any negative event or catastrophe can very well tip it over the precipice and lead to severe suffering.

### **1.1.2 Government Policy on Animal Disease Control**

Livestock, as mentioned above, forms one of the livelihood resources for rural people in South Africa. Although greater significance may be attached to particular kind(s) of livestock due to their relative higher value, the collective contribution by all of them has been shown to constitute an important livelihood resource (Agricultural and Rural Development Research Institute, 2001; 2002). Since August 2005 much of the rural community of the North Eastern parts of the Eastern Cape Province which mainly comprises of the former homeland of Transkei was affected by a catastrophic pig disease known as Classical Swine Fever (CSF) (Joint Operations Committee Report No 1, 2005).

In terms of government policy as contained in the Animal Diseases Act, Act 35 of 1984 (Republic of South Africa, 1984) the chief veterinarian of the country and or province (Director or Senior manager) is empowered by the Minister of Agriculture to put in place measures to control any disease of national importance in accordance with the prescripts of the Act. In order to facilitate the control of such diseases, the chief veterinarian is given powers to assume control over the area and to implement animal disease control methods that will eliminate the problem which may include culling of all the infected and contact unaffected animals. Almost all pigs in the CSF-affected areas of the Eastern Cape Province were culled and disposed of by burial in terms of the above quoted Animal Diseases Act. The areas most affected and which were depopulated of the pigs included almost the entire former Transkei. By the time pig culling was concluded at the end of April 2007, over 490,000 pigs had been killed and buried; and over 90 percent originated from the rural communal areas of the province (Joint Operations Committee Report No 21, 2007).

### **1.1.3 The Impact of the Animal Disease Control Policy**

Catastrophes caused elsewhere by CSF have led to economic loss such as the 1997-98 CSF epidemic in Holland (Elber *et al.*; 1999). However, the impact on a country with a well developed economy such as Holland might be much less severe compared to what can be anticipated for South Africa which is less developed. The pigs caught in the CSF outbreak in the Eastern Cape either died as a result of the disease or were, through the government policy, culled in an attempt to control the further spread of the disease. Not only were the pigs killed off, the people were also not allowed to restock their holdings with healthy pigs until permission was granted by the state in terms of the disease control policy. Such permission however, would only be granted by government after the control measures were concluded and disease was hopefully brought under control or eradicated altogether. The consequence of this action was that people in the rural villages of the Eastern parts of the province were deprived of deriving any livelihood from the rearing of pigs since August 2005. The implications of this government policy of CSF control for rural livelihoods and income generation were unknown and therefore constituted the core context of the current study.

## **1.2 STATEMENT OF THE PROBLEM**

The research problem was to determine the impact of the government policy of pig culling on the livelihoods of pig keeping rural people in the areas of the Eastern Cape Province affected by the pig disease known as Classical Swine Fever (CSF). The people in these rural villages have been shown to live in dire poverty (Statistics South Africa, 2000). Most of these people seem to eke out a marginal livelihood from what ever livelihood resource base that is available to them.

### **1.2.1 Assumptions**

It was assumed that any negative effect on any one or several of the livelihood resources of people in poor rural villages could potentially have dire consequences for their survival. The hypothesis is that the role played by the domestic pig in the livelihood of resource-poor rural people is significant enough and that the policy of pig extermination from the rural areas would potentially have a negative impact. This it is assumed, might have exposed rural livelihoods survival to vulnerability and reduced the socio-economic well-being of the people so affected. The study will therefore aim to present empirical evidence to prove this hypothesis.

In terms of reviewing government policy that was applied in the course of controlling the disease, it was assumed to be unfair and its implementation might have constituted a contravention of the rights of the affected individuals. It was also assumed that policy alternatives to the mass culling could have been found and implemented.

### **1.2.2 Significance of the Study**

Small-stock farming and, in particular, poultry farming has been shown to significantly contribute to access to more food, income and increased social status in many African and Asian countries (Kitalyi, 1988). This suggests that the pig might play a similar role in the subsistence livelihoods of the people, especially women, as well as in the political economy and other aspects of the lives of these people.

A draft report of a study commissioned by Farm Africa revealed that pigs formed part of the livestock kept in the rural areas of the Eastern Cape (Agricultural and Rural Development Research Institute, 2002). While the report showed that pig farming contribution to the rural economy was "less significant" compared to

cattle, sheep and goats, it was, however, a “significant” source of food, and was found to be an important source of cash for women (Agricultural and Rural Development Research Institute, 2002). It will, therefore, be interesting to determine the relative impact of the inability of the people to raise and utilize this resource on their livelihoods and in particular on the income of women. According to Vincent (2004) vulnerability is often due to a number of determinants acting and interacting on different scales. One such determinant could be pig rearing in the communal areas of the Eastern Cape. It will, therefore, be interesting to assess whether the removal of pigs has made women vulnerable in terms of food security and income generation or not. An in-depth examination of the issue was thus undertaken.

The study is also significant in terms of policy review, regarding the modus of application of government policy. The current policy-making environment appears to be characterized by a top-down approach. Whereas Chapter 2 of the South African Constitution makes provision for the rights of people, the national legislative process provided for in Chapter 4 on Parliament (Republic of South Africa, 1996), on the other hand, does not say much about consultation processes during policy making or implementation phases. The process provided for seems to be for the presentation of bills to parliament or to councils. The level of consultation that goes into the actual preparation of the bills appears to be limited. It is suggested here that, more often than not, pre-prepared bills are sent out to the people more for their information than for their views. This study sought to establish what the peoples’ opinion was regarding a policy that impacted on their lives but to which they had little or no input in its implementation.

### **1.2.3 The Policy Imperatives**

Protestations against the policy of mass destruction of animals for disease control purposes have been experienced elsewhere in the recent past such as happened with the Foot and Mouth epidemic in the United Kingdom (Taylor,

2004). This issue will be examined as well within the context of whether there could be a possible conflict between government policy and the individual(s) constitutional rights (South African Constitution, Republic of South Africa, 1996). The people's opinions and response to such a policy will be gauged through the envisaged collection of field data. Discussions around the issue of the policy imperatives will determine whether or not policy alternatives could have been found and pursued.

#### **1.2.4 The Research Questions**

The areas depopulated of pigs as a result of what can be considered a shock epidemic have already been described as among the poorest in South Africa (Statistics South Africa, 2000). The research approach was conducted in terms of the deductive and empirical (inductive) cycle (Huysamen, 2001) in order to provide the necessary evidence to prove or disprove the hypothesis that 'the impact of the disease control policy and the attendant disturbance of the livelihood of the people was negative'. The research questions asked were:

- What is the contribution by pigs to the livelihoods and income generation of rural people with specific reference to women in Mnquma and Mbashe local municipalities?
- What influence did the pig removal from such areas have on the vulnerability of livelihoods and income generation activities of the people?
- What views did the people hold on government policy that sought to control animal diseases by means of mass extermination?
- Does the disease control policy come into conflict with the individual(s) constitutional rights in terms of usage of natural resources for socio-economic development?
- Could policy alternatives have been found?

In order to answer these questions, a number of assessments were conducted. Firstly the sociopolitical economy of the rural areas affected by the pig depopulation was examined to provide an overview of rural livelihoods. This was accomplished primarily through a literature search. Secondly, the contribution of the domestic pig as an asset to the economy of the rural community households was assessed so that its relationship to the rural livelihood and income of the affected people may be understood. A combination of a literature search and a survey undertaken in this study provided the required information. Thirdly, the post-pig-depopulation period was examined by this study to establish empirical evidence of the impact on the socio-economy and on other aspects of the lives of the rural people ascribable to the removal of the pigs from the affected communities. This allowed the determination of livelihood and income vulnerability.

Views on the government policy concept of mass pig destruction for disease control were gathered through interviews. And finally, the possible conflict between the policy and the rights of the individual as well as the merits of the policy in terms of securing the pig industry were considered primarily through a literature search.

### **1.2.5 Objective of the study**

In attempting to answer the research questions the study considered the process and aftermath of the implementation of the policy of pig removal from the livelihood resource base of the rural people in the Eastern Cape Province.

Stated simply, the objective of the study was the following:

to assess the impact on the livelihood and income generation activities of the rural people affected by the implementation of the pig culling policy for control of the Classical Swine Fever Epidemic in the Eastern Cape Province.

### **1.3 METHODOLOGICAL ISSUES**

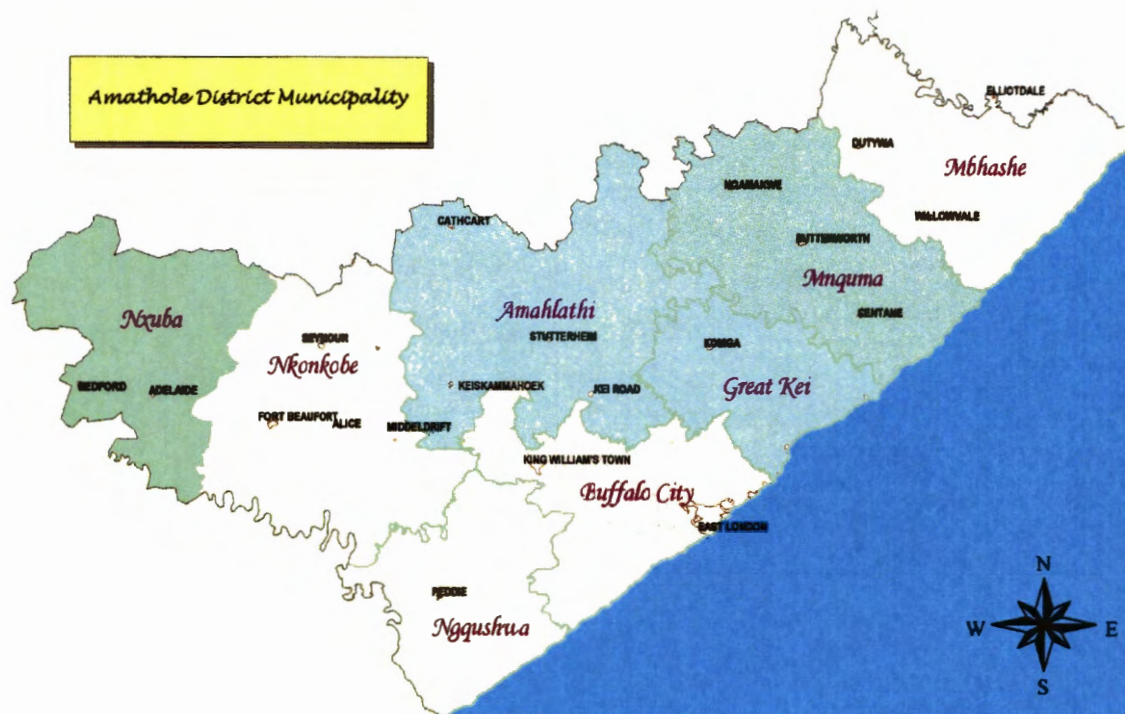
The research involved examining certain variables which included pig removal and its relationship with rural livelihoods and people's vulnerability to the shock disturbance that might have impacted on their socio-economic well-being and survival. An inductive approach that sought to generate qualitative data for analysis of this and other related variables contributing to livelihoods and income was undertaken in order to determine the probable impact of the stated shock disturbance. Appropriate deductive methodologies such as semi-structured interviews were applied in order to glean an understanding of the people's views of the government policy of animal extermination to control animal diseases. Secondary analysis of research sources primarily published literature was used as well to accomplish the examination of the policy review context of the study.

#### **1.3.1 The Research Area**

The choice of the study area was based on several factors. The primary criterion was that the area had to have been affected by the CSF disease of pigs. Secondly, the area had to have been depopulated of pigs in terms of the government policy of culling all CSF infected and affected pigs. Thirdly, it had to be a poor rural area where people eked out a living on subsistence agriculture. Deriving from the socio-economic analysis in Chapter One, most of the rural areas of the former homelands of Transkei and Ciskei in the Eastern Cape fulfilled the third criterion. The same areas also fulfilled the primary and second criteria in terms of the delimitation of the disease extent and the control measures implemented by the Provincial Department of Agriculture. The study was, therefore, conducted in areas within Mquma and Mbashe local municipalities in the North Eastern Amatole district municipality of the Eastern Cape which complied with all three criteria set out above (Figure 1). These areas were considered representative of the affected rural communal areas of the Eastern Cape Province. The findings on the impact of the disease and the

processes undertaken to control it was assumed to be extrapolatable to other similarly affected areas of a similar category in the province.

Figure 1: Map of Amathole District Municipality showing the study areas of Mnquma and Mbashe local municipalities.



Source: [http://www.amathole.gov.za/about\\_amathole](http://www.amathole.gov.za/about_amathole)

### 1.3.2 Methods

The research incorporated a mix of qualitative methods (Majchrzak, 1986;63) involving socio-economic household questionnaire surveys and semi-structured interviews, as well as secondary analysis of research sources for the socio-economic and the policy review contexts of the study. The variables that were considered in the research included whether the pig removal influenced the vulnerability of household livelihood and income or not. A comparative analysis of livelihoods and income before and after pig culling was done. The other major variable related to a policy review of animal disease control through

extermination in terms of the policy implementation provisions, consultative processes and peoples' response to the policy implementation exercise and, to explore policy alternatives.

Because the methods seek both quantitative and qualitative data, a phenomenological analysis was inevitable. Phenomenology is concerned with ways in which human beings gain knowledge of the world around them, identifying different approaches to human understanding and arguing whether or not certain forms of knowledge may be more constructive (Willig, 2001;50). The phenomenological method according to Willig (2001;51 involves three phases based on Husserl's phenomenological reduction theory: the epoch which requires suspension of presuppositions and assumptions, judgments and interpretations in order to fully appreciate everything presented; the phenomenological reduction phase in which the phenomenon is described fully, and, finally, the imaginative variation phase in which the structural components of the phenomenon are accessed or interpreted. The operative word in phenomenological research apparently is 'describe' (Kruger, 1998;143) to be followed in all probability by interpretive analysis. This study, in addition to the quantitative data on pigs and pig product utilization, also provides a descriptive analysis of research into the perceptions of the communities regarding government policy of pig culling and possibly provide recommendations for a review of the policy.

### **1.3.3 Sampling**

The approach to sampling began with the construction of a questionnaire for use as an interview schedule. The sampling approach (sample size and method) was determined in accordance with the objectives of the study. Data was collected by the person that administers the questionnaire schedule, captures the responses to the questionnaire and submits the information for analysis.

### **1.3.4 Questionnaire Construction**

A questionnaire was constructed taking into cognizance some of the reasons or problems that could be sources of error such as addressing the various fears of the respondents and the manner in which they might respond to the questions (Bailey, 1987;106). The questionnaire was divided into two sections. The first section consisted of six questions that sought to establish animal ownership and the socio-economic contribution of the animals to the household livelihoods and income. The second part of the questionnaire consisted of one question divided into five parts for a semi-structured interview and this was aimed at establishing the peoples' view of the government policy of animal extermination for purposes of disease control. Both sections of the questionnaire were administered as an interview schedule due to the anticipated high levels of illiteracy among most of the respondents.

### **1.3.5 Sampling approach**

For the socio-economic household survey, the unit of measure was the household. The socio-economic household survey involved the administration of a questionnaire that was conducted in two areas, one in Mnquma and another in Mbashe local municipalities. A minimum of 20 questionnaires was distributed in each area one to each household.

Household selection was unlikely to be a simple random process as described by Bailey (1987;87) due to a number of factors. The simple random sampling approach was probably unsuitable because the total population, in terms of the number of households, was not estimated but was probably too high and would possibly preclude the application of this sampling method. Furthermore, the study was directed at those households that lost pigs during the shock epidemic to assess whether through disease or through culling by government, and was not aimed at all the households in the study area. It was apparent that not all

households kept pigs since the literature seemed to reveal that livestock owners in the Eastern Cape Province were on the decline in any case (Andrew *et. al.*; 2003). The whole population was therefore not used to construct the sampling frame. For these reasons, purposive random sampling (Bailey, 1987;94) was found to be the most suitable method for use in this research.

### **1.3.6 Data Collection**

Data relating to the quantitative pig production per household, usage of the animals and/or their products was obtained using the purpose designed questionnaire administered as an interview schedule (Bailey, 1987,106). The information was captured on the questionnaire alongside the respective questions. The questionnaire sought to establish quantitative pig production by determining the numbers of pigs kept per household prior to the epidemic. The recording of usage data sought to establish the different uses to which the pigs were put including home consumption, income generation through sales and other unspecified uses, if encountered.

A semi-structured interview in which a set of predetermined questions to guide the interviewing process rather than the open interview process where there is no schedule (Kvale, 1996) was used. The semi structured interviews were limited to the same households answering to the questionnaire in each area. The semi-structured interviews also aimed to establish the people's views of government policy of pig extermination and the impact the process has had on their individual rights to derive a livelihood as enshrined in the South African constitution.

### **1.3.7 Data Analysis**

It was essential to establish the relative contribution to household livelihoods and income that was made by pig farming in a manner similar to the determination of the total household income from various income-generating activities and

sources (Ellis, 2000) particularly livestock. The value of home consumption was combined with income generation to give a compounded value of pig keeping to the household. The effect of the removal of the contribution by pigs to household livelihoods and incomes was assessed using the information derived from the questionnaire and semi-structured interviews.

Pig utilization and income profiles were constructed for each household separately in the two representative areas. The income generated through the sale of pigs or pig products was quantified for each household. Income generated through other livestock was quantified as well. The difference in the proportional contribution of the various livestock income sources was then analyzed to determine the relative contribution of pigs to the income portfolio. Comparison of income before and after pig removal was assessed in order to determine the relative economic impact of the absence of this resource. In addition, the negative impact on the household as stated during the semi-structured interview was recorded. The various uses recorded for the pig in each household within the community was collated and combined with the economic profile in order to provide a picture of the relative socio-economic impact of the removal of this resource.

The information recorded from semi-structured interviews was captured, organized and analyzed and categorized into patterns to establish the people's views on government policy of mass extermination of animals for disease control purposes. The qualitative data was subjected to a phenomenological analysis which, according to Willig (2001;53), always represents an interpretation of the participants experience or views by the researcher. However, it will not only contain the exploration of the perspective of participants' experience but will also necessarily implicate the researcher's own view (Willig, 2001;53). The analysis included the identification of themes and then structuring them into meaningful groups as described by Willig (2001;54).

This information which formed the research data for this study represented in Majchrzak's description the "views and wishes of the constituency" (Majchrzak, 1986;14), in this case the views and wishes of the rural people affected by the CSF epidemic. This data was analyzed in combination with a multiplicity of other factors and inputs such as testimonials, the so-called 'give and take' of colleagues and superiors, staff opinions, existing policies and preconceived attitudes (Majchrzak, 1986;14) that was derived from literature and also from respondents.

In terms of the policy review, the technical analysis was conducted on data derived from the reports and minutes of meetings held consistently by the CSF Joint Operations Centre (JOC) Committee and from press releases made by JOC, or by the Eastern Cape Provincial Department and the National Department of Agriculture. Interviews and field reports submitted by the implementation teams from the field operations of the CSF control campaign also contained data for technical analysis of the policy implementation process.

### **1.3.8 Ethical Considerations**

As the study involved data collection from the communities affected by the government policy of pig culling: *informed consent* is an essential key consideration in social research (Bailey, 1987;409) when obtaining data and participation must be *voluntary* and *the respect of the privacy* of the research participants (Huysamen, 2001;179). All such ethical considerations were taken into account during the conduct of the study. Since the research was not a participant observation study that requires participants to be involved in a research project without their consent or knowledge (Huysamen, 2001;179) a specific letter was written for this purpose. The informed consent was obtained by way of a letter outlining the envisaged research, the role to be played by the participants and included a confidentiality clause. The letter was sent to the

selected households to request for their verbal endorsement of the informed consent to participate in this research.

### **1.3.9 Limitations**

The limitations of household surveys have been exposed by numerous researchers (McAllister, 1999; Campbell *et. al.*, 2002; Cavendish, 2002), who have revealed that the quantitative or qualitative data is often not sufficiently reflective of the prevailing situation. With particular reference to livestock, yields and income data, rural people appear to be prone to under-report these aspects of their economic worth. The rural people and even commercial farmers seem to feel it is in their interest to portray themselves as poorer than what they really are, possibly because of their awareness of the fact that the poorest households are often targeted for development support. Timmermans (2004) also thinks that people might under-report the number of livestock owned and yields achieved for fear of taxation due to past experience.

## **1.4 Chapter Outline**

This thesis contains four chapters. Chapter one which constitutes approximately 17 percent of the thesis introduces the subject matter of the thesis. The chapter begins with a brief overview of the socio-economy of South Africa including a brief overview of the government policy on animal disease control and its impact on the communities affected by such policy which issues form the core context of the thesis. Next in the description is the formulation of the research question in which the hypothesis, significance and policy imperatives are outlined leading to the research questions and objectives of the study. The next section of the chapter then describes the methodology beginning with the criteria for choosing the area of study, sampling approaches, data collection methods and data analysis. The chapter describes the qualitative approach that was mainly used but also mentions the use of secondary analysis of research and published

sources. The chapter concludes with ethical considerations and possible limitations that could influence the findings of the study.

The second chapter which forms about 30 percent of the thesis makes a socio-economic analysis of the developing countries including a review of relevant literature. This chapter takes a critical look at the socio-political economy of developing countries including the role of subsistence agriculture in rural livelihoods and the links with land and agrarian reform. The role played by livestock in rural livelihoods sustainability within the broader global context is reviewed. This discourse was then narrowed down to Africa and to South Africa specifically. The chapter briefly looks at the concepts of sustainable livelihoods and vulnerability in relation to rural livelihoods. It then gives a special focus to the historical and contemporary role played by livestock in rural livelihoods as related to shocks that can influence such livelihoods with particular reference to the Eastern Cape Province; thus laying the foundation for the current study.

Chapter 3 constitutes about 5 percent of the thesis and considers government policies on animal disease control and how their implementation could influence rural livelihoods. This chapter gives a brief overview of the legislative framework commencing with the individuals' constitutional right to a livelihood. It then considers the government policy on animal disease control that might have an influence on the individuals' livelihood. The chapter briefly delves into the policy implementation environment to reveal the various links between implementation and consultative processes.

Chapter 4 forms 27 percent of the thesis and presents the field research data captured in a tabular format. The data was accompanied by a phenomenological analysis of the information gathered. The data provides information on the socio-economic status of a sample of people whose pigs were culled during the implementation of the government policy. The phenomenological reduction analysis then derived themes from the thoughts of the community regarding the

government policy and how it affected them. The chapter also summarizes data collected from records of meetings of the campaign management and inputs from individual officers of the Department of Agriculture and relates it to the themes of the field data. The chapter ends with concluding remarks and recommendations.

## CHAPTER 2

### 2 THE SOCIO-ECONOMIC ANALYSIS OF DEVELOPING COUNTRIES

#### 2.1 Introduction

This chapter describes the socio-economic profile of developing countries with a view to putting it into perspective with regard to human livelihoods in these countries. The socio-economic analysis of developing countries will initially be done on a global perspective. A broader discourse of the political economy of the so-called Least Developed countries (LDC) will, therefore, be undertaken. The so-called LDCs consist primarily of African countries, most Asian countries and some Latin American countries. A more focused review of the South African and specifically the Eastern Cape socio-economic context will then follow.

The LDCs are characterized by abject poverty, diseases, ignorance and general underdevelopment such as poor infrastructure and minimal industrialization (Davids *et. al.*; 2005). Most of the LDCs are found in the African continent (UN Economic and Social Council, 2005). In these countries, rural livelihoods are often challenged by numerous environmental stressors. By virtue of this status of being least developed, it is presumed that rural livelihoods in many of these countries crumble at the slightest contact with a hazard. This may be easily interpreted from the vast amounts of food aid often reported to be flowing into Africa and Asia whenever any catastrophe occurs there.

The meaning of the livelihood concept, though widely used, is according to Ellis (2000) often elusive or vague because of the different definitions from different sources. The concept of rural livelihoods and the impact on them by a variety of factors including the environmental, political and the economic will, therefore, make for a complex field of study. In particular, reviews of their vulnerability to things like climate change as undertaken by Vincent (2004) and Adger *et. al.*

(2004) as well as to other environmental stressors and influences as assessed by Timmerman (2004) is essential to understanding the dynamic processes at play here.

In order to explore the subject-matter sufficiently enough for purposes of this mini-dissertation, it was also essential to take a critical view of rural livelihoods and to have insight into some of the underlying historical and contemporary influences, such as the land question (Mayende, unpublished) that may have a key partnership with rural livelihoods. The intention in the current study was to examine the impact of what could be considered a shock epidemic on rural livelihoods and the subsequent effects of policy implemented to deal with the hazard. An in-depth assessment of the socio-political economy of the country was considered key to understanding the likely outcome of such influences. The importance of the factors that may or may not have nurtured the existing socio-political situation must be considered and put into proper perspective in as far as they relate to the intent of the current study. Therefore, in addition to considering rural livelihoods, a concise review of the current socio-economic situation in the country, and the policy and political influences was undertaken.

## **2.2 The Political Economy of Developing Counties**

A study of the political economy of the developing countries reveals a complex matrix of issues that can influence their development. The issues begin with the fundamental question of land and agrarian transformation which many countries in various parts of the world have been grappling with from the beginning, and through most of the 20<sup>th</sup> Century due mainly to colonial occupation which deprived them of their land.

The macro-economic environment could be considered the overarching umbrella for issues relating to matters such as skewed land distribution patterns as described for Chile (Kay, 2002), the Soviet Central Asia (Sharma, 1987) or South Africa (Republic of South Africa, 1998; Moyo, 2001; Mayende, unpublished).

Lack of a participatory approach to land and agrarian policy formulation as demonstrated in South Africa (Levin, 1994) or inequitable gender participation in land tenure systems as seen in South Africa (Cross and Hornby, 2002) could also constitute part of the universal contextual framework of this socio-economic environment.

Within this overarching environment, specific issues related to individual policies such as policies on agrarian transformation come to the fore. Examples of these are policies like the 'green revolution' in Mexico (Valtonen, 2000) and South Africa (Province of the Eastern Cape, 2004) and specific livestock policies affecting individual countries (Pica-Ciamarra, 2005) all of which impact greatly on the socio-political economies of developing countries. The general impact or lack thereof of policy has had only one common and negative outcome, the failure to eradicate poverty in the developing world.

### **2.3 The Socio-economic Indicators**

The socio-economic scenario was clearly revealed for LDCs by the Hundred and Twenty Fourth Session of the Food and Agriculture Organization (FAO) (Food and Agriculture Organization, 2003). The unique characteristics of these so-called LDCs were explicitly described. It was shown that these countries have persistently high levels of poverty with a majority of the populations living on less than one US dollar a day; about 75 percent of the populations were largely rural based; they had a heavy dependence on Agriculture in terms of Gross National Product (GNP) exporting mainly primary commodity products; the proportion of undernourished in the population was said to be in the range of 38 percent with many dependent on food imports (Food and Agriculture Organization, 2003).

The LDCs have the characteristics described by Davids *et al.* (2005;10) as those of a traditional society namely low agricultural production, low energy production and consumption, subsistence farming, high population growth with a large percentage of the population under 15 years, infant mortality rate is high, poorly

developed trade and transportation, poor medical facilities, high illiteracy and unemployment rates and per capita GNP of usually under US dollars 3,000.

Moderately Developed Countries (MDCs) on the other hand were said to be a moderation of LDC and Highly Developed Countries (HDC). The MDC countries have classifications that fit into both the LDC and HDC categories and the per capita GNP was said to range from US dollars 4,000 - 10,000. Examples of MDC's were said to be Saudi Arabia, Brazil, Mexico and the Bahamas.

When defined strictly on the basis of GNP, South Africa with a per capita of US dollars 4,562 in 2004 (South African Non-Government Organization Coalition (SANGOCO), 2005, 3) fits into, and is indeed classified as middle income or MDC category. Consequently South Africa is not found on the list of LDCs (Food and Agriculture Organization, 2003). However, many of the features of LDCs as described above are prevalent in a significant section of the South African population, especially in populations living in townships, peri-urban and rural areas of the country. This is plainly due to the skewed income distribution brought about by the apartheid policies as the above discourse shows. Such poor people especially those living under rural conditions eke out a living at subsistence level, and are likely to be vulnerable to most forms of disasters that may affect their source of livelihoods.

#### **2.4 The Political Economy of the Rural Communities of the Eastern Cape**

The political economic picture painted so far is prominently evident in the rural areas of the Eastern Cape consisting primarily of the former homelands. The areas have been described as steeped in poverty (Statistics South Africa, 2000) the levels of which were explicitly defined in the *Poverty and Inequality Report* (Republic of South Africa, 1998:2a). According to research conducted by the Global Partners for the Programme of Support to Local Economic Development (LED) in the Eastern Cape, there is a high proportion of people living in poverty in the Eastern Cape, and, in particular, in the former homeland areas of Alfred Nzo

and OR Tambo which have poverty rates of 75 percent. Similarly high levels of poverty were evident in Chris Hani (68 percent), Amatole (65.7 percent) and Ukhahlamba (65.6 percent) district municipalities. The Nelson Mandela Metropole (35.4 percent) and Cacadu District Municipality (47.1 percent) had relatively lower poverty rates in comparison (Global Partners, 2004).

Statistics South Africa revealed that two of the areas in Mbashe namely Willowvale and Elliotdale were probably among the poorest in the country (Stats SA, 2000). During that period, the mean monthly expenditure among 21 households in Elliotdale and Willowvale was estimated at Rands 746.00 and Rands 792.00 per month respectively. A more localized study conducted by the Agriculture and Rural Development Research Institute (ARDRI) (2001), found that 93 percent of households in rural Elliotdale and 91 percent of households in rural Willowvale had incomes below the poverty line of Rands 533.01 per adult per month. Most of the production from cultivation in these areas was used for home consumption with very little surplus to market (Timmerman, 2004) pointing to the practice of a predominantly subsistence form of existence. Such low socio-economic outputs would in all probability make the livelihoods of people in these areas quite vulnerable in the event of a disaster.

## **2.5 Characteristics of Subsistence Agriculture**

Subsistence farming or agriculture is defined by Webster's third New International dictionary as farming or a system of farming designed to provide all or essentially all the goods required by the farm family usually without any significant surplus for sale (Merriam-Webster Inc, 1986). This simplistic definition would seem to fit in well with the outcomes of subsistence agriculture as practiced in many developing countries. The unique characteristics described by the Food and Agriculture Organization (FAO) tend to point to the fact that most of the LDCs when viewed in the context of Rostow's stages of growth theory (Davids *et al.*, 2005) are still to emerge from stage one in which a high proportion

of the population is engaged in agriculture practiced mainly for subsistence purposes.

Typically, subsistence agriculture produces only enough food to sustain the farmers through their normal daily activities. Good weather may occasionally permit the production of a surplus for sale or barter, but surpluses are rare (Timmerman, 2004). Subsistence farming, therefore, does not allow for growth, the accumulation of capital or even for much specialization of labor (Leite, 2006)

The contributing factors to subsistence farming may be varied and may include impediments such as absence of hired labour which in practical terms can limit the area of land that a farmer can cultivate each season (Timmerman, 2004). Other factors could include the quality of the soil, climatic conditions, and the availability of tools, techniques, or available crop types. Most important, however, is the fact that not all farmers have access to as much land as they can cultivate. This is probably the most crucial factor that continues to prolong the subsistence system of farming, and by implication, rural poverty and marginal livelihoods particularly in sub-Saharan Africa. Limited access to land is in some cases due to population pressure leading to reduced farm sizes (Ellis, 2004) but in the Southern African context, it seems to be due primarily to colonial policies of land dispossession (Fourie, 2000; Mayende, unpublished).

## **2.6 The Land Factor in Subsistence Agriculture in South Africa**

Despite the reasonably advanced and extensive commercial farming systems of South Africa, there is strong ongoing subsistence agriculture evident mainly amongst the poor black rural population. The inability of the majority of the previously disadvantaged South African black population to get out of a subsistence existence may have its roots in the land tenure system of South Africa.

According to Thwala (2003) "Relocation and segregation of blacks from whites started as early as 1658, when the Khoi were informed that they could no longer dwell to the west of the Salt and Liesbeck rivers, and in the 1800s, when the first reserves were proclaimed by the British and the Boer governments" (Thwala, 2003). The beginning of the 20<sup>th</sup> Century, according to Fourie (2000), saw the black South Africans being pushed into small corners of the country by the Dutch and British colonialists. This apparently was the beginning of what later became legislated land dispossession of the black majority of South Africans (Moyo, 2001; Mayende, unpublished)

The 1913 Land Act, Act No.27 and the 1936 Trust and Land Act, Act No. 18 were, according to Fourie (2000), the two major Land Acts passed early in the twentieth century which changed the face of South African society and whose effects are still felt today and will be felt for generations to come. The Acts reserved nearly 87 percent of the national surface of the country for Whites, Coloureds and Indians, but mostly for Whites. Black South Africans, who at the time constituted about 75 percent of the population, were placed on 13 percent of the country's land. Roughly 4 million house holds now have to eke out a living on a plot averaging 1.5 hectares (Mayende, unpublished).

The state of the impoverished black population of South Africa, and to a lesser extent that of the Coloured population was mainly a direct result of the land dispossession and forced removals arising from the Land Act of 1913 and the Trust Land Act of 1936 as alluded to by Fourie (2000) and Mayende (unpublished) as well as to other factors such as inferior education accorded to the black majority in order to maintain their status as a source of cheap labour for the white nation (Mayende, unpublished). This in effect condemned the majority of them, whether providing labour for white economic activities or not, to a subsistence existence.

The legislated processes of land dispossession resulted today in approximately 55,000 mainly white farmers, who make up only five percent of the white population, owning up to 87 percent (85,5 million hectares) of the land (Moyo, 2001, Mayende unpublished). The formal introduction and further refinement of apartheid in 1948 led to the creation of tribe specific homelands or bantustans within in the 13 percent of the land reserved for blacks. The obvious overcrowding by black Africans in the 13 percent of the land surface of South Africa has had negative implications for rural livelihoods. All of these and, many other human right infringements by the apartheid regime, served to disenfranchise black people, hence the face of rural poverty today characterized by eking out a subsistence existence on the least productive land.

## **2.7 The Link with Agrarian Reform**

All developed countries began with agrarian transformation from subsistence to surplus production and later to industrialization (Davids *et al.*; 2005). According to the Strategic Plan for the National Department of Agriculture (2004), agriculture, in particular subsistence farming, plays a small but important buffer role for the poorest households in South Africa as far as food security is concerned. Essentially, agrarian reform according to Mayende (unpublished) is about transforming patterns of ownership, class configurations and the relations of production in the countryside which in his view would emerge with rural development. In the South African context, agrarian reform is inextricably linked with land reform (Mayende, unpublished) due to a dependency of the former on the latter.

A review article by Leite (2006) indicates that, various analytical studies of the economic and historical factors of agricultural development processes, and hence the security of rural livelihood, have highlighted a number of important linkages that should be considered in discussions of agrarian reform. Countries with a high concentration of land, according to Leite (2006), achieve slower

economic growth than those with a more egalitarian land structure. High levels of economic and land concentration also form a barrier to the promotion of social justice, leaving millions of people disenfranchised. This is a situation very reminiscent of South Africa.

Leite (2006) goes further to say that agrarian reform programmes should be accompanied by measures such as poverty reduction and equity promotion policies, to support the beneficiaries in order for these reforms to have significant and sustainable results. Mayende (unpublished) also makes a clear distinction between land and agrarian reform and rural development, the latter being one of the outcomes of the former. In essence, therefore, until land and agrarian reform is accomplished, subsistence farming will continue to exist. Farming at this level provides little or no food security; hence the livelihoods of the affected people remain forever vulnerable.

## **2.8 Social Indicators of Poverty**

According to the Millennium Project Report to the UN Secretary General (United Nations, 2005) "the Millennium Development Goals (MDG) are the world's time bound and quantified targets for addressing extreme poverty in its many dimensions such as income, poverty, hunger, disease, lack of adequate shelter and exclusion while promoting gender equality education and environmental sustainability" (United Nations, 2005;1).

The MDGs were developed within the context of addressing developmental challenges in the so-called LDCs. According to the Hundred and Twenty fourth session of the FAO the unique characteristics of LDC states as already mentioned is that they have persistently high levels of poverty (Food and Agriculture Organization, 2003). Although South Africa does not rely much on imported food due to a strong commercial agricultural sector, there is still a

considerable proportion of people similar to the undernourished in the LDCs that experience hunger.

The indicators of poverty may at face value be taken to be obvious. However, when asked the question, the people's responses painted a more complex picture as revealed by the attempt of the *Poverty and Inequality Report* to find a definition of poverty (Republic of South Africa, 1998a). The report found that poverty could be defined in many ways depending on the individual person, the household or the community in question. The report made a number of observations that are reported on presently.

Firstly, alienation from the community was seen as an indicator of poverty. The poor were often isolated from the institutions of kinship and community. The elderly without care from younger family members were seen as 'poor', even if they had a state pension that provided an income that was relatively high by local standards. Similarly, young single mothers without the support of older kin or the fathers of their children were perceived to be 'poor'.

Secondly, food insecurity, clearly a common finding associated with poverty, was a major indicator as participants saw the inability to provide sufficient or good quality food for the family as an outcome of poverty. Households where children go hungry or are malnourished are seen as living in poverty.

Thirdly, crowded homes as a consequence of their inability to secure adequate accommodation space was another indicator of poverty. The poor were perceived to live in overcrowded conditions and in homes in need of maintenance. Having too many children was seen as a cause of poverty, not only by parents, but by grandparents and other family members who had to assume responsibility for the care of children.

Fourthly, usage of basic forms of energy is another poverty indicator since the poor lack access to safe and efficient sources of energy. In the rural communities, the poor, particularly women, walk long distances to gather

firewood. In addition, women reported that wood collection increases their vulnerability to physical attack and sexual assault.

Fifth, lack of adequately paid, secure jobs is directly linked to low education levels. The poor perceived the lack of employment opportunities, low wages and lack of job security as major contributing factors to their poverty.

Lastly, the fragmentation of the family for many poor households was characterized by absent fathers or children living apart from their parents. Households may be split over a number of sites as a survival strategy.

All the above diverse descriptions constitute what might be termed social indicators of poverty. The fundamental indicator, however, which is also the most basic human right is the issue of food security. The context of the current study addresses primarily the food security indicator of poverty, although the other indicators are no less important when taking a holistic view of rural livelihoods.

## **2.9 The Concept of Sustainability of Rural Livelihoods**

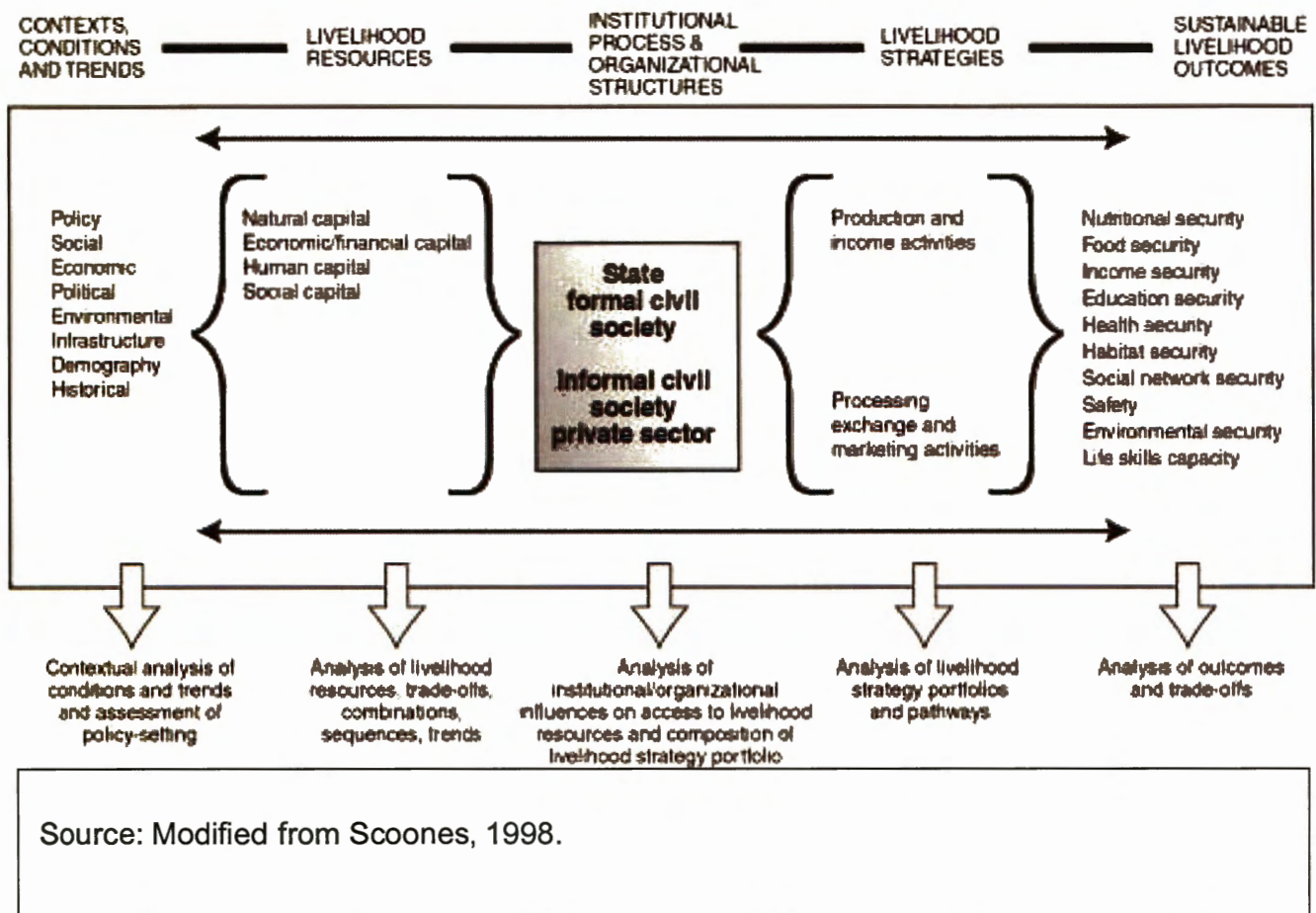
Chambers and Conway (1992;7) defined a livelihood as comprising the capabilities, assets and activities required for a means of living. Capabilities in this context refer to a person's or the household's ability to cope with stresses and shocks, and the ability to find and make use of livelihood opportunities. Assets were considered the basic material and social resources that people have in their possession (Scoones, 1998). The definition by Chambers and Conway was refined by Ellis (2000) to include access. Ellis defined a livelihood as

comprising the assets (natural, physical, human, financial and social capital), the activities and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household (Ellis, 2000, 10)

While livelihood is not synonymous with income there is an inextricable link between them because the constitution of individual or household income is the most direct and measurable outcome of livelihood processes (Ellis, 2000; 10). An analysis of sustainable rural livelihoods involves looking at the contexts, conditions & trends deriving from the history, politics, the macroeconomic conditions, climate, agro-ecology, demography and social differentiation all of which constitute the contextual analysis and assessment of policy setting. These contexts, conditions and trends provide a frame of how livelihood resources for sustainable rural livelihoods get deployed as illustrated in the sustainable livelihood framework analysis diagram below (Figure 2).

The depiction in the diagram also reveals that in order to achieve the outcomes appropriate livelihood Strategies involving analysis of the various pathways such as intensification, diversification or migration strategies must be applied to production, income, processing, exchange and marketing activities. The Institutional processes and organizational structures influences on access to livelihood resources are the key to achieving the livelihood outcomes such as food security, poverty reduction, improved well being and increased livelihood capabilities (Ellis, 2000).

Figure 2: Household livelihood security: a framework for analysis



As a modification of the sustainable livelihood framework by Scoones (1998), the livelihood resources were found to consist of five elements – natural capital, human capital, economic or financial capital, social capital and physical capital (Ellis, 2000). Natural capital also referred to sometimes as environmental resources, is anything from intangible resources such as the atmosphere and biodiversity to divisible assets used directly for production like land, water and biological resources for example trees. Human capital represents the skills, knowledge, labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives depending on household size, skill levels, leadership potential or health status.

Economic or financial capital refers to available stocks of money to which the household has access, which can be held in several forms such as cash savings, liquid assets such as livestock, or resources obtained through credit-providing institutions; and regular inflows of money (including earned income), pensions, other transfers from the state, and remittances. According to Ellis (2000) the keeping of livestock often plays a critical role as a store of wealth in sub-Saharan Africa, a key contextual issue in the current study.

Social capital means the social resources or organizational systems upon which people draw in the pursuit of their livelihood objectives. These may be networks and connectedness, membership of formalized groups, and relationships built on trust, reciprocity and exchanges that facilitate cooperation and reduce transaction costs. Social capital also includes formal political structures and informal systems through which people get things done. An excellent example of the functioning of social capital was illustrated in two case studies drawn from an in-depth ethnographic research to interrogate and problematise chronic poverty in the Eastern Cape (Du Toit, *et al.*; 2006)

Physical capital comprises the basic infrastructure and producer goods needed to support livelihoods such as affordable transport; secure shelter and buildings; adequate water supply and sanitation; clean, affordable energy; and access to information. The producer goods are such things like the tools and equipment that people use to function more productively. Infrastructure consists of changes to the physical environment that help people to meet their basic needs and to be more productive. Components of infrastructure like communications, roads and transport are usually essential for sustainable livelihoods. Access to and interrelations between all the above livelihood resources are what will eventually determine the livelihood outcomes.

## 2.10 Complexity and Diversity of Rural livelihoods

The above discourse clearly illustrates the complexity of rural livelihoods. The concept also encompasses, in addition to assets described by Chambers and Conway (1992), and access as indicated by Ellis (2000), another dimension proposed by Shackleton *et al.* (2000). According to Shackleton *et al.*, the livelihood concept has moved away from the narrow parameters of production, employment and income to a more holistic view embracing social and economic dimensions, reduced vulnerability and environmental sustainability. This is because rural livelihoods draw on all the assets described by Chambers and Conway (1992), but over and above that non-farm sources seem to be getting more significant in determining the sustainability of rural livelihoods.

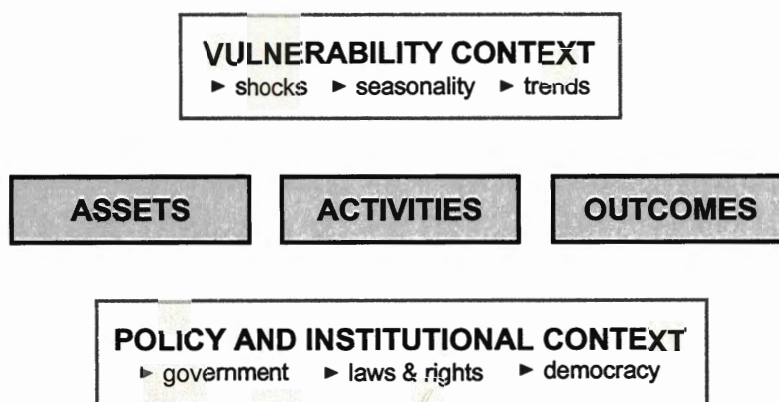
The diversity and diversification, it would seem, is becoming more and more central to determining the income portfolios of rural people (Ellis, 2000; Ellis and Allison, 2004), particularly with regard to occupational diversification (Ellis, 2004) and poverty reduction (Ellis and Freeman, 2004). Case studies have apparently shown clearly that non-farm sources now constitute 50 percent of household income in most African countries (Ellis and Allison, 2004) 60 percent in South Asia and 40 percent in Latin America (Ellis, 2004). The diversification was found to affect the slightly better-off and poorer rural people differently (Ellis, 2004). The better-off tended to diversify in the form of non-farm business activities such as trade, transport, shop keeping, brick making, the poor tend to diversify in the form of casual work, especially on other farms. Diversification by the poor people, therefore, tended to leave them still highly reliant on agriculture; while that by the more better-off reduced such dependence. The essence of diversification was clearly defined by Ellis (2004) as a way of mitigating risk and so reduces or avoids vulnerability of rural livelihoods.

However, in sub-Saharan Africa, according to Ellis (2004), there are other reasons for diversification which according to him include:

- decreasing farm size caused by sub-division at inheritance, to the point where even under favorable agro-economic conditions, farming can only provide a part-livelihood;
- increasing the inability of young people to access enough land to take up farming as their main occupation;
- poor farm performance and declining yields due to declining soil fertility and degrading natural environments;
- increased climatic variation, causing greater extremes across seasons and years;
- declining returns to farming due to factors in the policy or global environment, including, dismantling of subsidies, especially on fertilizer, increased price instability following market liberalization, poor geographical coverage by private traders, especially in remote areas, low agricultural prices due to world price trends, aggravated for some crops by the export subsidies of rich countries; and
- the impact of HIV/AIDS when superimposed on these other disadvantages, in many areas reduced significantly the availability of able-bodied labor to carry out physically onerous agricultural tasks

The complex nature of these interactions is illustrated in the Basic Livelihood Framework below (Figure 3).

Figure 3: Basic Livelihood Framework



*Source: Ellis and Allison, 2004*

The livelihood framework thus depicts how activities utilize assets in order to achieve outcomes. The vulnerability context of the outcomes will depend on how they can resist shocks, withstand seasonality and trends. On the other hand outcomes will also be influenced by policy and the institutional context in the form of government policy, laws and rights and; democratic practice. The shock vulnerability context and government policy are the two key livelihoods contexts at play in the current area of study.

## 2.11 The Concept of Vulnerability

The concept of vulnerability as explained in a technical report on New Indicators of Vulnerability and Adaptive Capacity (Adger *et al.*, 2004) was broadly defined as the vulnerability of a system, population or individual to a threat as relating to its capacity to be harmed by that threat. Vincent (2004) on the other hand feels that vulnerability is a contested term and defines it slightly differently as generally being the ability to anticipate, resist, cope with and respond to a hazard. The common factor, however, is the retention of capacity or ability by a system in the face of harm or hazard.

According to Vincent (2004) the analysis of the various definitions of vulnerability reveals some differences between the positivist school of thought and the human ecology and political economy schools of thought. The former places emphasis on a particular environmental stress, and vulnerability in their view refers to the risk of exposure of an ecosystem to a hazard. The latter's view, according to Vincent (2004), has arisen from interpretive social science paradigms based on relativism and constructivism, and to them vulnerability refers to a particular group or social unit of exposure to a hazard, and especially exposure to the structures and institutions which could be economic, political and social that govern human lives. The context of this study takes mainly the latter view of vulnerability involving the rural population exposed to possible socio-economic hardships occasioned by a government policy used to deal with a particular hazard.

Measuring vulnerability can be done using indicators or indices, which according to Vincent, are 'quantifiable constructs that provide information' (Vincent (2004;9). Adger *et al.* (2004) conceptualized that the vulnerability indicator selection process should, according to them, follow two general approaches: one based on a theoretical understanding of relationships (deductive research approach of the ecology and political economy schools of thought); and one based on statistical relationships (inductive research approach of the positivist school of thought). The first step in a deductive approach would be to understand the phenomenon that is being studied and the main processes involved. The second step involves identifying the main processes to be included in the study and how they are related. The third step, which by and large is inductive, involves selecting the best possible indicators for these factors and processes and collecting the relevant data.

While Adger *et al.* made that conceptualization based on climate change research, which has a major influence on vulnerability, the concept and similar processes are easily applicable to understanding other phenomena influencing

vulnerability, such as in this study the political economy of rural livelihoods of people affected by the removal of the pig as a source of livelihood. As it seems that a high percentage of the poor worldwide are dependent on livestock for their livelihood (Pica-Ciamarra, 2005; Gning, 2005), the key conceptual framework will involve the identification of factors related to the contribution of livestock (pigs) to the rural economy, the food source and to other cultural or non cultural functions. The questions and hypotheses of this research were built around the above concepts as described in the introduction. Inevitably an inductive process seeking to obtain empirical data for analysis was undertaken.

## **2.12 Vulnerability of Rural Livelihoods**

Shocks, trends and seasonality are contexts of vulnerability (Ellis and Allison, 2004) which were found to have major influences on vulnerability of rural livelihoods in areas studied by Timmerman (2004) in his thesis on sustainable rural livelihoods. Scoones (1998) disaggregated the sustainable rural livelihoods framework depicted in his livelihood framework analysis diagram into the following five key elements.

Firstly, the creation of working days which relates to the ability of a particular combination of livelihood strategies to create gainful employment;

Secondly, poverty reduction which is a key criterion in the assessment of livelihoods;

Thirdly, well-being and capabilities is 'what people can do or be with their entitlements', a concept which encompasses far more than the material concerns of food intake or income;

Fourthly, livelihood adaptation, vulnerability and resilience are the ability of a livelihood to be able to cope with and recover from stresses and shocks which is central to the definition of sustainable livelihoods;

Lastly, the natural resource base sustainability is essential since most rural livelihoods are reliant on the natural resource base to some extent. The ability, therefore, of a system to maintain productivity when subjected to

disturbing forces is important. The disturbance may come as a 'stress' which is a small, regular and predictable disturbance with a cumulative effect; or as a 'shock' which is a large infrequent, unpredictable disturbance with immediate impact.

From the disaggregated components, it can be determined that the last two are crucial in determining the vulnerability context of a livelihood. According to Canon *et. al.* (2003), vulnerability should involve a predictive quality which should provide a way of conceptualizing what may happen to an identifiable population under conditions of particular risks and hazards. The example of the CSF hazard has a bearing on the livelihood adaptation, vulnerability and resilience element of sustainable rural livelihoods.

A livelihood may, therefore, be said to be sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, both now and in the future, while not undermining the natural resource base (Timmermans, 2004). A position contrary to this could very well be what may be considered as vulnerable. This position is unknown for the livelihoods affected by the CSF hazard hence the conduct of the current study.

### **2.13 Vulnerability of Rural Livelihoods in the Eastern Cape Province**

Timmermans (2004) discussed the vulnerability context of rural communities in his thesis on rural livelihoods in Dwesa/Cwebe area within Mnquma and Mbashe local municipalities. Using a scientific approach he arrived at the finding that vulnerability was a key component of poverty. The vulnerability context was seen as seeking to depict the dynamic macro-environment that influences livelihoods. The understanding of the vulnerability context, therefore, provides an insight into the kinds of factors that have the potential to have a negative impact on people's livelihoods. The diversification of livelihood activities is thought to be one way in which people reduce their vulnerability (Ellis, 2000, 2004). Conversely, it could be

argued that a reduction of diversification as might be anticipated to occur following the pig culling campaign in the Eastern Cape could very well increase vulnerability.

Canon *et al.* (2003) observed that there is generally a very high but not absolute correlation between the chance of being harmed by natural hazardous events and being poor. In conceptualizing the CSF epidemic in the vulnerability context, it is essential to understand what influences vulnerability events or disturbances such as the characteristics of certain trends, shocks and seasonal events, referred to above, have on the livelihoods of people considered to be poor. Shocks, in particular, are typically impacts that are sudden, unpredictable, and traumatic (Chambers and Conway, 1992). Examples of shocks can include droughts, fires, epidemics, conflicts and/or sudden changes in the economy. The Classical Swine Fever outbreak could be classified as an example of a shock epidemic that could have the potential to bring about a sudden change in the economy.

The historical context of livestock keeping in the Eastern Cape reveals a significant picture of vulnerability of the peoples of the Eastern Cape to shock epidemics such as the loss in 1854 of 80 percent of their livestock to the lethal lung sickness disease originating from Europe (Bundy, 1988) or the killing in 1857 of 400,000 cattle that was initiated by the prophecy of Nongqawuse, a young African woman, who called for a national cleansing ritual to rid the land of the white intruders, and bring back the good old days. The latter shock resulted a year later in the death of 40,000 people from starvation (Peires, 1989).

The strength and sustainability of rural livelihoods it would appear depends to a large extent on a dynamic and complex interaction of such factors as physical, sociopolitical, economic, institutional and historical within the context in which they are lived. The manner in which a single factor such as pig elimination could influence the concept of vulnerability thus merits interrogation.

## **2.14 Historical Perspective on Livestock in the Rural Economy of the Eastern Cape**

The agro-political economy of the Eastern Cape with particular reference to the rural areas has its roots in the historical interactions between the indigenous Xhosa peoples and the incoming European settlers. In the pre-colonial era, the Nguni people of the Eastern Cape practiced a mixed farming system of rearing of cattle for milk and the production of crops and vegetables in small fields (Andrew *et al.*, 2003). The subsequent loss of land to the invading European settlers stressed this system of farming, leading to the legacy in which today land is limited and livestock numbers have apparently become static and the numbers of owners are declining (Andrew *et al.*, 2003).

In the same vein Andrew *et al.* (2003) also considered livestock to have historically been a key element in the pre-colonial economies and livelihoods of African people in Southern Africa, and this apparently remained so throughout the colonial and apartheid eras in spite of the land dispossession. The range of livestock farmed today, as is evident from cursory observation, includes cattle, sheep, goats, horses, donkeys, pigs, chickens, geese, turkeys, pigeons, rabbits and ducks. Although historically larger forms of livestock traditionally tended by men, such as cattle, were given far more attention than the small livestock tended by women, such as poultry (Andrew *et al.* 2003) as well as pigs, the latter may be more important for the daily family survival as revealed by the finding of a study by Agricultural and Rural Development Research Institute (2001; 2002).

The reasons for which rural people hold the types of animals they do are varied and wide ranging and can include cash from sales, a form of employment, milk for home consumption, for funeral purposes, as a form of investment, inherited livestock, slaughter for feasts or for home consumption, for paying bride-price, for sale of hides and skins, have land suitable for cattle farming, to help others, for

cow dung and for draught/ transport purposes (Andrew *et al.* 2003). The relative ranking of these, although, varying from place to place, and between households, as well as with the type of animal referred to, does not influence the fact that livestock has multiple uses among rural people of which the food security situation may be prime among them all.

## **2.15 Livestock as an Asset Contributing to Rural Livelihoods and Incomes**

The existing body of knowledge shows that poor rural households often derive a significant share of their incomes from natural resource-based activities such as livestock husbandry, cultivation and the utilization of 'wild' natural resources (Shackleton *et al.*, 2001). In terms of poverty alleviation, it is estimated that 42 percent of the poor worldwide are dependent on livestock for their livelihood while case studies in East and West Africa put this percentage as high as 60 percent (Pica-Ciamarra, 2005). In Burkina Faso traditional poultry production was found to account for 70 percent of all poultry production in the country and, therefore, provided an important means for families to improve their livelihoods, and it was further emphasized that small ruminants (sheep and goats) and cattle offered an important means of improving producer livelihoods (Gning, 2005). It would seem from this that the vast majority of people in the LDCs are to a great extent dependent on livestock not only for survival but also to improve their lot.

The value of natural resource products consumed by rural communities has been put at between Rands 2,300 to Rands 7,200 (mean Rands 3,154) per household per annum (Shackleton *et al.* 2001) which is quite considerable. Adams *et al.* (2000) have estimated the economic contribution of livestock in the communal areas at Rands 1,200 per household per annum of which pigs contribute unquantified amount (Agricultural and Rural Development Research Institute, 2002). This not so apparent capital makes a substantial contribution to people's livelihoods (Cousins 1999). With particular reference to pigs, their value seems to

lie predominantly in their meat which can be consumed or sold. While pigs may not bear a comparable range of goods and services to cattle, goats and sheep, they have been shown to be an important source of cash for women through the sale of meat, because in addition to poultry, pigs are the other livestock that women have control over (Timmermans, 2004). Pig meat is also apparently a recognized currency for hiring labour (Timmermans, 2004) in a fashion similar to systems of labor exchange described elsewhere in Africa and Asia (Suehara, 2006). Such an evidently substantial contribution of livestock to the well-being of rural people provides further impetus for the need to assess the socio-economic impact of pig depopulation in rural areas of the Eastern Cape.

## **2.16 Discussion and Conclusion**

The characteristic of LDCs as described by the FAO (Food and Agriculture Organization, 2003) clearly puts into perspective the context of economic challenges of the developing countries, and contextualizes South Africa's very own position in this regard. In order to develop a theoretical framework to justify conducting the study, an examination of the political economy governing, in particular, rural livelihoods was essential. The context of the literature reviewed in this chapter provides just that kind of background.

The emergence of South Africa from the apartheid era, and the historical perspectives on its economic development, clearly revealed the existence of a substantial population that may have livelihoods that can be subject to vulnerability in the face of hazards. It became evident from the literature that the lives of rural black people affected by apartheid policies was not much different from that described for people living elsewhere within the so-called LDCs in the rest of Africa and Asia (Food and Agriculture Organization, 2003). As a result of the apartheid policies, a substantial proportion of the black population of rural South Africa is apparently caught up in a web of poverty and stuck in subsistence agriculture from which they attempt to eke out survival.

Key among the sustainable livelihood outcomes are food and income security both of which are primary indicators of poverty (Scoones, 1998). Judging from the reviewed literature the two livelihood outcomes can be vulnerable to hazards if the hazards happen within areas depicting characteristics of LDCs. Going by the definitions of vulnerability whether of a system, population or individual to a threat and its capacity to be harmed by that threat (Adger *et al.*, 2004) or the ability of a system, population or individual to anticipate, resist, cope with and respond to a hazard (Vincent, 2004) it becomes apparent that sustainability is key to assessing the vulnerability of a system or population.

The whole concept of sustainability, complexity and diversity of rural livelihoods becomes significant in the sense that for rural livelihoods to be less vulnerable and therefore sustainable there may need to be a complex interaction between varying and diverse livelihood resources (Chambers and Conway, 1992; Ellis, 2000; 2004; Shackleton *et al.*, 2000). Such interaction and diversity of livelihood resources could be anticipated to take place in the study areas. The theoretical framework for this study was therefore built around determining just that kind of complex interaction and how livelihoods might be affected in the face of a hazard that had befallen the area under study. This conceivably would reveal the vulnerability status of the rural livelihoods in these poorest areas of South Africa.

Livestock having been shown to be significant for rural livelihoods in most LDCs as well as in South Africa should most certainly contribute significantly to sustainability of rural livelihoods by providing food and income security (Pica-Ciamarra, 2005; Shackleton *et al.*, 2001). The limited literature search conducted here certainly seemed to suggest this to be the case. Therefore, in order to determine the presumed negative outcome of the impact of a hazard as anticipated in this study and as it relates to livestock and specifically pig utilization in the sustainable livelihood, an examination of the phenomenon is necessary and was undertaken here.

## CHAPTER 3

### 3 ANIMAL DISEASE CONTROL POLICY AND RURAL LIVELIHOODS

#### 3.1 Introduction

Government policy is formulated by the political heads with a view to improving the lives and addressing needs raised by the constituents that elected them. Such policies should indeed translate into improved livelihoods context for the country in accordance with the electoral mandate, and the constituents' expectation of their representative especially when elections, as often occurs in a democracy, are fought on the promise of a better life for the electorate. Quite often though, a lot of such expectations do not become reality as government must function within the realms of the country's norms and laws, some of which may in the short-term seem to run counter to the aspirations of the electorate. Indeed current indications seem to show that the electorate in South Africa is already disillusioned with government service delivery precisely because promises made before elections are not being realized (USAID, 2006).

Some policies such as that used to control CSF may in effect be said to negate livelihood improvement by denting the livelihood resource base. While the moral concept of burying millions of tons of meat, most of which was probably not diseased may at face value be questionable and belies the stark reality that many of the people in the rural areas go without meat in their diet, let alone that they may actually be starving. However, the government seems to have an obligation to carry out the task of pig culling as part of its responsibilities in protecting international trade. Such an act by the state could easily be viewed by some as compromising the promise of a better life for the electorate, yet on the other hand the government must conform to its own prescribed norms and laws, and to fulfill international trade agreements.

### **3.2 The Constitutional Legislative Framework**

The Bill of Rights in the Constitution of South Africa (Republic of South Africa, 1996) chapter 2 section 24 (b) (iii) states that everyone has a right to “secure ecologically sustainable development and the use of natural resources while promoting justifiable economic and social development”. Section 27 (1) (b) further provides for the right of access to sufficient food and water. In Section 27, Subsection 2, the state is called upon to “take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights”. The government, therefore, finds itself in a dilemma in having to accede to its responsibility to protect the constitutional right of the individual, but at the same time having to uphold other apparently contradictory, but crucial national legislation.

By depriving the people of their pigs and temporarily taking away their right to raise pigs, has the government not contravened the constitutional rights of its people? This may be a question for the Constitutional Court to rule on but in the context of this study the people’s feeling on the matter was sought.

### **3.3 Animal Disease Control Legislation**

The policy for animal disease control in South Africa is provided for in the Animal Diseases Act (Act 35 of 1984) (Republic of South Africa, 1984). According to Section 2 (1) of the Act, all duties imposed by the Act, including powers of disease control in animals are vested in the Director of Animal Health who must be a veterinarian. The Act in Section 9 grants the Director extensive powers to set control measures for disease control; assume control over land for purposes of disease control (Section 14) and seize and destroy anything infectious (Section 17) found on such land on behalf of the Minister for Agriculture. The Act, therefore, gives the director sweeping powers to impose any form of restriction in the course of controlling such animal diseases; hence the massive culling of pigs

in the Eastern Cape Province to control CSF. While obviously effective for animal disease control purposes, the impact on human livelihoods, however, could be severe and just how severe is the core context of the current study.

### **3.4 The Impact of Shock Epidemics Control Policies of Government**

Government policies for controlling shock epidemics of animal disease origin appear in the main to involve mass extermination of the animal species affected by the disease, within a given area, and time frame. In the South African context such a policy as legislated in the Animal Diseases Act, Act 35 of 1984 (Republic of South Africa, 1984) was implemented in Kwa Zulu Natal in 2001 when cattle were culled to control the Foot and Mouth Disease (Brückner, *et. al.* 2002) and when ostriches in the Eastern and Western Cape were culled in 2004 in an effort to control bird flu in South Africa (Akol *et. al.*, 2006). Similar legislation has been used elsewhere in the world and recent examples of such control approaches abound for example, culling of cattle to control Foot and Mouth Disease in the United Kingdom (Thomson *et. al.*, 2002). The culling of pigs as a result of Classical Swine Fever happened in Europe in the recent past (Elber *et. al.*, 1999) preceding a similar policy implementation in South Africa.

The implementation of these policies seemed costly and apparently may have had negative socio-economic implications for the state concerned, and on the people directly and indirectly affected by the removal of livestock. Such measures may have been effective in bringing the disease in question under control, but what about their untold negative impacts in terms of job losses and loss of livelihoods? These negative effects, while being acknowledged, remain in most cases in need of phenomenological reduction.

Government policy on disease control can be expected, and does have an effect on peoples' livelihood, especially when it involves mass elimination of animals. Although disease control may be considered paramount due to its implication for

international trade in terms of South Africa's subscription to the World Trade Organization (WTO) and related bodies (National Department Of Agriculture, 2007), there is still tremendous responsibility on the part of the government to ensure that every South African citizen has full access to sufficient food and water under the circumstances. The removal of large numbers of animals constitutes a chipping away of a portion of the peoples' livelihood base. There may, therefore, appear to be a contradiction in terms for the state to pursue such negative policies of killing animals which seem contrary to its stated constitutional obligations which is to take the necessary legislative measures to ensure the realization of the citizens' right to access to adequate food and water. A fine balancing act is essential in dealing with such situations. Given the constricted land and agrarian reform policies in South Africa, it becomes crucial that all available resources in a given environment be conserved for rural livelihoods sustainability. The economic implications for the local economy were expected to be enormous as millions of rands were spent, massive quantities of pig products were lost and jobs were endangered or probably lost altogether.

Conversely, there are also merits to current government policy of animal disease control. Firstly, government's aim in implementing animal disease control policies on selected diseases is primarily to safeguard animal resources from devastating epidemics that could lead to massive loss and thus threaten national food security. Secondly, international trade in animals and animal products, as well as export of other agricultural produce of plant origin, depends to a great extent on the freedom of a country from identified trans-boundary diseases such as CSF (National Department of Agriculture, 2007a). The protection of international trade is therefore seen as essential for the country's economic growth as it may not only support exports but may also promote foreign investment. It thus becomes a primary government obligation. Lastly, some of the animal diseases are dangerous to human health and, therefore, need to be controlled to safeguard human health (National Department of Agriculture, 2007b) although this does not apply in the case of CSF. The above policy objectives notwithstanding, the

primary direction of policy must be to the benefit of the common person first and then other priorities follow.

### **3.5 Discussion and Conclusion**

It is important to note here that, the policy imperative in the context of this study relates more to policy application than it does to its formulation. The policy-making and implementation environment, as was evident from the limited review above, could be considered a type of bourgeois liberal democracy characterized by limited public participation in policy decision-taking. This appears to be the case considering that the policy merely gets imposed and seems geared more to the protection of interests other than those of the people directly affected by the policy.

Another important consideration here is that the application of this type of policy leaves in its wake numerous socio-economic problems and challenges. It is usually an expensive undertaking for any government, let alone South Africa, which has far more pressing social issues whose problems only seem to be compounded further by policies that seek to negatively affect livelihood resource bases. The question of the policy application being often more useful for foreign than for domestic interests; adds more negative connotations to the application of such policy.

The issue of the constitutional basis of the policy implementation in as far as the rights of the affected individuals are concerned is a matter for debate. Whereas only the Constitutional Court can legally rule on the validity of such a claim, the study can at least reveal how the affected people themselves viewed the issue and how the application of such a policy has impacted on their lives and livelihoods.

## **CHAPTER 4**

This chapter is presented in two parts one relating to the field research data and the other to the policy review component of the study. The field research data was obtained through the administration of a questionnaire as an interview schedule while the policy research component was a combination of data from meetings of the policy implementation committee together with published information on animal disease control policies and legislation and other national legislation such as the South African constitution. The first part of the chapter therefore contextualizes both quantitative and qualitative data obtained using the questionnaire that was administered as an interview schedule. The second part considers the conceptual framework of public sector policy making environment with specific reference to policy implementation in the animal disease control environment. This section puts into perspective gaps identified in the policy formulation and application process.

### **4.1 THE IMPACT OF THE PIG CULLING POLICY ON RURAL LIVELIHOODS**

This section presents data obtained using the questionnaire which was then captured and analyzed. Each subsection represents the captured and analyzed composite data from all participants' responses to the individual questions as set out on the questionnaire.

#### **4.1.1 Pigs and other livestock ownership by households in Mnquma and Mbashe Local Municipalities**

The data obtained from individual households in the different villages was captured (Table 1). The data collected reflected ownership of pigs in terms of numbers and identity of the individual in the household responsible for them. The data also sought to reflect the purpose for owning pigs.

Table 1: The ownership of pigs in the various households assessed

Name of Area	Number of Households estimated in the area	No. of Pigs	Owner of pigs in the household	Reason for Keeping pigs	Income per annum (Rands)
Mbashe Local Municipality (NI = Not Indicated)					
Mputi	30	4	Adult male	To sell as a source of income	
Mpozolo	500	5	Adult Female	To sell and to get meat	10,000
Xongeni	700	NI	Adult Female	To sell and for meat	10,000
Tywaka	600	7	Adult Female	To sell and to get meat	6,000
Ntsimbakazi	600	8	Adult male	To slughter and sell them to make money	5,000
Ramra	700	11	Adult male	To generate income	10,000
Ntlabane	1000	5	Adult Female	To sell for income	17,000
Qakazana	1000	10	Adult Female	To sell for income	10,000
Qwaninga	1500	8	Adult Female	To increase house hold income & alleviate poverty	9,000
Dutywa	45	4	Adult Female	To sell for income	10,000
Dutywa	52	8	Adult Female	Household food, selling for clothing	12,000
Mnquma Local Municipality (NI = Not Indicated)					
Mnyama	45	6	Adult female	To sell as a source of income and home food	20,000
Busila	2000	18	Adult male	To sell them when they are ready for marketing	15,000
Cafutweni	3000	25	Adult male	To sell meat and live pigs	20,000
Macibe	NI	4	Adult male	For selling	1,200
Mnquma	NI	5	NI	To sell meat and live pigs	600
Mnquma	NI	8	Adult male	For selling	
Mgobozi	NI	5	Adult male	For selling	15,000
Mnquma	NI	25	Adult Female	For selling	45,000
Mnquma	NI	5	Adult male	Helps when one needs money	
Average		10.6			

Source: Akol, 2007

The data in table 1 was generated from 20 households, 11 from Mbashee and 9 from Mnquma local municipalities. The data revealed that most households owned between 4 and 11 pigs. The exceptions however, were two of the households which owned 25 pigs each. In terms of who owned pigs, the ratio of adult men and women was 50:50 or equal. In most of the cases pigs were kept for purposes of selling them to derive income which was then used to run the household.

Quantification of other livestock owned by the respondents, primarily cattle, sheep, goats and chickens, was also carried out alongside pig ownership (Table 2). The data revealed that ownership of other livestock was not a constant feature among the various households investigated. Whereas all the households investigated owned pigs prior to the culling exercise, ownership of other livestock varied from household to household. In one household no other livestock was owned, 3 other households had only between 5-20 chickens. The rest of the households owned varying numbers of Cattle, sheep and goats in addition to chickens. The occasional household also owned donkeys primarily to provide draught power for ploughing and horses to provide transport.

Table 2: The ownership of other livestock in the various households assessed

Name of Area	Number of Households estimated in the area	No. Cattle	No. Sheep	No. Goats	Chicken	Reason for Keeping animals
Mbashe Local Municipality						
Mputi	30	0	0	0	+20	Food & sometimes sell
Mpozolo	500	10	22	15	30	Sell wool, meat and milk for income
Xongeni	700	10	30	15	70	Sell wool, eggs and meat
Tywaka	600	12	100	14	25	Sell wool, meat, hides, eggs and milk
Ntsimbakazi	600	10	50	0	30	Sell animals and products; for rituals & customs, home food
Ramra	700	10	165	54	12	Sell animals and products; for rituals & customs, ploughing; home food
Ntlabane	1000	10	100	30	20	Sell animals and products; ploughing
Qakazana	1000	15	200	34	68	Sell animals and products; for rituals & customs, ploughing; home food
Qwaninga	1500	10	225	30	55	Sell wool, meat, hides, eggs and milk
Dutywa	45	0	85	35	40	To sell for clothing & education, home food
Dutywa	52	0	0	0	13	Home food, sometimes sold
Mnquma Local Municipality (NI = Not Indicated)						
Mnyama	45	10	60	25	+50	Selling in times of need, entertaining visitors
Busila	2000	15	360	94	220	Selling animals and products in times of need; ploughing
Cafutweni	3000	40	470	94	100	Sell animals and products; for rituals & customs, ploughing; home food
Macibe	NI	9	0	11	0	Subsistence farming
Mnquma	NI	0	0	0	0	
Mnquma	NI	10	0	15	10	Subsistence farming
Mgobozi	NI	5	0	0	10	For selling
Mnquma	NI	9	0	10	3	For selling and subsistence; ploughing
Mnquma	NI	0	0	0	5	

Source: Akol, 2007

#### 4.1.2 Income Generation and Utilization in Rural Households in Mquma and Mbashe

The income generating activities in the rural areas were identified as livestock keeping, social grants and pensions and to limited extent remittances. Others included very rarely employment described as 'piece jobs', ploughing fields for other farmers and selling firewood. Data on the major sources of income for individual households was collected (Table 3).

Table 3: The sources of income for individual households

Name of Area	Household estimate in area	Livestock	Social Grants/pension	Remittances /other	Value (Rands) pa
Mbashe Local Municipality					
Mputi	30	Yes		Yes	14,000
Mpozolo	500	Yes			25,000
Xongeni	700	Yes			25000
Tywaka	600	Yes			18,000
Ntsimbakazi	600	Yes	Yes		15,000
Ramra	700	Yes			20,000
Ntlabane	1000	Yes			17,000
Qakazana	1000	Yes			30,000
Qwaninga	1500	Yes	Yes		18,600
Dutywa	45	Yes	Yes		37,400
Dutywa	52			Yes	8000
Mnquma Local Municipality (NI = Not indicated)					
Mnyama	45	Yes			50,000
Busila	2000	Yes	Yes		9,500
Cafutweni	3000	Yes	Yes		35,600
Macibe	NI	Yes			20,000
Mnquma	NI	Yes			600
Mnquma	NI	Yes			2,400
Mgobozi	NI	Yes			15,000
Mnquma	NI	Yes			50,000
Mnquma	NI		Yes		

Source: Akol, 2007

Livestock was by far the major source of income for each household investigated. Trailing behind livestock was the social grant and pension income. There were very few instances in which income by these households was derived from remittances or other sources. The annual value of income from the various livelihood resources ranged from R 600 in the poorest household to about R 50,000 in the relatively richer household. What became evident was that the sale of pigs or pig meat contributed in some cases to more than 50 percent of the income of the households. The pig it would seem due to its ability to reproduce and multiply rapidly was the main source of income even for the relatively wealthy households that had substantial numbers of especially sheep and cattle. Many of the respondents attested to this finding.

The prioritization of the use of the pigs and pig products was also assessed. The prioritization of usage was evaluated in terms of whether sale to derive income, use for home food or gifting came first. It was interesting to note that all respondents gave first priority to the sale of pigs or pig meat to derive income. This was followed by use as home food. Very rarely was the pig apparently given as a gift. Priority of the usage was summarized and can be found in Table 4

Table 4: The priority of use of pigs and pig products by individual households

Name of Area	Number of Households estimate in area	Priority of Use of pigs and pig products			Remarks
		Home food	Sell	Gift	
Mbashe Local Municipality					
Mputi	30	2	1		Live pigs & pig meat
Mpozolo	500	2	1	3	Live pigs & pig meat
Xongeni	700	2	1	3	Live pigs & pig meat
Tywaka	600	2	1	3	Live pigs & pig meat
Ntsimbakazi	600	2	1	3	Live pigs & pig meat
Ramra	700	2	1	3	Live pigs & pig meat
Ntlabane	1000	2	1	3	Live pigs & pig meat
Qakazana	1000	2	1	3	Live pigs & pig meat
Qwaninga	1500	2	1	3	Live pigs & pig meat
Dutywa	45	2	1		Live pigs & pig meat
Dutywa	52	2	1		Live pigs & pig meat
Mnquma Local Municipality (NI = Not indicated)					
Mnyama	45	2	1		Live pigs & pig meat
Busila	2000	2	1		Live pigs & pig meat
Cafutweni	3000	2	1		Live pigs & pig meat
Macibe	NI		1		
Mnquma	NI		1		
Mnquma	NI		1		
Mgobozi	NI		1		Live pigs & pig meat
Mnquma	NI		1		Pig meat
Mnquma	NI				

Source: Akol, 2007

The major uses to which the households put the income derived was also investigated. There were three main types of use to which the income from pigs was put to; buying food and groceries, paying school fees, and transport to school for the children and buying clothing for the family. Table five below indicates the number of households that responded to a particular usage of

income. It was quite clear that educating and clothing the family were the major beneficiaries of income generated from the sale of pigs and pig products. The ratio of income to the type of usage could not be determined as responses were vague in this regard.

Table 5: Usage of Income Derived from Pigs

Type of income usage	Number of respondents (Households)
Buying food/groceries	8
Paying School fees & transport for children	12
Buying clothes for the children/family	11
Not understood the question/unclear response	6

Source: Akol, 2007

#### 4.1.3 Respondents' thoughts on the government policy of pig culling:

Nearly two thirds of the respondents agreed with the government policy of culling pigs and the other third disagreed. The respondents' thoughts on the government policy ranged from incomprehension of the fact that the government did indeed kill their pigs to feelings of despondency and frustration at what had happened to them and; outright rejection of the policy as a waste of money. The feeling of despondency was clearly evident among the people as some felt that the whole issue was the most awkward thing to happen because nobody expected it and some just felt sad as pigs helped them to fight poverty. Others in their state of despondency had hoped for alternative approaches to control the disease other than culling the pigs.

Nearly all the respondents that accepted the policy of pig culling had some kind of reservation about the policy. Others simply feared to lose their pigs. Some of them found the policy of taking the pigs and paying later to be unacceptable as

their main condition for accepting the policy was the payment promised by the state for culled pigs. Their acceptance of pig culling was based primarily on the observation that their pigs were indeed sick and dying of the disease. So rather than lose out altogether as more pigs became infected and died, some respondents opted to have their pigs culled in anticipation of compensation being paid later. Other respondents considered the policy to be correct and the idea to be good. At the same time however, some felt that the policy only benefited the officials of the department who received overtime payment while the community that was affected negatively by the disease particularly those who farmed solely with pigs lost out completely since even the expected compensation was not forthcoming.

The respondents that disagreed with the policy considered it a waste of money because in their view they did not see any disease, their pigs were healthy but government took them for culling anyway and without their consent too. Particular frustration was expressed by the people who disagreed with the policy of pig culling. For example one farmer indicated that the policy had caused him to suffer a lot since in the past he used to get money through selling pigs for survival; now he has to try to find other means of earning a living. Some of the respondents that disagreed considered the government policy of pig culling to be the wrong option. In their view government should have brought a remedy to cure the affected pigs and protect the unaffected ones instead of killing them. This category of respondents went as far as considering that government should have compensated pig owners whose pigs died after they had been counted by the agricultural officers but before the pigs were culled. The government policy only provided compensation to owners for pigs that were produced for culling. The communities contended that the fault lay with government as it delayed to take the pigs away hence allowing them to die before they could be culled.

#### **4.1.4 The effect of the pig culling policy on the people's livelihood**

The respondents generally indicated that the pig culling exercise negatively affected their livelihoods. To some pig keeping was the only source of income from which they sold meat in town and especially on the days when and where pensions and social grants were given out to people. Under normal circumstances the respondents usually sold pigs or pig meat to obtain money for school fees and buying uniforms and clothing for children; now the respondents cannot send all the children to school at the same time which affects the way the respondents live. One respondent specifically stated that they had suffered a lot as parents had no income to buy food. Children had suffered as parents did not have money to send them to school. To other respondents no pigs meant no money, no food and no buying clothing. Respondents with plans had them derailed as the disease affected their income.

Most areas in the region were affected by the pig culling policy and most people expressed unhappiness with the situation primarily because the pigs they kept or the meat they derived from them was usually sold when they were in need of money. The money so earned was then used for sustenance of the family. The respondents therefore felt that the policy contravened their right to a livelihood such that they struggled a lot to make a living after their pigs were taken away. The more profound effect resulted from the sudden disappearance of the resource multiplier effect. Pigs would normally have piglets, and that meant the respondents would have earned more money from the multiplier effect of having more pigs. People who did not have pigs would according to one respondent, buy piglets from those that had pigs. As one woman explained she would under normal circumstances have sold her pigs gradually ensuring a steady source of income instead of getting a lump sum of money as occurred during compensation for pigs culled. There would also have been more piglets produced if they still kept pigs which translated into more money earned. Some respondents have had to look for other income generating activities such as

selling firewood or looking for 'piece jobs' to support their livelihoods. Other unforeseen effects of this included the abandoning of children in order to go and find jobs in the urban areas.

Many livelihood impacts of this policy included hardships experienced with regard to taking care of the children and the household, because pigs played an important role in the life of the people. Hardship experienced due to having no money to buy food, pay school fees, buy clothing and groceries and, providing transport for children to go to school had not been a problem when the respondents still had pigs. One respondent summed up the situation by saying that without pig farming life has become very difficult for the people. Pig culling brought poverty since people who used to sell pigs to maintain their families can no longer do so. Other people have nothing to slaughter during special occasions like weddings and circumcision ceremonies. These expressions all serve to show just how important pig keeping was in the lives of the rural people in Mnquma and Mbashe.

#### **4.1.5 What the Respondents wanted the Government to do before implementing the pig culling policy**

The first major concern by the majority of the respondents revolved around the insufficient information flow to them regarding the policy implementation process. Respondents felt very strongly that the government should have given them notice or informed them about the disease; educated the community about the disease, and asked for the people's opinion before implementing the pig culling policy. There was a further feeling that the problem happened unexpectedly and the departmental officials just arrived in the area and began collecting pigs without giving any notice to the community pointing to a deficiency in the communication of the policy implementation process. The officials did not go to talk to the community to explain the disease problem, but instead they made a unilateral decision to cull the pigs. Some respondents in fact wanted the

government to consult the people, tell them about the disease and give the people options so that if they don't agree with the policy, the culling should not have gone ahead. Some wondered in fact why the government bothered with killing the pigs if the disease did not kill people. For efficient information dissemination, people should have been addressed at their villages on the issue, rather than using the system of contacting the chief's place resulting in the message not spreading clearly. Respondents also felt that there should have been some negotiation first before pigs were taken away. The respondents just saw the vehicles arriving in the morning to fetch pigs without talking to them first".

The second major concern revolved around the issue of actual compensation for pigs that were collected and culled by the state. The government used a method of collecting and culling the pigs and getting owners to complete a compensation form that would then be used to process payment. The initial promise was to pay pig owners within 3 months but the first beneficiary pig owners were only paid after nearly 6 months. Some beneficiaries are still waiting for payment more than 12 months later. In the first place respondents felt that the government should have consulted the pig farmers on the compensation system before implementing it. Some respondents wanted money upfront before any pigs were taken for culling. The government should also have made sure of availability of sufficient funds to pay people immediately their pigs were taken. This was the view of many of the respondents. Availability of sufficient funds they argued would also have speeded up the process as people would have been more cooperative with the officials if they were to get their money immediately. Other respondents felt that the government should have given people their money at intervals, so that they don't use it all at once. For example, some people used the money for home improvement and it soon got finished, leaving them with nothing and no way of making an income. Clearly, there seemed to be a major gap in the implementation of the compensation policy.

#### **4.1.6 Associated Problems Experienced by Communities Post the Pig-Culling Policy**

Most respondents reported experiencing hardships related to the culling of their pigs. Hardships that were expressed by the majority of the respondents were those mainly associated with the process of compensation of the people for the pigs culled by the state. Many respondents expressed deep frustration with this process revealing once again a policy implementation gap. The most common frustration expressed was the protracted delays in receiving compensation. In addition, the method of compensation itself was found wanting by the respondents.

In the first instance it appeared that the respondents did not comprehend what the compensation process entailed. According to one respondent they felt cheated by the government as they did not receive any payment. They were told that their names appear in Vimba (Uvimba Bank), but they had no idea what Uvimba was. Evidently this respondent had no idea where to start enquiring about his payment. Then there was the matter of traveling to the post office to get payment which in itself was a problem for some people. However, on reaching there, they still did not receive compensation money for their culled pigs. Standing in long queues at the post office and only to find that you are not going to be paid in any case, was a major frustration to the respondents.

Problems often began with the tenuous process of opening accounts. Then failure to fulfill the promises made regarding compensation followed. Firstly, people were told to submit their banking details so that their compensation money may be deposited directly into their accounts. When that failed, the next arrangement was to pay pig owners at the post office. People stood in long queues at the post office only to find at the end that their names do not appear in the post office list although they appeared in the list distributed in their area. Radio would also announce that all the beneficiaries should go and collect their

money at the post office irrespective of the list that was available to the government departmental officers only to find out later that the radio announcement was not true. Illiterate people were according to some respondents apparently cheated by the post office officials hence the stationing of government officials at the post offices to help and assist the people as they got their payment. Most people took more than a year to get their money although they had been promised payment by the 3<sup>rd</sup> month after their pigs were taken.

Respondents who experienced difficulty in getting compensated for their culled pigs claimed that false information was broadcast over the radio telling people to go and collect their money. The people who traveled long distances using the little money they possessed but with the hope of collecting their compensation money were disappointed to find that their names did not appear in the computer data base or in the register. Some of the people whose pigs were taken during 2005 had in the recent past still not got their money. Others did not get the exact amount they were supposed to get and quite often it was less than what they were meant to get.

#### **4.1.7 Suggested Alternatives to the Government Policy**

Quite a number of respondents who agreed with the government policy of pig culling conceded that there was really no alternative and that the government had no option but to cull the pigs to control and prevent the further spread of the disease. However, some of the respondents while not making specific proposals wanted the introduction of an alternative method of culling that 'saves' money since they felt that the method used was a waste of money. They also made a number of comments on the whole approach to the culling of pigs. For example, they felt that government should have introduced a system of shooting the pigs instead of hiring casual workers to chase after pigs for the whole day. This, in

their view, would have saved a lot of money which according to them was wasted on paying casual workers.

Furthermore, some respondents saw the system of culling as a way of enriching some officials in the government, and felt that the 'unnecessary' overtime paid to officials (this was in reference to the overtime paid to departmental officials participating in the pig culling exercise who worked beyond normal working hours) was in their view an 'insult' to the economic well-being of the pig owners. They contended that the government should have created jobs with the money wasted on paying officers that are already drawing a salary whereas they have children who are educated but are not employed. It seems that even the appointment of casual workers caused some conflict among the officials of the department and the communities affected by the campaign. Some respondents contended that the money wasted on paying the casual workers to assist in collecting pigs might have negatively affected the budget for the compensation of pig owners, hence the delays in their payment. The respondents also asserted that since there was no way of keeping the affected animals except to kill them, the best way of doing it should have been to hire a company to do the job or send the animals to the abattoir to be slaughtered.

The respondents who proposed alternative views to the government policy of killing and burying the pigs, focused primarily on the control measures applied by the state. They, without the luxury of having the technological background of how to control this particular disease of pigs, advanced their own view of control measures which at face value appeared theoretically sound, but in reality would be ineffective. For example, some respondents felt that the government, as they do in relation to many other diseases of animals, should first have applied treatment for CSF before deciding to kill the pigs. The reality, which they were unaware of, is that there is no treatment for this disease. Others suggested that government should have allowed those people who did not want their pigs to be killed to keep them even with the risk of getting diseased, and others yet

suggested that the government should have killed only the affected pigs if there was no remedy to cure them, and give the pig owners a chance to treat or give preventative treatment to the unaffected pigs, because there were some areas where pigs were alive and well. Again, the reality is that this could not be allowed to happen because the entire communities' pigs would be placed at risk of getting disease spreading from the pig stocks retained by individuals.

Another alternative proposed by some respondents hinged on their knowledge that the disease does not kill people. In this context, they wondered why the government did not allow them to slaughter their pigs and eat the meat, instead of wasting money to compensate the owners. Indeed, the morality of burying tons of possibly wholesome meat instead of allowing people to consume it is brought to the fore. Once again, the technical background to the way the disease spreads is what informs such decisions.

#### **4.1.8 Tabulation of Themes from the Structured Interviews on Communities' thoughts and Sentiments on Government Policy**

An attempt at thematic analysis revealed a whole range of responses to the question of the communities' feelings and thoughts on the impact of the government policy of pig culling on them. The themes summarized here have already been described in sections 4.1.3 to 4.1.7 above. The purpose of the summary in the table 6 below is to attempt to link the themes to the households that expressed the particular view in order to come up with a dominant view.

Table 6: Aggregate numbers of community responses

Themes on thoughts and sentiments on government policy of pig culling	No. of Households that responded
Agree with the government policy on pig culling	13
Do not agree with government policy on pig culling	7
Government policy affected people's right to livelihood	17
Government policy has not affected people's right to livelihood	1
Unhappy and unexpected happening	2
Problems with school fees, buying uniforms and clothing for children	6
Un able to send children to school	3
Affects the livelihood of the person because the person has to go and look for a job	3
Affected other people's source of income/survival not ours	2
Loss of pig production	5
Not informed before hand / no prior notice	6
Hardship experienced by people	17
Wish for alternative way of controlling the disease	7
Government should have paid before taking the pigs/ provide enough funds	5
Government should have taught/informed/given notice to the people about the disease before culling	6
Government should have asked for people's opinion before implementing pig culling	4
Government had no alternative	4

Source: Akol, 2007

The two predominant views expressed by the majority of the respondents were first that the government policy did affect the households' right to a livelihood and secondly that the people experienced hardship as a result of this policy implementation. Nearly two thirds of the respondents agreed with the

government policy but for varying reasons as outlined in section 4.1.3 above. At the other extreme one household's view was that the government policy did not affect their livelihood at all.

The government policy of disease control in terms of the Animal Disease Control Act (Act 35 of 1984) (Republic of South Africa, 1984) which in this instance involved firstly the mass destruction of animals, and, secondly, the temporary and possibly permanent deprivation of a people of their means to making livelihoods merited vigorous examination and quite apparently the study reveals it marked impact on the rural livelihoods. Other downsides to the policy implementation process possibly including areas where policy may impact on welfare considerations for both animals and humans seemed evident from the empirical data presented here.

## **4.2 THE CONCEPTUAL FRAMEWORK OF PUBLIC SECTOR POLICY MAKING ENVIRONMENT**

This section presents mainly secondary analysis of the literature and written information derived from minutes of the meetings of the policy implementation controlling body headed by the Department of Agriculture. The analysis contextualizes the whole policy making environment and how it related to the affected pig owner.

### **4.2.1 The Policy Concept**

The policy focus in the scenario described in the current study was to eradicate the CSF in terms of the animal disease control legislation already referred to previously. However, full cognizance of the consequences of policy implementation seems not to have been fully considered. The impact of the policy was felt equally by the rural livestock owners, previously disadvantaged farmers and by commercial farmers. The rural livestock owners and previously disadvantaged farmers were more likely to be negatively affected by the policy,

because they are viewed as vulnerable to disasters. Since the primary focus of policy implementation seemed to be the elimination of the disease which was carried out through mass extermination of the diseased host animals (pigs), the policy implications for rural livelihoods would in this context seem deemed to be secondary.

There was an acknowledgement at the outset that JOC was dealing with a disease that may potentially have a negative impact on the lives and livelihoods of the pig owners (*JOC Meeting 11/8/2005*). The culling of pigs was initiated in August 2005 immediately following the confirmation of the presence of CSF and the release of a media statement by the National Department of Agriculture on 16<sup>th</sup> August 2005 (National Department of Agriculture, 2005a). This process was implemented in accordance with the predetermined stipulations of the Animal Diseases Act. The notice on the modality of implementation was contained in a directive released on 20<sup>th</sup> August 2005 in terms of article 15 of the animal diseases Act, Act 35 of 1984, by the National Department of Agriculture in the form of an order authorizing the culling of the pigs (National Department of Agriculture, 2005b). All these precedents left little or no room for consultation processes and to listen to and take into cognizance the concerns of the affected communities.

It would seem quite clearly that the decision to go ahead with pig culling was taken in accordance with disease control measures stipulated in the Animal Diseases Act referred to above and in Chapter 3. The expected stakeholders for the policy implementation process included the Department of Agriculture as leader, the South African Police Services (SAPS), the South African National Defense force (SANDF), the National Society for the Protection and Care of Animals (NSPCA), the Traffic Police section of the Department of Transport, the Department of Health, Farmer Organizations in particular the South African Pork Producers Organization (SAPPO), Farmer/ community representatives, Disaster Management, Local Government represented by district and local municipalities

and, by traditional leaders and, Environmental Affairs all of whom formed a network of facilitators of the CSF control campaign.

The Department of Agriculture as the leader of the implementation process, headed by the Disease Control Officer (DCO), who was also the Provincial Director of Veterinary Services, in the Eastern Cape, determined and controlled the entire policy implementation process. The stakeholders were all expected to provide inputs through the daily meetings of the Joint Operations Centre (JOC), the committee responsible for the CSF control during which crucial decisions regarding the campaign implementation process were taken. The farmer or community representatives, in particular, were critical to the campaign as they embodied direct and indirect public input into the policy implementation process and acted as a conduit of the delivery of important policy decisions to the public and of their contributions or concerns to the JOC. However, participation by most stakeholders was not as consistent as desired except for the Department of Agriculture, SAPS and the SANDF.

#### **4.2.2 Public Consultation Processes**

The public was not consulted prior to the implementation of the policy of pig culling. Information days were constantly held for purposes of informing the communities of what was going to happen. The information days held preceded the policy implementation teams' visits to a particular area. Prior consultation with the affected people on the policy context was not possible due to the inherent nature of the regulations relating to specific animal disease outbreaks that are predetermined by the Animal Diseases Act, in accordance with the requirement of the particular disease, as well as by the urgency needed to contain the further spread of such a disease. In-put by community/farmer representatives consisted of delivering the community's concerns to JOC.

The context of information dissemination elicited various responses from the communities and reflects their views and perceptions of the CSF control policy. Some of the community reactions are captured in the minutes of the daily JOC minutes and excerpts are transcribed here.

- ❖ Veterinary ethical considerations provide that meat from sick or dead animals should not be consumed by humans. Many times during the information dissemination meetings, pertinent questions were asked by communities demanding to know why the meat of infected/affected animals was not fit for human consumption if the disease did not affect people (Mr. Ntsebeza representing the Department of Health, *JOC Minutes* 5/9/2005; Supt vd Vyfer, *JOC Minutes* 6/9/2005).
- ❖ Checkpoints were set up for purposes of controlling the movement of pigs or their products in order to minimize further spread of the disease. Incidents of resistance to being checked at these roadblocks were experienced on numerous occasions (*JOC Minutes* 15/8/2005). These incidents became a constant feature through out the campaign period of the implementation of the pig culling policy.
- ❖ During the pig culling process itself, owners of pigs were expected to be available and to present their animals to the officials. In many instances, they were either absent or attempted to hide their pigs. Some simply did not understand what was going on and, therefore, lent little support to the policy implementation process (*JOC Minutes* 1/9/2005, 7/9/2005); some even chased their pigs away to prevent them from being taken for culling (*JOC Minutes* 23/12/2005).
- ❖ There were instances when unscrupulous individuals took advantage of communities' lack of adequate information with regard to the process taking place by charging them for collecting and conveying their pigs to culling sites (*JOC Minutes* 21/11/2005, 6/12/2005). This seemed to point to an inadequate understanding by the public of the policy implementation procedures.

- ❖ References were constantly made to lack of a clear single message that was going out to the communities regarding the CSF campaign implementation process (*JOC Minutes* 5/9/2005; Nogela, *JOC Minutes* 7/9/2005).
- ❖ And when the message did get through to the public and, probably stoked as well by the apparent rapid loss of pigs to the disease; the communities' felt that government appeared not to be responding fast enough. The public in these instances clamored for their pigs to be culled (E. S. Nogela, *JOC Minutes* 12/9/2005, 25/10/2005).
- ❖ The compensation process of pig owners seemed to suffer from numerous problems. The initial promise to the public was to compensate them within three weeks after their pigs were culled. This was soon found to be an impossible promise to fulfill. The compensation process required that individual pig owners open bank accounts to which their money would be paid. The initial attempt to open bank accounts for all owners whose pigs had been culled floundered for several reasons. The banks lacked the capacity to reach the high number of people needing to open accounts and furthermore, accounts that were opened were soon closed before compensation could be paid into them since the accounts opened had a limited life span of one month only (for example, Uvimba fax to the Department of Agriculture 8/9/2005, *JOC Minutes* 2/11/2005, 21/11/2005).
- ❖ Compensation backlogs began to mount possibly due to a number of reasons. First and foremost there was the slow payment process by the Uvimba Bank, then there were unprocessed forms, as well as missing accounts due to the inability of people to open accounts for one reason or other (*JOC Minutes and Compensation Report* 30/11/2005, 1/12/2005). It became obvious that Uvimba Bank was not paying out pig owners fast enough and besides lack of bank capacity, some on the part of the public lacked appropriate identification documentation for opening bank accounts.

- ❖ There was also an erratic flow of funds between the national and provincial treasury. This combined with the slow processes at Uvimba bank and lack of opened accounts made the whole process of compensating pig owners proceed very slowly leading to an inevitable public backlash in the form of farmers holding hostage staff of the Department of Agriculture, holding sit-ins at the offices of the Department of Agriculture and causing increasing resistance to the policy implementation campaign (Dr. L. Mrwebi, Dr. N Nombekela-Madiba, personal communication).
- ❖ The impact of policy implementation was brought to light during an interview with the officer responsible for culling of the pigs and for coordinating the compensation process, Dr. V. E. Rozani (interview at 8.45 am on 14<sup>th</sup> August 2007). He indicated that there were varied consequences of the policy which included but were not limited to the following:
  - family disruptions due to delayed payment of compensation in which for example one person was alleged to have killed his wife after accusing her of the disappearance of the money for pig compensation; another couple was reported to have divorced over the issue of compensation; many wives were reported to be lamenting the delayed compensation which was causing trouble between them and their spouses;
  - the removal of pigs also impacted on the education of children since fees for schooling were often derived from pig keeping which was effectively terminated with the culling of the pigs;
  - Dr. Rozani also found people who had serious attachment to their pigs, like an elderly couple in Nqamakwe, who were in fact herding their flock of approximately 40 pigs like cattle. The pigs were not diseased but because sick pigs were present in the vicinity, theirs had to be eliminated as well. They very reluctantly agreed to part with their pigs, but he suspects that not only were they deprived of their livelihood but they were probably emotionally affected as well.

## **5 CONCLUDING REMARKS AND RECOMMENDATIONS**

The average number of pigs kept by each household was 10; ranging from 4 to 25. The data also revealed that the majority of house holds kept other livestock besides pigs. However, one household owned only pigs and another 3 had only pigs and a few chickens. These 4 households would in all probability be severely impacted negatively by the removal of their pigs. Despite the ownership of livestock other than pigs in many of the households surveyed, most of them still reported a negative impact on their livelihood by the removal of pigs. This meant that the daily livelihoods even in these relatively wealthy households were catered for through the sale of pigs. The finding that in half of the households the adult female was responsible for the pigs affirms the apparent key role these animals play in the household's livelihood.

In comparing the various income sources, livestock was found by far to be the prime source of income for the rural households. The income generated ranged from as little as R 600 to as much as R 50,000 per year. From the data gathered, it seemed that most of this income was derived from pigs. This it would appear was because all households were dependent on the rapidly multiplying pigs to provide a ready source of income and food as opposed to livestock like cattle which according to one respondent would only be sold during times of need and used for customary rituals and for ploughing the fields. The pattern of livestock ownership and usage in Mbashee and Mnquma local municipalities would therefore seem to relegate households that owned only pigs and possibly a few chickens to more adverse consequences of the pig culling policy, hence the acknowledgement by the majority of them of hardships experienced following the pig culling policy. In terms of resource diversification as envisaged by Ellis (2000; Ellis and Allison, 2004) pig removal meant the narrowing of the resource base for a sustainable livelihood and exposure of the people to vulnerability. Such individuals were likely to seek casual work as an alternative source of livelihood leading to family fragmentation. Indeed two respondents indicated that they had

to seek work leaving their children behind as reflected also in the complexity of the social indicators of poverty outlined in the *Poverty and Inequality Report* (Republic of South Africa, 1998a).

Government policies embodied in the Acts and Bills of parliament are usually drawn up by 'experts' in the respective field of application. The drafts (Bills) are then scripted by lawyers and submitted usually to be debated (rubber stamped) by the public representatives in parliament or council as the case may be after cabinet approval (Department of Justice and Constitutional Development, 2007). There is therefore often very little real public participation in the policy making process. The public could in principle participate in dealing with the consequences of the policy implementation but probably little consultation gets done in this regard as well as seemed evident from this study where it was clearly apparent that there was lack of penetration of information.

Although, information dissemination preceded the eradication exercise at all times during implementation of the control measures, the role of such information was purely explanatory to enlighten the people about what needed to be done to control the disease and to get their support for the campaign. The core issues surrounding the implementation of the policy were not up for debate or discussion, processes that were typical of the classical bourgeois method of policy making. This was apparently unavoidable in this instance due to the specialized nature of the problem.

In the end, the affected people were probably empowered, just to respond to the programme that would have a tremendous impact on their livelihoods. They could not, however, question the process but rather were only passive recipients expected to listen to the message, understand it and cooperate with the authorities. The possibility that they needed to prepare for the consequences of the policy implementation seemed not to have been taken into cognizance. However, the process of disseminating the message to the affected public

seemed to have been insufficient as both the results of the field study and a search through the *JOC minutes* seemed to indicate a picture of ignorance in a considerable proportion of the people.

The incidents that were encountered during the initial stages of the process of policy implementation such as the communities' and individuals' resistance and misconceptions about the campaign were clearly typical responses to the method of formulation of the policy implementation approach and the apparent fractured process of information dissemination or lack of penetration of the information dissemination process. These events possibly reflected a desire for participation in the policy process and particular episodes of resistance seems to show the kind of negative outcome expected of a top down approach of policy formulation and implementation.

This study seems to confirm two fundamental concerns. First that the government policy applied to control CSF in the rural areas of the Eastern Cape had a negative impact on the livelihoods of the people in the affected rural areas. Secondly the policy implementation process itself seemed to be non participatory. The government seemed to place greater emphasis on the interests of the international community than to her obligation to its own people. A more conscious effort by government should involve greater participation by the affected communities which would have led to

- greater community understanding of the problem and a reduction of uninformed decisions and actions;
- greater cooperation with government authorities and such communities could possibly even be self policing in terms of compliance with the policy;
- greater cooperation in terms of movement control;

In order to limit the negative impact of the exercise on the people's livelihoods, the government needs to come up with

- a more efficient system to compensate owners of culled pigs;

- devise more efficient approaches to controlling CSF that will enable communities to start income generation as soon as possible;
- alternatively, the government must provide an interim measure to sustain, in particular, households which depended solely on pig rearing for their livelihoods;
- the question of international and domestic obligations of government must be weighed carefully in terms of which one will be impacted more negatively by the policy.

## 6 REFERENCES

Adams, M., Cousins, B & Manona, S. (2000), "Land tenure and economic development in rural South Africa: Constraints and opportunities", in B. Cousins (ed). *At the Crossroads: Land and Agrarian Reform in South Africa into the 21st century*, Cape Town/Johannesburg: Programme for Land and Agrarian Studies, University of the Western Cape/National Land Committee. 111–28.

Adger W. N., Brooks, N., Bentham, G., Agnew, M. and Eriksen, S. (2004), *New Indicators of vulnerability and Adaptive Capacity, Technical Report 7*, Tyndall Centre for Climate Change Research, Norwich. [On-line]. Available: [http://www.tyndall.ac.uk/publications/tech\\_reports/tech\\_reports.shtml](http://www.tyndall.ac.uk/publications/tech_reports/tech_reports.shtml) [Accessed: March 2007].

Agricultural and Rural Development Research Institute (ARDRI), (2001), *Rural Livelihoods Survey in the Mbashe Municipality*, Alice: Fort Hare University.

Agricultural and Rural Development Research Institute (ARDRI), (2002), *Draft Report for the Ndonga Livestock Improvement Survey Commissioned by Farm Africa for Small Holder Support Programme, Eastern Cape*, Alice: University of Fort Hare.

Akol, G. W., Rozani, V. E., Horner, R., Abolnik, C., Romito, M., Manvell, R., Gerdes, G. H., Mrwebi, L., Van Nierkerk, J. H., Zondi, M. R. and Lwanga-Iga, I. (2004), *An Outbreak of Highly Pathogenic Avian Influenza in Ostriches in South Africa in 2004*. In The Third South African Veterinary and Paraveterinary Congress 2006. Durban, 6<sup>th</sup> to 9<sup>th</sup> June 2006.

Andrew, M., Shackleton, C. and Ainslie, A. (2003), "Land use and rural livelihoods: Have they been enhanced through land reform?" *Programme for*

*Land and Agrarian Studies (PLAAS). PLAAS Policy Brief No. 5 August 2003.*  
University of the Western Cape.

Bailey, K. D., (1987), *Methods of Social Research*, New York: The Free Press.

Brückner, G. K., Vosloo, W., Du Plessis, B. J. A., Kloeck, P. E. L. G., Connaway, L., Ekron, M. D., Weaver, D. B., Dickason, C. J., Schreuder, F. J., Marais, T. and Mogajane, M. E. (2002), "Foot and Mouth Disease: The Experience of South Africa". *Rev. Sci. Tech. Off. Int. Epiz.* 21:751-764. [On-line]. Available: [http://www.oie.int/eng/publicat/rt/2103/A\\_r21334.htm](http://www.oie.int/eng/publicat/rt/2103/A_r21334.htm) [Accessed: 22/03/2007]

Bundy, C. (1988), *The Rise and Fall of the South African Peasantry (2<sup>nd</sup> edn)*, London: James Currey.

Campbell, B.M., Jeffrey, S., Kozanayi, W., Luckert, M., Mutamba, M., and Zindi, C. (2002), *Household Livelihoods in Semi-arid Areas: Options and Constraints*, Indonesia: Centre for International Forestry Research.

Cannon, T., Twigg, J. and Rowell, J. (2003), *Social Vulnerability, Sustainable Livelihoods and Disasters*, Report to DFID Conflict and Humanitarian Assistance Department (CHAD) and Sustainable Livelihoods Support Office Livelihoods and Institutions Group, Natural Resources Institute, University of Greenwich, UK.

Cavendish, W. (2002), "Quantitative Methods for Estimating the Economic Value of Resource use to Rural Households". In: B. Campbell and M. Luckert (eds) *Uncovering the Hidden Harvest. Valuation Methods for Woodland and Forest Products*, London: Earthscan.

Chambers, R. and Conway, G. (1992), *Sustainable Rural Livelihoods: Practical Concepts for the 21<sup>st</sup> Century*, Discussion Paper 296. Institute of Development Studies, Brighton.

Cross, C., and Hornby, D. (2002), Opportunities and Obstacles to Women's Land Access in South Africa. *A Research Report for the Promoting Women's Access to Land Programme, February 2002*. Department of Land Affairs, in association with the Centre for Rural Legal Studies and the Centre for Applied Legal Studies Wits.

Cousins, B. (1999), "Invisible capital: The Contribution of Communal Rangelands to Rural Livelihoods in South Africa". *Development Southern Africa*, 16(2):301–18.

Dauids, I., Theron, F. and Mapunye K.J. (2005), *Participatory Development in South Africa*. Pretoria: Van Schaik.

Department of Justice and Constitutional Development, (2007), *The Legislative Process* [On-line]. Available:  
<http://www.doj.gov.za/2004dojsite/legislation/legprocess.htm> Accessed:  
25/11/2007.

Du Toit, A., Skuse, A. and Cousins, T. (2006), *The Political Economy of Social Capital: Chronic Poverty, Remoteness and Gender in the Rural Eastern Cape*. Chronic Poverty Research Centre Working Paper, University of Western Cape, Cape Town.

Elber, A. R., Stegman, A., Moser, H., Ekker, H. M., Smak, J. A. and Pluimers, F. H. (1999), "The Classical Swine Fever Epidemic 1997-1998 in the Netherlands: Descriptive Epidemiology", *Preventive Veterinary Medicine* 42: 157-184. 1 December 1999.

Ellis, F. (2000), *Rural Livelihoods and Diversity in Developing Countries*, New York: Oxford University Press.

Ellis, F. (2004), *Occupational Diversification in Developing Countries and Implications for Agricultural Policy*. Programme of Advisory and Support Services to DFID (PASS) Project No. WB0207, Overseas Development Group (ODG), University of East Anglia, Norwich NR4 7TJ, UK

Ellis, F. and Allison, E. (2004), *Livelihood Diversification and Natural Resource Access*, Livelihood Support Programme (LSP): Food and Agriculture Organization of the United Nations.

Ellis, F. and H.A. Freeman, (2004), 'Rural Livelihoods and Poverty Reduction Strategies in Four African Countries', *Journal of Development Studies*, Vol.40, No.4, April

Food and Agriculture Organization, (2003), *Activities of FAO in Support of Least Developed Countries, Land-locked Developing Countries and Small Island Developing States*, Hundred and Twenty fourth session of the FAO, Rome, Italy [On-line]. Available: <http://www.fao.org/docrep/meeting/006/y9308e.htm> [Accessed: March 2006]

Fourie, C. (2000), Land and the Cadastre in South Africa: Its History and Present Government Policy. *International Institute of Aerospace Survey and Earth Sciences (ITC)*, Enschede. The Netherlands, 1st November, 2000 [On-line]. Available file:///Mac HD/Clarissas\_site/online\_itcsa.html [Accessed 7 September 2006].

Global Partners, (2004), *Programme of Support to Local Economic Development in Eastern Cape*, Bisho.

Gning, M. C. (2005), *Navigating the Livestock Sector: Political Economy of Livestock Policy in Burkina Faso*. Pro-Poor Livestock Policy Initiative Working Paper No. 28, Food and Agriculture Organization 09 September 2005.

Joint Operations Centre, (2005), *Classical Swine Fever/Hog Cholera Outbreak* Interim report no.1. 8<sup>th</sup> to 12<sup>th</sup> August 2005.

Joint Operations Centre, (2007), *Classical Swine Fever/Hog Cholera Outbreak* Interim report no.21. 15<sup>th</sup> March to 30<sup>th</sup> April 2007.

Joint Operations Centre, (2005), *Classical Swine Fever/Hog Cholera Outbreak* ---

- JOC Minutes 11/8/2005
- JOC Minutes 5/9/2005;
- Nogela, JOC Minutes 7/9/2005
- E. S. Nogela, JOC Minutes 12/9/2005
- JOC Minutes 25/10/2005)
- JOC minutes 2/11/2005
- Uvimba fax to Department of Agriculture 8/9/2005, 21/11/2005
- JOC Minutes and Compensation Report 30/11/2005, 1/12/2005, )

Huysamen, G. K. (2001), *Methodology for the Social and Behavioural Sciences*. Cape Town: Oxford University Press.

Kay, C. (2002), Chile's Neo-liberal Agrarian Transformation and the Peasantry. *Journal of Agrarian Change* Vol 2 (4) 464 – 501, October.

Kitalyi, A. J. (1998), *Village Chicken Production Systems in Rural Africa Household Food Security and Gender Issues*. FAO Animal Production and Health Paper 142. Food and Agriculture Organization of the United Nations Rome, 1998. [On-line]. Available:

<http://www.fao.org/docrep/003/w8989e/W8989E00.htm#for>

Accessed: 23/11/2006

Kvale, S. (1996), *Interviews: an introduction to qualitative research interviewing*. London: Sage.

Leite, S. (2006), *Agrarian Reform, Social Justice and Sustainable Development*. In International Conference of Agrarian Reform and Rural Development, Porto Alegre: FAO Issue Paper No. 4

Levine, R. (1994), Participatory Research and Democratic Agrarian Transformation: The case of the Eastern Transvaal Central Lowveld. *Transformation* 25: 34-57.

McAllister, P. (1999), *Agriculture and Co-operative Labour in Shixini Village, Transkei*, Working Paper 33, Leiden: Afrika Studie Centrum.

Meyende, G., *The Land and Agrarian Reform in South Africa's Transformation Process*. Unpublished.

Moyo, S. (2001), *The Politics of Land Distribution and Race Relations in Southern Africa*. Durban: UNRISD Conference on Racism and Public Policy September 2001.

National Department of Agriculture, (2005a), *Press Release* 16<sup>th</sup> August 2005

National Department of Agriculture, (2005b), *Classical Swine Fever Culling Order*. 20<sup>th</sup> August 2005.

National Department of Agriculture, (2007a), *World Trade Organization* [On-line]. Available: <http://www.nda.agric.za/vetweb/> [Accessed: 25 November 2007].

National Department of Agriculture, (2007b), *Regulatory Veterinary Services* [Online]. Available:  
<http://www.nda.agric.za/vetweb/Animal%20Disease/AD%20Controlled%20Diseases%20Ver%202001.pdf> [Accessed: 25 November 2007].

Peires, J.B., (1989), *The Dead will Arise: Nongqawuse and the Great Xhosa Cattle-killing Movement of 1856-7*, Johannesburg: Raven Press.

Pica-Ciamarra, U. (2005), *Livestock Policies for Poverty Alleviation: Theory and Practical Evidence from Africa, Asia and Latin America*. Pro-Poor Livestock Policy Initiative Working Paper No. 27, Food and Agriculture Organization 20 July 2005.

Provincial Government of the Eastern Cape (2004), *Provincial Growth and Development Plan of the Eastern Cape Province 2004-2014*. Bhisho: Provincial Government of the Eastern Cape.

Provincial Government of the Eastern Cape (2007), Interview with Dr. V. E. Rozani at 8.45 am on 14<sup>th</sup> August 2007

Republic of South Africa (1984), *Animal Diseases Act No. 35 of 1984*, Cape Town: Government.

Republic of South Africa (1996), *Constitution of the republic of South Africa*, Cape Town: Government.

Republic of South Africa (1998a), *Poverty and Inequality Report*, Pretoria: Government Printer [On-line]. Available:  
<http://www.info.gov.za/otherdocs/1998/poverty/report.pdf> [Accessed: March 2006].

Republic of South Africa (1998b), *The Executive Summary of the Poverty and Inequality Report*, [On-line]. Available:  
<http://www.info.gov.za/otherdocs/1998/poverty/summary.pdf> [Accessed: March 2006].

Republic of South Africa (1998), *The White Paper on South African Land Policy*, Department of Land Affairs. Pretoria: Department of Land Affairs.

Scoones, I. (1998), *Sustainable Rural Livelihoods: a Framework for Analysis*. Working Paper 72, Brighton: Institute for Development Studies, 22 pp.

Shackleton, C.M., Shackleton, S.E., and Cousins, B. (2001), "The role of Land-based Strategies in Rural Livelihoods: The Contribution of Arable Production, Animal Husbandry and Natural Resource Harvesting in Communal Areas in South Africa", *Development Southern Africa*, 18:581-604.

South African Non Government Organization Coalition (SANGOCO) (2005), *South Africa: Millennium Development Goals Country report 2005*, [On-Line]. Available:  
[http://www.sarpn.org.za/documents/d0001538/RSA\\_MDG\\_report2005.pdf](http://www.sarpn.org.za/documents/d0001538/RSA_MDG_report2005.pdf) [Accessed: March 2006].

Statistics South Africa (2000), *Measuring Poverty in South Africa*, Pretoria: Statistics South Africa.

Suehara, T. (2006), "Labour Exchange Systems in Japan and DR Congo: Similarities and Differences", *African Studies Quarterly*, Vol 9: Issue 1&2 [On-line Journal for African Studies]. Available:  
<http://www.africa.ufl.edu/asq/v9/v9i1a5.htm> [Accessed: 23/03/2007].

Taylor, M. (2004), *Prince 'Led Efforts to Stop Animal Cull'*, Guardian Unlimited February 16, 2004. [On-line]. Available:

<http://www.guardian.co.uk/footandmouth/story/0,,1149131,00.html> [Accessed: 21/03/2007]

Thompson, D., Muriel, P., Russel, D., Osborne, P., Bromley, A., Rowland, M., Creigh-Tyte, S. and Brown, C. (2002), "Economic Costs of Foot and Mouth Disease Outbreak in the United Kingdom in 2001", *Rev. Sci. Tech. Off. Int. Epiz.* 21:675-687. [On-line]. Available:

[http://www.oie.int/eng/publicat/rt/2103/A\\_r21326.htm](http://www.oie.int/eng/publicat/rt/2103/A_r21326.htm) [Accessed: 22/03/2007]

Timmermans, H. G. (2004), *Rural Livelihoods at Dwesa/Cwebe: Poverty, Development and Natural Resource use on the Wild Coast, South Africa*. Unpublished, Masters in Science thesis. Grahamstown: Rhodes University.

United Nations Economic and Social Council (2005), *Achieving the Millennium Development Goals in Africa: Economic Commission for Africa. An Issues Paper*. [On line]. Available:

<http://www.sarpn.org.za/documents/d0001242/index.php> [Accessed: March 2006]

USAID (2006), *Democracy and Governance: Supporting the Consolidation of South Africa's Democracy*. [On-line], Available

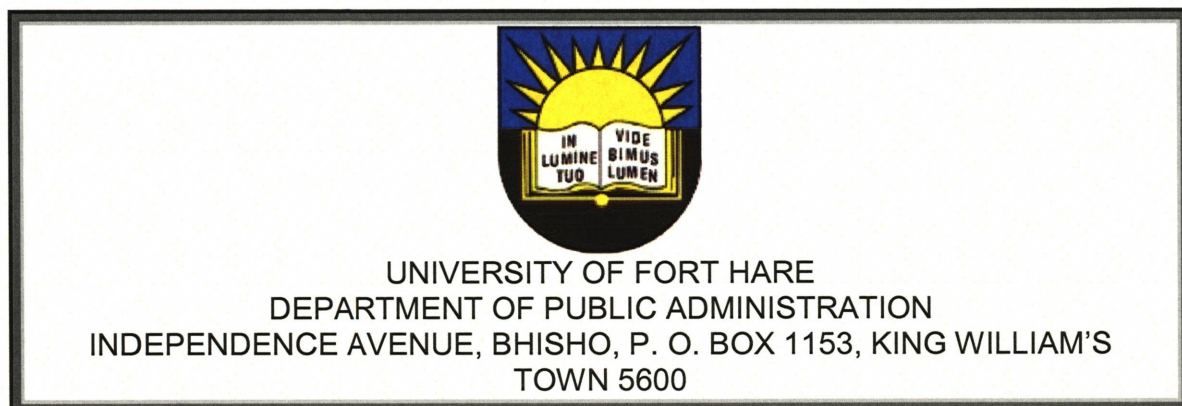
<http://www.usaid.gov/missions/sa/uss01.html> [Accessed: 20/07/2006]

Valtonen, P. (2000), *The Politics of Agrarian Transformation in Mexico*. Unpublished, Academic Dissertation, University of Tampere: Suomalainen Tiedeakatemia [On-line] Available: <http://acta.uta.fi/english/teos.phtml?3828> [Accessed: 8 September 2006].

Vincent, K. (2004), *Creating an Index of Social Vulnerability to Climate Change for Africa, Working paper 56*, Tyndall Centre for Climate Change Research, Norwich. [On-line]. Available:  
[http://www.tyndall.ac.uk/publications/working\\_papers/wp56.pdf](http://www.tyndall.ac.uk/publications/working_papers/wp56.pdf) [Accessed: 25/03/2007].

Willig, C. (2001), *Interpretive Phenomenology. Introducing Qualitative Research in Psychology*. Buckingham: Oxford University Press.

Appendix 1: Letter of voluntary consent



To Whom It May Concern:

I am a student doing a Masters degree in Public Administration at the University of Fort Hare. I am currently engaged in research on the socio-economic impact of the shock Classical Swine Fever epidemic that affected the Eastern Cape Province on the livelihood of the people in this area. The research will seek to establish the impact on the livelihood of people whose pigs were culled and your opinion of the problem.

The purpose of this letter is to inform you about this research and to seek your consent to participate in this research. I give a firm promise that:

1. You will be given full information on the research to be undertaken
2. Any information gathered will be treated with utmost secrecy and confidentiality.
3. Names of participants will NOT be recorded or divulged.
4. The findings of the research will be used purely for academic purposes.
5. You will only become a participant once you give voluntary consent to take part in the study.

**Do you give voluntary consent to take part in this study** Yes.....  
No.....

Signed.....  
GEORGE WILLIAM OUCUL AKOL (MPA - STUDENT NO. 200602743)

## Appendix 2: Interview schedule Instructions

### INTERVIEW SCHEDULE

The questionnaire is to be administered as an interview schedule as follows:

- a) Select the study areas within Centane in Mngquma and in Willowvale in Mbashe
- b) Depending on the number of households whose pigs were culled one or more areas may be identified in Centane and Willowvale
- c) Choose 20-30 households randomly in each of Centane and Willowvale who had their pigs culled
- d) Administer the questionnaire interview schedule to each of the households chosen
- e) If more than one household is found within the same compound interview only one of them
- f) If two households adjoin one another interview one and skip the other one
- g) Put the questions on the Questionnaire to each of the selected households in each area and write their responses in the space provided
- h) Use the Structured interview – policy review to ask questions from any of the households that is able to give their opinion
- i) Use the structured interview – policy review questions to interview 3 chiefs/opinion leaders in each of the selected areas

Appendix 3: Questionnaire

QUESTIONNAIRE: IMPACT OF PIG CULLING ON RURAL LIVELIHOODS

Local Municipality.....Name of Area .....

Total No of households in the area.....

1. Who owns the pigs in the household? –

Age and gender of owner	Number of Pigs owned	Reasons for keeping pigs
Adult male (>18 years)		
Adult female (>18 years)		
Boys (<18 years)		
Girls (<18 years)		
Collective household ownership		

3. What other animals does your household own?

Animal	Number	Value (Rands)	Reason for keeping animal
Cattle			
Sheep			
Goats			
Chicken			
Other (specify)			

4. What are the main income generating activities in your household?

Source of income (Income Generating Activity)	Rands per year
Livestock	
Social grants	
Remittances	
Other (Specify)	

5. What is the Priority of use and value of pigs and pig products?

Produce	Ranking of use (1 <sup>st</sup> , 2 <sup>nd</sup> etc.)	Value (Rands) per year
Live pigs		
Home food		
Sell		
Gift		
Other Uses (specify)		
Pig meat		
Home food		
Sell		
Gift		
Other (Specify)		

6. How has your household livelihood been affected by culling of pigs?

Income usage (e.g. school fees, lobola, clothing etc.)	Before pig culling (Rands)	After pigs culled (Rands)

STRUCTURED INTERVIEW – Policy Review

What are your thoughts on the government policy of pig culling?

Question	Answer
Do you agree with the policy of pig culling?	Yes..... No.....
What do you think of the government policy of pig culling?	
In your opinion, has the policy affected or contravened your/your people's right to a livelihood?	Yes..... No.....
Name the areas of your/your people's livelihood that were affected by the policy of pig culling?	

What else would you have wanted the Government to do before implementing the policy of pig culling?

[Empty response area for the question above]

Have you/your people experienced hardships since your pigs were culled?	Yes.....
	No.....

What hardships did you/your people experience?

[Empty response area for the question above]

Suggest what you think the government could have done instead of killing and burying the pigs