

**AN EVALUATION OF THE PERCEIVED BENEFITS AND
CONSTRAINTS OF COMMUNITY GARDENS ESTABLISHED BY THE
KWAZULU-NATAL DEPARTMENT OF AGRICULTURE AND
ENVIRONMENTAL AFFAIRS**

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ABSTRACT

This study provides feedback from the Extension Officers and community garden members involved in community garden projects of the KwaZulu-Natal Department of Agriculture and Environmental Affairs, by investigating the contribution of community gardens to household food security. The investigation included interviews with 61 Extension Officers from the Bergville, Hlanganani, Eshowe, Vryheid and Mbumbulu districts and 106 community garden members from 31 community gardens in the Bergville and Hlanganani districts.

It was found that the people involved in community gardens were older persons, with little or no education. Those involved in community gardens were unemployed and relied on pensions, remittances and selling handicrafts to purchase garden inputs. The average household dependency ratios were 4, 5 and 5, 5 persons per active household member in Hlanganani and Bergville, respectively. Community garden members were mostly females, but most community garden members' households were male-headed. The community garden members indicated that the most important reason for producing vegetables was for household use.

Extension Officers were not satisfied with the state of community gardens and the relationship between the regional and district offices. Community gardens do not reflect the effort put in by the Extension Officers. The Extension Officers want to be involved in determining research priorities and be regularly informed about research findings and policy changes made at the regional level. The Extension Officers would like to see all government departments working together towards the development of communities. Extension Officers believe that if the government departments pool their resources, they would be able to serve the communities better than when each department works alone on community garden projects in the same community.

Despite the initial funding of community gardens by the KwaZulu-Natal Department of Agriculture and Environmental Affairs, there were many factors limiting production of vegetables in community gardens. The limiting factors included poor soil fertility; small

garden plot sizes; low water availability; high start-up costs and poor management of the community garden finances. The community garden members were positive about the contribution of community gardens to their lives. The benefits were in the form of information about vegetable production, cropping practices and the availability of fresh vegetables that provided nutritious food and allowed them to buy other household requirements instead of vegetables.

Community garden projects have a potential role to play in the lives of many rural people if the following concerns raised by the Extension Officers are addressed: the relationship between the offices at district level and the regional level improves; the establishment and maintenance of sound channels of communication between the district field staff and the regions; research support is received from the regions; and government departments work together.

The KwaZulu-Natal Department of Agriculture and Environmental Affairs should not only focus on providing infrastructure for projects but should also ascertain that the proposed project achieves the objectives of both the community garden members and the Department of Agriculture and Environmental Affairs and that the beneficiaries are trained before the project is handed over.

DECLARATION

I, Thamsanqa Philangenkosi Mpanza, declare that:

- The research reported in this dissertation, except where otherwise indicated, is my original research.
- This dissertation has not been submitted for any degree or examination at any other university.
- This dissertation does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from those persons.
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Signed:
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As the candidate's Supervisor I agree to submission of this dissertation for examination.

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Date

As the candidate's Co-Supervisor I agree to submission of this dissertation for examination.

Signed:
Dr JF de Villiers

Date

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TABLE OF CONTENTS

Table of Contents.....	v
List of Figures.....	viii
List of Tables.....	ix
Abbreviations.....	x

CHAPTER ONE: INTRODUCTION

1.1 Introduction.....	1
1.2 Study Objectives	2
1.3 Study limits	2
1.4 Assumptions.....	3
1.5 Outline of dissertation.....	3

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction.....	5
2.2 Contribution of agriculture to economic growth and the eradication of poverty and hunger in the world	5
2.3 Contribution of agriculture to the South African economy	7
2.3.1 South African agricultural policy reform and its implications on agriculture ...	8
2.3.2 Integrated Food Security Strategy (IFSS) adopted by South Africa.....	10
2.4 Community gardens in KwaZulu-Natal.....	10
2.4.1 Benefits of community gardens	12
2.4.2 Management of community gardens.....	14

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design.....	16
3.2 Identification of study areas.....	16
3.3 Data collection methods.....	20
3.3.1 Semi-structured interviews	21
3.3.2 Structured questionnaire survey.....	22
3.3.3 Direct observations	23
3.3.4 Participatory Rural Appraisal (PRA).....	24
3.4 Data analysis	24

CHAPTER FOUR: DESCRIPTION OF THE STUDY AREAS

4.1 Introduction.....	25
4.2 Climate and soils in the Bergville and Hlanganani Districts	25
4.3 Bioresource information for the Bergville and Hlanganani Districts	25
4.3.1 Bioresource groups found in the Bergville and Hlanganani Districts	26
4.3.2 Bioresource Units found in the Bergville and Hlanganani Districts.....	28
4.3.3 Ecotopes found in the Bergville and Hlanganani Districts	31
4.3.4 Implications of the bioresource information to community gardens in the Bergville and Hlanganani Districts	31

CHAPTER FIVE:

PROFILE OF THE COMMUNITY GARDEN MEMBERS IN THE BERGVILLE AND HLANGANANI DISTRICTS

5.1 Introduction.....	32
5.2 Age of community garden members	32
5.3 Household composition	33
5.4 Household headship and gender of community garden members	34
5.5 Education levels of community garden members	36

CHAPTER SIX:

POLICY FRAMEWORK REGARDING COMMUNITY GARDENS IN KWAZULU-NATAL

6.1 Introduction.....	39
6.2 Regulations regarding community gardens	39
6.3 Objectives of community gardens as stated by the policy on community gardens (1999)	39
6.4 Strategies used to achieve the community garden objectives	40
6.5 Responsibilities of different stakeholders in community garden projects	41
6.6 Implications of the 1999 community garden policy on community garden projects	43
6.7 Management of community gardens.....	44
6.8 Management systems used in community gardens	45

CHAPTER SEVEN:

EXTENSION OFFICERS' PERSPECTIVES REGARDING COMMUNITY GARDENS IN KWAZULU-NATAL

7.1 Introduction.....	46
7.2 Profile of the extension officers involved in the study	46
7.3 Processes involved in the establishment of community gardens	47
7.4 Objectives of community gardens	48
7.5 The role of Extension Officers in community gardens	48
7.6 Constraints that affect the performance of Extension Officers and community gardens	50
7.7 Crops planted in Community Gardens.....	51
7.8 Status of community gardens in KwaZulu-Natal.....	52

CHAPTER EIGHT:

FARMERS' PERSPECTIVES REGARDING COMMUNITY GARDENS IN THE HLANGANANI AND BERGVILLE DISTRICTS

8.1 Introduction.....	54
8.2 Management of community gardens.....	54
8.3 Vegetable production in the Bergville and Hlanganani District community gardens	55
8.4. Community gardens compared with homestead gardens.....	57
8.5 Factors affecting production in community gardens	58
8.5.1 Sizes of community gardens	60
8.5.2 Soil fertility status of community gardens in the Hlanganani and Bergville Districts	61
8.5.3 Water availability	63
8.5.4 Community garden finances	64
8.5.5 Start-up capital for community garden members.....	65
8.6 Benefits of community garden members involved in community garden projects	65

CHAPTER NINE: CONCLUSIONS AND RECOMMENDATIONS

9.1 Introduction.....	68
9.2 Conclusions.....	70
9.3 Recommendations	71
References.....	73
Appendix A	77
Appendix B.....	85
Appendix C (I).....	86
Appendix C (ii)	96

LIST OF FIGURES

Figure 3.1: Map showing the location of the five Districts of Vryheid, Bergville, Eshowe, Hlanganani and Umbumbulu, in the province of KwaZulu-Natal (KZNDAEA, 2006a).....	17
Figure 3.2: Map showing the location of the study areas and the locality of some of the community garden visited (KZNDAEA, 2006a).	19
Figure 4.1: Map showing the Bioresource Groups found in the Bergville District (prepared by the Natural Resource Section: Department of Agriculture and Environmental Affairs, KZN, 2006).....	26
Figure 4.2: Map showing the Bioresource Groups found in the Hlanganani District (prepared by the Natural Resource Section: Department of Agriculture and Environmental Affairs, KZN, 2006).....	27
Figure 4.3: Map showing the Bioresource Units found in the Bergville District (prepared by the Natural Resource Section: Department of Agriculture and Environmental Affairs, KZN, 2006).....	29
Figure 4.4: Map showing the Bioresource Units found in the Hlanganani District (prepared by the Natural Resource Section: Department of Agriculture and Environmental Affairs, KZN, 2006).....	30
Figure 5. 1: Age distribution of community garden members (n=57), (n=47) in the Bergville and Hlanganani Districts respectively, 2003.....	32
Figure 7.1: Cabbage (tons/annum) sold at Pietermaritzburg and Durban fresh produce market for the period 2001 to 2004 (KZNDAEA, 2006b).....	52
Figure 8:1: The main vegetables planted by community garden members (n=58) and (n=48) in the Bergville and Hlanganani Districts, respectively.....	55

LIST OF TABLES

Table 3.1:	The Extension Regions, Districts and the number of Extension Officers in each District, 2003	18
Table 3.2:	Community gardens visited in the Hlanganani and Bergville Districts during 2003.....	20
Table 4.1:	Bioresource Groups found in the Bergville and Hlanganani Districts, where community garden projects are located (Camp, 1999)	28
Table 5.1:	Household headship according to gender in the Hlanganani and Bergville Districts, 2003	34
Table 5.2:	Gender of community garden members in both Hlanganani and Bergville Districts, 2003	35
Table 5.3:	Occupation of community garden members in the Hlanganani and Bergville Districts, 2003	36
Table 5.4:	Level of education of garden members and their household members in the Hlanganani and Bergville Districts, 2003	37
Table 6.1:	Responsibilities of various parties involved in community garden projects	42
Table 7.1:	Profile of Extension Officers in five districts that were involved in the study in 2003.....	46
Table 7.2:	The process of forming a community garden; before and after 2000.....	47
Table 8.1:	Garden preferred by community garden members in Bergville and Hlanganani Districts.....	57
Table 8.2:	Factors affecting vegetable production in community gardens in the Hlanganani and Bergville Districts (n=106), 2003	59
Table 8.3:	Soil analyses of samples collected from Community Gardens in the Hlanganani and Bergville Districts in 2002.....	62
Table 8.4:	Soil acidity and pH (KCL) requirements of the most planted vegetables in community gardens in the Hlanganani and Bergville Districts (after Allemann and Young, 2001; Faber et al., 2006).....	63
Table 8.5:	Responses of community garden members in two districts to key questions about funding and its implications, 2003.....	64
Table 8.6:	Benefits realized by community garden members (n=106) in the Bergville and Hlanganani Districts, 2003.....	66

ABBREVIATIONS

ARD	Agriculture and Rural Development
DOA	National Department of Agriculture
FSRS	Farming Systems Research Section
GEAR	Growth, Employment and Redistribution
IFSS	Integrated Food Security Strategy
KZNDAEA	KwaZulu-Natal Department of Agriculture and Environmental Affairs
MDG	Millennium Development Goals
OECD	Organisation for Economic Co-operation and Development
RDP	Reconstruction and Development Programme
RTWG	Regional Technical Working Group
SADC	Southern African Development Community
STATSSA	Statistics South Africa
UN	United Nations

CHAPTER ONE

1.1 INTRODUCTION

The development of community gardens is one of the major focuses of the KwaZulu-Natal Department of Agriculture and Environmental Affairs (KZNDAEA). The main aims of community gardens are to assist people achieve household food security and help develop the necessary skills to improve livelihoods. In 1998, alone, about 1665 community gardens were established in the Province by the KZNDAEA (KZNDAEA, 1998).

The KwaZulu-Natal province has been subdivided by the KZNDAEA into five regions, namely the South-East, South-West, North-East, North-West and Northern regions. During 2002, each of these regions had more than six districts and each district had more than 30 community gardens. The KZNDAEA provided financial assistance to new community garden members on a “once-off” basis. This means that if a community garden member or a group of community garden members received financial assistance to fence the cultivated land, that community garden member or group of community garden members is not eligible to receive financial assistance to maintain that fence. This is in line with agricultural policies in KwaZulu-Natal, that have changed from farming on behalf of people through the provision of extension advice to empowering people with the ability to help themselves.

The self-help policy is severely criticised by farmers and development workers (McIntosh and Vaughan, 1996). Some development workers from Non-Governmental Organisations (NGOs) believe that the Government should provide continuous financial support to the community gardens or allow new participants to enter partnerships with the individuals already involved in successful community garden projects. The Government should finance the co-operation between the farmers and knowledgeable individuals (Anonymous, 2002). The KZNDAEA has been, and is still, providing funds for the establishment of community gardens, but there is little information on the socio-cultural impact of these gardens. It is therefore important to investigate the contribution of community gardens to household food security and determine whether or not the objectives of community gardens are being achieved.

1.2 STUDY OBJECTIVES

This study explores the concept of community gardens as part of a strategy that seeks to improve food security, reduce hunger and create self-employment for the people in rural areas of KwaZulu-Natal. This study compares the objectives, or the intended outcomes, of KZNDAEA and the actual outcomes of community garden projects. The study seeks to understand the benefits and constraints of the community garden projects. In order to explore community garden projects, it was necessary to understand the intended beneficiaries of these projects; the understanding of the community garden projects by the people involved in the development of these projects. To achieve the objectives of the study, the following three research questions were answered in this study.

Question one: What is the socio-economic profile of the households involved in community garden projects?

Question two: What are the views of Extension Officers on community garden projects with regard to the objectives; the management strategies used in community gardens; the role of the extension official in these projects; the crops planted and the *status quo* of community gardens?

Question three: What are the views of the community garden participants on the benefits of being involved in the community garden projects and the factors affecting production in community gardens?

1.3 STUDY LIMITS

Due to resource constraints, it was impossible to conduct in-depth interviews in all KZNDAEA regions. Therefore the Bergville (the then North-West Region) and Hlanganani (the then South-West Region) were selected as demand-driven on-farm research programmes were already running in these districts. These districts were identified through meetings with the extension staff from these regions. During 1996 and 1997, the Farming Systems Research Section (FSRS) met with Regional Technical Working Groups (RTWG) of the five regions. The RTWG is responsible for the control of project planning and implementation (de Villiers, 2005). The Hlanganani and Bergville districts were identified for on-farm research at RTWG meetings

through the Heads of Districts. The Heads of Districts went back to their respective districts and met with the Agricultural Development Technicians in their districts and together they identified the specific communities in which the on-farm research was initiated. The selection of Obonjaneni and Nkwezela communities could be seen as a top-down approach, but the important aspect is that extension staff, through contact with farmers in the identified area, realized the need for research assistance to address agricultural problems (de Villiers, 2005). The Extension Officers from the five districts were interviewed instead of all the Extension Officers in the KZNDAEA. The other three districts, Vryheid, Eshowe and Mbumbulu, were selected using the stratified random sample.

1.4 ASSUMPTIONS

The views expressed by the participating garden members represented the community garden members in general. The views expressed by the Extension Officers interviewed represented the Extension Officers' views in general. The general management of all KZNDAEA community gardens in KwaZulu-Natal is the same, so problems found in one community garden would be likely to apply to other gardens.

1.5 OUTLINE OF DISSERTATION

This dissertation consists of nine chapters. Chapter One gives the background to the problem, statement of the study objectives and research questions. Chapter Two presents the literature review in order to give a theoretical background, key observations on community gardens and their contribution to household food security and other aspects of human development in South Africa and other countries. Chapter Three outlines the research methodology. Chapter Four describes the characteristics of the study area and sample. Chapter Five discusses the profile of the people involved in community garden projects. The information includes household structure and composition, age dependency ratios, gender of respondents and factors affecting production in community gardens. Chapter Six outlines the 1999 policy on community gardens and its implications on community garden projects. Chapter Seven presents the Extension Officers' perspectives regarding the *status quo* of community gardens, the processes involved in the formation of community gardens and other issues affecting the effectiveness of Extension Officers.

Chapter Eight presents the perspective of community garden projects participants on the benefits of being involved in community gardens. This chapter describes the current situation in community gardens and factors affecting production in community gardens, as described by the participants. Chapter Nine draws conclusions concerning the successes of community gardens and makes recommendations on how to ensure successes in community garden projects.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter examines literature relating to the contribution of agriculture to economic growth. It gives a brief overview of how agriculture contributes to poverty reduction and hunger elimination; how agriculture connects economic growth with the rural poor; and how agriculture contributes towards the achievement of the Millennium Development Goals (MDG).

This chapter explores the contribution of agriculture to economic growth and poverty alleviation in the South African context. This is achieved through examining South African Agricultural Policy and the Integrated Food Strategy in the light of the International Community's MDG. The concept of community gardens is explored within a food security and agricultural grant perspective.

2.2 CONTRIBUTION OF AGRICULTURE TO ECONOMIC GROWTH AND THE ERADICATION OF POVERTY AND HUNGER IN THE WORLD

The Organisation for Economic Co-operation and Development Report (OECD) of 2006 states that, in most poor countries, agriculture is a major employer and source of national and export earnings (OECD, 2006). This report stresses that growth in agriculture harnesses poor people's key assets of land and labour and creates a vibrant economy in rural areas where the majority of poor people live. Agriculture connects economic growth and the rural poor, increasing their productivity and incomes (OECD, 2006). The OECD report (2006) concurs with Brown and Haddad (1994), who said that agriculture is the most effective, and frequently the only, viable lead sector to generate economic growth for many developing countries. According to Brown and Haddad (1994), very few countries have experienced rapid economic growth without agricultural growth preceding or accompanying it. Agricultural growth stimulates economic growth in non-agricultural sectors, which, in turn, results in increased employment and reduced poverty (Brown and Haddad, 1994).

Malik (2005) argues that agricultural growth without specific interventions targeting small farmers and rural non-farm households may not alleviate poverty. Byerlee et al. (2005) agrees

that agriculture plays an important and often leading role in economic growth, but the contribution of agriculture to economic growth naturally declines with structural transformation from an agricultural economy to an urban-based non-agricultural economy.

The United Nation's MDG report (2006) mentioned low production in agriculture as one of the structural reasons why sub-Saharan Africa has the greatest MDG investment needs. This report states that most Africans live in sub-humid or arid tropics, with few rivers to provide irrigation and a lack of large alluvial plains that permit irrigation. This results in Africa having the lowest share of food crops produced on irrigated land of any major region of the developing world (UN, 2006). This report also shows that African agriculture suffers from erratic rainfall; is vulnerable to high seasonal and inter-annual fluctuations; and is subject to high rates of evapotranspiration due to high temperatures. Malik (2005) attributes declining productivity in agriculture to the degradation of resources, especially natural resources.

The World Development Report of the World Bank (2003) acknowledges that agriculture, as a heavy consumer of natural resources, especially water and soil nutrients, has an obligation to play a commensurate role in the conservation of these resources. The World Bank, in ensuring the sustainability of natural resource management, has two key strategic conservation goals: increasing the efficiency and sustainability of water use in agriculture and improving the performance of irrigation systems.

According to the World Bank's Agriculture and Rural Development (ARD) report (2007), the likelihood of achieving the Millennium Development Goals, including halving the number of hungry people in the world, by 2015 is low, without focusing on improving livelihoods and access to services of rural dwellers (World Bank, 2007). Poverty is a significant and persistent problem in developing countries (Brown and Haddad, 1994). According to Brown and Haddad (1994), poverty, given its close relationship with food insecurities, poor health and nutrition and lack of education, results in lives falling short of their human potential. Brown and Haddad (1994) conclude that eradicating poverty and hunger should be a central pillar of all development goals.

To achieve reduction in poverty, the World Bank (2005) recommended a more comprehensive approach, that directly addresses the needs of poor people in three complementary areas: promoting economic opportunities for poor people through equitable growth, better access to markets and expanded assets; facilitating empowerment by making state institutions more responsive to poor people and removing social barriers that exclude women, ethnic and racial groups and the socially disadvantaged; and enhancing security by preventing and managing economy-wide shocks and providing mechanisms to reduce the sources of vulnerability that poor people face.

The World Bank (2003) outlines eight underlying factors of success in agricultural development. These factors are:

- Policies must neither discriminate against agriculture nor give it special privileges.
- The economy should be open, employment-sensitive and oriented toward smallholders.
- The importance of external markets, including speciality and niche markets, should be fully recognized and exploited.
- Direct Foreign investment should be recognised as an integral part of the agricultural development process.
- Land reform is essential where land is unequally distributed.
- Rapid technological progress is needed and both the private and public sectors have important roles in research, extension and financing.
- Rural areas need substantial investment in education, health and infrastructure such as roads.
- The needs of women – the neglected group of farmers and farm labourers – must be built into programmes.

2.3 CONTRIBUTION OF AGRICULTURE TO THE SOUTH AFRICAN ECONOMY

The South African Government believes that agriculture has a central role to play in creating a strong economy and in reducing inequalities by increasing incomes and employment opportunities for the poor (Ministry of Agriculture and Land Affairs, 1998). After all, it was the agricultural sector that played a central role in the misery of millions of rural people (Mather and Adelzadeh, 1997). This view of the South African Government is opposite to the view held by

those who believe that development of agriculture means the technical advance of large-scale farming, specialising in crop and animal production according to the prevailing natural resources and climatic conditions and taking advantage of both abundant low-cost labour and opportunities for mechanisation (Ministry of Agriculture and Land Affairs, 1998). According to the Ministry of Agriculture and Land Affairs (1998), the promoters of the latter view believe that smaller and medium-scale agriculture, based upon diversified production, family labour and low technologies, has little to offer in terms of aggregate production and incomes from farming.

After exploring the impact of Growth, Employment and Redistribution (GEAR) on agriculture and poverty in South Africa's economy, Mather and Adelzadeh (1997) concluded that agriculture's contribution to the non-farm economy is through its backwards and forward linkages and necessarily through direct involvement of all in agricultural production.

2.3.1 South African agricultural policy reform and its implications on agriculture

The modern capital-intensive large-scale and technically successful farming model has some undeniable advantages (Ministry of Agriculture and Land Affairs, 1998), such as self-sufficiency in food production, which came at an enormous social, environmental and financial cost to society (Mather and Adelzadeh, 1997). However, in a country like South Africa, where there is high unemployment (25.5% in March 2007) and widespread food insecurity (STATSSA, 2007), this model has serious limitations. The current dominance of this farming model must be seen in the context of past policies of the apartheid regime, which distorted agricultural development in South Africa (Ministry of Agriculture and Land Affairs, 1998). In addressing the policy distortions from the past, the South African Government embarked on policy reformation, post-1994.

The policy reforms have led to national agricultural policy giving particular attention to small-scale agriculture, with three strategic aims: making the sector more efficient and internationally competitive; supporting production and stimulating an increase in the number of new small-scale and medium-scale farmers; and conserving agricultural natural resources (Brabben, 2000). The purpose of agricultural policy reform is to ensure that agriculture contributes to national objectives, which are: economic growth; reducing income inequalities, especially along racial

lines; and eliminating poverty (Ministry of Agriculture and Land Affairs, 1998). Actions aimed at eliminating poverty were as follows:

- an increase in agricultural productivity and output to enhance the sector's contribution to national economic growth;
- an increase in income for the poorest groups in society, through creation of opportunities for small- and medium-scale farmers to raise their production for own consumption and the market;
- the creation of additional employment opportunities in agriculture; and
- an improvement in household food security through expanded production and a more equitable distribution of resources.

The Ministry of Agriculture and Land Affairs (1998), in its discussion document on policy in South Africa, stated that, while there was adequate food at national level, 30 to 50% of the population had insufficient food or imbalanced diets as a result of low incomes. This document shows that from 1998 the Ministry of Agriculture and Land Affairs placed emphasis on food security at household level. Programmes were examined in terms of their contribution towards household food security and rural incomes and their distribution. It was envisaged that by increasing the production of small-scale farmers, there will be a concomitant improvement in the availability and nutritional content of food and general improvement of food security among the poor.

However, in order to affect meaningful policy reforms to address poverty and food insecurity, it is necessary to understand how people in rural areas create livelihoods (Ministry of Agriculture and Land Affairs, 1998). These livelihood strategies include agricultural production, off-farm wage labour, small and micro-enterprise activities, claims against the state (e.g. pensions) and reliance on social networks (Ministry of Agriculture and Land Affairs, 1998). The central challenge for agriculture in poverty alleviation and food security for the rural population is therefore to contribute to improved livelihoods and employment (Ministry of Agriculture and Land Affairs, 1998).

2.3.2 Integrated Food Security Strategy (IFSS) adopted by South Africa

Food security was identified as a priority policy objective under the Reconstruction and Development Programme (RDP) in 1994. As a result, the Government focused its spending on improving the food security conditions of historically disadvantaged people. This policy resulted in Government spending more on social programmes. Provincial community food gardens initiatives such as Kgora and Xoshindlala were born in this way. According to the National Department of Agriculture (DOA), the IFSS was formulated to streamline, harmonise and integrate the diverse food security programmes into a national Food Security Strategy (DOA, 2002), with the one goal of eradicating hunger, malnutrition and food insecurity.

South Africa's food security policy is located within a broader regional and international context (DOA, 2002). At regional level, South Africa is working together with the Southern African Development Community (SADC) countries to achieve regional food security (DOA, 2002). On the international level, South Africa pledged to support the World Food Summit Plan of Action that was encapsulated in the 1996 Rome Declaration on World Food Security (DOA, 2002).

The principles of the IFSS maintain that government, the private sector and civil society should work together to achieve the food policy objectives; food security policies and legislation should support national programmes of action; that the strategy should contribute to regional food security and maintain focus on household-level food security. This IFSS shows evidence of the influence of globalisation on the policies of the country. According to Misselhorn (2006), one of the implications of globalization is that countries are increasingly less able to follow policy choices that deviate from those of international developments. Paarlberg (2002), on the other hand, argues that the greatest governance deficits in the food security area are still at national rather than global level.

2.4 COMMUNITY GARDENS IN KWAZULU-NATAL

Community gardens were a significant phenomenon even before KwaZulu became a self-governing territory in 1972 (McIntosh and Vaughan, 1996). According to the KwaZulu-Natal Department of Agriculture and Environmental Affairs (KZNDAEA), community gardens may be described as pieces of land that are communally worked by group of community garden

members from the same community with the same interests or goals. Sizes of community gardens may range from a quarter of a hectare to a few hectares, depending on the number of people involved (KZNDAEA, 1999). According to McIntosh and Vaughan (1996), there are two possible reasons for the financial support of community gardens by Government. The first has to do with apartheid ideologies regarding the projected economic self-sufficiency of the Bantustans or former homelands. The second reason has to do with the incidence of malnutrition in rural areas of the former Natal Province. The main goal of community garden is the production of vegetables.

Vegetable production goes as far back as the history of black farmers in South Africa (Laing, 1996). This becomes evident when one looks at the 1913 Land Act (Laing, 1996). This Act was initially set in motion by white vegetable farmers who were unable to compete with black farmers in the production of maize and vegetables (Laing, 1996). This Act led to 87% of South African land being declared “white land” and black people were confined to the remaining 13% (Laing, 1996). In addition to the effects of people losing land for farming, there was a problem of population growth. In 1996 alone it is estimated that there were between 360 000 and 400 000 rural families in KwaZulu-Natal, with a rural population of about 5.3 million (KZNDAEA, 1996).

For the ever-growing population living in rural areas, food security is a major concern. Food security is an essential element of overall well-being (Kennedy, 2003). At the 1996 World Food Summit, 182 nations agreed that food security refers to the access by all people at all times to enough nutritionally adequate and safe food for an active and healthy life (Kennedy, 2003). South Africa has a history of high unemployment levels. Many people struggle to survive because they do not have access to sufficient nutritionally adequate and safe food (Kennedy, 2003).

Surveys of the labour force by Statistics South Africa (STATSSA, 2005) show that the average rate of unemployment over September 2001 – September 2005 was 28%. In KwaZulu-Natal the average rate of unemployment for the same period was 32%. The Provincial Government of KwaZulu-Natal, in its mission statement, promotes a prosperous community through sound

agricultural systems and environmental practices. To this end, the Government has introduced projects where members of a community were encouraged to work together in order to obtain funding and technical support (Anonymous, 2002). Community gardens were one of the concepts born in this way. Community garden projects are one strategy of the KZNDAEA to increase access to nutritious and safe food. According to Drescher (2001), food gardens link up directly with the four major cornerstones of community development: health; education and training; economic development; and job creation. This is perhaps why the KZNDAEA placed so much emphasis on the development of community gardens.

2.4.1 Benefits of community gardens

According to Giesecke (1991), community garden members are able to use their own resources to meet part of their food needs in the manner they deem appropriate. Community garden members have greater control over the variety, quality and quantity of the produce they consume. However, it does not mean that every household involved in a community garden project or in homestead vegetable production will have an increased vegetable consumption and it certainly does not guarantee better nutritional status (Hendriks, 2005).

To have a significant impact on nutritional status, agricultural production must develop beyond subsistence levels (Hendriks, 2005). This means that the benefits of agriculture, such as community gardens, would be realised only if households are actively and productively engaged in these projects beyond the subsistence level (Hendriks, 2003). Community gardens should therefore not be viewed as the only strategy to eliminate food insecurity in communities.

Gardening facilitates community self-help. Community garden members are more active in community projects and share vegetables with family, friends, passers-by and church food pantries (Giesecke, 1991). Community gardens seem to facilitate improved social networks and organisational capacity in the communities in which they are located, especially among lower income and minority groups. Many community gardens lead to further neighbourhood organisation by providing a physical location for residents to meet, socialise and learn about other organisations and activities/issues in their local community (Armstrong, 2000). The ability of the gardens to serve as a catalyst for residents to begin to address issues collectively may

represent an important public health strategy to facilitate community organising and empowerment (Armstrong, 2000). Other advantages include meeting other people, the therapeutic effects of green gardens and active participation in the fight against crime.

Community gardens are popular for different reasons in different countries. In most developed countries such as the United States of America, community gardens were established as a place to socialise, where neighbours can get together and as projects that help communities fight crime because it keeps people, especially the youth, occupied (Armstrong, 2000). Some people in developed countries establish community gardens solely for therapeutic benefits (Armstrong, 2000).

In KwaZulu-Natal, people involved in community vegetable gardens hope to produce enough to feed themselves and generate some income. Giesecke (1991) showed that gardening is related to increased household vegetable consumption and is an empowering nutrition strategy that overcomes many barriers to increasing vegetable consumption.

According to Crosby et al. (2000), community gardens provide rural and urban communities with opportunities to improve their standard of living. This opportunity arises only when the community garden members are able to produce more than their family's consumption needs. This means that if the community garden members are unable to produce surplus vegetables, community gardens would not contribute to improved living standards. However, the contribution would be in the form of healthy eating habits, since fresh vegetables would be available for the families of the community garden members.

In order for community gardens to contribute positively to household food security and present an opportunity for households to improve their living standards, they should produce to their full potential (Hendriks, 2003). For community gardens to produce to their full potential, they should be managed properly (Crosby et al., 2000). Production in a community garden, like all other processes that require management, involves more than just the ability to plant a crop, but also the ability to manage time, work with other people, share ideas and listen to advice and make collective decisions (Giles and Stansfield, 1995).

2.4.2 Management of community gardens

General management, which could be applicable to community gardens, is about making decisions and implementing them. Management is also concerned with the combination of a number of different and separate factors of production. Management is a comprehensive activity (Giles and Stansfield, 1995). It involves the combination and co-ordination of human, physical and financial resources. This combination is made in a way that produces a commodity or a service that is both wanted and can be offered at a price that will be paid, while making the working environment for those involved agreeable and acceptable (Giles and Stansfield, 1995).

Community gardens in KwaZulu-Natal are managed according to a constitution, which is usually drawn up by the garden members, with the help of extension officers (Crosby et al., 2000), who play an important role in the management of gardens. Extension Officers, according to Crosby et al. (2000), not only teach people to grow vegetables, but help to plan gardens. Successful gardens very often have a committed extension officer who is easily accessible and available, trustworthy and knowledgeable (Crosby et al., 2000). Female Extension Officers advise on matters such as the cooking of vegetables and home economics (Crosby et al., 2000). Extension staff sometime also provides transport to buy inputs. They act as a link between the garden and the KZNDAEA (Crosby et al., 2000). It has become increasingly evident that extension systems have grown in size and complexity and have ceased to be controlled by the farming community (Scarborough et al., 1997). The personnel of such systems feel more accountable to their employers or professions than to their farmer clientele (Scarborough et al., 1997).

The management of community gardens will affect the success or failure of a garden. When it comes to the management of community gardens, committees are elected by the community garden members to fulfil the following duties, as outlined by Crosby et al. (2000):

- arrangement of water supply and irrigation schedules;
- organisation of the bulk buying of inputs;
- receiving of contributions;
- record-keeping (e.g. inputs, crops planted, yields, weather) and

- handling of general garden matters (i.e. what happens if one member no longer wants to work in the garden).

If the community gardens are properly managed, the chances of their being sustainable will be good. In order to look at the sustainability of community gardens, it is important to look at outside influences that affect decision-making within the community gardens. Grayson and Campbell (2000) noted that factors affecting the sustainability of community gardens are the responsible management of land to meet the needs of the community garden members and the land owner, security of tenure for garden members, participation rates and administration of the community garden. Sustainable community gardens can provide a continuous supply of fresh vegetables, which would form an important part of the diet of the garden members. The diet of people living in rural areas consists predominantly of maize (*Zea mays* L.), supplemented with small and irregular quantities of meat and vegetables (Laing, 1996). The main crops planted in community gardens are onions, spinach, cabbage and potatoes. Cabbage is the staple vegetable in the diet of most black South Africans, in both the urban and rural populations, mainly because of its high nutritive value and because it keeps without refrigeration (Laing, 1996).

For community gardens to be sustainable and able to maintain good production of vegetables, training of members, especially those serving in the community garden committee, should be provided. According to Heim (1990), training should start with an overview of the activities regarding management and administration.

Community garden projects are the results of the policy changes in South Africa that seek to eliminate poverty and hunger. Community garden projects form part of the strategy to improve food security, reduce hunger and create job opportunities, especially for people living in poverty-stricken rural areas of KwaZulu-Natal. It is thus important to evaluate community garden projects as a potential tool to improve household food security.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

This was a qualitative study. According to Kellehaer (1993), qualitative research offers the opportunity to study human interaction, historical processes and social reality in an in-depth way, to obtain valid and detailed data beyond the scope of traditional research inquiry. Qualitative research involves fieldwork and documentary review. Qualitative rather than quantitative research methods were used in the preliminary investigation to collect data concerning the views of Extension Officers on the status of community gardens. Qualitative research can be characterised as the attempt to obtain an in-depth understanding of the meanings and definitions of the situation presented by the informants, rather than the production of quantitative measurement of their characteristics or behaviour (Wainwright, 1997). Qualitative research designs are associated with interpretative approaches, from the informants' point of view, rather than measuring discrete, observable behaviour (Wainwright, 1997).

3.2 IDENTIFICATION OF STUDY AREAS

The study was conducted in two phases. The first phase included semi-structured interviews conducted with different groups of Extension Officers from the KZNDAEA who work at District level. This phase concentrated on obtaining the views of the Extension Officers and their opinions concerning community gardens in KwaZulu-Natal. At the time of the first phase of the study (2003), KwaZulu-Natal was subdivided into five Extension Regions, namely, the South-East, South-West, North-East, North-West and the Northern Region. Each of these regions had more than six districts and in each district there were more than 60 community gardens. Due to time and resource limits the interviews with the Extension Officers concentrated on officers from one district from each region. Stratified random sampling of the districts was used to identify three districts (Vryheid, Eshowe and Mbumbulu). The Bergville and Hlanganani districts were already part of the study due to the involvement of the researcher in these districts. Figure 3.1 shows the location of the five districts in KwaZulu-Natal. The five districts were identified for conducting group interviews with the Extension Officers. Group interviews with Extension Officers were conducted in one district per region.

In the five districts shown in Table 3.1, the group interviews focused on the perspective of KZNDAEA officials working at district level with regards to community gardens. Table 3.1 shows the number of Extension Officers that participated in the study of community gardens and the average number of community gardens represented in the study.

Table 3.1: The Extension Regions, Districts and the number of Extension Officers in each District, 2003

Regions	North	North-East	South-East	North-West	South-West	
Districts	Vryheid	Eshowe	Mbumbulu	Bergville	Hlanganani	Total
Average number of gardens per Extension Officer	8	10	20	8	10	11
Number of Extension Officers working with community gardens	8	12	15	16	10	61
Average number of gardens served per district by KZNDAEA	64	120	300	128	100	712

The second phase of the study focused on in-depth interviews with community garden members (Figure 3.2). The aim of the in-depth interviews was to examine the successes of community gardens, as seen by the members, and how the gardens affect the lives of the people working in them. The Hlanganani and Bergville districts were deliberately chosen for the in-depth interviews due to the involvement of the FSRS in the Hlanganani and Bergville districts (Figure 3.2).

In both districts, extension staff requested FSRS to participate in on-farm research activities that included community gardens. In these two districts the research team was already recognised as part of the development team, having undergone all the necessary phases in order to engage with these communities (Matata et al., 2001). It was decided that all community gardens in Hlanganani and Bergville that have been fully operational for at least two seasons would be included in the study and interviews conducted with all community garden members in each community garden. Sixteen community gardens in Hlanganani and fifteen in Bergville were found to have been fully operational for more than two seasons (Table 3.2). Table 3.2 shows community gardens visited and garden members interviewed during the study in the Hlanganani and Bergville districts.

Figure 3.2 and Table 3.1 shows community gardens visited in the Bergville (DC23) and Hlanganani (DC43) Districts.

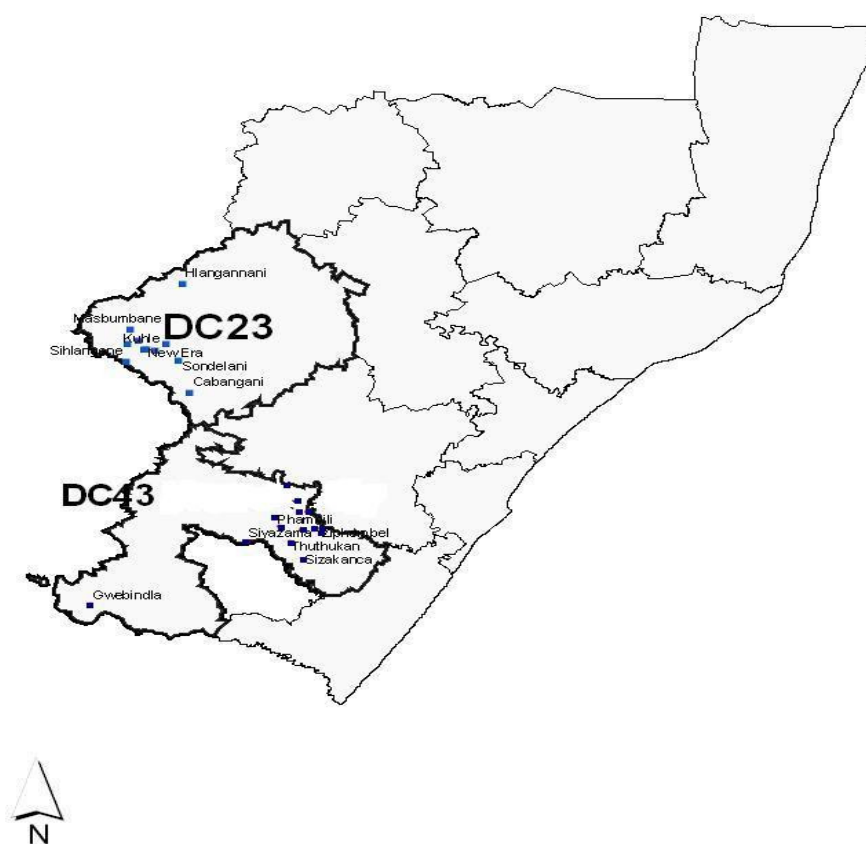


Figure 3.2: Map showing the location of the study areas and the locality of some of the community garden visited (KZNDAEA, 2006a).

Table 3. 2: Community gardens visited in the Hlanganani and Bergville Districts during 2003

Hlanganani District Community gardens		Bergville District Community gardens	
Garden Name	Members Interviewed	Garden Name	Members Interviewed
Gwebindlala	4	Hlanganani	6
Zamokuhle	1	Sihlangene	4
Sukumani	2	Zondluphile	6
Siphilangaso	2	Phuthumani	4
Zithuthukise	2	Fundani	4
Vukuzame	3	Cabangani	2
Gudlintaba	4	Qhubekani	4
Sizanani	4	Masibumbane	8
Phambili	4	Siyazama	5
Ziphembeleni	4	Zethembe	3
Sizakancane	4	New Era	2
Isivumelwano	4	Sondelani	1
Zamani	4	Siyakhulisa	3
Thuthukani	1	Kuhle Ukuzenzela	4
Zisebenzele	1	Sukumani	2
Ikhwezi	4		
16 Community gardens	48 Members	15 Community gardens	58 Members
Total		31 Community gardens	106 Members

3.3 DATA COLLECTION METHODS

Written documents and studies were used to verify evidence from the interviews. Documents such as baseline survey reports and project registers available at the district offices served as a foundation for steps to be followed in conducting the interviews. The KZNDAEA policy documents on community gardens were also reviewed. Primary data collection followed the review of the secondary information. The following methods were used to collect primary data: semi-structured interviews, structured questionnaires and direct observations.

3.3.1 Semi-structured interviews

Semi-structured interviews were used in the first phase of the study. Semi-structured interviews can be conducted with different groups in a village or community (Matata et al., 2001). This was an ideal tool, since information from the groups of Extension Officers from the identified districts, as indicated in Table 3.1, needed to be collected. Semi-structured interviews are guided conversations during which questions are asked. Questions do not constrain the conversation and new questions are allowed to arise as a result of the discussion (Matata et al., 2001). Semi-structured interviewing was chosen in this study, because it allowed participation and flexibility in terms of getting the relevant information. Since this technique is relatively informal, it allows for a relaxed discussion based on a few predetermined topics.

The Extension Officers in each district were interviewed as a group. The number of people in the group was determined by the number of Extension Officers in the district. During the group interviews, discussions were modified to include all participants. During the group discussion, enough time was given for each group member to express his/her opinion on each point of the discussion. Dominating individuals make it difficult to draw opinions from other group members (Matata et al., 2001). The Extension Officers interviewed were on the same level according to their job classification, i.e. all were Agricultural Development Technicians.

A series of semi-structured group interviews were conducted during the month of March 2003. Agricultural Development Technicians (Extension Officers) from the districts, as shown in Table 3.1, participated in the group interviews. The key discussion points aimed at examining the community garden projects through the eyes of the Extension Officers were as follows:

- objectives of community gardens;
- most popular crops grown in the gardens;
- general status of community gardens (status in terms of commitment of the community garden members, their ability to learn, yield and general appearance of the garden);
- processes involved in formulating community garden projects;
- management of community gardens; and
- role of Extension Officers in community gardens.

These discussion points were used as guidelines during the interviews. Broad and open questions were formulated around them and the participants were encouraged to raise their issues of concern.

The Extension Officers were asked to rank the status of community gardens in terms of willingness of participants to invest time in gardens, or their commitment as community garden members; the degree at which the community garden members applied what they have been taught; the yield of crops in gardens and the general appearance of the community gardens in their respective areas. The following scale was used to rank the community gardens: excellent, good, medium, poor and very poor.

Interviews were conducted indoors at the different extension offices. Provisions were made to use the board rooms or other areas used by the staff for meetings. These areas gave a sense of formality, but everybody was made to feel at ease and relaxed. Everyone was requested to briefly introduce him/her-self and the kind of work he/she does. During the interview, the facilitator asked open-ended questions and the Extension Officers took turns to answer the questions. There were discussions around certain points raised by Extension Officers. This process took four to five hours per district. The Extension Officers were actively involved in providing answers and expressing their views.

During the group interviews some points made by the participants were recorded on a flip chart by the group facilitator, in addition to the notes made by the person responsible for recording the proceedings. Information collected during the group interviews was instrumental in the designing of the questionnaire used to interview the individual community garden members (Appendix A).

3.3.2 Structured questionnaire survey

A structured questionnaire (Appendix A) was used for the interviews during the second phase of the study. Formal surveys provide a systematic, ordered way of gathering information from respondents and allow the collection of precise data which is statistically analysable (Norman et al., 1994). The researcher drafted a formal questionnaire survey, with inputs from staff of the FSRs.

The questionnaire included the following sections: general information concerning the community garden members, household information and specific questions relating to establishment of community gardens and the community garden members expectations thereof; problems and frustrations; crops grown and reasons for planting; management of community gardens; awareness of the policy guiding the funding of community gardens; benefits realised and the preference between community gardens and homestead gardens. Studies based on surveys were used to provide a better understanding of community garden members' circumstances (Norman et al., 1994).

Arrangements to interview community garden members were made with Extension Officers from the Bergville and Hlanganani districts. All the community garden members from the selected gardens were invited by the Extension Officers to be present during the interviews. The Extension Officers took the researchers to different community gardens in their areas of jurisdiction. The original plan was to interview all community garden members found in each community garden, but there were cases where only one community garden member was found in the garden on the day of the interviews, so it was decided to interview all community garden members that were present. It was assumed that those community garden members present on the day of interviews were the ones interested and willing to co-operate in this study.

3.3.3 Direct observations

All community gardens identified by the Extension Officers as existing in the district were visited, observations on types of crops grown were made and the plot sizes were measured. Observations were used to supplement and validate data collected and information gathered during interviews. The interviews were conducted with the community garden members at their garden. Where the community garden members were organised away from their garden, the gardens were also visited to conduct a visual assessment of the plots; the crops planted and the availability of water. In this way, both the participants and their gardens were observed, which helped in collecting information that may have not been reported by the community garden members.

3.3.4 Participatory Rural Appraisal (PRA)

PRA involves interaction with community members in order to learn from, and with, the community members. It focuses on people, their livelihoods and their inter-relationships with ecological and socio-economic factors (Matata et al., 2001). To ensure participation of the community garden members in the study, some PRA tools were used, together with other methods already described. Gender analysis was conducted to explore division of labour when it comes to the involvement in the community garden; decision-making concerning the crops to be planted; and access and control to land. This was done by examining the responsibilities of different household members in agricultural activities.

After information was collected through group interviews on the problems experienced in community gardens and the crops produced, lists of problems and crops were made and the participants were asked to rank them in order of the most important problem and the most important crop in the community garden.

3.4 DATA ANALYSIS

Survey data was captured on a Microsoft Excel spreadsheet programme and subjected to descriptive analyses of percentages and proportions. GenStat – Release 6.1 was used to analyse the data collected. The data was tabulated and subjected to chi-square tests. The answers to the open-ended questions were summarised and grouped in different categories of answers given by respondents.

CHAPTER FOUR

DESCRIPTION OF THE STUDY AREAS

4.1 INTRODUCTION

This study concentrated on community gardens from two districts of KwaZulu-Natal, namely Bergville and Hlanganani, where in-depth interviews were conducted with the people involved in community gardens. Extension Officers from five districts participated in the study of community gardens through workshops conducted with them. Figure 3.1 (map of KwaZulu-Natal) shows the five districts in which workshops were conducted with Extension Officers to get their views on community gardens.

4.2 CLIMATE AND SOILS IN THE BERGVILLE AND HLANGANANI DISTRICTS

The Bergville district falls in a relatively high rainfall area, with the annual rainfall of 971 mm (Camp, 1995). Production is limited to the summer months, because it is almost impossible to produce crops under dry, cold winters with frost. The soils in the Bergville area are generally deep, well-drained, highly leached and acidic (de Villiers, 2005). The risk of soil erosion is high, limiting the areas available for cultivation.

The Hlanganani district is in a relatively high rainfall area, with an annual rainfall of 923 mm per annum. The area has a moderately restricted growing season due to low temperatures and severe frost. This area has a good yield potential for a moderate range of adapted crops (Camp, 1995). Planting is limited due to the cold, dry winters experienced in the area. The Hlanganani area has mainly well-drained soils. The area has good production potential, with moderate limitations to cropping due to slope, soil, temperature and rainfall (Camp, 1995).

4.3 BIORESOURCE INFORMATION FOR THE BERGVILLE AND HLANGANANI DISTRICTS

Bioresource information was obtained from the Bioresource Programme developed by the KZNDAEA. The Bioresource Programme is a computer-based natural resource classification system developed for KwaZulu-Natal. The natural resource information for the Bergville and Hlanganani districts is discussed under three categories of the Bioresource Programme, as outlined by Camp (1999). The first category of the Bioresource Programme is the Bioresource Groups (BRG)-vegetation pattern; the second is the Bioresource Units (BRU), which describes

the agro-ecological zones and the last one is the Ecotopes, which describes the soil associations.

4.3.1 Bioresource groups found in the Bergville and Hlanganani Districts

A Bioresource Group is defined as a specific vegetation pattern controlled by interplay of climatic and biotic factors, namely soil, climate and altitude (de Villiers, 2005). Figures 4.1 and 4.2 show the Bioresource Groups found in Bergville and Hlanganani districts, respectively. Table 4.1 gives the characteristics of the most prevalent BRUs in the Bergville and Hlanganani districts.

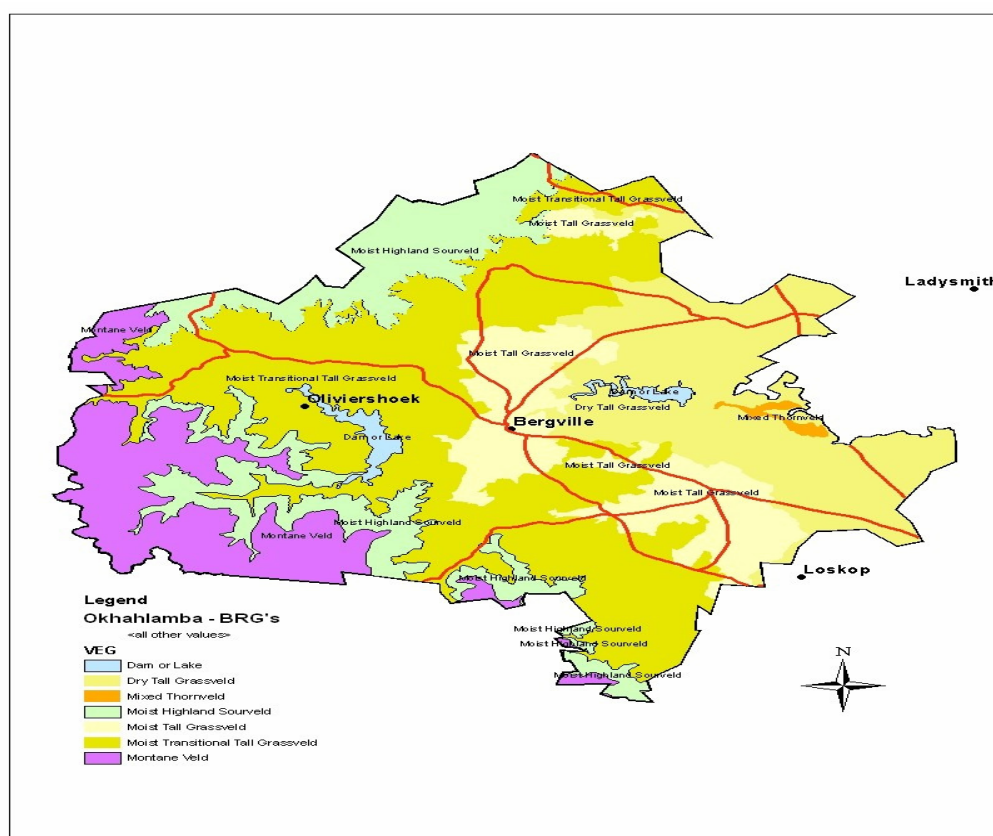


Figure 4.1: Map showing the Bioresource Groups found in the Bergville District (prepared by the Natural Resource Section: Department of Agriculture and Environmental Affairs, KZN, 2006).

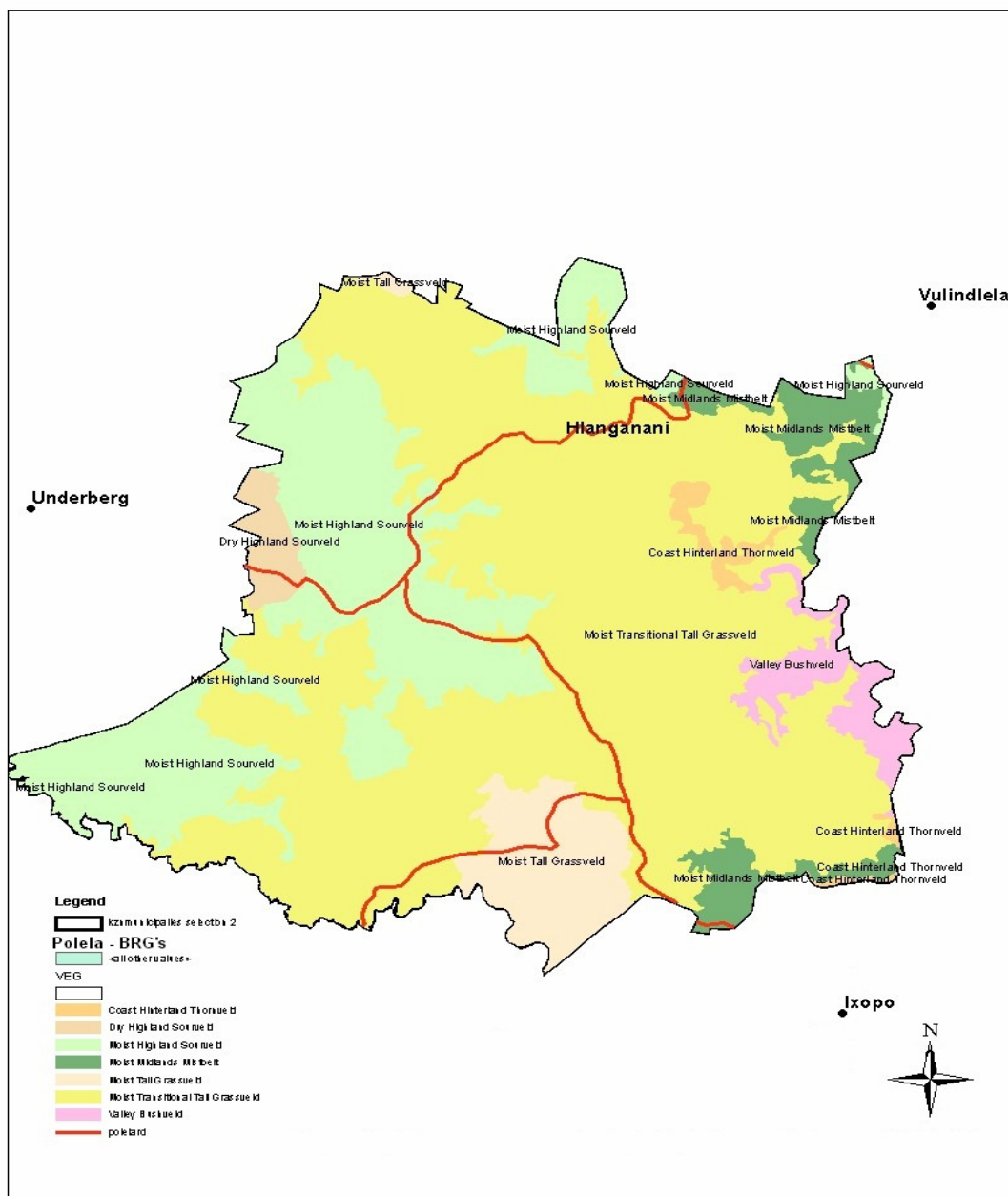


Figure 4.2: Map showing the Bioresource Groups found in the Hlanganani District (prepared by the Natural Resource Section: Department of Agriculture and Environmental Affairs, KZN, 2006).

Table 4.1: Bioresource Groups found in the Bergville and Hlanganani Districts, where community garden projects are located (Camp, 1999)

Bergville	Hlanganani
<p><u>BRG 8: Moist Highland Sourveld</u></p> <ul style="list-style-type: none"> • Total area of 833 271 ha • Altitude of 1400 to 1800 metres • Mean annual rainfall range is 800 to over 1265 mm • Vegetation is possibly the least disturbed in the Province • BRG is generally rich in water resources <p>Most of the BRG has been set aside as a conservation area</p>	<p><u>BRG 5: Moist Midlands Mistbelt</u></p> <ul style="list-style-type: none"> • Total area of 520 212 ha • Altitude range of 900 to 1400 metres above sea level • Mean annual rainfall range is 800 to 1280 mm • Vegetation patches dominated by <i>Themeda triandra</i> • Water supply –generally well-watered by streams <p>Approximately 47% of BRG is arable and 37.7% has high potential soils</p>
<p><u>BRG 10: Montane Veld</u></p> <ul style="list-style-type: none"> • Total area of 268 071 ha • Altitude of 1280 to 2870 metres • Mean annual rainfall range is 900 to over 1400 mm • Vegetation dominated by <i>Themeda-Festuca</i> • BRG is the major source of water for the Province • Most of the BRG has been set aside as a conservation area 	<p><u>BRG 8: Moist Highland Sourveld</u></p> <ul style="list-style-type: none"> • Total area of 833 271 ha • Altitude of 1400 to 1800 metres • Mean annual rainfall range is 800 to over 1265 mm • Vegetation is possibly the least disturbed in the Province • BRG is generally rich in water resources • Most of the BRG has been set aside as a conservation area
<p><u>BRG 11: Moist Transitional Tall Grassveld</u></p> <ul style="list-style-type: none"> • Total area of 743 770 ha • Altitude range of 900 to 1400 metres • Mean annual rainfall range is 800 to 1116 mm • Vegetation is <i>Themeda-Hyparrhenia</i> dominated by <i>Hyparrhenia hirta</i> • BRG generally well-watered, with streams rising in or flowing through it. • BRG climate favours wide range of agricultural crops and enterprises and the terrain has a high percent of arable land 	<p><u>BRG 11: Moist Transitional Tall Grassveld</u></p> <ul style="list-style-type: none"> • Total area of 743 770 ha • Altitude range of 900 to 1400 metres • Mean annual rainfall range is 800 to 1116 mm • Vegetation is <i>Themeda-Hyparrhenia</i> dominated by <i>Hyparrhenia hirta</i> • BRG generally well-watered with streams rising in or flowing through it. • BRG climate favours wide range of agricultural crops and enterprises and the terrain has a high percentage of arable land
<p><u>BRG 12: Moist Tall Grassveld</u></p> <ul style="list-style-type: none"> • Total area of 407 991 ha • Altitude range of 900 to 1400 metres • Mean annual rainfall range is 712 to 805 mm • Vegetation is dominated by <i>Hyparrhenia hirta</i> • BRG gets water from the rivers flowing through from the upper catchments. <p>Approximately 36.9% of BRG is arable and 22.2% has high potential soils</p>	

4.3.2 Bioresource Units found in the Bergville and Hlanganani Districts

A Bioresource Unit is a demarcated area in which the soil, vegetation, climate and terrain form are sufficiently similar to permit uniform recommendations of land use and farm practices to be made (Camp, 1999). A Bioresource Group may consist of a number of Bioresource Units.

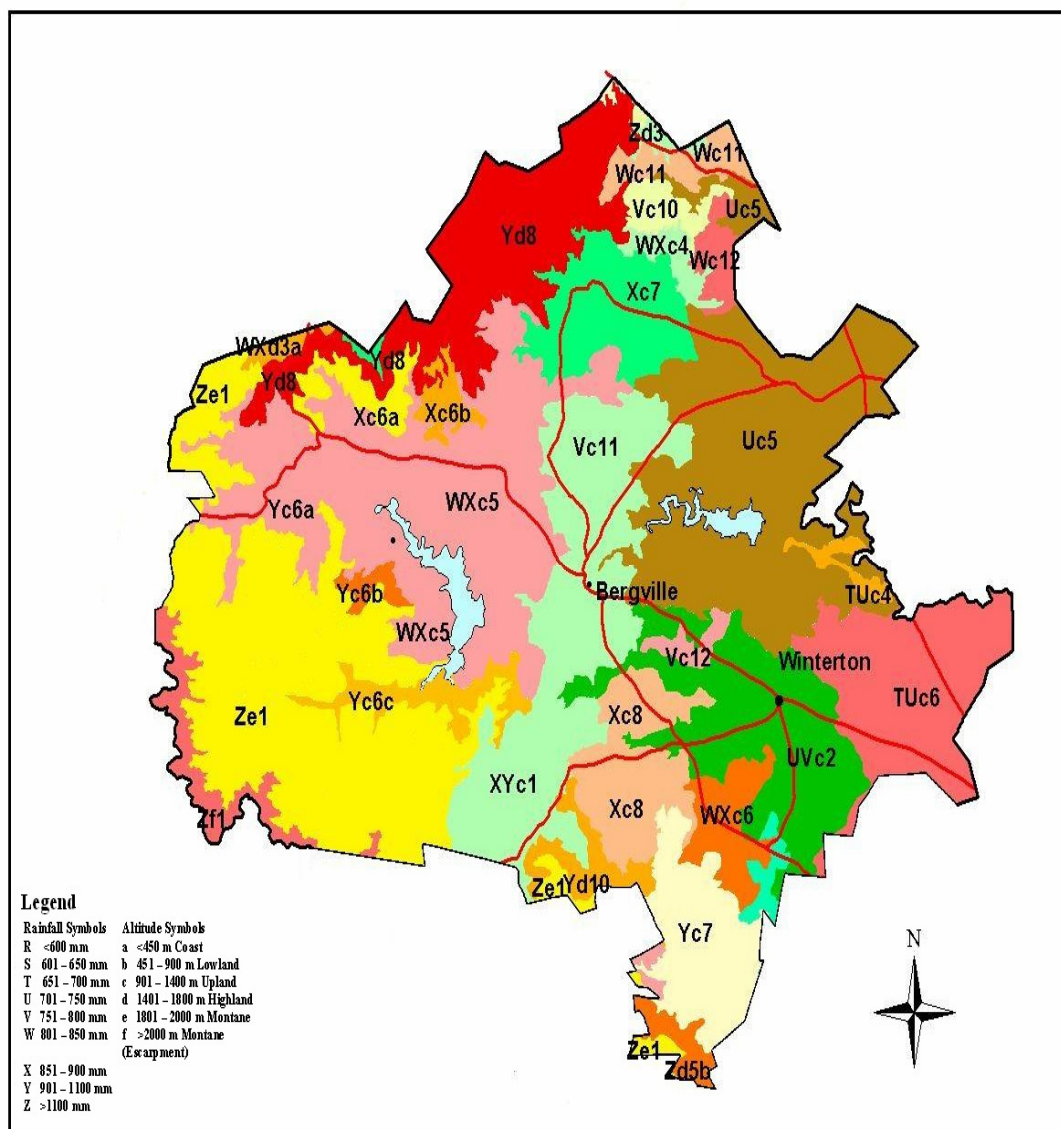


Figure 4.3: Map showing the Bioresource Units found in the Bergville District (prepared by the Natural Resource Section: Department of Agriculture and Environmental Affairs, KZN, 2006)¹.

¹ Each BRU is identified by means of a code based on rainfall and altitude. The upper case letters “R to Z” denote the rainfall range and the lower case letters “a to f” denote the altitude range. The number on the BRU code shows the number of occurrences of the BRU in KwaZulu-Natal (Camp, 1999).

4.3.3 Ecotopes found in the Bergville and Hlanganani Districts

An ecotope is a class of land defined in terms of soil form, texture, depth and surface characteristics such as slope and rockiness. An ecotope is also defined as an area of land within which the variation in natural resources is limited to the degree that the production and palatability will be uniform and will differ from adjoining ecotopes (Smith, 2006). Ecotopes are represented by codes in the map, which are created from letters and numbers used to represent different characteristics of the soil.

4.3.4 Implications of the Bioresource information to community gardens in the Bergville and Hlanganani Districts

The Bioresource Groups and Units (Figures 4.1 – 4.4) indicate the agricultural potential of the study areas. The Figures show that the community gardens studied are located in areas where the climate favours a wide range of crops, which include vegetables such as cabbage (commonly planted in most community gardens), carrots, cowpeas, dry beans, groundnuts and potatoes. Soils vary from deep, well-drained, apedal forms to plinthic soil forms, which are both moderately and poorly drained (Camp, 1997). The varying soil forms show that cropping would also vary considerably, depending on the location of the cultivated lands, the availability of water and the high potential soils.

CHAPTER FIVE

PROFILE OF THE COMMUNITY GARDEN MEMBERS IN THE BERGVILLE AND HLANGANANI DISTRICTS

5.1 INTRODUCTION

This chapter describes the profile of community garden members in the Bergville and Hlanganani districts. The research question that is addressed in this chapter is: What is the socio-economic profile of the households involved in community garden projects?

The household was chosen as a unit of analysis in this study because it is the basic organisational structure found in any community. According to Mtshali (2002), a “household” may be defined as a social unit comprised of individuals of varying age and both genders that, over a long period of time, are enabled to pool income from multiple sources in order to ensure their individual and collective reproduction and well-being.

5.2 AGE OF COMMUNITY GARDEN MEMBERS

The mean age of the respondents ($n = 57$) who are members of community gardens in the Bergville district was 51.86 years ($SD=12.05$; median of 54), with the youngest person being 26 and the oldest 76 years. In the Hlanganani district, the mean age of the respondents ($n = 47$) was 50.98 years ($SD = 10.57$; median of 52), with the youngest person being 27 and the oldest 73 years. The age distribution of community garden members in both districts is shown in Figure 5.1. These figures show that the people involved in community gardens were older persons.

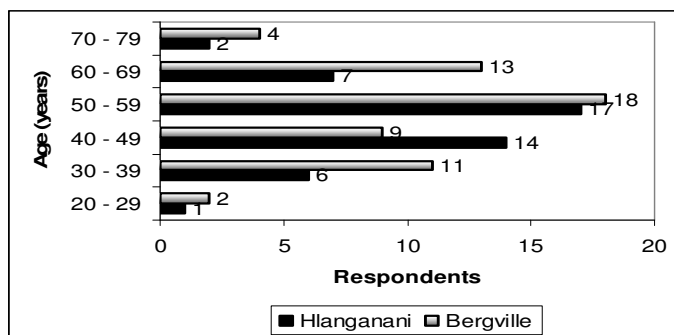


Figure 5. 1: Age distribution of community garden members ($n=57$), ($n=47$) in the Bergville and Hlanganani Districts, respectively, 2003.

5.3 HOUSEHOLD COMPOSITION

There were no significant differences between the household sizes of the two communities. In Hlanganani and Bergville the largest household size has eleven and ten household members, respectively. The average household size of the 106 community garden members from 31 community gardens was six for both districts.

The way in which rural households are composed makes it difficult to draw boundaries of who belongs and who does not belong to a household. In rural areas people still practise what is called the spirit of “*ubuntu*”. This means that a household head may allow his brothers’ or sisters’ children to live in his homestead and share the available resources, if he believes that by doing so he will be helping the other person. Sometimes material support like food parcels, clothes and money move from one household to the neediest related family. This shows that rural people not only feel responsible for themselves and their families but feel responsible for relatives and neighbours.

According to Mtshali (2002), the demographic dependency ratio compares the number of persons in the non-economically active ages (under 15 and 65 and above) relative to the number of persons in the potentially economically active ages (15 to 64). The higher the ratio, the more will be the dependants in relation to the potentially economically active people (Mtshali, 2002). The average dependency ratios for Hlanganani and Bergville districts are 4,5 and 5,5 persons per active household member, respectively. A high dependency ratio was found in both communities of garden members.

In both Hlanganani and Bergville, four generations existed in some homesteads. This mostly happens when the sons and daughters from the household have children outside marriage and these children come to live in the same homestead. This situation increases the number of dependants in the household that, in turn, increases the dependency ratio.

5.4 HOUSEHOLD HEADSHIP AND GENDER OF COMMUNITY GARDEN MEMBERS

The household head is considered as the most important person in the household. It is assumed that the head is an economic provider for the household and that he/she has the overriding authority when it comes to decision-making (Mtshali, 2002). In this study, similar to what was stated by Mtshali (2002), a household head was considered to be a person who resided in that homestead and was acknowledged by the household members as the head of the household.

In Hlanganani and Bergville, 58.3% and 75.9% of community garden members households had male heads, respectively (Table 5.1).

Table 5.1: Household headship according to gender in the Hlanganani and Bergville Districts, 2003

	Hlanganani District		Bergville District	
Gender	N	%	N	%
Male	28	58.3	44	75.9
Female	20	41.7	14	24.1
Total	48	100	58	100

The information presented in Table 5.2 shows that in Hlanganani and Bergville, only 6.3% and 13.8% of respondents in community gardens in both districts, respectively, were males. Society defines masculine and feminine behaviour and the activities that are regarded as appropriate for males and females and how they should relate to each other (Mtshali, 2002). Gender-specific roles and responsibilities are often conditioned by household structure, access to resources and local conceptual boundaries, at national and international levels (Mtshali, 2002). The concept of community gardens in the rural areas of KwaZulu-Natal is usually associated with women (de Villiers, 2005). In the present study, most community garden members were females. The gender of the household head will have an effect on the livelihood of the household. The access and control of resources, such as land, by gender should be properly analysed by development agents in order to identify the potential of, and gaps in, development programmes.

Access to resources is not enough to warrant decision-making by the person with access to the resources. For instance, a women may have access to land (access simply means that she is able to use the land) but, finds out that she is not in control of that land, because her husband, who is working elsewhere, owns it. According to March et al. (1999), the person who controls a resource is the one who ultimately makes decisions about its use.

In both Hlanganani and Bergville districts, males headed most households (Table 5.1), but the people involved in community garden projects are mostly women (Table 5.2). The activities forming a livelihood for the community garden members in both areas were working in the community garden, relying on pensions, wage employment and selling handicrafts.

Table 5.2: Gender of community garden members in the Hlanganani and Bergville Districts, 2003

	Hlanganani		Bergville	
Gender	N	%	N	%
Male	3	6.3	8	13.8
Female	45	93.7	50	86.2
Total	48	100	58	100

Table 5.2 shows that most community garden members were female. Gender has an effect on the adoption of technology. This fact is illustrated by the following example. In one community garden in Nkwezela (Hlanganani district), the garden members were using buckets to fetch water for irrigation from the river, although they had access to a pump. The reason when they were asked why they were not using the pump was that it was difficult for them to use the pump because it was heavy. This pump was loaded on a wheelbarrow and could be moved from one place to another by lifting and pushing the barrow. The storage house for the pump was 200 metres from the garden. All members of this garden were women and it was difficult for them to move this pump to and from the garden. These women were also older (Figure 5.1), which added to their difficulty in moving the pump.

In Obonjaneni (Bergville district), at the Phuthumani Community Garden, where the same system was used, moving of the pump was not a problem. Interestingly, in the Obonjaneni garden there are both men and women members and the person responsible for moving the pump from the storage area to and from the river was a male. In the Phuthumani Community Garden, the garden members did not complain about the difficulty in moving the pump.

Most community garden members were not employed (Table 5.3). There were a small percentage of garden members (20.8% in Hlanganani and 16.4% in Bergville) who received pensions. There was a very small percentage earning wages in both districts and in Bergville there were a few selling handicrafts.

Table 5.3: Occupation of community garden members in Hlanganani and Bergville Districts, 2003

Occupation	Hlanganani		Bergville	
	N	%	N	%
Unemployed	40	75.5	52	77.6
Wage earner	2	3.8	1	1.5
Pensioners	11	20.7	11	16.4
Sell handicrafts	0	0	3	4.5
Total	53	100	67	100

The most common activity of the community garden members was working in the community garden (Table 5.3), with the other activities such as handcrafting and working for wages conducted by a smaller percentage of people. If being involved in community gardens does not generate enough money or produce for the basic needs of the households, the livelihood would not be sustainable.

5.5 EDUCATION LEVELS OF COMMUNITY GARDEN MEMBERS

The levels of education of community garden members in the Hlanganani and Bergville districts are summarised in Table 5.4. The highest education level of community garden members in Hlanganani was Grade 12.

Table 5.4: Level of education of garden members and their household members in the Hlanganani and Bergville Districts, 2003

Communities	Hlanganani				Bergville				
	Non-members		Garden members		Non-members		Garden members		Total
Education	N	%	N	%	N	%	N	%	
Not at school	23	9.6	0	0	1	0.3	0	0	24
No education	9	3.7	8	15.1	52	18.4	17	25.4	86
Grade 1 to 5	71	29.6	29	54.7	89	31.5	25	37.3	214
Grade 6 to 11	81	33.8	13	24.5	94	33.2	20	29.9	208
Grade 12	47	19.6	3	5.7	41	14.5	2	2.9	93
Higher Education	9	3.7	0	0	6	2.1	3	4.5	18
TOTAL	240	100	53	100	283	100	67	100	643

In the Bergville district there was a noticeable percentage (25.4) of garden members without any formal education. In the community garden projects, different members of the household contributed towards its success, irrespective of their level of education. The elders have accumulated a considerable amount of knowledge concerning the type of crops grown in the area and have indigenous knowledge concerning the different cultural practices in the area. They can use all their experience to guide research programmes in the area and those involved in community garden projects. People with formal education would be desirable in rural areas because these people should be the ones actively involved in shaping the development of their communities by contributing to intellectual production and decision-making.

Most young (age 17 and below) people were still at school in the Hlanganani and Bergville districts, as shown in Table 5.4. These young people contribute to the success of community garden projects by bringing back knowledge from schools and sharing this with members involved in community gardens. They also help in the gardens before or after school hours.

It is clear that in any community there will be males and females, older people and young ones, the educated and the uneducated. All these people have a potential role to play in any developmental projects, such as community gardens, in their communities. The developmental projects should address the needs of the majority of these groups in the community. This calls for

participatory methodologies to study the complex interactions between households and rural development programmes.

CHAPTER SIX

POLICY FRAMEWORK REGARDING COMMUNITY GARDENS IN KWAZULU-NATAL

6.1 INTRODUCTION

The KwaZulu-Natal Department of Agriculture and Environmental Affairs (KZNDAEA) policy on community gardens (1999) defines a community garden as an area of land to be used by a group of people to produce fruit and vegetables. This land may be within the jurisdiction of a tribal or local authority. The land may be state or private land which is managed communally. Community garden projects are the results of policy changes aimed at focusing the work of the KZNDAEA on achieving its aims. Community gardens help the KZNDAEA assist people achieve household food security, develop skills and expose people to the rudiments of business activities and resource management.

The policy framework under which the community garden projects were established and implemented is reviewed in this chapter. Community gardens that were visited during the year 2003 had existed for more than two years. During the formation of these community gardens, the 1999 policy on community gardens was still in place. Chapter six discusses the 1999 version of the community gardens' policy.

6.2 REGULATIONS REGARDING COMMUNITY GARDENS

The policy on community gardens stipulated that the minimum number of people participating in one community garden to be five. The minimum size of a community garden was set to be 2500m² and the maximum size of a plot per person at 500m². The policy specified that a garden should be managed by a committee. The policy also stipulated that a garden committee should have a constitution and a bank account. The committee is responsible for obtaining the right of use of the land to be used for a minimum period of five years.

6.3 OBJECTIVES OF COMMUNITY GARDENS, AS STATED BY THE POLICY ON COMMUNITY GARDENS (1999)

The primary objective of establishing community gardens was to improve the diet of rural people by making a variety of fruit and vegetables available within communities and to bring about

household food security. The other objectives include:

- Enabling people to grow their own fruit and vegetables instead of buying;
- Enabling the people to acquire knowledge and skills to grow their own fruit and vegetables;
- Providing a work focus for the KZNDAEA within the community; and
- Teaching business skills required to successfully run community gardens.

6.4 STRATEGIES USED TO ACHIEVE THE COMMUNITY GARDEN OBJECTIVES

The KZNDAEA established six strategies to achieve the above-mentioned objectives. The first strategy was that the Department would assist new community garden members on a “once off” basis. The following financial assistance was given per hectare of garden: fencing materials, which included wire net (1.2m high), a gate, straining posts, standards, droppers and tying wire. The policy allowed the Department to provide fencing material that met the Departmental specifications. A maximum amount of R10 000 per hectare of community garden could be spent on land preparation, soil sampling, liming and building basic soil fertility. Part of this money could be used to lay on water or build weirs. The policy allowed for the amount allocated per hectare to be revised from time to time.

The second strategy was that each garden was to be registered as a project, as prescribed by the Departmental policy on projects (KZNDAEA, 1999). Prior to being considered as a project, an interest group with the minimum number of active participants should be formed, a constitution should be written, a committee should be formed, office-bearers should be identified and a bank account should be opened for later ongoing maintenance and expenses. The constitution should indicate how the community garden will be funded in order to ensure sustainability. The policy did not allow Departmental officials to be members of garden committees or to have signing powers on the bank accounts of community gardens.

The third strategy required that suitable land should be identified and security of tenure established. Departmental officials should evaluate the land in terms of its location in an ecologically sensitive area, protection against erosion; and suitability for irrigation. This type of

evaluation would include a detailed soil examination.

The fourth strategy was to ensure that a permanent source of water was available on the site identified for community garden establishment and the water source should be able to supply a minimum of 20 l/m²/week. Community gardens would not be sited closer than 10m to the ten-year flood line of a stream or river. Indigenous vegetation on stream banks should not be disturbed.

The fifth strategy was that the Departmental pumps that were installed in community gardens would not be the responsibility of the Department in terms of running costs and maintenance. The Department would obtain approval from Treasury to transfer pumps to community gardens. The garden committee should make its own arrangements for future maintenance and repairs to the pumps.

The sixth strategy was that Departmental officials should supply ongoing technical advice and assistance and advise on the marketing of produce. Regions should ensure that suitably qualified personnel are available to initiate and support community garden projects. The Agricultural Development Support Services Directorate (ADSS), a Directorate within the KZNDAEA, should assist Regions to ensure that the necessary training programmes are in place to support community garden projects.

6.5 RESPONSIBILITIES OF DIFFERENT STAKEHOLDERS IN COMMUNITY GARDEN PROJECTS

The KZNDAEA policy (1999) stipulates the responsibilities of different stakeholders in community garden projects. Table 6.1 shows different stakeholders and their responsibilities.

Table 6.1: Responsibilities of various parties involved in community garden projects

Stakeholders in community garden projects	Responsibilities
Agricultural Development Support Services Directorate	<ul style="list-style-type: none"> • Collaborate with Regions to ensure that training programmes to support community gardens were in place; and • Revise the amount payable per hectare of garden, from time to time.
Engineering and Soil Conservation Directorates	<ul style="list-style-type: none"> • Update the fencing specifications as required; and • Monitor whether the amount allowed for irrigation infrastructure was adequate.
Regions	<ul style="list-style-type: none"> • Ensure that sufficient qualified staff were available to initiate and encourage the development and maintenance of community gardens; • Document the procedures for registering projects dealing with community gardens; • Ensure that community garden projects are budgeted for; • Ensure that community gardens conform with resource conservation principles and regulations; and • Ensure that the relevant norms and strategies detailed in the Departmental policies were adhered to.
Communities	<ul style="list-style-type: none"> • Form interest groups to develop community gardens; • Write a constitution, form a committee, and open a bank account for each individual community garden; • Acquire land with security of tenure for each community garden; • Attend training programmes to enhance knowledge and skills with respect to community gardens; and • Provide labour free of charge, as required for the establishment of gardens, as well as the maintenance of the garden infrastructure.

The 1999 policy on community gardens ends by stipulating that there should be two-way communication between the ADSS Directorate and Regions and a continuous communication within Regions and between Regions and Communities concerning the progress and constraints encountered in community garden projects.

6.6 IMPLICATIONS OF THE 1999 COMMUNITY GARDEN POLICY ON COMMUNITY GARDEN PROJECTS

The objectives of community gardens, as outlined in section 6.3, reflect the purpose of policy reformation in South Africa. These objectives show that the KZNDAEA is willing to contribute to the national objectives, namely: economic growth, reduction of income inequalities, and elimination of poverty. The national objectives, in turn, relate to the Millennium Development Goals.

However, the strategies that were used to achieve the community garden goals seem to be based on assumptions. Firstly, the maximum amount of R10 000/ha was supposed to cover the costs of land preparation, liming, improving basic soil fertility and building of weirs. During 1999 it would have cost about R7975 for a commercial farmer to plant one hectare of land with irrigated cabbage (Muller, 1999). One may argue that commercial farmers were using tractors, which would increase the costs of land preparation, but it would be very difficult for five people to prepare 10 000m² of land by hand. Maybe that is why it was decided that community gardens would be divided into smaller plots to allow the community garden members to have an area that can be worked without machinery. The division of community gardens into plots allowed the community garden members to be independent of one another. This would lead to individuals deciding on what to plant, and when, on their plots. This means these community garden members would not be able to supply their produce to a formal market - they can only use their vegetables for own consumption and may be sell surplus to neighbours.

Secondly, this policy relied on community garden members striking a deal between each other to use the identified land for a minimum period of five years. There were no provisions made to secure land tenure, giving the impression that community garden projects would come to an end

after five years. The stipulation of a five-year period show that the KZDAEA assumed that at the end of the five year-period, community garden members would have achieved food security and acquired necessary skills to produce vegetables commercially. Thirdly, the policy also put responsibility on Departmental Extension Officials to assess the suitability of the site identified for establishment of a community garden, with regards to its location, soils and availability of water. This was based on the assumption that the Regions would be able to recruit suitably qualified personnel with the necessary skills to perform these tasks.

6.7 MANAGEMENT OF COMMUNITY GARDENS

Community gardens in all regions have a committee, which consists of a chairperson, vice-chairperson, secretary, vice-secretary, treasurer and two to four additional members. The committee is responsible for the running of all the activities in the garden. The chairperson plays a leading role to other garden members. He or she forms a formal link between the garden members and the Extension Officer.

All community gardens have a constitution, which is normally written by the committee members, with the help of the local Extension Officer. The constitution states the following: how the community garden will function; the rules and regulations to be observed by the community garden members and the punishment of different offences by the members. There is a joining fee determined by the committee and the members. Each member is liable for a monthly subscription or membership renewal fee, which is determined by the committee and the members. A joining fee is paid by new members who replace members who retire; are no longer interested or are expelled from the garden due to their inability to observe the constitution. The joining and subscription fees are used for the maintenance of the garden fence and the irrigation system. Sometimes members are too old to work in the garden and may be replaced by one of his or her children. Sometimes the member would appoint a friend to replace him/her.

The community garden members decide on what to plant and when. Advice on which crops are suited to the area and the season is obtained from the Extension Officer serving that specific ward. A district is subdivided into wards and the Extension Officer normally serves community gardens in a district.

6.8 MANAGEMENT SYSTEMS USED IN COMMUNITY GARDENS

Two management systems were used in the community gardens. The first one is where all members work the whole garden as one plot. The second is where part of the garden is divided into plots and each member is allocated a certain number of plots, depending on the number of members and the number of plots available. Both systems are used in some community gardens in KwaZulu-Natal. The garden is divided into two large areas. One area will be divided amongst the members so that each member will own a plot and all the members will work in the one bigger communal area.

CHAPTER SEVEN

EXTENSION OFFICERS' PERSPECTIVES REGARDING COMMUNITY GARDENS IN KWAZULU-NATAL

7.1 INTRODUCTION

This chapter presents the results of the semi-structured interviews used in the collection of information from 61 Extension Officers from Vryheid, Eshowe, Mbumbulu, Bergville and Hlanganani districts (Figure 3.1). Semi-structured interviews were an ideal tool, since the researcher wanted to collect information from groups of Extension Officers from the identified districts. The Extension Officers in each district were interviewed as a group. The number of people in the group was determined by the number of Extension Officers in the district.

The research question that is addressed in this chapter is: What are the views of Extension Officers on community garden projects with regard to their role in these projects; the crops planted and the *status-quo* of community gardens?

7.2 PROFILE OF THE EXTENSION OFFICERS INVOLVED IN THE STUDY

Extension Officers that participated in the study of community gardens were above 30 years of age and most have long service in the KZNDAEA. Table 7.1 shows the average number of Extension Officers per District and the average length of service. The longer service period would suggest that the information given by the Extension Officers was reliable.

Table 7.1: Profile of Extension Officers in five districts that were involved in the study in 2003

Districts	No. of Extension officials	Average age	Average length of service in years	Number of community gardens
Bergville	16	38	10	36
Eshowe	12	36	9	20
Hlanganani	10	37	10	85
Mbumbulu	15	44	12	201
Vryheid	8	35	6	94
Total				436

7.3 PROCESSES INVOLVED IN THE ESTABLISHMENT OF COMMUNITY GARDENS

Extension Officers indicated that the procedure followed in the establishment of community gardens changed after 2000. As summarised in Table 7.2, the approach in the procedure followed to establish a community garden shows the change from a top-down approach, where the Extension Officer controlled the decision-making process concerning the problems of the community and the solutions thereof, to a more participatory approach, where the farmers' views are recognised and valued.

Table 7.2: The process of forming a community garden; before and after 2000

Period before year 2000	Period from year 2000
<ol style="list-style-type: none"> 1. Extension Officer (EO): <ul style="list-style-type: none"> ➤ Identify agricultural problems ➤ Create awareness among farmers ➤ Mobilise the community ➤ Identify interest groups 2. EO and the interest group <ul style="list-style-type: none"> ➤ Write a project proposal and submit it to the Department of Agriculture and Environmental Affairs (DAEA) 3. If approved, DAEA provides funds for the project 4. Project implementation 5. EO continues to provide technical support to the members . 	<ol style="list-style-type: none"> 1. EO or the interested parties <ul style="list-style-type: none"> ➤ Identify agricultural problems ➤ Farmers mobilise themselves to seek advice/guidance from the EO 2. EO and farmers/interest group <ul style="list-style-type: none"> ➤ Write a project proposal to the DAE through the local District office 2. Project Planning Committee (PPC) do the feasibility and viability study of the project 3. PPC present the findings at the Regional Technical Working Group (RTWG) meeting 4. If the project is approved, a Project Implementation Committee (PIC) is formed 5. PIC responsible for the implementation of the project. They hire a contractor to put up the infrastructure 6. When the infrastructure is in place and operational, it is handed over to the garden members

The changes in process of forming a community garden has allowed the community members to decide on the type of project they want. The community members choosing to engage in community garden projects are more involved, because they initiated the process and are thus committed to the community garden projects. However, the impact of the changes in the process of forming a community garden would have to be studied.

7.4 OBJECTIVES OF COMMUNITY GARDENS

Extension Officers identified the following reasons why community gardens are established, to provide:

- an ideal place where people can learn new farming skills and be trained in vegetable production practices;
- a facility which will enable the people to feed themselves, thus ensuring household food security;
- alternative employment for people by training them to be productive and be self-reliant;
- fresh and healthy vegetables, to fight malnutrition and building healthier communities; and
- a platform for the community garden members to work towards becoming commercial vegetable producers.

One objective of community gardens is to train community garden members in vegetable production. Vegetables produced in the gardens, by garden members trained in vegetable production, positively impact on the diets and nutrition of community garden members and their families. This could contribute to the objective of the KZNDAEA, which is to ensure food security of the people and to address malnutrition. The objectives of community gardens, as identified by the Extension Officers, show the vital role community gardens have to play in the lives of rural people.

7.5 THE ROLE OF EXTENSION OFFICERS IN COMMUNITY GARDENS

The Extension Officers summarised their role in community gardens as follows:

- Facilitating the process of the formation of community gardens from the beginning to the end. This includes creating awareness in a community of possible projects, including community garden projects, that the people can undertake, formation of interest groups, planning the garden project with the relevant bodies within the KZNDAEA, writing of a business plan and applying for funds from the Department.
- If the project has been successfully implemented, the Extension Officers will be responsible for the training of the community garden members in vegetable production; soil conservation; the use of different chemicals and fertilizers and all other aspects relating to the production and sometimes processing (value adding) of the produce.
- Continuous technical support to the community garden members through *ad hoc* advice; information; field and farmers' days and through the running of demonstration plots.
- Helping the community garden members in the marketing of produce.

A number of issues were raised by the Extension Officers during discussions. These need attention from the KZNDAEA, to enable the Extension Officers to be more effective in their roles in assisting the community garden project beneficiaries.

The following issues were raised:

- The relationship between the offices at district level and regional level is not effective. The Extension Officers at district level felt that the regional office is not doing enough in terms of supporting them in fulfilling the needs of the farmers. The information (i.e. research, policy changes and feedback on decisions taken at regional level) flow from regions to districts was not effective.
- They felt that there are no proper channels of communication between the district field staff and the regions, e.g. at times they are not informed about the policy changes within the KZNDAEA which may impact on the way they handle development projects.
- A lack of research support from their colleagues in the regions was voiced. The Extension Officers said that they would like to have inputs on the type of research carried out by the research stations, but there is no platform that allows Extension Officers to make their contributions.
- Other government departments such as the Department of Health, the Department of

Public Works and Municipalities and NGOs were also establishing community garden projects. All these departments are doing the same projects, but they are not working together. The problem raised was that projects established by others become the responsibility of the Extension Officers of the KZNDAEA. This situation causes more responsibility for the extension staff and as a result they are not able to give the needed attention to all projects.

7.6 CONSTRAINTS THAT AFFECT THE PERFORMANCE OF EXTENSION OFFICERS AND COMMUNITY GARDENS

Problems or frustrations that hinder performance of Extension Officers include the following:

- Extension Officers felt that they are overloaded with projects (community gardens, poultry, piggeries and irrigation schemes). The result is they cannot work closely with each garden committee in the different wards that they are serving.
- Pressure from the KZNDAEA, as their employer, to identify and propose new projects without completing the existing ones.
- Extension Officers are expected to run with the programmes of other organisations working in the same community. This means that the Extension officer has to divide his/her time in such a way that all community garden projects in his/her area are serviced. This means that the more the community garden projects are added the less the time the Extension Officer spends with one garden project. This is in line with what was said by Scarborough et al. (1997), about extension workers becoming more accountable to their employers or professions than to the farmer clientele.

The discussion with Extension Officers showed that one of the factors affecting sustainability of community gardens is the participation of garden members in the garden activities, which includes meetings with the Extension Officer; planning for the season; planting, weeding and watering. The fluctuating participation, be it an increase or decrease in the number of members, has a negative impact on production in the community gardens. When the numbers of members decrease due to ageing or other reasons, plots remain fallow. The fallow plots fill with weeds and become “hiding” places for pests and diseases. When the number of members increases, the

members divide the existing plots to accommodate more members, resulting in smaller plots per member. More people would join the community garden when it has already started and new members will keep coming until the existing members decide that no more new members may join.

The policy on community gardens (1999) stipulates the minimum number of people that should participate in one community garden as five and the minimum size of the garden to be 2500m². The policy does not define the minimum plot size, but does give the maximum plot size of 500m². The minimum plot size should be defined because, if the plot is too small, the household would not be able to produce enough vegetables to meet their basic requirements. This policy does not mention the maximum number of people who should participate in one community garden. However, the KZNDAEA has guidelines for the number of people in each community garden. This shows that at any time and place community gardens may be over- or under-used.

7.7 CROPS PLANTED IN COMMUNITY GARDENS

The most widely planted crops in community gardens of the different districts of KwaZulu-Natal, as mentioned during the interviews with the Extension Officers, are cabbage (*Brassica oleracea*), Swiss chard (*Beta vulgaris* L.), onions (*Allium cepa*), potatoes (*Solanum tuberosum*), eggplant (*Solanum melongena*) and turnip (*Brassica campestris*). Cabbage was mentioned as the most important crop in every community garden. This agrees with Laing (1996) who stated that cabbage formed the staple vegetable in the diet of most black South Africans, in both urban and rural populations. Cabbage contains Vitamin C and energy (Modi and Hendriks, 2007). Cabbage is thus one of the nutritious crops planted by community garden members. This makes cabbage an important vegetable crop in the South African agricultural sector, both in value and quantity produced (Laing, 1996).

Figure 7.1 shows the total tonnages of cabbage sold on the Durban and Pietermaritzburg fresh produce markets per year from 2001 to 2004 (KZNDAEA, 2006b).

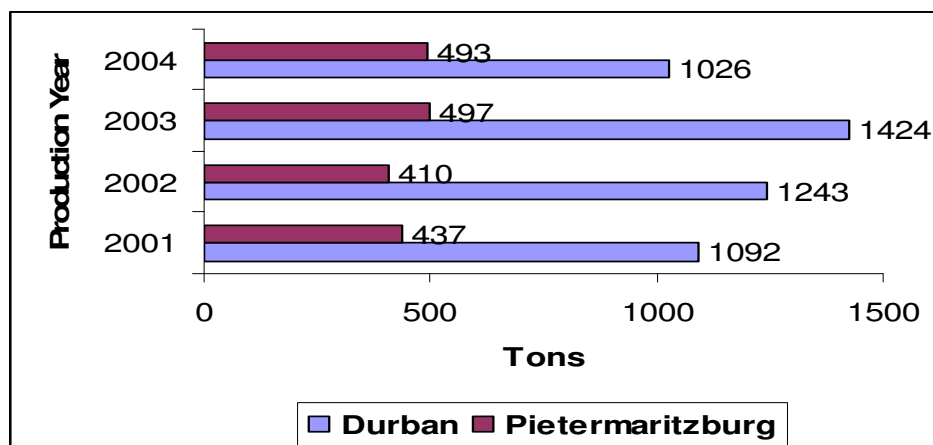


Figure 7.1: Cabbage (tons/annum) sold at the Pietermaritzburg and Durban fresh produce markets for the period 2001 to 2004 (KZNDAEA, 2006b).

The reasons given by the Extension Officers why these crops are planted in the community gardens were as follows: they are basic vegetables needed by community garden members for their own consumption; cabbage can be planted throughout the year, which contributes to a continuous supply of fresh vegetables; cabbage is easy to sell to the local market; and cabbage can be grown very easily. From the discussions with Extension Officers, it was not clear whether or not the community garden members have information concerning the nutritional value of the different crops they are planting. If the community garden members had information on the nutritional value of different vegetables it would influence the type of vegetables they choose to plant.

7.8 STATUS OF COMMUNITY GARDENS IN KWAZULU-NATAL

Extension Officers described the ideal scenario of a community garden as the one that has the following attributes:

- its members are eager to learn and they ask for advice from the Extension Officer and use it;

- its members successfully apply knowledge gained from the Extension Officer in their garden activities;
- the activities in the garden are well organised (the community garden members plan how they are going to perform garden activities and they allocate different responsibilities to one another);
- the community garden members are able to produce a surplus and make a profit (which would be determined by the ability of the community garden members to recover the money used for inputs and have some money to use for their household needs); and
- the garden is well cared for, weed-free and has healthy crops.

After the Extension Officers reflected on the status of community gardens found in their respective districts they all agreed that the community gardens in their districts are far from the ideal community garden that they described. Feedback showed that garden members are not willing to invest their own money and time in community gardens. Their personal budgets do not allow for purchasing of inputs such as fertilizers, seeds, seedlings and garden chemicals needed in the garden. Community garden members do not always follow the advice given to them by the Extension Officers. The Extension Officers do not know why community garden members do not follow the advice given to them.

Extension Officers recognise their role in training the community garden members in vegetable production, but they are not sure how long the training should be. According to the Extension Officers, they have trained community garden members in their respective districts, but they do not see progress. The Extension Officers have been training the community garden members about the importance of soil sampling; using the correct fertilisers; weed management; planting times; crop rotation and production practices for different vegetables. The training was in the form of *ad hoc* advice, field demonstrations and information and farmers' days. Extension Officers felt that the community garden members should be able to produce successfully with minimal input from the Extension Officers. Extension Officers felt that if garden members showed growth in knowledge, the Extension Officers would be able to serve more projects, since they would spend less time with each project.

CHAPTER EIGHT

FARMERS' PERSPECTIVES REGARDING COMMUNITY GARDENS IN THE HLANGANANI AND BERGVILLE DISTRICTS

8.1 INTRODUCTION

Structured questionnaires were used for in-depth interviews with 106 community garden members from 31 community gardens in the Hlanganani and Bergville Districts. The aim of the in-depth interviews was to determine from garden members how these community gardens affected the lives of the people working in them. Chapter Eight discusses the management of community gardens; crops planted and factors affecting production in community gardens, as explained by the community garden participants. This chapter addresses the following research question: What are the views of the community garden participants on the benefits of being involved in the community garden projects and the factors affecting production in community gardens?

8.2 MANAGEMENT OF COMMUNITY GARDENS

All community gardens visited during the study (Table 3.2) had a committee responsible for the running of all the activities in the garden. The community garden committees were made up of approximately six members that included a chairperson, deputy-chairperson, secretary and treasurer and two to four additional members.

The members of the community garden usually made decisions concerning what should be produced in community gardens. However, the study showed that in some instances the chairperson of the community garden or the extension officer working with the garden made decisions on crops to be planted and time of planting. In the Bergville area, 60% of the community garden members interviewed indicated that decisions on crops to be planted on their plots were made by individual members.

Results show that community garden committees, which are selected by the community garden members, are present in all community gardens. This agrees with what was said by the Extension Officers concerning the management of community gardens, as discussed under section 6.7. Members identified the community garden committee as the management structure adopted by

all community gardens in KwaZulu-Natal. This emphasised the importance of the fact that garden members serving in these committees should be well-trained in all aspects of community garden management in order to equip them to perform their duties. This conforms with the policy on community gardens, which emphasises the formation of a committee, the writing of the constitution and the opening of a bank account.

8.3 VEGETABLE PRODUCTION IN THE BERGVILLE AND HLANGANANI DISTRICT COMMUNITY GARDENS

The most commonly grown crops in the community gardens include cabbage, Swiss chard and onions. Figure 8.1 shows the different vegetable crops grown in Hlanganani and Bergville districts by community garden members.

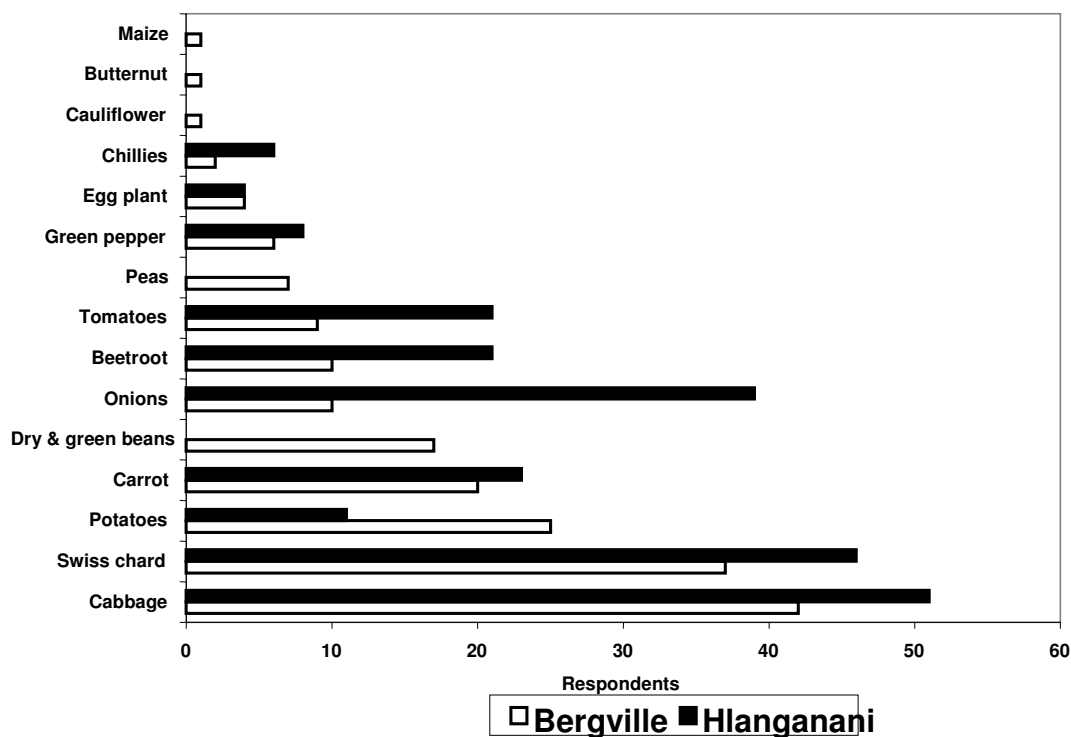


Figure 8:1: The main vegetables planted by community garden members (n=58) and (n=48) in the Bergville and Hlanganani Districts, respectively.

There are a wide variety of vegetables planted in community gardens in the Bergville and Hlanganani districts, as shown in Figure 8.1. The top two crops in these areas were cabbage and Swiss chard.

Figure 8.1 shows that there are no differences in the types of vegetables produced in different community gardens. The only difference depicted in Figure 8.1 is the popularity of different vegetables in the two areas. A popular vegetable would be the one planted by most community garden members in each area. Factors contributing to this difference in popularity would include the potential of each vegetable type in each area; climate and soil conditions of the different areas and knowledge of community garden members about the different vegetable types.

In both areas the most important reason for planting vegetables was household consumption. Potatoes and maize, which are normally produced under dry-land conditions, were planted in community gardens as alternatives for vegetables due to the unavailability of water in the community gardens.

The variety of vegetables planted suggests that community garden members must have achieved a certain degree of household food security, if factors such as the quality and quantity of the produce in community gardens were not a problem. Diseases reduce the quality and quantity of vegetables available for household use. The types of crops planted by community garden members suggest that the community garden members' decisions to plant certain crops are not informed by their nutritional needs. The national surveys conducted in the 1990s (Faber et al., 2006) showed that children living in rural areas, especially in KwaZulu-Natal, were deficient in Vitamin A. Community garden members should therefore be planting more orange-fleshed vegetables such as carrot, butternut, pumpkin and orange-fleshed sweet potatoes. These types of vegetables are good sources of Vitamin A (Faber et al., 2006). Community garden members produced enough quantities to cater for their household basic needs, but the types of vegetables planted are not good sources of Vitamin A, which would assist in eliminating and preventing Vitamin A deficiencies in children.

According to the Bioresource information, the following vegetables can be grown in both the Hlanganani and Bergville districts: cabbage, carrot, dry beans, Swiss chard, pumpkins and tomatoes. Research work conducted by the FSRS of the KZNDAEA in Bergville and Hlanganani found that sweet potatoes and pumpkins can be produced successfully in both areas (FSRS, 2005).

8.4. COMMUNITY GARDENS COMPARED WITH HOMESTEAD GARDENS

Table 8.1 shows that a large percentage of community garden members in both districts prefer community gardens to homestead gardens.

Table 8.1: Type of garden preferred by community garden members in the Bergville and Hlanganani Districts

Districts	Members preferring a community garden		Members preferring a homestead garden		Members preferring both	
	N	%	N	%	N	%
Obonjaneni	27	68	3	8	10	25
Nkwezela	31	74	6	14	5	12

The reasons given for the preference of garden members for participating in community gardens were that community gardens:

- unite, encourage and motivate people to work together;
- provide an environment in which members can socialize and learn from one another;
- enhance competition between members and encourage more involvement in community garden activities;
- provide a well-fenced area, preventing livestock from destroying crops;
- provide free fencing materials and an irrigation system in the form of subsidies from the government departments;
- provide extended periods of planting because water is available in community gardens; and
- provide more planting area than in homestead gardens and thus a variety of vegetables can be planted in the community garden and the surplus can be sold to generate income.

Despite the above-mentioned advantages of a community garden there are still many problems associated with vegetable production in community gardens. These problems are shown in Table 8.2.

The expected outcomes of the community gardens, as presented by the Extension Officers, emphasised the learning of farming skills and training on vegetable production practices. The Extension Officers viewed community gardens as a tool to empower community garden members so that they can be self-reliant; to fight against malnutrition and as a platform for community garden members to learn the trade of commercial vegetable farming. This conforms with the provincial policy on community gardens. However, community garden members viewed community gardens as a tool to facilitate social interaction. Free fencing material and irrigation systems are also reasons why more people decide to join a community garden. From discussions with the community garden members it was discovered that they were not aspiring to be commercial vegetable producers. The community garden members did not think of community gardening as a form of employment. The community garden members still believe that employment is when one person is working for a company, firm and/or another person. However, the community garden members admitted that there was potential for income in community gardens.

8.5 FACTORS AFFECTING PRODUCTION IN COMMUNITY GARDENS

Free fencing material and access to an irrigation system were among factors motivating community garden members to join community garden projects. The very same factors are shown to be the most important factors limiting production in community gardens (Table 8.2).

Few community garden members admitted that there was a lack of interest in continuing with community garden projects, due to the lack of progress in these projects. Lack of knowledge of planting dates was mentioned, amongst other reasons, for poor crops. This contradicts what was said by the Extension Officers, who mentioned time of planting as one of the topics covered by the training they provide to community garden members.

Some factors (Table 8.2), such as diseases, pest damage, rotting of surplus and livestock damage, were mentioned by the community garden members as limiting production in their gardens. This emphasises the need for training in disease and pest management; and active participation of the community garden members in community gardens. It is the responsibility of the Extension Officers to ensure that the community garden members are trained in all aspects of vegetable

production. However, it is also the responsibility of the community garden members to take initiatives to solve problems that they encounter in community gardens. For example, community garden members mentioned stolen fences as one of the reasons for livestock damaging their crops. The garden members could have taken the initiative to protect their fence as an asset that was given to them without cost. This would have shown commitment on the part of the community garden members.

Table 8.2: Factors affecting vegetable production in community gardens in the Hlanganani and Bergville Districts (n=106), 2003

Factors limiting production in community gardens	Frequency mentioned	Causes of limiting factors
Inadequate water supply	24	No water available Poor irrigation system Water pumps too small, thus poor distribution of water Water tanks and pipes broken
Livestock damage	22	Gardens not properly fenced Low fence Fence stolen Did not get enough fencing material
Lack of inputs	12	No money to buy inputs Inputs not available
Pest damage	12	Lack of knowledge of effective control of pests
Poor crops	12	Diseases Soil infertility Lack of knowledge of planting dates
Plot sizes too small	11	Limited land available
Theft of the produce	7	Poverty
Unavailability of markets	3	Rotting of surplus
Lack of interest	3	Lack of progress of community gardens

The other factors affecting production in community gardens are discussed in more detail in the following sections.

8.5.1 Sizes of community gardens

The community garden plots ($n=16$) in the Hlanganani District ranged from 5000 to 10000 m², with an average size of 6000m². The plots within the gardens ranged from 20 to 40m² with an average plot size of 30m². The average number of plots per member in Hlanganani District was five. In the Bergville district, the sizes of community gardens ($n=15$) varied from 1500 to 34000 m², with an average size of 8000 m². The plot sizes were between 30 and 60m², with an average plot size of 35m². The average number of plots per member in the Bergville District was four.

The size of the area of production is important, because it determines the potential quantity that can be produced. Using the method developed by Schmidt and Vorster (1995) it was possible to determine the contribution of the community garden towards the daily vegetable requirements of the community garden members. The average number of people in a homestead in the districts of Bergville and Hlanganani was six. With no differentiation made between the consumption requirement of adult and young people, the maximum conservative estimate of 200g per person per day was used as the daily vegetable requirement. Schmidt and Vorster (1995) used different estimates for adults and younger people. The minimum mass of fresh vegetables needed per day by the average household is therefore 1 200g (6 x 200g), with weekly vegetable needs of 8 400g.

Vegetables are typically grown in a three-month cycle, so the ideal garden size per household is determined by the quantity of vegetables needed for a three-month period. In this example the average household would need about 109 200g (8 400g x 13 weeks) of vegetables to satisfy its nutritional needs in terms of quantity in a three-month period. Schmidt and Vorster (1995) used 2000g (2kg) as the average produce that can be obtained from one square metre of land. If one uses this estimate, each household has the potential of producing about 292000g (146m² x 2000g) of vegetables in a three-month cycle. This is well above the requirement of each household. This suggests that the sizes of the participating community gardens do not limit the quantity of vegetables available for household use in a production cycle.

Two hundred and ninety two thousand grams of vegetables were available in a three-month period. Community garden members were thus able to satisfy their nutritional needs in terms of quantity of vegetables produced in a three-month cycle. Although production levels were not estimated for all community gardens in the study, the average yield of cabbage in one square metre of land was found to be 2500g (2.5kg) in the Phuthumani Community Garden. This indicates that plot sizes did not limit the production of the quantities of vegetables required to satisfy households' nutritional needs. However, factors such as soil fertility, water availability, technical know-how and capital and climatic conditions (e.g. hail, frost) determine the yield and quality of vegetables available per member.

Garden members in the Hlanganani and Bergville districts were satisfied with the vegetable production in their garden plots. Community garden members said that they were able to produce enough to satisfy their households' basic needs. The community garden members that complained about small plot sizes did so in the sense that continuous production could not be achieved. The inability of the community garden members to achieve continuous production means that they could not enter into a contract with the markets to supply predetermined quantity and quality over a specific period, as required by the markets. The vegetables produced by the community garden members could only be sold locally and over a short period of time.

8.5.2 Soil fertility status of community gardens in the Hlanganani and Bergville Districts

The soils in the Hlanganani and Bergville districts were highly acidic. The results of soil analyses of samples collected from community gardens in each District are shown in Table 8.3.

Table 8.3: Soil analyses of samples collected from community gardens in the Hlanganani and Bergville Districts in 2002

Garden No.	Sample Density (g/ml)	Phosphorus (mg/L)	Potassium (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Zinc (mg/L)	Acid Saturation (%)	pH (KCL)
1	1.08	5	204	402	137	1.7	34	3.94
2	1.06	4	130	444	163	2.0	38	3.98
3	1.20	4	79	927	260	2.0	1	4.67
4	1.05	4	314	487	171	1.8	22	4.00
5	1.17	3	73	662	201	1.4	5	4.23
6	1.03	6	172	339	100	1.7	21	4.02
7	1.08	5	113	496	166	1.3	31	3.96
8	1.05	7	179	511	165	2.0	37	3.90
9	1.15	3	93	586	197	1.2	8	4.16
10	1.06	3	164	541	211	0.9	21	3.99
11	1.19	2	72	1518	512	0.8	1	5.18
12	1.04	8	160	647	214	1.8	23	3.96
13	1.05	4	301	474	160	1.3	19	4.06
14	1.10	7	92	594	163	1.9	26	3.97
15	1.07	4	244	633	208	1.4	17	4.03
16	1.03	3	176	291	107	0.9	47	3.93
17	1.14	19	242	598	186	4.9	28	4.01
18	0.93	56	898	1106	304	17.7	2	4.43
19	1.04	15	236	438	67	8.5	29	4.23
20	1.04	59	472	532	144	21.4	35	3.93
21	1.09	27	241	442	104	6.0	51	3.96
22	1.09	47	262	547	102	12.3	28	4.15
23	1.00	9	275	334	87	5.8	40	4.16
24	1.06	29	273	741	116	10.7	3	4.61
25	1.03	23	339	375	93	10.6	51	3.98
26	1.04	31	281	670	127	14.8	16	4.23
27	1.00	23	380	841	190	11.4	13	4.14
28	1.04	24	252	404	71	7.7	32	4.17
29	1.05	16	213	355	71	22.9	39	4.16
30	1.04	10	352	583	139	1.9	41	4.08

Due to the high rainfall in KwaZulu-Natal, most of the soils are naturally acidic (Allemann and Young, 2001). Under such conditions aluminium and manganese toxicity may occur. Such soils require liming for satisfactory plant growth and yield. Community gardens that were sampled in the Hlanganani and Bergville districts showed high acidity. The high acid saturation (Table 8.3) observed in these community gardens could inhibit the production of vegetables. To produce vegetables successfully, the permissible acid saturation of the soil should be between 1 and 5% (Manson et al., 2000). With a few exceptions, such as potato and sweet potato, most vegetable crops require soils with no or very low acid saturation; below 5% (Table 8.4).

Table 8.4: Soil acidity and pH (KCl) requirements of the most planted vegetables in community gardens in the Hlanganani and Bergville Districts (after Allemann and Young, 2001; Faber et al., 2006)

Crops commonly planted in community gardens	Maximum Acid Saturation	Optimum Soil pH (KCl)
Cabbage	Less than 2%	5.3 – 5.8
Swiss Chard	Less than 5%	6.0 – 6.8
Onions	Less than 5%	5.0 – 6.0
Carrot	Less than 1%	5.0 – 6.0
Tomatoes	Less than 5%	5.0 – 6.0

The high costs of buying, transporting, applying and incorporating lime into the soil are far beyond the means of the community garden members, who rely on pension grants to purchase inputs. The community garden members are aware of the soil acidity problem (Table 8.3). Buying, transporting and incorporating large quantities of lime would be a very costly exercise for these community garden members. During 2003 it would have cost about R4000/ha to bring 42% of acid saturation, as shown in Table 8.3, down to less than 5% (Table 8.3), in order to be able to plant most vegetables.

8.5.3 Water availability

Water is one of the major factors determining the production of vegetables in the rural areas of KwaZulu-Natal. About 90% of the gardens visited had an irrigation system. Table 8.2 shows that most community garden members indicated that there was a shortage of water in the community gardens. The reasons given included the availability of water, the type or size of the irrigation system and the state of the irrigation system. Water is one of the most important requirements for the production of vegetables. The KZNDAEA has tried to solve the water problem by installing a sprinkler irrigation system in each community garden. Even though there are irrigation systems in most community gardens, there is still a problem of water availability in these gardens. It seems that the problem could be attributed to the planning process that is involved in identifying the community garden site and determining the size of the irrigation system to be installed in a community garden. These indications are drawn from the fact that the community garden

members indicated that in some gardens there was no water because the original source of water had dried up (Table 8.2). They also revealed that some pumps were too small and it was difficult to pump enough water for the whole garden. This agrees with the changing processes followed in forming a community garden, as described by the Extension Officers and depicted in Table 7.2. Information in Table 7.2 shows that it was after the year 2000 that the processes of forming a community garden included the formation of a Project Planning Committee (PPC), which is responsible for conducting the feasibility and viability studies of the garden projects. This would then explain water-related problems encountered in community gardens, such as the sizes of pumps in relation to the sizes of the community gardens.

8.5.4 Community garden finances

Community garden members were aware that the funding from the Department of Agriculture was a once-off. Most community garden members indicated that the funding was not sufficient for sustainable production in community gardens. The community garden members received fencing materials and irrigation systems, but they had to buy inputs as an indication of their commitment to the project. The start-up costs became a problem to some community garden members, as discussed in the following section.

Table 8.5: Responses of community garden members in two districts to key questions about funding and its implications, 2003

Community garden members responses	Bergville District				Hlanganani District			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
Know that funding is a once-off	38	66	20	34	36	75	12	25
Save for repairs & maintenance of the infrastructure (e.g. irrigation system)	45	78	13	22	38	79	10	21
Amount of funding enough for sustainable production in gardens	22	38	36	62	20	42	28	58

Table 8.5 shows that 78% and 79% of the community garden members indicated that there were contributions made towards savings for the maintenance and repairs of the irrigation system and the fence in the Bergville and Hlanganani districts, respectively, yet they complained about

broken irrigation systems and fences (Table 8.2). This could mean that they were not using their money properly or do not know how to determine the contribution of each member towards the savings of a community garden. The inability of the community garden members to maintain irrigation systems in their community gardens was also one of the factors contributing to the water problem in these gardens. Proper training of the community garden members is required before they could be expected to run the community garden successfully.

8.5.5 Start-up capital for community garden members

The KZNDAEA policy on funding for community gardens is that the funding for community garden projects is once-off. This means that a group of community garden members would receive fencing material and an irrigation system, which would be installed in their community garden. The Engineering Section of the KZNDAEA was responsible for the installation of the irrigation systems. The community garden members would be responsible for erecting the fence, with the help of the Extension Officer. The community garden members involved in the study were aware of this policy (Table 8.5), but they indicated that this funding was not enough to cover the initial costs involved in running a community garden. Lack of inputs such as fertilizers, seeds or seedlings and chemicals were attributed to the lack of money to buy these inputs. Table 5.3 shows that 75.5 and 77.6% of the community garden members in the Hlanganani and Bergville districts, respectively, are unemployed. This explains why they complained about lack of money to buy inputs. Although the KZNDAEA does not want to create dependency, it could contribute towards its clients becoming independent. The start-up capital would be one of the areas of intervention by the KZNDAEA. The KZNDAEA could finance the community garden members for the initial costs required to plant a community garden i.e. provide funds for land preparation, fertilization and buying of seeds. The Extension Officer would assist in the running of the community garden for at least two seasons. During this time, on-the-job training concerning management issues for the community garden members could take place.

8.6 BENEFITS OF COMMUNITY GARDEN MEMBERS INVOLVED IN COMMUNITY GARDEN PROJECTS

A high percentage of community garden members from the Bergville and Hlanganani districts were very positive about the benefits realised by being a member of a community garden. Table

8.6 shows the benefits. It was found that the number of male respondents in both districts was significantly low. However, there were no statistically significant differences in the answers given by male and female respondents in the Bergville and Hlanganani districts.

Table 8.6: Benefits realized by community garden members (n=106) in the Bergville and Hlanganani Districts, 2003

Benefit	Bergville District				Hlanganani District			
	Members realising the benefit		Members not realising the benefit		Members realising the benefit		Members not realising the benefit	
	N	%	N	%	N	%	N	%
Learning from garden	58	100	-	-	48	100	-	-
Garden contribute to livestock	35	60	23	40	32	67	16	33
Dietary change in household	53	91	4	7	44	92	4	8
Financial change in household	34	59	23	40	37	77	11	23

Table 8.6 shows that a high percentage of community garden members indicated that they acknowledge the benefits of being involved in community gardens. First, the community garden members have learned about vegetable production, time of planting and different types of vegetables growing in the area, fertilization and the overall management of vegetables. This is a reflection of the training conducted by Extension Officers in community gardens. It can thus be argued that it is not lack of knowledge that limits production in community gardens. Extension Officers are fulfilling their role in community gardens as trainers. Second, the residues from the community garden are used to feed livestock like goats and pigs. Third, the community garden members believe there has been a change in their diets, with more vegetables available for the household to consume and they believe their diet is more nutritious. Fourth, the community garden members indicated that, due to the availability of vegetables from the community garden, it is now easy to use some of the money that might have been used for buying vegetables for some other needs. However, Schmidt and Voster (1995), in a study of the effect of communal

vegetable gardens on nutritional status, concluded that households who grow their own vegetables do not necessarily increase their vegetable intake. This indicates that health and development workers should lower their expectations about the nutritional benefits of food plots or vegetable gardens (Schmidt and Voster, 1995). Community garden projects increase the availability of fresh and healthy vegetables to the garden members' households. Gardening increases availability and access to vegetables, but for gardening to lead to increased consumption of vegetables it should be linked to nutrition education and promotion activities (Faber et al., 2006). This implies that after the Extension Officers had trained the community garden members on all the aspects of vegetable production, the Value Adding Section from the KZNDAEA should conduct nutrition and cooking training for the community garden members and drive promotion campaigns to encourage consumption of healthy vegetables.

The reasons given by the community garden members for the preference of a community garden were not a convincing motivation for them to be involved in community garden production. This is also visible from the production objectives of the community garden members involved in community gardens. The only thing they want is to produce for household consumption and sell only if there is a surplus. One may argue that the reason for that may be the fact that they do not have enough money to buy adequate inputs to increase production for sale. Whatever the case may be, it is clear that the community garden members were satisfied with what they can gain in their garden plots, even though it is below the full potential of the garden. This is clear from their expression of satisfaction with the benefits of being involved in community gardens.

CHAPTER NINE

CONCLUSIONS AND RECOMMENDATIONS

9.1 INTRODUCTION

The main aims of community gardens are to assist people achieve household food security and help develop the necessary skills to improve their livelihoods. One of the strategies followed by the KZNDAEA is to provide financial assistance to new community garden members on a “once-off” basis. This means that if a community garden member or a group of community garden members receive financial assistance from the Government to fence the cultivated land, that community garden member or group of community garden members would not be eligible to receive financial assistance to maintain that fence. This is in line with the changing agricultural policies in KwaZulu-Natal, that have changed from farming on behalf of people through the provision of extension advice to finally empowering people with the ability to help themselves. The self-help policy is severely criticised by farmers and development workers. Some development workers from Non-Governmental Organisations (NGOs) believe that Government should provide continuous financial support to the community gardens, or allow new participants to enter partnerships with the individuals already involved in successful community garden projects. The Government should finance the co-operation between the farmers and the knowledgeable individuals.

The KZNDAEA has been, and is still, providing funds for the establishment of community gardens, but there is little information on the socio-cultural impact of these community gardens. It was therefore important to investigate the contribution of community gardens to household food security and promotion of prosperous communities and determine whether or not the objectives of Government towards the establishment of the community gardens are being achieved.

The present study evaluated community garden projects to understand the role of community gardens in household food security. The study described the profile and views of the people involved in community garden projects. This was necessary in order to describe the conditions under which the people targeted by community gardens live and to establish whether or not the people involved in these projects are satisfied by their involvement in these projects and whether

or not they have the ability to sustain them. The study also described the views of the Extension Officers concerning the community gardens. This was necessary because the Extension Officers are the ones responsible for ensuring that the Government's objectives concerning community gardens, as outlined in the policy document of the KZNDAEA, are being achieved.

In the Hlanganani and Bergville districts more than 50% of households involved in community garden projects are headed by males, yet less than 15% of men are involved in community garden projects and more than 80% of women are involved. The women that are involved in community garden projects are not employed. This means that they have to rely on their husband's income or on pensions to buy inputs. In both districts, fewer than 25% of community garden members were pensioners and fewer than 4% of community garden members received wages. All these facts contribute to the reasons why sometimes community garden members do not buy recommended inputs. Gender also played an important role in project acceptance. Community garden projects seemed to attract more women than men. In both districts the activities forming a livelihood for community garden members were found to be working in the community garden, relying on pensions, some wage employment and the selling of handicrafts. The most common activity was working in the community garden.

The Extension Officers saw community gardens as the ideal place for people to learn new farming skills and to be trained in vegetable production practices; a facility that will enable people to feed themselves; as a means to provide alternative employment and promote the production of fresh and healthy vegetables; and as a platform for the community garden members to work towards becoming commercial vegetable producers. According to the Extension Officers, community gardens do not reflect the effort put in by the Extension Officers when working with community garden members. Community gardens do not provide alternative employment because it is difficult to show that community garden members are really dependent on community gardens. There is no evidence that community garden members have moved from producing for household consumption to producing commercially. The Extension Officers attributed some of these failures in community gardens to the approach that was used before the year 2000. Extension Officers saw some of the failures in community gardens as the direct results of their job descriptions. This is clear when it is revealed how the performance of an

Extension Officer is measured. The number of projects, mostly community gardens proposed or established, is given more weight than the number of time the officer engaged with the community or existing community garden projects.

Community garden members believe community gardens unite, encourage and motivate the members to work together and provide an environment in which members can socialise and learn from one another. Community garden members believe that group work enhances competition between them and increases their involvement in the activities of the community garden. Community garden members agreed that free infrastructures such as fencing and irrigation systems influenced their decision to participate in community garden projects. This fact is also illustrated by the community garden members' preference for community over homestead gardens. More than 55% of the community garden members in the Hlanganani and Bergville districts indicated that they were learning from community gardens, that community gardens contributed to their livestock, that there has been a change in dietary composition of their households and that they were able to save money that would have been used to buy vegetables and save money for other household needs. More than 65% of the community garden members in the Hlanganani and Bergville districts knew that funding from the KZNDAEA is a once-off. More than 75% of garden members were saving for repairs and maintenance of the infrastructure, yet they still complained about stolen fences and broken irrigation systems. This brings into question the capacity of the community garden committees to manage community gardens.

Community garden projects are capable of providing 292 000g of vegetables per household in a three-month period. This shows the potential that community gardens could have on the diets of members. A number of factors constrained production, however, namely soil infertility, water availability, management capacity of the garden members and start-up capital for community garden members.

9.2 CONCLUSIONS

Community garden members joined community garden projects with the hope of meeting their household food needs and of having some form of employment or income. The community

garden members accepted with enthusiasm the opportunity of being involved in community garden projects because they were desperate to provide their households with basic food needs. Community garden projects came with free garden infrastructure, so it was a logical choice to an unemployed person living in rural areas. Community garden projects did not provide income for the community garden members, as they were involved only part-time in community garden activities and did not produce to sell. However, community garden projects *did* provide positive dietary changes in two ways, by providing fresh vegetables to the community garden members and by substituting the vegetables that would have been purchased and by releasing funds to be used for other household needs.

Community gardens provided a variety of vegetables and the community garden members and their households had access to these vegetables. Community garden projects could not, however, bring about household food security, because the types of vegetables produced in community gardens were available only during a specific period. Food security would be achieved if the household has access to food at all times. There is no evidence that community gardens have expanded to commercial production. Community garden projects were not designed to be sustainable in the long term. Extension Officers performed their duties as required by their employer, but they were frustrated because they wanted to see more evidence of their efforts in community gardens. Concerns raised by the Extension Officers should be addressed by the KZNDAEA and more participatory methodologies should be used to determine the problems faced by community garden members. This will allow the KZNDAEA to identify interventions relevant to the problems of the community garden members.

9.3 RECOMMENDATIONS

Policies on how to fund and implement projects such as community gardens should not only concentrate on the formulation of the projects and their implementation, but should also pay more attention to taking projects to the desired levels, which could be reached if the time taken from the finishing of the project infrastructure to the handing over to the community is extended. The local Extension officer in the area where the project is implemented should spend at least two production cycles teaching the participants the necessary skills to run a community garden. This will allow the KZNDAEA officials to closely monitor the initial stages of the project before

handing it over to the community.

The KZNDAEA should study possibilities for forming partnerships with other departments and organisations working with the community and with the same objectives. This kind of partnership would help in the mobilisation of resources and would be better suited to helping communities.

If other development organisations are to be included in the Department's programmes, the Department will have to re-examine the programmes of Extension officers. The partnerships should be discussed and agreed upon at management level. The managers of Extension Officers will have to structure the programmes of individual officers in such a way that they will accommodate inputs from other organisations.

More research work is needed to identify the means of managing the community garden projects. Participatory methodologies, which will include community garden members, Extension Officers, Extension Managers and the other development organisations, should be used to identify suitable options to manage community garden projects. If committees are the best option in the management of community gardens, they should be given proper training. The KZNDAEA should make that kind of training a part of its programme.

Community gardens seemed to attract more women than men. This means that the KZNDAEA should focus on addressing the needs of those women involved in community garden projects, taking into account that they are not employed and mostly rely on community garden projects to supply most of their family food needs. Investigations on ways of involving more men in these projects or providing alternative projects should be considered.

Community garden members should show their commitment to community garden projects by dedicating more time to learning from the Extension Officers serving their garden. Community garden members should view working in a community garden as a form of self-employment and dedicate sufficient time to take part in all garden activities.

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APPENDIX A**COMMUNITY GARDEN PROJECTS
SOCIO-CULTURAL SURVEY****Section A: Garden member information**

1. What is the name of your Community Garden? _____
2. How long have you been a member of this Community Garden? _____

Section B: Household Information

1. Number of people in the Household (including the member of the Community Garden)

Person	Age	Gender	Educational Level (Circle one number per row)					Occupation (Circle one number per row)							Live - in	CGM*	
		M/F	None	Primary	Secondary	Matric	Post Matric	Pre-school	Scholar	Study	Unemployed	Employed	Look for Work	Homemaker	Pensioner	Yes/No	Yes/No
1			1	2	3	4	5	1	2	3	4	5	6	7	8		
2			1	2	3	4	5	1	2	3	4	5	6	7	8		
3			1	2	3	4	5	1	2	3	4	5	6	7	8		
4			1	2	3	4	5	1	2	3	4	5	6	7	8		
5			1	2	3	4	5	1	2	3	4	5	6	7	8		
6			1	2	3	4	5	1	2	3	4	5	6	7	8		
7			1	2	3	4	5	1	2	3	4	5	6	7	8		
8			1	2	3	4	5	1	2	3	4	5	6	7	8		
9			1	2	3	4	5	1	2	3	4	5	6	7	8		
10			1	2	3	4	5	1	2	3	4	5	6	7	8		
11			1	2	3	4	5	1	2	3	4	5	6	7	8		
12			1	2	3	4	5	1	2	3	4	5	6	7	8		
13			1	2	3	4	5	1	2	3	4	5	6	7	8		
14			1	2	3	4	5	1	2	3	4	5	6	7	8		
15			1	2	3	4	5	1	2	3	4	5	6	7	8		

* CGM – Community Garden Member

Section C: Socio – Cultural Aspects

1. When was this garden established?

--

2. Who was involved in its establishment?

.....

.....

3. Were you involved in the formation of this garden?

YES	NO
-----	----

3.1 If the answer is YES, the following questions will be asked:

3.1.1 What was your role in the formation of this garden?.....

.....

.....

3.1.2 What did you expect to gain?

A.

B.

C.

D.

3.1.3 Have you gained what you expected?

YES	NO
-----	----

3.1.4 If NO (in 3.1.3) what is the problem?

.....

.....

3.1.5 Other problems/frustrations

.....

.....

.....

.....

3.2 If the answer is NO (in question 3, above), the following questions will be asked:

3.2.1 Why did you become a member of this Garden?

A.

B.

C.

D.

3.2.2 Are you getting what you expected out of this Garden?

YES	NO
-----	----

3.2.3 If NO, what is the problem?

.....

.....

4. How do you select people who want to become members of this garden?

Gender	
Age	
Location	
Other (specify)	

5. Are you employed somewhere else?

YES	NO
-----	----

6. How much time do you spend in the Garden? (Hours/Day & Days/Week)

.....

6.1 Why?

.....

.....

.....

7. What crops were grown in the Garden last season?

.....

.....

.....

8. Why these crops? (importance & uses)

.....

.....

.....

9. Who decides what crops to be planted?

.....

10. How do you purchase your inputs?

Crops planted						
Inputs	Individually purchased	Purchased by the group	From Where?	Costs	Quantity sold	Quantity consumed
Seeds						
Seedlings						
Fertilisers						
Manure(specify)						
Transport						
Chemicals						
Water						

11. Are you going to spend more in the following season?

YES	NO
-----	----

11.1 If YES why?

.....

.....

11.2 If NO why?

.....

.....

12. Is the Garden divided into individually owned plots or is it one piece of land worked together by the members?

.....

12.1 If it is individually owned plots, how many plots per member?

.....

13. If the Garden is not divided, who makes decisions on what to plant, when and how?

.....

.....

14. Have you learned anything from this Community Garden?

YES	NO
-----	----

14.1 If YES what have you learned?

- A.
- B.
- C.
- D.

15. The department of Agriculture provided fencing and irrigation system to this

Community Gardens. Was that enough?

YES	NO
-----	----

15.1 What else that the Department could do for this garden?

.....

.....

.....

16. Do you know that the funding from the department of Agriculture is once-off?

YES	NO
-----	----

16.1 Do you make provisions for maintenance and repairs of the fence and the irrigation system?

YES	NO
-----	----

17. Does this Community Garden contribute to other operations, eg. Livestock?

YES	NO
-----	----

18. Since your involvement in this Community Garden, is there any change in your financial situation?

YES	NO
-----	----

18.1 If YES what is the change?

.....

.....

18.2 What is the cause of that change?

.....

.....

18.3 If NO (in question 18), why?

.....

.....

.....

.....

19. Since your involvement in this Community Garden, is there any change in your diet?

YES	NO
-----	----

19.1 If YES what is the change?

.....

.....

19.2 What is the cause of that change?

.....

.....

20. Do you have a homestead garden?

YES	NO
-----	----

20.1 If YES,

20.1.1 Who is responsible for the homestead garden?

.....

20.1.2 How much time is spent in the homestead garden?

.....

20.1.3 What crops are planted in the homestead garden?

.....

.....

20.1.4 Why these crops are planted in the homestead garden?

.....

.....

20.1.5 What inputs are used in the homestead garden?

.....

.....

20.1.6 What are the costs of these inputs?

20.1.7 Which Garden do you prefer, Community or Homestead
Garden?

20.1.7.1 Why that garden is preferred?

.....
.....

APPENDIX B**Group Interviews with the Extension Officers in Five Districts of KwaZulu-Natal**

Guiding Questions

1. What are the processes involved in the establishment of a community garden?
2. What are the objectives of community gardens?
3. Which crops are mostly planted in community gardens?
4. What is the role of Extension Officers in community gardens?
5. Are there any constraints that are affecting the performance of Extension Officers as well as the progress of community garden projects?
6. What characterises a successful community garden?

APPENDIX C (I)

Example of a community garden constitution, which, may be adapted according to the community garden needs.

COMMUNITY GARDEN NAME:

DISTRICT:

OBJECTIVES

1. The objectives of the Community garden are -

- a)
- b)
- c)
- d)
- e)

This will be translated through the provision of the following services

- I. Training
- II. Agricultural production
- III. Services
- IV. Textile

2. **DESCRIPTION OF BUSINESS AND ANY RESTRICTIONS ON BUSINESS**

- a) Provision of multi-enterprises as outlined above
- b) Restriction on the business:

Requirements for membership and Restrictions to membership

3. [1] Requirements: Any natural person, who is a woman, is over the age of 18 years, member of....., belongs to a.....

[2] Restrictions:

The applicant should have been a member of thefor a minimum of Months/ Years.

Application for membership

4. [1] Application for membership shall be made on the form provided for that purpose, and shall be accompanied by the entrance fee.
- [2] The Community garden committee must consider every application for membership and has the right to accept or reject an application.
- [3] The Community garden committee must, within days/ weeks/ months after receipt of an application for membership, notify the applicant of its decision and, in the event of an application for membership being rejected, any amount paid by the applicant to the Community garden must be refunded to him.
- [4] A person becomes a member of the Community garden when her application for membership has been accepted by the Community garden committee.

Entrance Fee and Membership Fee / Subscription Fee

5. [1] An Entrance Fee of **R** must be paid on application for membership. Such fee is not refunded on termination of membership.
- [2] A Membership Fee / Subscription fee of **R.....** must be paid annually. Such fee shall not be refunded on termination of membership.

Rights and Obligations of Members

6. [1] Members Rights:
 - [a] Members have a right to vote and input into decision-making
 - [b] participate in the activities of the Community garden
 - [c] to information concerning the affairs of the Community garden.
- [2] Obligations of Members:
 - [a] Members are obliged to abide by this constitution and the Act

[b] Members are obliged to pay the membership fees and annual subscription fees.

[c] Members are obliged to commit themselves to the business of the Community garden and to act and promote the good image of the Community garden.

[d] Members are obliged to perform any duties as tasked or delegated by the Community garden committee or the general meeting.

TRANSFER OF MEMBERSHIP

7. [1] Membership may be transferred only with the approval and on the authority of the Community garden committee which shall satisfy itself that the proposed transferee is qualified to be a member of the Community garden.
- [2] The Community garden committee may at any time refuses to approve and a proposed transfer.
- [3] The transfer of any membership shall be in writing in such form and signed in such manner as the Community garden committee from time to time may stipulate.

CONDITIONS AND PROCESSES FOR TERMINATION OF MEMBERSHIP

Termination on death

8. [1] The membership of a member who has died may in terms of this clause be transferred to a member of that deceased member's family or another person appointed by the deceased member's estate subject to the approval by the Community garden committee of the proposed transferee. In the event of such transfer not taking place, the membership of the deceased member shall be terminated by resolution of the Community garden committee.
- [2] Upon such termination, the membership fees concerned are forfeited and the amount paid in respect thereof is credited to the general reserve of the Community garden.

Termination on Change of Place of Residence

9. [1] The membership of a member who no longer resides in the area served by the Community garden may on application of the member or by decision of the Community garden committee, be terminated by resolution of the Community garden committee.
- [2] Upon such termination, the membership fees of the member concerned are forfeited to the Community garden and the amount thereof is credited to the general reserve of the Community garden.

Termination when a member is non-active

10. [1] Whenever a member does not actively participate in the activities of the Community garden for a period of months or has neglected to notify the Community garden of any change in her address, whereby the Community garden is prevented from contacting him, his membership may, be terminated by resolution of the Community garden committee.
- [2] Upon such termination, the membership fees of the member concerned are forfeited to the Community garden and the amount thereof is credited to the general reserve of the Community garden.

WITHDRAWAL OF MEMBERSHIP

11. [1] The resignation of a member comes into operation at the first meeting of the Community garden committee held after the Community garden has received the written resignation of the member.
- [2] The membership of a member, who has resigned, shall be terminated by resolution of the Community garden committee. The amount paid in respect of membership fees shall be forfeited to the Community gardens and credited to the general reserve.

CONDITIONS AND PROCESS FOR SUSPENSION AND EXPULSION

12. [1] A member who repeatedly contravenes a provision of this constitution or who refuses to comply with such provision or to meet an obligation imposed on him by the Act or in terms of this constitution or which he agreed to meet, may -
 - [a] by resolution of the Community garden committee, be suspended as a member for a period to be determined by the Community garden committee but which shall not be longer than the date of the next annual general meeting;
 - [b] by special resolution be suspended as a member for a period not longer than 12 (twelve) months from the date on which he is suspended;
 - [c] by special resolution be expelled from the Community garden.
- [2] The suspension of a member may be revoked by resolution of the Community garden committee at any time.
13. [1] Before a member can be suspended or expelled in terms of clause 12, he has to be given prior written notice of the intention of the Community garden committee.
- [2] The notice to such member must contain the following particulars-
 - [a] the reasons for the proposed suspension or expulsion; and
 - [b] a time when, and place where the member may appear in person, with or without witnesses, before the Community garden committee or to which he may send a written statement signed by himself setting out his objections to the proposed suspension or expulsion.
- [3] The Community garden committee must notify him in writing if it is decided to suspend or expel a member, of -
 - [a] the date on which his suspension or expulsion comes into effect;
 - [b] period of time during which the suspension will apply; and
 - [c] disciplinary measures which will be taken.

Disciplinary measures

14. [1] While under suspension a member forfeits his right to attend general meetings or to vote.
- [2] The members by special resolution or the Community garden committee may furthermore stipulate that certain or all transactions with a member must be suspended for the period of his suspension.
- [3] The membership of an expelled member must be terminated by resolution of the Community garden committee and upon such termination the member forfeits his membership fees and the amount paid in respect thereof must be credited to the general reserve.

MANAGEMENT OF COMMUNITY GARDEN

Community garden committee

15. [1] The affairs of the Community garden must be managed by a Community garden committee consisting of a minimum of 7 members.
- [2] The number of committee members shall subject to the approval of members at the next general meeting be determined by the Community garden committee from time to time.

Powers and Restrictions on Community garden committee

16. [1] Powers:
 - a) Acquire or hire and to let, sell movable or immovable property: Provided that transactions will not be carried out unless they have been approved by a special resolution of members;
 - b) Open accounts with financial institutions registered under the Banks Act;
 - c) Raise loans or overdrawn a banking account; provided that a special resolution of members has been obtained in terms of clause 27 of this constitution;

- d) Invest money in financial institutions registered in terms of the Banks Act;
- e) Make or accept donations provided that such donations will not benefit the Community garden committee members directly or indirectly, and this will not jeopardize the financial position of the co-op or tarnish the image and reputation of the Community garden;
- f) Become a member of any forum which promotes any matter in which the Community gardens has an interest;
- g) Give information and guidance to its members.
- h) The Community garden committee has power to make by-laws & policies provided they are not repugnant to this constitution

Conditions and Processes for the appointment of the Chairperson of the Community garden committee

- 17. [1] At the first meeting of the Community garden held after the formation meeting and thereafter at the first meeting of the Community garden held after every annual general meeting of members or when the necessity arises, the community garden members shall elect from among themselves a Chairperson, Vice-Chairperson, Secretary, Vice-secretary, Treasurer, and two additional members.
- 18. [2] The Vice-Chairperson shall act as Chairperson whenever last-named is absent or unable to act as Chairperson.
- 19. The Chairperson of the Community garden committee of the Community garden shall vacate the office of Chairperson if he -
 - [a] Ceases to be a Chairperson of the Community garden; or
 - [b] Resigns as Chairperson; or
 - [c] Is relieved of the office of Chairperson by the Community garden committee.

GENERAL MEETINGS

20. [1] A Community garden must hold:
- [a] Its first annual general meeting within months of formation of the Community garden;
 - [b] Subsequently annual general meetings within months after the end of the preceding financial year.

Notice of general meeting

21. [1] A general meeting shall be convened by at least 14 days notice in writing to each member of the Community garden.
- [2] The notice convening the meeting shall in addition to the time and place of the meeting state the purpose for which it is convened.
- [3] A notice may be delivered personally, forwarded by post to the member at his registered address, emailed to a registered email address of the member or faxed to the registered fax number of the member.
- [4] Non-receipt by a member of a notice of a general meeting of the Community garden does not render such meeting invalid.

Voting by members

22. At all meetings of the Community garden, each member shall have one vote.
23. [1] Any matter for decision by a general meeting shall be decided by means of a vote on a show of hands or by ballot.
- [2] A vote by ballot shall not be held unless it is demanded by at least five members present at the meeting and entitled to vote in a vote by ballot.
- [3] A vote by ballot must be held in such manner as the Chairperson stipulates. Scrutineers must be nominated to determine the result of the vote that must be declared by the Chairperson of the meeting as the resolution of the meeting.

- [4] A declaration by the Chairperson that a resolution has, on a show of hands or by ballot, been carried, or carried unanimously or by a particular majority, or lost, and an entry to that effect in the minutes of the proceedings of the meeting, shall be conclusive, proof thereof, without evidence as to the number or proportion of votes recorded for or against such resolution.
24. If no objection is raised in terms of the provisions of this constitution against the validity of any vote cast at the meeting, whether on a show of hands or by ballot, every vote cast at the meeting that has not been disallowed shall for all purposes be deemed to be valid.
25. In the case of an equality of votes, whether on a show of hands or in a vote by ballot, the Chairperson of the meeting shall have a casting vote in addition to his deliberative vote.
26. Every matter submitted to a general meeting for resolution, except for a matter requiring a special resolution, shall be determined by a majority of votes recorded at the meeting.

Special resolution

27. A resolution by a general meeting of the Community garden shall, constitute a special resolution if -
- [a] the notice by which the general meeting was convened specified particulars of the proposed resolution and stated the intention to propose same as a special resolution; and
 - [b] the resolution has been passed by not less than two thirds of the members present, both in a vote on the show of hands and a vote by ballot.
 - [c] the resolution related to the winding-up of the Community garden and was passed by at least 75 percent of the votes of all the members of the Community garden, both in a vote on the show of hands and a vote by ballot.

28. The constitution of the Community garden may be amended by special resolution only.

[illegible]

APPENDIX C (II)

Community garden constitution example: Zulu version.

26-02-2001

UMTHETHOSISEKELO

- 1. IGAMA: OTHANDWENI COMMUNITY GARDEN**
- 2. ISIGODI: KWAMKHIZE - EMAHLABATHINI**
- 3. INHLOSO**
 - 3.1 Ukukhiqiza imifino ukuze kondleke imindeni yamalunga kanye nomphakathi.
 - 3.2 Ukufundisa amalunga ngokutshala nokukhulisa imifino ngendlela okuyiyonayona.
 - 3.3 Ukukhuthaza umoya wokubambisana ukuze kwakheke, kusizakale umphakathi.
 - 3.4 Ukuveza ubumqoka bezolimo njengomgo godla wempilo.
 - 3.5 Ukungakhuthazi moya weze politiki noma waliphi iqembu leze politiki.
 - 3.6 Ukuphokophela ukudayisela nemiphakathi engekho eduze.
- 4. ILUNGA**
 - 4.1 Ilowo muntu onenhloso nenjongoyinye namalunga enhlangano futhi ebe elalelanomthetho wenhlangano.
 - 4.2 Ubulungu abukhethi bulili.
 - 4.3 Ubulungu abubaluli ngaqembu leze politiki.
 - 4.4 Ubulungu busukela kwiminyaka engu 18 kuya phezulu.
- 5. AMATHUBA NAMALUNGELO ELUNGA ENHLANGANWENI**
 - 5.1 Linelungelo lokusebenzisa onke amathuba avezwa inhlangano.
 - 5.2 Ukuza emihlanganweni lingaphuthi futhi likhulume liphendule zonke izindaba ezikhulunywayo emhlanganweni.
 - 5.3 Livunyelwe ivoti elilodwa lapha kunodaba okudinga kwenziwe isinqumo kulo.
 - 5.4 Linelungelo lokuhlola amabhuku enhlangano.

6. IMISEBENZI NEMITHWALO YELUNGA

Kungumsebenzi nomthwalo osemahlombe alelo nalelolunga lenhlangano ukuba:-

- 6.1 Lize emihlanganweni Likhulume izindaba zenhlangano emhlanganweni wamalunga noma ophuthumayo.
- 6.2 Likhokhe zonke izimfanelo ngokwethembeka ngaphandle kokugqugquzelwa.
- 6.3 Lilwele izinjongo nezinhloso zenhlangano negama layo elihle emphakathini.
- 6.4 Lidonsele enhlanganweni abantu abanothando ukuba amalunga.
- 6.5 Livume ukukhethelwa ezikhundleni zobuholi, futhi lisebenze ngokuzinikela njengelungu lalelokomidi.
- 6.6 Liqiniseke ukugcina isikhathi semihlangano enqunyiwe.

7. ILUNGA ELIYISAPHULAMTHETHO

- 7.1 Ilunga elehluleka ukukhokha ngokwethembeka izimfanelo zenhlangano ezimisiwe ngokomthetho sisekelo wamalunga.
- 7.2 Umuntu ololunga lenhlangano oweqa ngamabomu izimiso zenhlangana, nemithetho yenhlangano njengoba imisiwe kumthethosisekelo.bese exwayiswa kathathu.
- 7.3 Elingafuni ukuza emsebenzini makusetshenzwa.

8. UKUPHELA KOBULUNGA

- 8.1 Ukufa.
- 8.2 Ukuthi ilunga elixoshiwe enhlanganweni ngenxa yokwephula umthetho nezimiso zenhlangano - ukuziphathe kabi ebe exwayiswe kathathu.
- 8.3 Ukuba nobufakazi bukadokotela bokuthi ilunga lelo ligula ngengqondo.
- 8.4 Ukuchithwa noma ukuvalwe kwenhlangano.
- 8.5 Ilunga eliphumayo enhlanganweni liyoshiya konke okwenhlangano. Kodwa nakukhona okusetshenziwe uyonikwa uma eyeka ephelelwa amandla elingasebenzanga alitholilutho.

9. IMALI YOBULUNGU

- 9.1 Imalo yokujoyina iyakuba ngu R30-00 lena imali ekhokhwa kanye mhla umuntu ejoyina, futhi ayibuyelo emuva.
- 9.2 Lena imali yokuthenga amabhuku namapeni enhlangano ukuze inhlango igcine ngobunono imilando neminingwane yonke yenhlango.
- 9.3 Imalo engu R5-00 iyokuba imali yokuqhuba imisebenzi eyokhokhwa njalo ngenyanga.
- 9.4 Imali engu R30-00 iyokuba ngeyokuvuselela ubulungu njalo kanye ngonyako emhlanganweni wokuvela noma wokuvula unyaka.

10. IKOMIDI

- 10.1 Liyokhethwa njalo emhlanganweni kawonkewonke emva kwesikhathi Seminyaka emithathu.
- 10.2 Uma kunezikhala ezidinga ukugcwaliswa nazo ziyogcwaliswa emhlanganweni kawonkewonke.
- 10.3 Abantu abanokukhethwa kuyoba ngabantu abanesimilo esihle, abathembekile, abanothando lwabantu, abanothando lomsebenzi owenziwayo.
- 10.4 Umuntu angakhethwa ngoba esatshwa noma engathandwa.
- 10.5 Liyoba namalunga alandelayo.
 - 10.5.1 Usihlalo.
 - 10.5.2 Isekela likasihlalo.
 - 10.5.3 Unobhala.
 - 10.5.4 Isekela likanobhala.
 - 10.5.5 Usikhwama.
 - 10.5.6 Amalunga okwengeza amabili.

11. IMIHLANGANO.

- 11.1 Kuyoba nomhlangano kawonkewonke njalo ngenyanga uma kunesidingo esiphuthumayo.

- 11.2 Umhlangano wekomidi uyokuba kanye/kabili ngenyanga uma kunesidingo esiphuthumayo.
- 11.3 Inhlangano iyohlangana njalo ngolwesithathu evikini endaweni yokusebenza ngo9.
- 11.4 Izisoliso emhlanganweni kuyoba ngezibhaliwe phansi. Bese ekhokha u R5-00.
- 11.5 Uma sekutshalwa kuyotshalwa uhlobo olulodwa lesitshalo ngosuku lokutshala.
- 11.6 Kuvumelekile ukuthi umuntu eyosebenza noma ngayinini kodwa alugcine usuku lokusebenza engadini noma athumele.
- 11.7 Umuntu ongasigcini isikhathi senhlangano uyokhokha u R1-00.

12. IMISEBENZI YAMALUNGA EKOMIDI

12.1 Usihlalo.

- 12.1.1 Uyobiza imihlangano futhi abe ngusihlalo waleyomihlangano. Uma engekho isekela lakhe liyoqhuba lowomsebenzi.
- 12.1.2 Uyoqiniseka ukuthi izijongo nezinhloso ziyafezeka njengokuhlele nokumisa kwenhlangano.
- 12.1.3 Uyoqiniseka futhi ukuthi amalunga ekomidi enza imisebenzi yawo ngokufanelekile nemibiko yenziwe ngendlela efanele ngesikhathi esifanele.

12.2 Unobhalo.

- 12.2.1 Kungumsebenzi kaNobhala ukuqiniseka ukuthi umhlangano umemezeleke ngokuyikho, ekwenza loku esizana namalunga ekomidi.
- 12.2.2 Uyobhala amaminithi ayo yonke imihlangano ngoku cophelela, ngoba ayisithombe esichaza ubunjalo benhlangano futhi anika umlando nenqubekela phambili noma nokufadalala kwenhlangano.
- 12.2.3 Uyocina Irejiste yamalunga ekhona nalovile emsebenzini.

12.3 **Usikhwama.**

- 12.3.1 Uyogcina yonke imininigwane yokungena nokuphuma kwezimali zenhlangano.
- 12.3.2 Uyoqiniseka ukuthi amaresidi ahlala ekhona njalo.
- 12.3.3 Uyokwenza umbiko wezimali emhlanganweni njalo emva kwezinyanga ezimbili.
- 12.3.4 Uyoqikelela ukuthi izimali zenhlangano zigqunywa ebhange ngendlela eyiyo.
- 12.3.5 Uyogqugquzela emhlanganweni ukwakheka kwesikhwama senhlangano, nokuqiniseka ukuthi wonke amalunga ayezifeza izimfanelo nje ngokwemigomo nezimiso zenhlangano.

12.4 **Amalunga okwengeza.**

- 12.4.1 Ayosebenza ngokubambisana namanye amalunga ekomidi ukuba kufezeke izinhloso nezinjongo zenhlangano.
- 12.4.2 Usihlalo uyoba namandla okuwajubela imisebenzi ethile ngezikhathi ngezikhathi.
- 12.4.3 Nawo angasebenzisa ubuhlakani bawo ekwenzeni eminye imisebenzi yenhlangano.

13. **IZIMISO NEZIBOPHO ZENHLANGANO**

- 13.1 Ilelo nalelolunga elifika emhlanganweni ngemuva kwesikhathi esinqunyiwe - ngemisuzu eyishumi nantathu liyohlawula ngo R1-00.
- 13.2 Ilunga uma lingezanga emhlanganweni liyohlawula ngo R5-00 nasemsebenzini futhi alangabika.
- 13.3 Umuntu ulilunga lenhlangano kuphela uma esephelelise zonke izimfanelo zenhlangano lokho kuyokwenzeke esikhathini esingangezinyanga ezimbili ejoyinile.
- 13.4 Ukuba lenhlangano noma amalunga ayo abe ngamalunga enhlangano enkulu yesifunda - District Agricultural Association (D.F.A.) futhi yethamele yonke Imihlangano yayo esuka imenyezelwe.

13.5 Usihlalo, unobhala nosikhwama kumele bahambe lemhlangano.

- **UKUHLAKAZEKA KWENHLANGANO**

14.1 Uma inhlangano ihlakazeka inzuzo ekhona iyokwabiwa ngokwamalungu enhlangano.